



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI

DUHS

ANNUAL
STANDARDIZED
REPORT

2023-24



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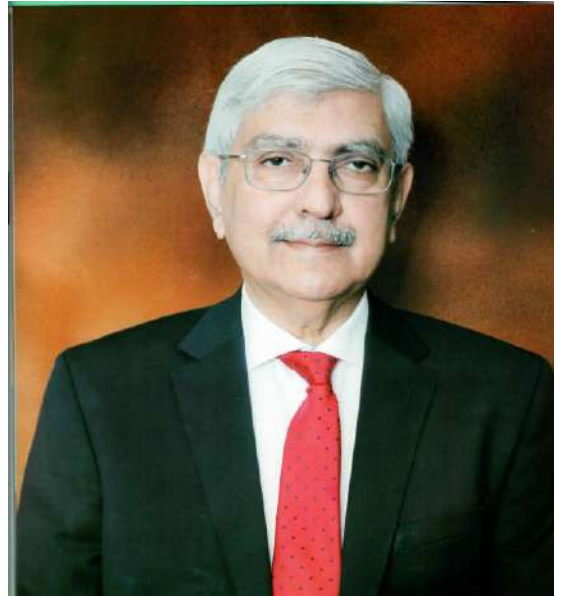
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MESSAGE BY THE VICE CHANCELLOR

We are continuously reaching new heights of progress in enhancing clinical services and liaising with the industry. We are currently ranked as a globally recognized university that is on its way to self-sustainability, and have enhanced projects in the pipeline that would not only enhance our income from industry, but also our overall international outlook.

DUHS has further developed and operationalized many of the projects funded in our short-term strategic plan and are looking forward to a year of unprecedented growth in terms of clinical services offered through our five affiliated hospitals, the Dow University Hospital, Dow Infectious



Diseases Hospital and Research Center, Dow International Dental Hospital, Ruth Pfau Civil Hospital Karachi, and also the SMBB Trauma Center. Furthermore, we have made every effort to invest in teaching, learning and research through enhancements in the budget and faculty development in the past year. This will ensure that we are on our path to achieving the Goals and objectives set for our long-term strategic plan, which is a blueprint for our journey towards ensuring excellence in education, research, clinical care and community service.

We are moving towards a student centric model of education through adopting cutting edge technology, developing state of the facilities, including the most updated laboratories, libraries and classrooms, to inculcate a culture of innovation in the delivery of education and quality patient care services. This has helped us to realize the mission of this University, which is, 'Providing outstanding patient centered education, training and clinical care, informed by cutting edge research and innovation generating and disseminating new knowledge'.

Lastly, I would like to share that the University is now both regionally and internationally recognized, with a climb in the QS World University Rankings by Subject and QS Asia University Rankings from last year, where we have achieved a worldwide rank of 551-600 in Medicine and 401-500 score in Asia region, which is a significant milestone for the University. Furthermore, we scored 1201-1500 in Times Higher Education World University Rankings and 501-600 in THE Asia Rankings. We are ranked highest in the citations pillar along with international outlook for the University. I look forward to more future prosperous years of DUHS.

PROF. MOHAMMED SAEED QURAISHY, VICE CHANCELLOR, DOW UNIVERSITY OF HEALTH SCIENCES

PRO- VICE CHANCELLORS

Prof. Dr. Nazli Hossain



MBBS, MCPS, FCPS

Professor of Obstetrics & Gynecology

Pro-Vice Chancellor

Dow University of Health Sciences

Prof. Dr. Jahan Ara Hassan



MBBS, MCPS, FCPS, PhD

Professor of Obstetrics & Gynecology,

MS Dow University Hospital,

HoD Obstetrics and Gynecology DIMC,

Dow University of Health Sciences

EXECUTIVE SUMMARY (2023-2024)

Founded in December 2003, the Dow University of Health Sciences (DUHS) has developed a tradition of excellence in education, research, value based clinical care and community service. In 2023-2024, the University has approximately 8177 enrolled undergraduate and postgraduate students. The DUHS has 49 academic institutes, colleges, institutes and research entities, including core departments, such as QEC & ORIC. The University currently has more than 3000 employees, including approximately 901 faculty members as of 2023-2024.

The Dow University of Health Sciences (DUHS) offers a multitude of undergraduate and postgraduate programs that cater to the needs of the medical, allied healthcare sciences and management sciences. At the global level, good quality research creates a demarcation between a college and a University, and the same has been integrated within the curricula of the undergraduate and postgraduate studies at DUHS. DUHS also emphasizes integrating community and clinical services as a major part of its regular curricula in the form of clinical clerkships, house jobs and other internship opportunities offered to undergraduate students.

During the year 2023-2024, the University initiated collaborations with international universities, global associations, and international research scholars to enhance the quality of research activities and ultimately, the demand for our graduates worldwide.

In 2023-2024, the focus of the University was providing student centric education and an enhanced learning environment, and upgrading the teaching tools and infrastructure of the University. Students have had opportunities to participate in the hands on training workshops and professional trainings offered through the Professional Development Centers (PDC) of the university, which is now further enhanced with a state of the art, fully equipped simulation lab with advanced simulation manikins, high fidelity simulators, even an environment simulating the ICU and the operation theatre for the undergraduate medical student, to enhance the quality of their learning experience. Furthermore, the University actively funded research projects through the VCSFI, and provided research publication fees through a new policy to any researcher publishing in high quality, impact factor journals.

The strategic aim is to enhance employee & faculty development and heighten productivity in high quality research activities, in order to make an impact in research and other scholarly activities in the world of medicine and the biomedical sciences by the year 2024.

VISION STATEMENT

**“To Be a Pre-Eminent Academic Institution
Committed to Changing and Saving Lives”**

MISSION STATEMENT

**“Providing Outstanding Patient Centered
Education, Training and Clinical Care
Informed by Cutting Edge Research and
Innovation Generating and Disseminating
New Knowledge”**

DIVERSITY STATEMENT

We demonstrate equal employment opportunity without any discrimination to gender and encourage a participative work culture of equality and professionalism in all the endeavors at DUHS, these aspects which include recruitment and hiring, learning & development, performance enhancement and other opportunities.

NON-DISCRIMINATION AGAINST WOMEN

The scope of non-discrimination with regard to gender on admission of students is covered in The DOW University of Health Science Act 2004 which states in Clause No. 5.1 Under Section University Open to All that, “The University shall be open to all persons of either sex of whatever religion, race, creed, color who are academically qualified for admissions to the courses of study offered by the university and no such persona shall be denied to the privilege on the ground of only sex, religion, creed, race, class, color”.

NON-DISCRIMINATION FOR TRANSGENDER

Section 3(3) of Transgender Persons (Protection of Rights) Act, 2018 states, “every transgender person, being the citizen of Pakistan, who has attained the age of eighteen years shall have the right to let himself or herself be registered according to self-perceived gender identity.” Accordingly, DUHS encourages all gender identities to apply for employment as well as admissions to the courses of study offered by the University and no such person shall be denied the privilege on this ground.

ABOUT DOW UNIVERSITY OF HEALTH SCIENCES (DUHS)

Dow University of Health Sciences (DUHS) is a premier institute offering MBBS and BDS undergraduate education, with a strong emphasis in the medical, biomedical sciences, public health, allied health sciences and business management programs. The University has one main campus, and another sub-campus located in the urban metropolitan city of Karachi, Sindh. The University has a school of Postgraduate studies, which offers postgraduate and doctoral programs in almost all academic disciplines relating to the biomedical and health sciences, including clinical diplomas in 13 specialties, Masters/MS /MPhil and Ph.D. programs in 40 different specialties, such as Master of Advanced Physiotherapy, Masters in Nursing, Master of Business Administration, with 18 specialties of the biomedical and basic sciences offered at the MPhil level, including MPhil in Biotechnology, Genetics, Microbiology, Pharmacology and Ph.D. programs in the health and allied sciences.

Furthermore, the flagship MBBS program is offered through Dow International Medical College, catering to international students or overseas sponsored students. The CPSP has also accredited the institution for FCPS training in 29 different specialties. The University has 19 Schools/Colleges and Institutes, including 9 clinical entities, and 25 other non-academic, administrative departments.

COLLEGES INSTITUTES & SCHOOLS OF DUHS

S #	Name of Institute/Colleges & Schools of DUHS
1	Dow Medical College (DMC)
2	Dow Dental College (DDC)
3	Dow International Dental College (DIDC)
4	Dow International Medical College (DIMC)
5	Dr. Ishrat-ul-Ebad Institute of Oral Health Sciences (DIKIOHS)
6	Dow College of Pharmacy (DCOP)
7	Dow Institute of Physical Medicine & Rehabilitation (DIPM&R)
8	Dow Institute of Health Professionals Education (DIHPE)
9	Dow Institute of Radiology (DIR)
10	Dow Institute of Nursing & Midwifery (DION&M)
11	Institute of Business and Health Management (IBHM)
12	Dow Institute of Medical Technology (DIMIT)
13	School of Public Health (SPH)
14	Dr. Abdul Qadeer Khan Institute of Behavioral Sciences (IBS)
15	Dow College of Biotechnology (DCOB)
16	School of Postgraduate Studies (SPGS) <ul style="list-style-type: none"> a. Institute of Clinical Sciences b. Institute of Biomedical Sciences c. Institute of Health Sciences
17	School of Dental Care Professionals (SDCP)
18	Department of Ophthalmology and Visual Sciences (DOVS)
19	National Institute of Diabetes & Endocrinology (NIDE)
Clinical Departments of DUHS	
1.	Dow University Hospital <ul style="list-style-type: none"> a. Dow Institute of Cardiology b. National Institute of Liver & GI Diseases (NILGID) c. National Institute of Diabetes & Endocrinology (NIDE) d. National Institute of Solid Organ & Tissue Transplant (NISOTT)
2.	Dow Institute of Radiology
3.	Dow Diagnostic, Research and Reference Laboratory (DDRRL)
4.	OJHA Institute of Chest Diseases (OICD)
6.	Dr. Ishrat UI Ebad Khan Location (near LNH), National Stadium Road

7.	Dr. Ishrat Ul Ebad Khan Institute of Blood Diseases (DIKIBD)
8.	DHA City Medical Center
9.	Dr. Abdul Qadeer Khan Institute of Behavioral Sciences
Other Non-Academic, Research Core and Administrative Entities	
1.	Day Care Centers
2.	Library
3.	Finance Directorate a. <i>Financial Aid Office</i> b. <i>CMS Fee section</i>
4.	Registrar Secretariat
5.	Clinical Trials Unit (CTU)
6.	Internal Audit Directorate
7.	Dow Institute for Advanced Biological & Animal Research
8.	Examination Department
9.	Question Bank (QBank)
10.	Admissions Department
12.	Quality Enhancement Cell (QEC)
13.	Directorate of Human Resource
14.	Professional Development Center (PDC)
15.	Planning and Development Directorate
16.	Dow Premium Health Water- Riva Water
17.	Office of Student Counseling and Advising
18.	Office of Alumni Affairs and Resource Mobilization
19.	Office of Research Innovation & Commercialization (ORIC)
20.	Office of Strategic Development and Implementation (OSDI)
22.	Directorate of Information & Communication Technology (ICT) a. <i>Campus Management Solution (CMS)</i> b. <i>Digital Libraries (Multiple Departmental Libraries) of DUHS</i>
23.	Institute of Biological, Biochemical and Pharmaceutical Sciences
24.	Procurement Directorate (Office of Procurement and Supply Chain)
25.	Dow Research Institute of Biotechnology & Biomedical Sciences (DRIBBS)
26.	Dow Skills Development Center (DSDC)

BRIEF PROFILES OF INSTITUTES, COLLEGES & SCHOOLS

i. Dow Medical College (DMC)

Dow Medical College (DMC) is one of the oldest medical colleges in Sindh. Established in 1945, it has a rich history and has been involved in the teaching and training of medical students since the establishment of the college. For more than 60 years, the college has had approximately seventeen thousand alumni, who are serving with distinction globally. It is attached to Dr. Ruth Phau Civil Hospital Karachi, Pakistan's largest teaching hospital with departments of all major specialties, and more than 2000 bed occupancy.

The five year course has been divided into 10 semesters. A new system of integrated teaching consisting of applied knowledge has been introduced, in which the students are taught basic subjects in the usual manner, which is later on followed by clinically oriented teaching sessions to explain the clinical application of the basic knowledge spiral after spiral, with enhanced integration of concepts.

ii. Dow International Medical College (DIMC)

Dow International Medical College was established in 2007 in order to facilitate children of overseas Pakistanis as they face various difficulties in entering into the medical profession abroad. It is a PMC recognized medical college that has been recognized internationally, and included in the INTERNATIONAL MEDICAL EDUCATION DIRECTORY (IMED), with approval from the Educational Commission for Foreign Medical Graduates. The laboratories of the college are fully equipped with the latest equipment, including power labs, lecture halls, tutorial rooms and other basic facilities. A state of the art gymnasium and sports and recreational complex also hosts extra-curricular activities for the students. Separate hostels for boys and girls are available, along within the same campus with a regularly monitored security system. Clinical training for the MBBS program of DIMC is provided in the 650-bedded Dow University Hospital, located within the vicinity of the same campus.

iii. Dow College of Pharmacy (DCOP)

Dow College of Pharmacy (DCOP) was established in 2007, and it is recognized and accredited by the Pharmacy Council of Pakistan. Dow College of Pharmacy provides pharmacy education to its students, offering graduate and post-graduate degree programs in the field of pharmacy:

- I. Pharm D (Morning and Evening) - A five years Program for a degree of Doctor of Pharmacy.*
- II. Master of Philosophy in all disciplines, as approved by the Pakistan Pharmacy Council.*
- III. Ph.D. Pharmacology*

Dow College of pharmacy is a leading institute in training allied healthcare professionals who are able to conduct innovative research, provide quality pharmaceutical care and consultancies, along with being at the forefront in formulating pharmaceutical products.

The college is well equipped with audiovisual enabled lecture halls, fully equipped laboratories for Pharmaceutics, Pharmacology, Pharmaceutical Chemistry, Pharmacognosy, Industrial Pharmacy, Quality Assurance, Instrumentation, Anatomy, Physiology and Pathology, Microbiology.

iv. Dow International Dental College (DIDC)

Dow International Dental College (DIDC) was initially established at OJHA Campus. Later it was relocated to Chanesar Goth (Defence Campus) to meet the shortage of Dental Surgeons in Pakistan as well as abroad. DIDC offers admissions mainly to overseas students, however due to the acute deficiency of Dental Surgeons; the option for admission is also given to local students.

The Pakistan Medical Commission (PMC) recognized this college in 2011 for Students in Dentistry Program (BDS). This college is fully equipped with most modern facilities including Digital library, Museum, Lecture halls, Tutorial Rooms and Laboratories.

v. Dow Dental College (DDC)

Dow Dental College (DDC) was established in November 2012 at Dow Medical College (DMC). The College's new building was inaugurated in April 2018 and is under consideration for recognition and registration with PMDC for BDS (4 year) program.

DDC is working to prepare competent and professional dentists in the existing oral health care educational and patient management system in Pakistan and outside the country with a focus to serve community and research and to develop academic excellence and to deliver the utmost quality of scientifically proven preventive, educational and therapeutic services to the community.

This college and its dental hospital are fully equipped with most modern equipment in the laboratories along with simulators to teach clinical procedures at preclinical & clinical level. It has highly qualified and experienced faculty who carry out all dental procedures ranging from simple diagnostic procedures to extractions and implant placements.

vi. Dow Institute of Nursing & Midwifery (DION&M)

Institute of Nursing was established in June, 2006 with the help of Higher Education Commission (HEC) Pakistan. It is envisioned to promote nursing education in Pakistan, preparing the leaders in nursing and producing a sufficient number of highly skilled and trained nursing professionals who can meet the challenges of modern preventive and curative healthcare.

The Institute of Nursing has a state-of-art building and all the modern facilities of teaching and learning. Both undergraduate and postgraduate programs are offered at the Institute of Nursing. For nearly 17 years, the Institute has helped prepare qualified professional nurses to work as highly skilled nursing staff, competent teachers and leaders in public and private health care sectors.

The Institute of Nursing represents a strong and extraordinary community of excellent students, well trained faculty, dedicated staff, and supportive alumni. Currently the institute is offering BS Nursing, Post RN BS Nursing Post RN BS Midwifery and MS Nursing programs.

All programs, which are offered at the Institute of Nursing are accredited by the Pakistan Nursing Council (PNC) and Higher Education Commission (HEC), Pakistan.

vii. Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences (DIKIOHS)

Dr. Ishrat ul Ebad Khan Institute of Oral Health Sciences (DIKIOHS) is offering the following programs:

- *Bachelor in Dental Surgery (BDS)*
- *Masters in Dental Surgery (MDS)*
- *Masters in Sciences (MSc)*

The Dental College for imparting under-graduate dental education leading to the degree of Bachelor of Dental Surgery (BDS), fulfilling the requirements of the Pakistan Medical Commission (PMC). Training in all Basic and Clinical Dental sciences, and Community Dental Health is provided under the Semester System. Currently there are departments of Oral & Maxillofacial Surgery, Prosthodontics, Oral Pathology & Oral Microbiology, Oral Medicine, Periodontology, Oral Biology and Tooth Morphology, Sciences of Dental Materials, and Community Dentistry. The attached Dental Hospital with 125 dental chairs has Nine Out-patient Departments, namely Oral Diagnosis, Oral Surgery, Oral Medicine, Oral Radiology, Periodontology, Prosthodontics, Crown & Bridge, Orthodontics and Operative Dentistry, Procedures including extraction of teeth, filling, root canal, capping and emergency oral treatment is offered.

The clinical work at the hospital is augmented by best practices, good sterilization protocols and required gadgetry. All its departments are provided with material and equipment, which are further provided to patients at minimum cost. At the Post Graduate Training and Research Center of DIKIOHS, fellowship (FCPS) Part II training is underway at the Departments of Orthodontics, Prosthodontics, and Oral Surgery, after being recognized by College of Physicians & Surgeon (CPSP).

viii. Institute of Business and Health Management (IBHM)

Institute of Business and Health Management is a constituent part of Dow University of Health Sciences and was established in 2007 to offer programs in Healthcare Management. The institute was established with the aim of creating an environment that facilitates learning and innovation, to bridge the gap between academia and the healthcare industry, and to provide quality management graduates to contribute to the healthcare workforce. In order to meet objectives of providing quality health managers, IBHM is offering programs at the undergraduate level, with a Bachelors of Business Administration- BBA, BS Finance & Accounting along with a Masters of Business Administration - MBA (Regular) & Executive Masters of Business Administration- (EMBA).

ix. Dow Institute of Medical Technology (DIMT)

Medical Technologists are recognized globally as important and essential members of the health care team, not only for routine medical and surgical care but also for emergency medicine, critical care and management of disaster victims. The Dow Institute of Medical Technology of Dow University was established for Human resource development in these key areas, with a four years' degree program in the following specialties:

- Clinical Laboratory Sciences
- Respiratory & Critical Care Technology
- Surgical Technology
- Ophthalmic Technology
- Perfusion Sciences

It has eight semesters over four years and comprises a core course where training is imparted in Basic Computer Skills, English proficiency, Behavioral Sciences, Research Methodology and Fundamentals of Basic Medical Sciences. The Institute has its own state of the art Skills Laboratory and a 26 station Digital library with Internet and PERN connectivity. Practical classes are held in well-equipped Science laboratories.

Additional training programs at Institute of Medical Technology include:

- Adult Echocardiography / vascular technician course
- Cardiac technologist training program
- Electrocardiography training program
- Technician courses for ultrasound, radiography, CT scan and MRI

x. Dow Institute of Physical Medicine and Rehabilitation (DIPM&R)

Institute of Physical Medicine and Rehabilitation was established in August 2007 and later shifted to the OJHA Campus in 2020, in order to make a difference in the lives of people with disabilities through multidisciplinary rehabilitative care to restore fullest possible, physical, mental, social and economic independence. It is one of the only civilian facilities in Pakistan providing such multi-disciplinary rehabilitative care.

IPM&R is committed to provide comprehensive multidisciplinary rehabilitation services and evidence-based practice to help the patients return to an active and healthy lifestyle. IPM&R is dedicated to being an internationally significant rehabilitation institute in the promotion, development and dissemination of research and education in the science of Rehabilitation through its activities and partnerships with internal and external communities.

xi. School of Postgraduate Studies (SPGS)

Postgraduate education in Dow University of Health Sciences is conducted under the overall supervision of the School of Postgraduate Studies. The University bodies such as the Board of Advanced Studies and Research, Institutional (ethical) Review Board and Scientific Committee facilitates monitoring both the research activity and the overall programs.

Dow University conducts 35 Ph.D., Masters, Fellowship, Diploma and Certificate programs. Each year around 150 FCPS students complete training at Dow University of Health Sciences. Till date, more than 400 candidates have passed M.Phil. MDS, MSBE, MS diabetes, MS Physiotherapy and obtained MBAs from Dow University of Health Sciences.

xii. Dr. Abdul Qadeer Khan Institute of Behavioral Sciences (IBS)

For about two decades the Institute of Behavioral Sciences is contributing its share in serving the ailing humanity by offering consultation for patients with psychiatric illnesses and substance use-disorders, under the supervision of well-known, qualified and experienced professionals of psychiatry, psychology and occupational therapy.

Currently, IBS plays an active role in the education of Post Graduate students in Psychiatry for FCPS, operating under the DUHS umbrella. Additionally, MBBS and FCPS/MCPS students visits IBS for their clinical rotation in Psychiatry. Moreover, students from various universities specializing in Pharmacy, Psychology, Occupational Therapy, Social Work, and Nursing come to IBS for their professional internships in their respective domains.

In a recent development, Institute of Behavioral Sciences (IBS), Dow University of Health Sciences (DUHS) has introduced a new undergraduate program known as the BS Psychology program. With the increasing prevalence of mental health issues and the limited availability of qualified professionals in the field, it has become crucial to equip individuals with the knowledge and skills necessary to address these challenges. Through our program, we aim to produce highly competent graduates who can contribute to the mental well-being of individuals and communities in Pakistan. By bridging the gap in mental health services, we strive to create a positive impact on the overall health and quality of life of our society.

xiii. School of Public Health (SPH)

Public Health is an important component of health services that is often ignored in the developing world and highly emphasized in the developed world. Keeping in view the needs of the Pakistani population, the DUHS took this initiative to establish the first public health school in a public sector university of Sindh Province.

Dow University of Health Sciences established the School of Public Health (SPH) at OJHA campus in 2012. The aim of this school is to improve the health of our population by addressing the major health issues. The programs at SPH include Bachelor of Science in Nutrition, Bachelor of Science in Public Health, Master of Public Health, Master of Sciences (Biostatistics and Epidemiology). The Pakistan Medical Commission (PMC) has approved all of these programs.

The faculty and students of SPH are also conducting community based research and health activities. The SPH has various sections to focus separately such as epidemiology division (examining communicable and non-communicable diseases in Pakistani population), nutrition division (studying the role of nutrition in disease development and prognosis) and economic and policy group (examining the impact of economic indicators on health of Pakistani population and health policy).

xiv. National Institute of Diabetes and Endocrinology (NIDE)

It was established in 2006. It provides consultation and counseling of patients suffering from Diabetes and other Endocrine diseases. This institute is offering a two-year Master's program in Diabetes & Endocrinology. This institute is also conducting public awareness programs regularly as the prevalence of diabetes and endocrine diseases are on the rise in Pakistan, in particular Sindh. This institute also has facilities for management and treatment of eye complications of diabetes through its Eye Care Center, which offers the patients:

- Complete Eye Examinations
- Screening for Diabetic Retinopathy
- Fundus Fluorescein Angiography
- Laser photocoagulation

More than 5000 patients have been registered. A comprehensive facility for diabetic diet consultation, foot care, early diagnosis and treatment-based facilities for other endocrine diseases, especially thyroid diseases, growth disorders and obesity, is also offered to the patients.

xv. Dow Institute of Radiology (DIR)

The Dow Radiology Complex was established in 2008 to have the highest quality medical imaging, research opportunities, and Radiology educational experiences. The talented faculty, with more than 42 Radiologists & Sonologists, and advanced technology attracts technologists, trainees and postgraduates who are among the best and brightest in all of Pakistan, offering the opportunity to work and train in a dynamic innovative environment, which remains personal and accessible for health services to all. Besides providing economic benefits to the patients, the department of Imaging Services is committed to be at the forefront of new developments and clinical applications in the rapidly changing field of medical imaging.

Services include the provision of all modern diagnostic facilities such as

- X-ray
- Ultrasound Grayscale and color Doppler machines
- Fluoroscopy
- Dexa Scan
- Echocardiography
- Mammography and breast interventions
- CT Scan 128 and 16 slicers
- MRI open magnets and 1.5 magnets
- VIR vascular and interventional radiology.
- OPG

Considering the growing demands of patients, a City Campus on Stadium Road has been established, named as 'Dow LEJ Campus' and it provides facilities of CT & MRI also, 24 hours a day. Malir Chest Clinic, Naziabad Chest Clinic and DHA City Center were also established to facilitate the society. Highly qualified and experienced faculty, staff, and technologists perform all the teachings and services at Dow Institute of Radiology.

xvi. Dow Institute of Health Professionals Education (DIHPE)

The Dow Institute of Health Professionals Education (DIHPE) is the first health professional education Institute of the country. The basic idea behind its establishment is to restructure, organize and optimize the existing professional education activities of the region.

The foundation of Dow Institute of Medical Education is based on the four pillars of Medical Education: Teaching & Learning, Principles of Assessment, Curriculum Development & Innovation and Research. Additionally, we oversee the conduct of various types of Continuing Professional Development short courses ranging from one-day to five-day courses, and even six months Certificate course (CHPE) that is compulsory for the all the faculty members of Dow University of Health Sciences (DUHS). The Institute is offering Masters in Health Professions Education Program (MHPE) since 2009. This Program is the first MHPE program of the country. The graduates are currently serving on key posts in the renowned universities of the country as well as in different parts of the world.

The Dow Institute of Health Professional Education (DIPHE) is acting as a nucleus for DUHS in teaching, scholarship, development and evaluation of educational programs through service provision, research and innovation. The scope of its activities includes postgraduate education, continuing professional development and continuing medical education.

xvii. Dow College of Biotechnology (DCOB)

Dow College of Biotechnology (DCoB) is a constituent college of Dow University of Health Sciences (DUHS). A four-year BS Biotechnology program is offered at DCoB since 2016. The college is also catering to the post graduate teaching and research of MPhil and PhD students enrolled in the field of Biotechnology at Dow University of Health Sciences. The College has an excellent teaching faculty, consisting of foreign and nationally qualified PhD students.

The College has a dedicated centrally air-conditioned floor (3000 Sq. yd.) that is fully operational and functional from September 2022. The new floor of the college has 3 lecture halls, 1 seminar hall, 3 academic labs, 3 research labs, 1 library, dedicated thesis write-up and discussion rooms for the students along with the girls' common room. Also, a bioinformatics suite with 27 computers and updated software installed for courses related to practical and effective learning. The college also has an in-house commercial facility "Dow Fly Research Lab and Stock Center" which provide services for research and screening of natural and synthetic compounds and extracts on commercial basis. The college offers the students diverse experiences and expertise, consisting of a quality educational environment that emphasizes learning through integration of theory with practical laboratory and field studies.

xviii. School of Dental Care Professional (SDCP)

The rapid development in the Dental Care Delivery System together with sophistication in equipment and materials for the delivery of improved patient care in dental practice; and to keep pace with the international trend in teaching and research Dow University of Health Sciences established a School of Dental Care Professional in the year 2007. School of Dental Care Professionals of Dow University aims to produce Dental Technologists, Hygienists and other

Dental Auxiliaries to meet the demands of new and more sophisticated Dental Care system in Pakistan, in addition to providing a trained workforce to an ever-increasing need for qualified Para-medical staff. The institute is offering BS Dental Care Professional, an undergraduate program in Dental Hygiene and Dental Technology disciplines. The SDCP has a very strong history of producing graduate Dental Hygienists and Dental Technologists for more than one decade as a pioneer in Pakistan. Currently our graduates are not only placed in different cities of Pakistan but also abroad particularly in Saudia Arabia, United Kingdom, Canada, and Australia.



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CHAPTER 1

Academic Activities

1.1. UNDERGRADUATE & POSTGRADUATE PROGRAMS

UNDERGRADUATE PROGRAMS:

1. Bachelor of Medicine & Bachelor of Surgery (MBBS)
2. Bachelor in Dental Surgery (BDS)
3. Doctor of Physiotherapy (DPT)
4. Doctor of Pharmacy (Pharm-D)
5. BS Optometry
6. Bachelor of Science in Radiologic Technology (BSRT)
7. BS Nursing (BSN)
8. Post RN BS Nursing (Post RN BSN)
9. Post RN BS Midwifery (Post RN BSM)
10. BS Biotechnology
11. BS Nutrition
12. BS in Public Health
13. BS Medical Technology (BSMT)
14. Bachelors of Business Administration (BBA)
15. BS Accounting & Finance
16. BS in Dental Care Professional (DCP) Dental Hygiene
17. BS in Dental Care Professional (DCP) Dental Technology
18. BS in Psychology

POSTGRADUATE PROGRAMS:

1. Masters In Dental Surgery (MDS-Basic & Clinical)
A 4-Years Program in the following Specialties of **Basic Sciences**
 - I. Dental Materials
 - II. Oral Pathology
 - III. Community Dentistry
 - IV. Oral BiologyA 4-Years Program in the following Specialties of **Clinical Sciences**
 - I. Operative Dentistry
 - II. Oral Surgery
 - III. Prosthodontics
 - IV. Orthodontics
2. Masters In Sciences Dental Surgery (MSc. DS -Basic & Clinical)
A 2 year program in the following specialties of **Basic Sciences**
 - I. Community Dentistry
 - II. Dental Materials
 - III. Oral Biology
 - IV. Oral PathologyA 2-year program in the following specialties of **Clinical Sciences**
 - I. Operative Dentistry

- II. Prosthodontics
- III. Periodontics
- IV. Oral Medicine
- V. Oral & maxillofacial Surgery

- 3. Masters in Biostatistics and Epidemiology (MSBE)
- 4. Masters in Health Professionals Education (MHPE)
- 5. Masters in Advanced Physiotherapy (MSAPT)
- 6. Masters In Nursing (MSN)
- 7. Masters in Public Health (MPH)
- 8. Masters of Business Administration (MBA)
- 9. Executive Masters of Business Administration (EMBA)
- 10. MSc. in Diabetes & Endocrinology (MSc. D&E)

11. Clinical Diploma Programs

- I. Diploma in Anesthesiology (DA)
- II. Diploma in Ophthalmology (DO)
- III. Diploma in Psychiatric Medicine (DPM)
- IV. Diploma in Laryngo Otorhinology (DLO)
- V. Diploma in Family Medicine (DFM)
- VI. Diploma in Medical Jurisprudence (DMJ)
- VII. Diploma in Cardiology (Dip-Card)
- VIII. Diploma in Critical Care Medicine (DCCM)
- IX. Diploma in Child Health (DCH)
- X. Diploma in Dermatology (D-DERM)
- XI. Diploma in Radiology (DMRD)
- XII. Diploma in Tuberculosis & Chest Diseases (DTCD)
- XIII. Diploma in Forensic Medicine

FCPS-II

Fellowship training (4-Years Program), Degree awarded by CPSP:

Fellowship Training Programs		
ENT	Medicine	Radiology
Pediatrics	Psychiatry	Orthodontics
Gynecology	Orthopedic	Anesthesiology
Surgery	Pulmonology	Ophthalmology
Oral Surgery	Dermatology	Operative Dentistry
Neurology	Prosthodontics	Community Medicine
Cardiology	Cardiac Surgery	Physical Medicine and Rehabilitation

MS/MD- Masters of Surgery & Doctor of Medicine Program

Doctor of Medicine Program Specialties (4-5 years programs)

Doctor of Medicine Program Specialties	
Family Medicine	Anesthesiology
Neurology	Cardiology
Psychiatry	Emergency Medicine
Radiology	Critical Care Medicine
Dermatology	Pulmonology

Master of Surgery Program Specialties

Master of Surgery Program Specialties				
ENT	Plastic Surgery	Orthopedics Surgery	Cardiac Surgery	Neurosurgery

1.2. MS/M.PHIL. AND PH.D. PROGRAMS

M. Phil in Basic Sciences offered in the following specialties:

Anatomy	Pathology	Hematology
Physiology	Histopathology	Molecular Pathology
Biochemistry	Medical Genetics	Pharmacology
Microbiology	MPhil in Pharmaceutical Sciences in the specialty of Pharmacology, Pharmaceutics, Pharmacy Practice	

- **Ph.D. program (sub-specialty wise)** with current active enrollment in:

Anatomy	Pharmacology	Chemical Pathology
Physiology	Public Health	Community Dentistry
Oral Pathology	Medicine	Molecular Pathology
Oral Biology	Histopathology	Gynae & Obs
Oral Surgery	Biochemistry	Medical Microbiology

1.3. ACADEMIC ACHIEVEMENTS

• Healthcare Excellence Award 2024

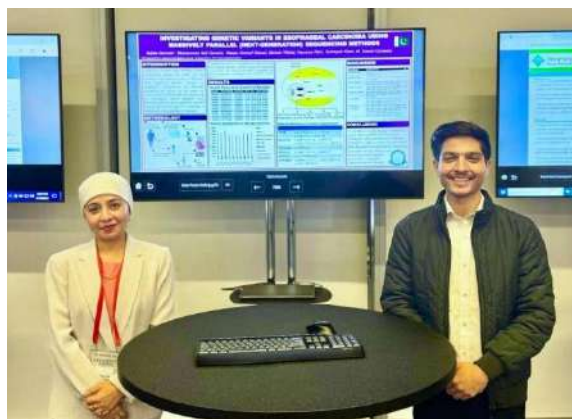
Dow University of Health Sciences wins the prestigious Healthcare Excellence Award 2024 by Pakistan Association of Private Medical and Dental Institutions - PAMI.

The award recognizes the dedication to providing the highest quality of care to our patients. PAMI is an association of Private Medical & Dental Institutions in Pakistan that provides quality medical and dental education.

• Representing Dow University at SAGES 2024

DUHS attended the SAGES 2024 annual meeting in Cleveland, Ohio, one of the premier GI conferences globally. SAGES, committed to innovation, education, and collaboration to enhance patient care, perfectly aligns with our mission at Dow University of Health Sciences.

Our team Dr. Sajida Qureshi and Dr. Waqas Ahmed Abbasi were honored to present six original abstracts at this esteemed event. Notably, one abstract is included in the coveted emerging technology module. This presentation exemplifies Dow University's interdisciplinary approach to oncology research, seamlessly blending clinical expertise with cutting-edge genomic analysis and bioinformatics.



• No Objection Certificate from HEC

Dow University of Health Sciences received NoCs to launch the **PhD in Molecular Medicine** and **PhD in Pathology** programs at DUHS on 6th October, 2023 and 8th November, 2023 respectively. HEC offers no objection certificate to initiate the level 8 qualification programs at DUHS.

• Allied Health Sciences Programs accreditation from Allied Health Professional Council

Dow University of Health Sciences is pleased to be recognized by Allied Health Professional Council Pakistan in the following allied health sciences disciplines offered at university:

1. Physiotherapy including Orthotics and Prosthetics, rehabilitation
2. Dental Technology
3. Medical Laboratory Technology

4. Surgical Technology
5. Cardiac Care Technology
6. Ophthalmic Technology
7. Respiratory Therapy
8. Nutrition
9. Radiography & Imaging Technology
10. Optometry and Refraction Technology
11. Psychology and counseling

The DUHS is provisionally recognized for these disciplines for one year valid up to 19th Feb, 2025.

Dr. Ishrat Ul Ebad Khan Institute of Oral Health Sciences

• Established Department of Paedodontics

The Department of Paedodontics was recently instituted as a distinct entity within the academic institution, following the specified guidelines set by the Pakistan Medical & Dental Council. This newly established department boasts dedicated faculty members who are solely dedicated to this specialized field of dentistry, ensuring that the highest standards of education and patient care are upheld. In creating a separate space for Paedodontics, the institution demonstrates its commitment to prioritizing the oral health needs of children and adolescents. Through this strategic move, the institution is poised to elevate its academic standing and contribute meaningfully to the advancement of pediatric dentistry.

School of Public Health

The SPH has an integrated and inter-linked professionals in the areas of public health areas that address complex public health issues through education, research, and community engagement. The SPH has secured grants and awards from national and international organizations.

Consultancy to undertake systematic review and objective assessment of the range of appropriate approaches for integrating SBCC into social protection mechanisms. The project ***“Landscape Analysis of Social and Behaviour Change Communication (SBCC) In the Context of Nutrition-Sensitive Social Protection in Bangladesh and Pakistan is funded by Global Alliance for Improved Nutrition (GAIN)*** (The study is ongoing)

1.4. FOREIGN ACADEMIC LINKAGES

Dow University of Health Sciences established academic linkages that were continued or established with the foreign medical boards/associations/universities, including the following:

1.	University of Manchester, United Kingdom
2.	Stem Cell Medical University, California, USA
3.	Vanderbilt University, USA
4.	Reliance Medical Clinics, PLLC - Medical Student Exchange, USA
5.	Duke University Health System, Inc. & University of New Mexico, UK
6.	DOGAN (Dow Graduate Association of North America)
7.	AMRCB for Accreditation Fee
8.	University Sultan Zainal Abidin, Malaysia
9.	University of Maryland Medical Centre (UMMC), USA
10.	International Committee of the Red Cross (ICRC), Geneva, Switzerland
11.	Florida International University - Herbert Wertheim College of Medicine (FIU-COM)
12.	The University of Huddersfield
13.	Queen Mary University of London
14.	The University of Manitoba
15.	Chapman University, USA,
16.	The Karaganda Medical University (Republic of Kazakhstan)
17.	Universite de Lausanne Hospital Ophtalmique Jules-Gonin Lausanne, Switzerland
18.	Department of Pathology and Immunology PATIM, University of Geneva, Switzerland
19.	National University of Singapore
20.	The University of Toledo, USA
21.	Jalal-Abad State University named after B. Osmonov (Republic Kyrgyz)
22.	Supreme Board for Drugs and Medical Appliances, Ministry of Health and Population, (Republican of Yemen Aljardaa Area, Sanna'a, Yemen)
23.	Salford Royal NHS Foundation Trust Hospital UK
24.	International Medical Relief Agency, IMRA UK
25.	The University of Toledo, USA

1.5. HONORS AND AWARDS

Recognition of Dow Fly Research Lab in FLABASE

The Dow Fly Research Lab and Stock Center has received recognition from FLYBASE, a reputable source that curates a comprehensive list of active research labs. This recognition expands our Fly Lab's presence on the global canvas. Being included in the Global Fly Lab list further solidifies the importance of the work carried out at these facilities in advancing our understanding of genetics and various biological processes. FLYBASE's acknowledgment serves as a testament to the expertise and dedication of the researchers at Dow Fly Research Lab and Stock Center, highlighting their contributions to the field of genetics and entomology.



https://wiki.flybase.org/wiki/FlyBase:Fly_Lab_List?fbclid=IwAR3OZ5SVbglHnktchPQ3RrahYDAtzJDX4sD5BeUq-dKMQnc8kRFiq6CvpHM

1.6. INSTITUTIONAL LINKAGES

We are linked with the following organizations:

S #	Name	Key Initiatives to be Undertaken	Field	Scope of Collaboration	Duration	Linkage Establishment Date
1.	Faimer International	Membership		Medical Education Research		January, 2024
2.	Institute of Innovation Leadership in Medicine	MoU to jointly organize and execute various projects and activities	Healthcare Management	Academic	2 Years	1 st Sep, 2023
3.	Hashmanis Group of Hospitals	FCPS Trainees of Ophthalmologists	Ophthalmology	Academic	2 Years	12 th Apr, 2022
4.	Salim Habib University	Strengthen and promote academic-industry relationship	Biomedical Engineering	Academic	5 Years	28 th Oct, 2021
5.	IBA-Center of Executive Education	To establish mutual collaboration between the IBHM, DUHS and CEE, IBA	Healthcare Management	Academic	3 Years	11 th Aug, 2021

Institutional Linkages

1. Martin Dow Limited
2. Patel Hospital, Karachi
3. Karachi Adventist Hospital
4. Tabbha Heart Institute, Karachi
5. Darul-Sehat Hospital, Karachi
6. Aga Khan University, Karachi
7. Institute of Business Administration (IBA, Karachi)
8. Chandka Medical College, Larkana
9. Jinnah Postgraduate Medical Center, Karachi
10. Ghulam Muhammad Mehr Medical College, Sukkur
11. Pakistan Standard Quality Control Authority (PSQCA)
12. Pakistan Council for Scientific And Industrial Research (PCSIR)
13. Educational Commission for Foreign Medical Graduates (ECFMG)
14. Executive Membership from Sindh Province In Scaling Up Nutrition Academia & Research (SUNAR)
15. Post-Graduation Diploma & training programs of PIQC Institute of Quality
16. Foundation for the Advancement of International Medical Education and Research (FAIMER)
17. Defense Science And Technology Organization (DESTO), Pakistan
18. Toastmasters Club International
19. Institute Of Leadership Excellence (ILE)
20. Dr. Ruth Pfau Civil Hospital, Karachi
21. Indus Hospital Karachi
22. Alumeed Rehabilitation Center
23. University of Kohaat
24. Indus Pharma
25. Pakistan Pharmaceutical Manufacturers Association, PPMA
26. Institute of Leadership
27. Institute of Financial Markets of Pakistan (IFMP) IFMP
28. Shaheed Benazir Bhutto Women University (SBBWU), Peshawar
29. Centre of Proteomics, University of Karachi
30. Institute of Sustainable Halophyte Utilization, University of Karachi,
31. ICCBS, University of Karachi

32. United Medical & Dental College and Institute of Medical Sciences
33. KIBGE, University of Karachi, Karachi
34. Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology
35. Jinnah University for Women
36. Shifa International Hospitals Limited, Islamabad.
37. Balochistan Awami Endowment Fund Social Welfare Department (Govt. of Baluchistan)
38. Nova Care (Dvago) Pharmacy chain
39. Herbion Pharma for Internships



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CHAPTER 2

Research and Development

2.1. RESEARCH & DEVELOPMENT - AN OVERVIEW

As per guidelines of Higher Education Commission Pakistan, the Dow University of Health Sciences (DUHS) established the Office of Research, later renamed as the Office of Research, Innovation and Commercialization (ORIC), with the aim of establishing and now enhancing the research culture within the University.

The DUHS has research facilities and resources of international standards for students and faculty across all disciplines of the medical and biomedical sciences.

Objectives of Research and Development at DUHS:

The objectives of R & D are:

- a) To facilitate integration of research culture in DUHS.
- b) To broaden the new knowledge generation and develop research capacity across all faculties of the university.
- c) To encourage faculty and students to conduct research and publish related findings.
- d) To enhance graduate research activities across all schools/colleges/institutes.
- e) To encourage faculty to disseminate teaching based on research knowledge.
- f) Commercialize research and development to subsidize research and academic activities within DUHS.

I. Key Functions:

COMMITTEES AND BOARDS

A. Scientific Research Committee

The Scientific Committee of the University is an advisory committee, which was constituted in November, 2012, with the approval of Board of Advanced Studies and Research of DUHS to facilitate the approvals of research proposals for Master's /equivalent degree students before the study is to commence. The committee guides the principal investigator and supervisor regarding any amendment or improvement that may be required before this study is submitted to the IRB.

Applicants are informed about the date, place, and time of the scientific committee meeting through email and phone calls. The proposal is discussed with the applicant in the light of reviewers and members' comments. If the proposal is accepted, then the approval letter is issued. In this committee, research proposals of postgraduate students are scientifically reviewed and advised on the modifications to the students.

B. Ph.D. Advisory Scientific Committee

The PhD Advisory Committee of the University is an advisory committee which has been constituted to facilitate the preparation of research proposals for the PhD students before the study commences. The committee guides the principal investigator and supervisor regarding any amendment or improvement that may be required before this study is submitted to the IRB. The committee comprises of indigenous experts from different fields. In this committee, research synopses of doctoral students are scientifically reviewed and advised on the modifications to the students.

C. Board of Advanced Studies and Research (BASR)

The Board of Advanced Studies & Research of the University supervises the Postgraduate education. All the official works related to this Board are administered and organized under the Research Department. The Board consists of 13 members under the Chairmanship of the Vice Chancellor.

The functions of this board are:

1. To advise authorities on all matters connected with the promotion of Advanced Studies and Research in university.
2. To propose regulations regarding the award of research degrees.
3. To appoint supervisors for research students to determine the subject of their thesis.
4. To recommend panels of names of paper setters and examiners for research examination after considering the proposals of the Board of Studies on this behalf.
5. To perform such other functions as may be prescribed by the statutes.
6. Furthermore, the Board also gives final approval for the synopsis.

D. Institutional Review Board (IRB)

All research conducted in the University must have a prior approval of the Institutional Review Board. It consists of 14 members (Specialists in different fields of medicine, religious scholar, lawyer, social worker, ethicist, specialists from other institutions). BASR reviews and approves only those research proposals which have a prior approval of the IRB. Besides, DUHS offers this service to those institutes who do not have their own IRB/ERB.

II. CAPACITY BUILDING IN RESEARCH

A. Workshops Conducted by ORIC:

The DUHS conducts various research-based workshops such as Hands-on workshops on SPSS, SAS, Excel, EndNote, Research Article writing, Study design etc., Faculty members and students are allowed to attend these workshops.

B. Training Sessions

The DUHS conducts training sessions related to IT & Vocational skills, development of research abilities and Data analysis.

C. Research Publication Management

ORIC manages a database containing all the records of research publications completed by the faculty members and students of DUHS.

D. Research Project Management

ORIC manages all the records of funded research projects newly completed by the faculty members and students of DUHS.

E. Research Funding Administration

All external funded research projects are reviewed and approved prior to submission to funding bodies and the progress of the same are monitored thereafter.

F. Collaborations

ORIC also provides a platform for the researcher to work with collaboration of other institutes at the national & international levels, and for grant writing.

III. THE JOURNAL OF DOW UNIVERSITY OF HEALTH SCIENCES (JDUHS)

Dow University of Health Sciences publishes Journal named The Journal of Dow University of Health Sciences (JDUHS) is a double-blind peer reviewed open access biomedical journal, science2007 with the aim to disseminate high-quality scientific research papers among the healthcare research community. The journal is published three times a year, in April, August, and December. The abbreviated name is "J Dow Univ Health Sci".

IV. DUHS - DICE HEALTH INNOVATION EXHIBITION

The Dow University of Health Sciences (DUHS) in collaboration with Distinguish Innovation Collaboration & Entrepreneurship (DICE) foundation (a USA based non-profit organization) organizes DUHS-DICE Health innovation Exhibition every year to promote health innovation culture in Pakistan. The idea behind the event is to motivate academia, industry, government, entrepreneurs, and expatriates to come to a common platform to showcase health innovations and technologies, share knowledge and further collaborate with each other for the rapid development of health innovative products, necessary for the economic development of the country.

V. Academic Research Activities at the University:

- A. Undergraduate Students Research Activities:** A research component is also incorporated in the MBBS curriculum of DUHS along with other curricula of most of the academic programs offered at the Bachelor's level, including BBA. Each workgroup works with a faculty member of DUHS to accomplish their research objectives, as per their curriculum design.
- B. Postgraduate Programs:** The Research Department facilitates most of the research at the postgraduate program level, including Masters', MPhil and PhD.
- C. Summer Short Courses:** The Department has initiated three months summer short courses last year. The courses on Applied Biostatistics, Fundamental Epidemiology, Statistical software, EndNote, helpful in health sciences research are taught from June to August.
- D. Training on Biostatistics and Research Methodology:** The department also facilitates training on specific topics of biostatistics and research methodology. Several workshops have been conducted by the faculty of the Research Department on the same.
- E. Foreign Scholarship Program:** Foreign Scholarship program is funded by the Higher Education Commission (HEC) of Pakistan, as and when announced under the 'Overseas Scholarship Schemes'. In recent years, 18 scholars have successfully completed their PhD program and joined the DUHS back.
- F. Statistical Consultation:** Department consults with faculty and students to conduct and coordinate all statistical works to different academic and research-based organizations around Pakistan, including those from the pharmaceutical industry. These services include, but are not limited to, sample size calculation, data entry, data analysis and formatted table & graph of the output of the analyses.

G. Research Writing Consultation: Department also provides consultation in writing analysis and result sections of the research project/report. Besides investigators who want to write by themselves, the department guides them on how to interpret the statistical results.

H. Research Protocol Review Guidelines: The faculty also assists research students and faculty about the processes of research work and writing including questionnaire formatting, structure of protocol, literature review and consent form.

2.2. RESEARCH PROJECTS

2.2.1. COMPLETED PROJECTS

05 projects from HEC and 01 international project completed

Total number Completed in 2023-2024				06
S #	Name of Grant Awarding Body	National/ International	Name of PI/Sponsor	Theme/Title of Project
1.	Livzon	International	Livzon Pharmaceutical Group Inc.	COVID-19
2.	Sindh Research Support Programme (SRSP)	National	Ms. Anum Gull	Evaluation of Antirheumatic potential of tieggerior in the rheumatoid arthritis fibroblast like synoviocytes through modulation of NRLP3 inflammasome
3.	National Research Program for Universities (NRPU)	National	Dr. Rakhshinda Habib	Investigations to Improve the Therapeutic Utility of Genetically Modified Human Umbilical Cord Derived Stem Cells for the Regeneration of Injured Kidney Tissues: An Applied Hope for Cellular Therapy
4.	National Research Program for Universities (NRPU)	National	Dr. Rafat Amin	Heterologous Expression of Streptokinase from Beta Hemolytic Streptococcal Strain for Pilot Scale Production of Recombinant Streptokinase
5.	National Research Program for Universities (NRPU)	National	Dr. Muhammad Furqan Bari	Identification of biomarkers for the diagnosis of polycystic ovarian syndrome patients
6.	VICE CHANCELLOR'S SEED FUNDING INITIATIVE	National	Prof. Dr. Mushtaq Hussain	Development of Drosophila melanogaster-based Assay System for Screening of Carcinogenic Compounds

2.2.2. NEWLY LAUNCHED PROJECTS (RESEARCH)

34 Proposals submitted against SRSP-SHEC and 2 from Travel Grant-HEC.

Total Number of Newly Launched Projects in 2023-2024			34
S #	Name of Research Grant	Name of PI	Title of Research Proposal
1.	Sindh Research Support Programme (SRSP)	Dr. Arisha Sohail	Impact of Ssriss Antidepressant and Nbk Factors of Matsin Mdd Patients
2.	Sindh Research Support Programme (SRSP)	Dr. Noor Jahan	In Silico Prediction screening and Designing of Biguanide Analogs as Potent Antimicrobial Agents
3.	Sindh Research Support Programme (SRSP)	Dr. Sonia Siddiqui	Anatomical Changes Ameliorated by the Functionalized Loaded with Madecassic Cid and Epothilone D in an Animal Model of Pakistan Disease
4.	Sindh Research Support Programme (SRSP)	Dr. Asma Khurshid	Post-Harvest Preservation of Fruits and Vegetables Through Edible Biocoating Film a Novel Approach Towards Food Security and Safety
5.	Sindh Research Support Programme (SRSP)	Dr. Farina	Investigating Shared Dysregulated Micro RNAs and Their Target Proteins In Patients With Co-Occurring Alzheimer's Disease And Type 2 Diabetes Mellitus
6.	Sindh Research Support Programme (SRSP)	Dr. Ale Zehra	Applying Translational Medicine Strategies To Strengthen Antibiotic Stewardship Program In Pediatric Ward In A Resource Limited Tertiary Health Care Sector: Bridging The Gap Research And Clinical Practice
7.	Sindh Research Support Programme (SRSP)	Dr. Faksheena Anjum	Screening and Quantification of Adulterants In Herbal Products Available In Local Market
8.	Sindh Research Support Programme (SRSP)	Dr. Farah Saeed	Formulation, Development, Optimization and Standardization of Poly Herbal Cream for Supportive Treatment Of Urticaria
9.	Sindh Research Support Programme (SRSP)	Dr. Farina	Unraveling the Role of Emerging Micro-RNAs In Glioblastoma Pathogenesis: A Promising Avenue for Therapeutic Advancement
10.	Sindh Research Support Programme (SRSP)	Dr. Farzeen Shafiq Waseem	Oral Submucous Fibrosis and Epithelial Mesenchymal Transition, The Association of Salivary E-Cadherin Mmp-28
11.	Sindh Research Support Programme (SRSP)	Dr. Hina Abrar	Application of The Hydrothermal Approach for The Silver Nanoparticles Synthesis from Croton Bonplandianus: Their Characterization, Antimicrobial, Anticancer And Lavcidal Potential Against Dengue Virus.
12.	Sindh Research Support Programme (SRSP)	Dr. Hina Zahid	Curcumin Controlled Rease Transdermal Patch: Design Characterization And In Vitro Release Through Skin Penetration Studies.
13.	Sindh Research Support Programme (SRSP)	Dr. Humera Waheed	Drosophila Melanogaster as Cost Effective Platform for Venom Toxicity Assessment of Big Four Venomous Snakes of Pakistan
14.	Sindh Research Support Programme (SRSP)	Dr. Lubna Avesi	Presence and Quantification of Ilc3 and its Association with Lymph Node Metastasis in Oral Squamous Cell Carcinoma
15.	Sindh Research Support Programme (SRSP)	Dr. Mehwish Akhter	Simultaneous Method Development and Study In Vivo And In Vitro Interaction Of Anti Tuberculosis Drugs With Fluoroquinolones With Hpv-Lc

16.	Sindh Research Support Programme (SRSP)	Dr. Moona Mehboob Khan	Insilco Drug Designing, Synthesis And Biological Evaluation Of Selected Cephalosporin Derivatives: A Better Approach To Control Current Scenario Of Infection In Sindh
17.	Sindh Research Support Programme (SRSP)	Dr. Mushtaq Hussain	Proteogenomics Profiling Of "Big Four" Venomous Snakes Of Pakistan Using Next Generation Sequencing Approach
18.	Sindh Research Support Programme (SRSP)	Dr. Nazia Ahmed	Study Of Potential Plant Derived Compounds In Models Of 3d Human Neural Organoid Culture Of Hypoxic Brain Injury
19.	Sindh Research Support Programme (SRSP)	Dr. Sabahat Naeem	Design and Synthesis of Some Pyridine And Pyrimidine Based Nitrogen Containing Heterocyclic Compound As Anti-Micro bacterial Agents
20.	Sindh Research Support Programme (SRSP)	Dr. Sadaf Khan	Breastfeeding and Obesity Risk
21.	Sindh Research Support Programme (SRSP)	Dr. Sadia Shakeel	Prevalence of Gastroesophageal Reflux Disease and Proton Pump Inhibitor Refractory Symptoms In Local Population Of Pakistan
22.	Sindh Research Support Programme (SRSP)	Dr. Saeed Khan	Molecular Investigation Of Increasing Trend Of HIV And Its Drug Resistance In Sindh For Better Management And Treatment
23.	Sindh Research Support Programme (SRSP)	Dr. Sana Shamim	In Silico QSAR Based Model Designing and Prediction of Copper (II) Fluoroquinolones Complex as Potential Antiviral Against Sars-Cov-2
24.	Sindh Research Support Programme (SRSP)	Dr. Sanam Fahim	Study on The Effect of Iron Supplements As An Intervention In Anemic Children With Dental Carries Along with The Assessment Of Salivary Bio makers And The Oral Micro biomes: A Randomized Controlled Trial
25.	Sindh Research Support Programme (SRSP)	Dr. Sumaira Naseem	Development and Validation of The Food Frequency Questionnaire To Assess Sodium Intake Among Pakistani Adults At Risk Of Hypertension
26.	Sindh Research Support Programme (SRSP)	Dr. Talat Roome	Development of Recombinant Antibodies Against Snake Venoms
27.	Sindh Research Support Programme (SRSP)	Dr. Tariq Ali	Development and Optimization of Luteolin Solid Dispersion for Anti-Cancer Activity
28.	Sindh Research Support Programme (SRSP)	Dr. Tehseen Fatima	Genetically Susceptibility Towards Typhoid
29.	Sindh Research Support Programme (SRSP)	Dr. Tehseen Qudus	Oral Alternative Antihypertensive Tablet Formulation and Its Standardization
30.	Sindh Research Support Programme (SRSP)	Dr. Wajiha Gul	Validation, Quantitative Analysis, And Interaction Studies of Riboflavin with Nsaids
31.	Sindh Research Support Programme (SRSP)	Prof. Sumbul Shamim	Pharmacodynamics and Pharmacokinetic Studies On Novel Synthesized Analogues Of Ciprofloxacin Against MDr. -Typhoid
32.	Sindh Research Support Programme (SRSP)	Prof. Zeba Haque	Investigating Serum Levels of Newly Identified and Understudied MicroRNAs As Potential Bio Makers For Alzheimer's Disease
33.	Sindh Research Support Programme (SRSP)	Prof. Zeba Haque	Comparing Serum MiRNA Expression Profile and Apoe Allele Status of Alzheimer's Disease Patients with Healthy Controls and Their Offspring To Develop early Diagnostic Makers Of Alzheimer's Disease
34.	Applied for grant to Sindh Research Support Programme (SRSP)	Dr. Shakira Parveen	Afamin And Feutin-A Appraise As Gestational Diabetes Mellitus Early Bio makers

Newly Launched Projects by IBPS: 06

S. No	Project Name	National/International	Sponsor	Focus Area	Launched Year
1	BE Study (Perispa)	National	Platinum Pharmaceuticals (Pvt.) Ltd	Neuro muscular	2024
2	BE Study (Fixitil)	National	Tabros Pharma (Pvt.) Ltd.	Antibiotic	2024
3	LVRNA021	International	AIM Vaccine Co. Ltd.	COVID-19	2023
4	ACORN-HAI	International	National University of Singapore / Wellcome Trust	Hospital Acquired Infection	2023
5	ASPIRE-AF	International	PHRI	Non cardiac surgery	2023
6	ACTIV-2d	International	Shionogi & Co. Ltd	COVID-19 oral antiviral trial (non-hospitalized)	2023

Travel Grants in 2023-2024

S. #	Funding Agency	Name of PI	Title of Project
1.	Travel Grant Program	Dr. Muneeb Ahsan Sayeed	The medical Trend and Economic Burden of XDR. Typhoid and compared to Non- XDR. Typhoid: A single center retrospective study from Karachi, Pakistan
2.	Travel Grant Program	Dr. Muhammad Zafar Iqbal Hydrie	Assessing the health and fall risk of elderly population using ACT Assessment tools and home hazards in Karachi Pakistan.

2.3. PUBLICATIONS & AUTHORS CREDITED TO DUHS

Category	2023
W	218
X	164
Y	75
Z	0
TOTAL	457

2.4. CONFERENCES, SEMINARS AND WORKSHOPS

The University's ORIC has conducted the following workshops/trainings in 2022-2023:

Workshops/Training	Date	Focus Area	Audience Type
Clinical Trial Awareness Session	4 th Nov, 2023	Understanding clinical trials -Participation in clinical trials -Role of DUHS in clinical trials	-DUHS Students -Healthcare professionals -General Public
Qualitative Research (Series of Workshops)	17 th Feb-16 th Mar, 2024	Research	Students / Faculty / Researchers
Annual Research Week	30 th Nov, 2023	Research	Faculty/ Students
IPUMS Global Health - Power of Multi Country Data	10 th Jan-2024	This session is tailored for individuals seeking to enhance their understanding of leveraging data on a global scale.	Faculty/ Students

2.5. RESEARCH JOURNAL

Journal of Dow University of Health Sciences (JDUHS):

About the Journal

The journal of the Dow University of Health Sciences (JDUHS) (Print ISSN: 1995-2198 and Online ISSN: 2410-2180) was established in 2007, with the aim to disseminate the high-quality scientific research papers among the healthcare research community. The journal is published three times a year, in April, August, and December. It is now in the Y category and Scopus indexed as of 2022.

Aims and Scope

The Journal of the Dow University of Health Sciences (JDUHS) is a double-blind peer-reviewed open access health sciences journal, aims to provide valuable knowledge and understanding of health problems and their solutions to basic and clinical scientists, and allied health sciences researchers. The journal has a special emphasis on primary research conducted in the field of health sciences in low and middle-income countries and considers original articles, review articles, short communications, case reports, commentary, and student articles on all aspects of health sciences.

Open Access Statement

This is an open access journal which means that all content is freely available without charge to the user or his/her institution. Users are allowed to read, download, copy, distribute, print,

search, or link to the full texts of the articles, or use them for any other lawful purpose, without asking prior permission from the publisher or the author. This is in accordance with Budapest Open Access Initiative (BOAI) definition of open access.

Indexing Information

The JDUHS is approved by Pakistan Medical and Dental Council (formerly PM&DC) & Higher Education Commission, Pakistan (HEC) and is abstracted/indexed by Index Medicus for the Eastern Mediterranean Region (IMEMR), PakMediNet, Google Scholar, EBSCO, International Committee of Medical Journal Editors (ICMJE), Crossref and Centre for Agriculture and Bioscience International (CABI). The abbreviated name is “J Dow Univ Health Sci”. The journal is available online and submission and processes of manuscript can be made while emailing to jduhs@duhs.edu.pk.

Updates of JDUHS

- JDUHS is strictly following the guidelines of HEC which is evident by the editorial management of all the manuscripts via Open Journal System (OJS).
- JDUHS has improved its peer-review process and now have a rigorous review process in place by implementing the decision to add peer-reviewers from international pool.
- JDUHS has also recently applied for indexation in Web of Sciences (WoS) and other international databases.

Published Volumes

The Journal of the Dow University of Health Sciences is managed and published by Dow University of Health Sciences.

Volume - 18	Issue - 1	Published on 24 Apr, 2024
Volume - 17	Issue - 3	Published on 5 Dec, 2023
Volume - 17	Issue - 2	Published 17 Aug, 2023
Total 03 Issues of Journals published in the month of July 2023 to June 2024		

2.6. RESEARCH COLLABORATIONS

2.6.1. Indigenous Research Collaborations:

S #	Name of Joint Research Grant and Funding Agency	National or International	Name of PI with Designation and Department	Thematic Area
1.	AIM Vaccine Co. Ltd.	International	Dr. Sadia (Director, IBBPS)	Covid Vaccine
2.	ASPIRE-AF	International	Dr. Tariq Farman (Cardiologist, DIC)	Atrial Fibrillation

2.6.2. Foreign Research Partners

S #	Collaborating Agency/Institution	Field of Study / Research	Scope of Collaboration
1.	Ningbo Rongan Biological Pharmaceutical Co., Ltd	Local Gene Sequencing	Lab services particularly gene sequencing
2.	AIM Vaccine Co Ltd.	Clinical Trial	LVRNA021
3.	Hamilton Health Sciences Corporation	Clinical Trial	ASPIRE-AF
4.	American Society for Microbiology	Microbiology	ASM Ambassador Funding Project for Training and Mentoring
5.	Asia Pacific Biosafety Association (A-PBA)	Biosafety and Biosecurity	Training and Mentoring
6.	University of Sheffield, UK	Tissue Engineering	Preclinical and Toxicological studies of wound dressings
7.	Qatar University, Qatar	Mechanical and Industrial Engineering	Preclinical and Toxicological studies of micro needles
8.	RHnanopharmaceuticals , USA		Pharmacogenomic Studies
9.	Universite de Lausanne Hospital Ophtalmique Jules-Gonin Lausanne	Ophthalmology	Intellectual Disabilities
10.	Department of Pathology and Immunology PATIM, University of Geneva, Switzerland	Cancer Genomics	Tumor Microenvironment

2.6.3. National Linkages

S#	Collaborating Agency/Institution at the National Level	Field of Study / Research	Scope of Collaboration
1.	HealthBee Projects (Pvt.) Ltd.	Assist in projects	Strategic collaboration
2.	Tabros Pharma (Pvt.) Ltd.	BE Studies	Study Agreement
3.	SGS Pakistan (Pvt.) Ltd.	Pharmaceutical	Clinical Research, biopharmaceutical and pharmaceutical testing, clinical manufacturing, medical devices testing, market study
4.	Careem	This strategic alliance is poised to foster growth, innovation, and shared success, ultimately serving the interests of both organizations.	This collaboration aims to leverage mutual benefits through efforts in marketing, social media engagement, co-branding, and various business initiatives.
5.	Ihsas Trust	Academics	The initiative aims to bridge the skills-employment gap in the pharmaceutical sector, providing job opportunities and supporting UN SDG 8.
6.	Muller & Phipps Pakistan (Pvt) Limited (M&P)	Vaccine	This collaborative endeavor marks a significant milestone in

			our ongoing efforts to combat the deadly rabies disease.
7.	Pakistan Biological Safety Association	Biosafety and Biosecurity	Pakistan Biological Safety Association
8.	COMSATS	Biomedical Materials; Tissue Engineering	Preclinical and Toxicological studies of wound dressings
9.	Agha Khan University	Community Health Sciences	Sample Collection
10.	Sindh Institute of Animal Health (SIAH)	Research	Poultry Vaccine Development
11.	Usman Institute of Technology (UIT)	Research	AI Database tool Development
12.	Shaheed Benazir Bhutto Women University (SBBWU)	Research	Shaheed Benazir Bhutto Women University (SBBWU)
13.	Z.H.Z Centre of Proteomics, University of Karachi	Research	Venom Toxicological Studies
14.	Institute of Sustainable Halophyte Utilization, University of Karachi	Research	Natural Product Studies
15.	ICCBS, University of Karachi	Research	Nanobiotechnology
16.	KIBGE, University of Karachi.	Research	Environmental Biotechnology
17.	SZABIST, Jinnah University for Women	Research	Plant Tissue Culture

2.6.4. Funding Grants for Research & Development

i. FUNDING GRANTS FOR R&D FROM HEC, 2023-2024

S #	Name of Research Grant	Title of Research Proposal	Amount Approved (Rs.)	Date of Approval
1.	SHEC	Application of Hydrothermal approach for the silver a nano-particles synthesis from croton bonplandimanus: their characterization, antimicrobial, anticancer, larvicidal potential against dengue virus.	2500, 000/-	27-2-2024
2.	SHEC	Anatomical eganges ameliorated by the functionalized nanoparticles loaded with medeeassie and Epithilone D in an animal model of Parkinson's Disease	2500, 000/-	27-2-2024
3.	RTTG	Rapid Manufacturing from antivenom to relieve the flood victims in Pakistan	19.26 Million	06 th Feb, 2023
4.	NRPU	Chrysin: A Promising Anticancer Agent its Designing, Synthesis of Analogs and Polymeric Drug loaded Nano-Particles and Activity Against Human Breast Cancer Cell	5.31386	2023
5.	NRPU	Development of pilot scale system system for phycoremediation of textile effluent with concomitant production of algae biomass	7906800	16 th Jun, 2022
6.	LCF-HEDP	The microbiological Characteristics and Molecular Epidemiology of Carbapenemase-Producing carbapenem-Resistant Enterobacteriaceae (CP-CRE) among hospitalized patients in Karachi, Pakistan	16,608,828.00	19 th May 2022

7.	SHEC	Metabolic Syndrome and risk for cardiovascular disease in apparently healthy subset of Pakistani adult Population	1,925,000.00	28 th Apr 2022
8.	NRPU	Development of Novel Silk Based Glass Ionomer Restoratives for the Stress Bearing Posterior Teeth	6,132,000.00	28 th Apr 2022
9.	NRPU	Modulation and Transplantation of Umbilical Cord Derived Mesenchymal Stem Cells using different protocol to target Alzheimer Disease: A Comparative and Therapeutic study	2,695,000.00	25 th Apr 2022
10.	GCF	Rabies Vaccine: Development of inactivated human rabies vaccine against wild-type strain in Pakistan.	53,472,500.00	23 rd Mar 2022
11.	NRPU	A search for early metabolomics signatures (candidate biomarkers) for diabetic foot ulcers in patients of diabetes by non-targeted metabolomic analysis.	1,450,900.00	1 st Mar 2022
12.	NRPU	Use of Digital Technology for improving Emergency Medical Services to develop mobile apps for Road Awareness and early response to Road Traffic Accidents	4,911,500.00	1 st Mar 2022
13.	NRPU	Molecular mechanism of neuronal protection and differentiation by natural compounds in human neural organoid cultures	2,750,000.00	5 th Jan 2022

ii. FUNDING GRANTS FOR R&D FROM NON-HEC, 2023-2024

S #	Name of Research Grant	Title of Research Proposal	Amount Approved (Rs.)
1.	Aga Khan University	Serum Lipid Metabolome and Hepcidin-25 levels in children	2,768,288
2.	Global Research Nurses pump-priming grant 2023	Mapping determinants impacting immunization and co-designing contextual intervention to reach zero-dose children of highly marginalized populations living in peri-urban slums of Karachi and Peshawar, Pakistan	3,519,929
3.	The United States Educational Foundation in Pakistan	Preparing medical teachers as mentors-Implications for faculty development in Pakistan	2,946,100
4.	National Institute of Health, Islamabad	Assessing the effectiveness of an mHealth intervention versus the usual standard of care for improving medication adherence and self-management among type II diabetics in Pakistan: A randomized controlled trial	2,826,200
5.	The Ineos Oxford Institute for Antimicrobial Research, of the University of Oxford, United Kingdom.	The Balance Study	17,380,800

2.6.5. VICE CHANCELLOR'S SEED FUNDING INITIATIVE (VCSFI)

Established Annual Vice Chancellor's Seed Funding Initiative (**VCSFI**) for Intramural Funding of Competitive Grant Applications.

S #	Title of Research Proposal	Amount Approved (Rs.)	Sponsoring Agency
1	Exploring PGC Expression in Stomach Adenocarcinoma: Integrating Bioinformatics Analysis with Experimental Validation in the South Asian Population	1,500,000	DUHS
2	Liquid Biopsy: Molecular Characterization of Circulating Tumor Cells and their Clinical Significance in Epithelial Ovarian Carcinoma	1,000,000	DUHS
3	"Enhancing Community Readiness towards Adolescent Suicide – A Quasi-Experimental Study in District Tharparkar, Sindh"	970,000	DUHS
4	Surveillance of Genetic Variability and Virulence Profiles in Gram-Negative Bacilli from Tertiary Care Hospitals: An Essential Step towards Infection Management.	1,000,000	DUHS
5	"Frequency of Relapse in Substance Use Disorder and the Role of Personality traits, Emotional Deregulations and Deliberate Self-Harm in Relapse – A Mixed methods Study"	343,000	DUHS
6	Effectiveness Of Telemedicine Tools In Chronic Obstructive Pulmonary Disease: Is It Time For A Change? A Randomized Control trial	499,000	DUHS
7	Coping for Success: Exploring the Impact of Phone Based Brief CBT Interventions on Medical Students' Coping and Mental Health.	246,750	DUHS
8	Differential expression of transcribed ultra-conserved regions (TUCRS) in schizophrenia and their potential utility as biomarker	1,500,000	DUHS
9	Investigation of Mutation in the GyrA and GyrB Genes from Clinical Isolates Of Resistant Mycobacterium Tuberculosis and Their Association with Moxifloxacin and Analogues.	988,400	DUHS
10	Green Synthesis of Silver (Ag) Nanoparticles from In-Vitro Propagated Cannabis Sativa L. Cultures: Characterization and Exploring the Therapeutic Potential in Animal Model of Neurodegenerative Disorders	1,000,000	DUHS
11	Capacity Building of undergraduate nutrition students in kitchen gardening and basic agriculture practices using formative research	500,000	DUHS
12	Green Synthesis, Characterization and Evaluation of Antihyperglycemic & Antioxidant Activity of Zinc oxide Nanoparticles from a Polyherbal Formulation	1,500,000	DUHS
13	"Genetics of Autosomal Recessive Intellectual Disability and Developmental Delay"	1,500,000	DUHS
14	Applying Translation Medicine to Strengthen Antibiotic Stewardship Programs at Tertiary Health Care Sector in Resource Limited Country: Bridging the Gap Between Research and Clinical Practice	780,000	DUHS
15	Targeting Overexpression of Renal Transcription Factors for the Differentiation of Human Umbilical Cord Derived Mesenchymal Stem Cells into Renal Epithelial-like Cells	1,000,000	DUHS

16	Molecular Investigation of Increasing Trend of HIV and its drug resistance in Sindh for Better Management and Treatment	1,500,000	DUHS
17	Synthesis and Characterization of Functional Nanocomposite Coating for Titanium Dental Implants to Overcome Infectious Diseases	1,500,000	DUHS
18	Development and Characterization of Antidiabetic Glass Ionomer Cement, Concept of Stem Cell Regeneration for Diabetic Patients	323,320	DUHS
19	BioRaff - Spray Wound With Sprite	456,000	DUHS
20	Impact of Sweetened Sugar Beverages Consumption on Dental Caries among University Students of Dow University of Health Sciences in Karachi, Pakistan	500,000	DUHS
21	Expression and Association of Sortilin with TrkA, p75 ^{ntr} in nodal metastasis of Oral Squamous Cell Carcinoma using IHC	1,000,000	DUHS
22	Cell Proliferation and Biocompatibility Assessment of BJ-1 Skin fibroblast on Plant derived Cellulose-based Bioscaffolds - A Way to Transform Tissue Engineering	990,000	DUHS
23	Production and Recovery of Citric Acid from Indigenously Isolated <i>Aspergillus niger</i>	1,000,000	DUHS
24	Establishment of Cost-effective Platform for Screening Toxicity of Snake Venom using <i>Drosophila melanogaster</i>	985,000	DUHS
25	Identification of expressions of SPOCK 1, 2 and 3 at invasive tumor front of Oral Squamous Cell Carcinoma	250,000	DUHS
26	Attenuation of NLRP3 Inflammasome Pathway in Human Synovial Cells using Ticagrelor Nano-formulation	250,000	DUHS
27	Investigating Serum Levels of miR-4768-3p, miR-4722-5p and miR-5680 as Potential Biomarkers for Alzheimer's Disease.	250,000	DUHS
28	Investigating Age Mediated Histopathological Changes in <i>Drosophila melanogaster</i> as Model for Aging	250,000	DUHS
29	Perceptions and targeted behavioral change interventions for social networking site addiction in school going adolescents of Karachi: A concurrent embedded mixed-methods case study	250,000	DUHS
30	Evaluation of Contracting out management of Expanded Program on Immunization in two districts of Sindh	250,000	DUHS
31	Biofilm formation in multi-drug resistant salmonella typhi and its potential health on public health	250,000	DUHS

31 Vice Chancellor's Seed Funding Initiated Projects are currently ongoing as of 2023-2024

Completed Vice Chancellor's Seed Funding Initiated Projects from 2023: 25 Total

- 12 Projects awarded in Year 2019 completed in 2023.
- 13 Projects awarded in Year 2021 Completed in 2023.

VCSFI Projects Completed in 2023-24			
S. No.	Title of Research Proposal	Amount Approved (Rs.)	Project Start Date
1	Pharmacodynamics and pharmacokinetic studies on analogues of fluoroquinolones against MDR-TV	900,000	23rd May, 2019
2	Role of 7-ketocholesterol (7-kcho) in pathophysiology of diabetic nephropathy (DN):STREPTOZOTOCIN(STZ) induced disease model	500,000	23rd May, 2019
3	Preclinical studies of a novel simvastatin -lecithin stabilized Nano formulation against atherosclerosis in Apo-E knockout mice	500,000	23rd May, 2019
4	Establishment of a Microbial Bio source center (BIOBANK)	1,000,000	23rd May, 2019
5	Role of Autophagy in Different Histological subtypes of Adult diffuse gliomas	350,000	23rd May, 2019
6	Experimental validation of computationally designed anti-cancerous peptide, dip-36, against c-myc-usp 36 complex in diffused last beta-cell	725,000	23rd May, 2019
7	Osteogenic differentiation of Wnt Activated human periodontal ligaments stem cell (hPDLSCs) in Three dimensional (3D) hydrogels	500,000	23rd May, 2019
8	Participation in DUHS in normative Pakistan data collection for the evaluation Ayres sensory integration (EASI) an international project in collaboration with Thomas Jefferson University Philadelphia USA	700,000	23rd May, 2019
9	Investigation c-MYC sequential and expressional polymorphism in oral squamous cell carcinoma	250,000	23rd May, 2019
10	Impact of brain derived neurotrophic factor gene polymorphism on its peripheral levels in schizophrenic patients	250,000	23rd May, 2019
11	Investigation role of kaiso target proteins expression in field cancerization and tumor progression of oral squamous cell carcinoma (OSCC)	250,000	23rd May, 2019
12	Comparative analyses of physical and elemental characteristics of dental material of vertebrates	165,000	23rd May, 2019
13	Investigating Genetic Variants in Esophageal Carcinoma using Massively Parallel (Next-Generation) Sequencing Methods	1,500,000	19th Nov, 2021
14	Neural Regeneration: Transplantation of Wnt, Notch and FGF-9 Activated Human Neural Progenitor Cells in Animal Model of Neurodegenerative disorder	500,000	19th Nov, 2021
15	Modulation and Transplantation of Umbilical Cord Derived Mesenchymal Stem Cells in animal model of Alzheimer's disease: A Preclinical Study	1,000,000	19th Nov, 2021
16	Association of SARS CoV-2 and its variants with the disease outcome and laboratory parameters among hospitalized patients	250,000	19th Nov, 2021
17	Subgenomic Mutation Analysis of Receptor Binding Domain of SARS-CoV-2 Spike Protein	250,000	19th Nov, 2021

18	Investigation of anti-inflammatory potential of isolated phenolic compound(s) from <i>Melia azedarach</i> (L). flower via NF- κ B and MAPK/p38 signaling pathway	250,000	19th Nov, 2021
19	Design, synthesis, and characterization of novel celecoxib derivatives and their anticancer and anti-inflammatory potential, and molecular docking	250,000	19th Nov, 2021
20	Error Rate and Coefficients Quantification of Neurological Defects due to Consanguineous Mating using <i>Drosophila melanogaster</i> model	250,000	19th Nov, 2021
21	Investigating Gene expression based drug screening on Alzheimer's disease patients-specific neuronal cells derived from iPSCs	250,000	19th Nov, 2021
22	Development of <i>Drosophila melanogaster</i> -based Assay System for Screening of Carcinogenic Compounds	250,000	19th Nov, 2021
23	Modulation of Apoptotic and AKT/PI3K/mTOR signaling pathways in Glioblastoma Cells Using Small Molecules	250,000	19th Nov, 2021
24	Association of ABCB5 (Chemo resistance marker) and Cancer Stem Cells markers (OCT4, SOX2) in the of Oral Squamous Cell Carcinoma using Immunohistochemistry (IHC)	250,000	19th Nov, 2021
25	Effect of oral hygiene and nutrition education (using telehealth) on nutrition and oral health literacy of the caregivers of the children with Autism in Karachi, Pakistan.	250,000	19th Nov, 2021

2.6.6. Operations of the Office of Research, Innovation and Commercialization (ORIC)

Introduction

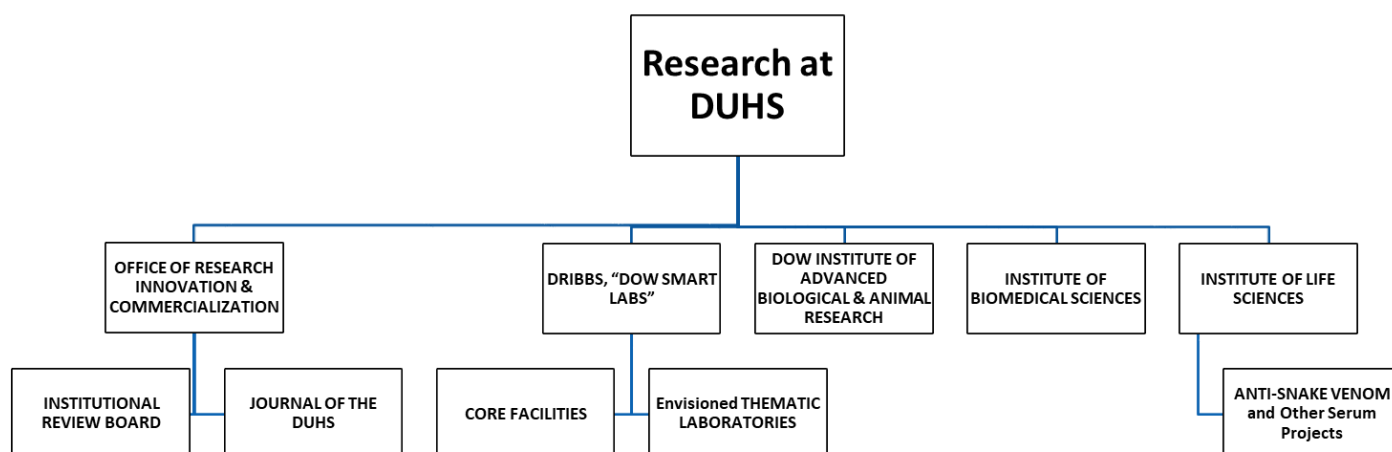
In 2011, under the directives of Higher Education Commission (HEC) of Pakistan, DUHS developed the Office of Research, Innovation and Commercialization (ORIC) to promote innovation and commercialization at the university.

The ORIC, DUHS since then, adapted policies for augmenting activities related to innovation and commercialization at DUHS. The ORIC office at DUHS has divided its activities into four diverse segments including research projects, linkage establishment, innovation support and commercialization.

ORIC provides end to end services for all matters pertaining to research & development, Innovations, commercialization, patents, collaborations, capacity building arranging seminars / symposiums, conferences, workshops, and research publication honorarium. By large, ORIC is the focal point for all research related activities of the university. ORIC facilitates the University researchers (faculty members and scholars) to promote their research work both nationally and internationally.

Moreover, ORIC functions as a bridge between the Industry and the academia, hence providing a platform for the universities where they can be facilitated both financially and strategically, also, contributing to the R&D support of the industry.

Re-organization of Research at DUHS as per Strategic Vision 2030



Vision of ORIC

It is the Vision of ORIC, DUHS to promote and align various research projects at the University, which have a direct impact on society today.

Programs and Services

Health Innovation Exhibition

ORIC-DUHS has successfully organized 8 annual health innovation exhibitions from 2015-23 respectively. In the last exhibition which was held in 2023, over 40 universities took part from all across Pakistan as well as one of the prominent universities of Malaysia was also a part of the exhibition.

The exhibition received an overwhelming response as over 300 innovative projects were displayed of diversified modalities. It was a defining platform of the academia and industry linkage as numerous pharmaceuticals and medical devices organizations contributed to the exhibition hence providing financial and technical support. Moreover, around 20 projects were funded by the industry in various capacities.

Workshops, Seminars and Training Programs

ORIC has been organizing and supporting capacity building activities in the fields of research, entrepreneurship and technology and in pursuance of this approach a considerable number of activities are being organized annually as listed below:

Navigating Entrepreneurship - Idea Ignition Summit

Successful session of the Hult Prize 2024 on 13th Feb, 'Navigating Entrepreneurship - Idea Ignition Summit,' organized by ORIC at DCOB. Lead by Hult Prize Campus Director Mehak Lakhani, with insightful talks by:



- -Dr. Imtiaz Subhani, an open science specialist
- -Mr. Tanzeel Raza, CEO of Meaningful Lives
- -Mr. Subhan Sharif, Professional Trainer of Multinational and national companies
- -Ms. Sehrish Butt, Lab Manager DCOB
- -Mrs. Bushra Amir, CEO of Blossom Home Textile

NRPU, SRGP & Other Research Grant Programs Of the Higher Education Commission

ORIC-DUHS has been facilitating faculty and students with the National Research Program for Universities-NRPU grants; the ORIC staff has been keen on managing the timeline of the proposals and encouraging the quality proposals to be funded in the program.



Intellectual Property

ORIC-DUHS is a notified TISC, therefore it has been responsive to all the matters related to intellectual property may it be patents, trademarks or company registrations.

Vice Chancellor's Seed Funding Initiative (VCSFI)

Besides the HEC grant funds, ORIC-DUHS is also managing the disbursement of the VCSFI program which is an initiative of Dow University to support the quality research and ORIC office has been on the up with the provision of services and supporting such initiatives, as a result over 20 projects from students and faculty have been funded and the funds have been disbursed accordingly.

ORIC Achievements

ORIC DUHS is amongst the top 10 research universities in Pakistan and #1 amongst the medical sciences universities in public sector according to the HEC self-assessment report.

Year	Score Via Self-Assessment	Scores validated by HEC
2021-22	74.5	69 (X Category)
2022-23	76	71.5 (X Category)

Innovation

ORIC, DUHS promotes innovative research ideas at the University through workshops, brainstorming sessions and intellectual property discussions with all major stakeholders of the University.

The establishment of the Department of Research took place with the inception of Dow University of Health Sciences, with the aim of growing a quality research culture in the institute. The DUHS has research facilities and resources of international standards for students and faculty across all disciplines.

2.7. RESEARCH ACHIEVEMENTS

- **05 projects from HEC and 01 international project completed**
- **34 Proposals submitted against SRSP-SHEC.**
- **12 VCSFI Projects awarded in Year 2019 completed in 2023.**
- **13 VCSFI Projects awarded in Year 2021 Completed in 2023.**

International Publications of DUHS

1. Khan, M. T., Zaheer, S., Amar, W., Shafique, K. (2024). Effect of Smoking Cessation Interventions on Abstinence and Tuberculosis Treatment Outcomes Among Newly Diagnosed patients: A Randomized Controlled Trial. *Microbiology Spectrum*, e03878-23.
2. Shams N., Danish, Ghulam F, Zia S, Asphandiar D. C., Faheem S, & Ahmed S. (2024). Prophylactic Versus Symptomatic Third Molar Removal: Effects on Patient Postoperative Morbidity. *Journal of Population Therapeutics and Clinical Pharmacology*, 31(1), 1574–1580. <https://doi.org/10.53555/jptcp.v31i1.4221>
3. Fatima T, Amin R, Nadeem J, Khalid A, Khan MM, Shaikh A. Analysis of GATA-1, FoxO3 and pRb Gene expression and assessment of longevity associated FoxO3 rs2802292 polymorphism in transfusion dependent β -thalassemia major patients. *Journal of Xi'an Shiyu University*. 2024 Mar 03; 20(3).
4. Khan S, Amin F, Amin R, Kumar N. Exploring the Effect of Cetylpyridinium Chloride Addition on the Antibacterial Activity and Surface Hardness of Resin-Based Dental Composites. *Polymers*. 2024 Feb 21;16(5):588.
5. Baqai N, Amin R, Fatima T, Ahmed Z, Faiz N. Expression profiling of EMT transcriptional regulators ZEB1 and ZEB2 in different histopathological grades of oral squamous cell carcinoma patients. 2024 Feb 15; *Current Genomics*. 25(2): 140-151.
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2.8. ANNUAL HEALTH INNOVATION EXHIBITION

The Office of Research, Innovation & Commercialization (ORIC) - Dow University of Health Sciences (DUHS), in collaboration with Aspire Pakistan organized NIB Ideas Competition on November 21, 2023. DUHS, along with 100+ other NIB partners, joined forces to inspire, innovate, and influence the trade landscape. National Idea Bank (NIB) is the initiative of Honorable President of Pakistan, Dr Arif Alvi. This distinguished and unique

event provides a platform for the entrepreneurs and young generation to share their innovative ideas and work for Academic Industry, Capitalists from Government and Private sectors and the expatriates to interact jointly and share knowledge at par with the developed countries.



WINNERS - DUHS-Annual Health Exhibition				
Position	Amount	Name	Project Name	University
1st Winner	50,000/-	Dr. Mushtaq Hussain	Dow Fly Research Lab & Stock Centre	Dow University of Health Sciences
2nd Winner	40,000/-	Ushna Ahmed	REJIM: Spirulina protein bar	Dow University of Health Sciences
3rd Winner	25,000/-	Syed Masroor Sehla	BIORAFF	Dow University of Health Sciences

Special Prize Winner	10,000/-	Dr. Sumbul Shamim	Formulation and Evaluation of Analgesic Gel for Arthritis: An innovative formulation developed as per ICH guidelines for CGMP.	Dow University of Health Sciences
Special Prize Winner	10,000/-	Wajiha Mehmood	Greensease	Dow University of Health Sciences
Special Prize Winner	10,000/-	Ayesha Mustafa	Biodiesel	Jinnah University
Special Prize Winner	10,000/-	Tooba Fahim	Bio Cement	Jinnah University
Special Prize Winner	10,000/-	Dr. Zufi Irshad	Perfume Wax	Hamdard University
Special Prize Winner	10,000/-	Nabiha Ejaz	Neutrolina	Dow University of Health Sciences
Special Prize Winner	10,000/-	Kissa Zehra	HASHT - Plant powered fragrances	Dow University of Health Sciences

DUHS startups made it to the top 10 winners of the President of Pakistan National Ideas Bank NIB

Sr No	Name of Project Leader	Project Name
1	Dr. Mushtaq Hussain	Dow Fly Research Lab & Stock Centre
2	Ushna Ahmed	REJIM: Spirulina protein bar
3	Syed Sehal Masroor	BIORAFF
4	Dr. Sumbul Shamim	Formulation and Evaluation of Analgesic Gel for Arthritis: An innovative formulation developed as per ICH guidelines for CGMP.
5	Wajiha Mehmood	Greensease
6	Nabiha Ejaz	Nutrolina
7	KISSA ZEHRA	"HASHT"- PLANT-POWERED FRAGRANCES
8	Syeda Hadia Tirmizi	Alzahak subline solution to all your sinus problems
9	Laiba Khan	HER tea.
10	Sara Suleman	Organic Soil

2.9. HULT PRIZE COMPETITION

The Office of Research and Commercialization (ORIC) organized the HultPrize On-Campus program on February 24th, 2024. The event was successfully inaugurated by Pro. Vice Chancellor Dr. Nazli Hossein and Director ORIC Professor Kashif Shafique. More than 100 projects applied out of which only 3 winners will be announced.

The students from the departments of biotechnology, nutrition, pharmacy and various other colleges/schools participated with innovative ideas in relevance to the UN Sustainable Development Goals (SDGs). Hult Prize propels student entrepreneurs to tackle global challenges through innovative social enterprises. Over 1 million participants from 120+ countries engage in the year-long competition, creating high-impact startups aligned with UN Sustainable Development Goals. Finalists pitch to expert judges, with the winning team receiving \$1M USD funding for real-world implementation, contributing to global sustainability and positive change.



Winners of Hult Prize Competition	
Project Title	Project Leader
Drosocan	Fahad Alam
BFFs: best furry foods	Rainah Ahmed
Acusurgicals: Portable Biosafety Surgical Chamber	Aysha Asad
Her tea	Laiba Noor
Alzahak	Syeda Hadia Tirmizi
Bioraff, biosaf	Hamza Najam

2.9.1. COMMERCIALIZATION ACTIVITIES OF DUHS

ORIC, DUHS, envisions financial sustainability of the University; therefore, it promotes transformation of innovative discoveries into industrial ventures. The entrepreneurship spirit has been nurtured at the University, leading to commercial projects in the year 2023-2024, including the following:

S #	Project Leader	Project Title	Institute/College
1	Sibrah Sohail	Morineem soap	Dow College of Biotechnology
2	Nabiha Aejaaz SH	Nutrolina	Dow School of Public Health
3	Namira Irfan	Green Earth	Dow university of health sciences
4	Dr. Shamail Zia	Noor e Zia	Dow university of health sciences
5	Fatima Farrukh	REBELLANT	Dow College of Biotechnology
6	Maheen Shahid	Nutritionally balanced Cat food with natural probiotics and probiotics.	Dow College of Biotechnology

7	Aysha Asad	ACU SURGICALS	Dow Institute of Medical Technology
8	Amat ul Aziz	Husn	Dow university of health sciences

DOWRAB

On March 13, 2024, DOWRAB, a rabies vaccine developed by Dow University of Health Sciences, was officially launched, marking a significant milestone. The ceremony, attended by the Honorable Vice Chancellor, Prof. Mohammed Saeed Quraishy T.I., marked the start of a new era in the fight against rabies.

The occasion, attended by our marketing and distribution partner Muller and Phipps (M&P), and esteemed leadership and marketing team, reflected a common commitment to public health and welfare. DOWRAB's availability extends our commitment to social and community service across Pakistan, to drastically reduce the incidence of rabies cases.

Drosocan-Carcinogen Detection System

Cancer is amongst the leading cause of death globally with about 30% of cancers are linked with the exposure to environmental carcinogens. This raises the need for efficient detection systems for chemical pollutants and industrial products with a tendency to cause cancers. The available assays and systems are efficient, but several limitations do exist amongst them in relation to cost, time, and labor. At Dow Fly Research Lab and Stock Center, an assay system under the name of Drosocan has been developed which uses *Drosophila melanogaster*, a common fruit fly to detect carcinogens and classify them under the IARC guidelines. Drosocan provides a simple and cost-effective *in-vivo* system for detection of chemical and environmental carcinogens. The system is highly reproducible running on a larger number of replicates than other comparable assay systems. Drosocan can provide the desired results in noticeably short time without any ethical constraints, making Drosocan an effective alternative to the existing carcinogen testing systems that are based on either *in-vitro* testing or animal models like mice with ethical regulations and costly procedures. The kit is fairly simple containing specialized container for the sample acquisition, which will then be tested at Dow Fly Research Lab and Stock Center and the results will be provided in half of the time of comparable methods suggesting its value over other available methods for carcinogen detection. Our detection system aligns with 4 of the 17 sustainable development goals such as clean water and sanitation through the detection of pollutants in wastewater and effluents, climate action for the environmental and industrial pollutants detection, good health and wellbeing, and finally life on land. Drosocan has very promising market potential that includes but is not limited to, food processing, agriculture, industrial manufacturing, environmental monitoring, and healthcare. Our business plan is business to business and business to customer with potential buyers from research organizations working on environmental pollutants to various industries

Biosafe Protein Stain

Gel electrophoresis is a widely used technique in research for qualitative and quantitative analysis of biological molecules such as Proteins. It separates proteins in gel based on mass to charge ratio or molecular weight. After performing electrophoresis, separated proteins are

visualized by staining with Coomassie brilliant blue dye. This staining and subsequent destaining during the process requires extensive use of methanol and acetic acid. Short- or long-term exposure to these hazardous chemicals poses risk to human health, and when drained, affects environment, land, and aquatic organisms. Therefore, a biosafe stain has been developed that does not require the use of hazardous chemicals. Different experimental conditions were performed showing biosafe stain stability and staining properties comparable to standard staining methods. The procedure for staining is simple, comparable to the standard method and results are obtained in comparable time. The product targets SGDs 6, 13 and 14 by providing environmentally friendly, cost-effective, and safer alternatives to the standard procedure. The marketing potential of Biosafe is all the research, undergraduate and postgraduate academic institutes.

Development of Pilot Scale System for Phycoremediation of Textile Effluent With Concomitant Production of Algal Biomass

Treatment of textile effluent holds immense importance from an economic point of view as international trade treaties will allow import of textile goods only when the manufacturer has an on- site effluent treatment plant. Besides these, treatment using microalgae will reduce treatment cost and cultivation of microalgae utilizing low-cost medium will be an additional advantage. Therefore, the textile industries will get direct benefits from the project. While textile effluent contains a bulk amount of hazardous waste including toxic dyes and disposal of toxic wastes into bodies of water negatively affect aquatic life and disturb natural ecosystems. Phycoremediation of textile wastes before discharge will help to reduce negative aspects of these wastes faced by the environment and society in terms of pollution and serious health problems. So, indirectly the impact of the project will help to improve the environment and ultimately the health of the residents. All these aspects will have a positive impact on society and the economy as well. In addition, harvested algal biomass could be a source of valuable biofuel products hence, the biofuel refinery will be the direct second beneficiary of the project.

2.9.2. CONSULTANCY CONTRACTS EXECUTED THROUGH IBBPS WITH INDUSTRY

SN	Title of Project	Name of PI with Designation, Department	Company Details (Name, Country, etc.	Type of Consultancy Services	Date
1	Feasibility Report for CRO Market	Dr. Sadia, Dr. Izhar Hussain (Director, Executive Director, IBBPS, respectively)	SGS	Clinical Research, biopharmaceutical and pharmaceutical testing, clinical manufacturing, medical devices testing, market study	21 st Jul, 2023

2.9.3. ANNUAL RESEARCH WEEK 2023

The Office of Research, Innovation & Commercialization (ORIC) - Dow University of Health Sciences (DUHS) organized "Annual Research Week 2023" at the DUHS, which was a remarkable event celebrating the spirit of research and innovation. Annual Research Week 2023 served as a platform for showcasing cutting edge research endeavors of faculty, researchers and students of health and medical sciences institutes in the province of Sindh. It is an opportunity to share knowledge, collaborate, and inspire the next generation of researchers.

One of the highlights of the Annual Research Week was the research presentation competitions, including poster and oral presentations. The winners of these competitions received constructive feedback and cash prizes. It was a golden opportunity to share knowledge, collaborate, and inspire the next generation of researchers.

DOW UNIVERSITY OF HEALTH SCIENCES

ANNUAL RESEARCH WEEK 2023
LAST WEEK OF NOVEMBER 2023
Office of Research, Innovation & Commercialization (ORIC)
Dow University of Health Sciences (DUHS)

RESEARCH WORKSHOPS
NOVEMBER 27-29, 2023 | DUHS (OJHA) CAMPUS

- ▼ Data Entry & Basic Analysis through SPSS
- ▼ Sample Size Calculation through NCSS PASS
- ▼ Data Entry & Statistical Analysis through SAS
- ▼ Data Entry & Statistical Analysis through R
- ▼ Epidemiological Study Designs
- ▼ Developing Questionnaire
- ▼ Designing Research Poster
- ▼ EndNote for Referencing

REGISTRATION
PKR 1,000 / Each Workshop

WORKSHOP REGISTRATION LINK:
<https://www.duhs.edu.pk/events/annual-research-week-2023>

LAST DATE OF WORKSHOP REGISTRATION
11TH NOVEMBER 2023

Ojha Campus: School of Public Health, DUHS, Gulzare-e-Hijri Road, SUPARCO Road, Karachi - 75280 Tel: 021-36771111 (Ext: 2646)
Dow Campus: ORIC, DUHS, Baba-e-Urdu Road, Karachi 74200, Pakistan Tel: 021-99215724-7 (Ext: 5503)

Winners of Annual Research Week (Oral Presentation)		
Name	Title	Prize
Laiba Imran	Efficacy and Safety of Imeglimin In Patients With Type 2 Diabetes Mellitus: An Updated Systematic Review and Meta-analysis of Randomised Control Trial	1 st
Umer Usman Malik	Assessing Diabetes Knowledge And Self-care Practices In Patients With Recurrent Diabetic Foot Ulcer In A Tertiary Care Hospital In Pakistan	2 nd
Zulekha Faisal	Comparative study of prevalence of Staphylococcus aureus and Pseudomonas aeruginosa in processed and unprocessed chicken meat/poultry and their Antibiotic Susceptibility Testing	3 rd



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DUHS

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CHAPTER 3

Quality Assurance

3.1. IMPACT OF QUALITY ASSURANCE IN THE UNIVERSITY

Dow University of Health Sciences has a well-developed Quality Assurance mechanism that monitors the feedback of the academic programs, to ensure compliance with HEC criteria, standards of various Accreditation Councils and benchmarking with national and international institutions.

Worldwide, universities rely on quality assurance procedures to achieve excellence in their academic programs, as well as to sustain it in future. In 2006, as per the directives of Higher Education Commission (HEC) Pakistan, the Quality Enhancement Cell (QEC) at Dow University of Health Sciences was established.

In this regard, a number of measures for quality enhancement and assurance has introduced to have an effective quality assurance setup with standardized procedures and practices in health education, which includes:

- Faculty and course assessment through students' feedback.
- Preparation of Program Self-Assessment Reports for all degree awarding programs.
- Preparation of University Wide Data for Institutional Performance review.
- Implementation of the Quality Management System at Dow University of Health Sciences, in accordance with minimum HEC criteria for graduate level and post-graduate programs.

QEC Score- Annual Performance Report

QEC-DUHS has scored 93% in their Annual Performance for 2022-2023 by Higher Education Commission Pakistan.

Comparison of Rankings 2020-2024

Ranking Agencies	2020	2021	2022	2023	2024
1. Times Higher Education Asia	Not ranked	Not ranked	Not ranked	201-250	501-600
2. Times Higher Education World University Rankings	Not ranked	Not ranked	Not ranked	601-800 (out of 1799 institutions)	1201-1500
3. THE World University Rankings by Subject-Clinical & Health	Not ranked	Not ranked	Not ranked	501-600	601-800
The Impact Ranking Overall	601+	801-1000	801-1000	801-1000 (out of 1591 institutions)	Ranking Not Yet Released
• SDG 3-Good Health & Well Being	401-600	201-300	101-200	96 (out of 1218 institutions)	Not Yet Released
• SDG 4-Quality Education	401-600	601-800	601-800	601-800 (out of 1304 institutions)	Not Yet Released
• SDG 5-Gender Equality	201-300	201-300	401-600	201-300 (out of 1081 institutions)	Not Yet Released

• SDG 17-Partnerships for the goals	601+	1001+	1001+	801-1000 (out of 1625 institutions)	Not Yet Released
4. QS World University Ranking by Subject-Medicine	Not ranked	601-650	551-600	601-650	551-600
5. QS World University Ranking: Asia	451-500	401-450	351-400	Not eligible for ranking	401-450

3.2. QUALITY ENHANCEMENT CELL AT DUHS

The Quality Enhancement Cell at Dow University of Health Sciences was established in the 1st phase of HEC implementation in 2006, along with 29 other cells in various public sector universities throughout Pakistan. The prime objective of QEC is to practice evaluative measures in order to achieve excellence in program delivery. Since its establishment, QEC has been continuously involved in monitoring and measurement of Quality Management System (QMS) processes and the academic services throughout the DUHS.

Effectiveness of QEC-DUHS by HEC

- The Yearly Progress Report for 2022-23 is submitted to HEC for evaluation and has always been considered top tier.

Responsibilities of QEC-DUHS

The responsibilities of QEC include:

- Preparing and reviewing the program evaluation through Self- Assessment.
- Reviewing the Quality of teaching and learning in each subject area through HEC prescribed feedback forms as per the guidelines given for each form in coordination with QMS coordinators and SAR Program Teams.
- Ensuring that the University's Quality Management System is designed to fit with the requirements of HEC.
- Follow-up on the accreditation of all the degree awarding programs offered by the University.
- Submit validated data for Institutional national and international rankings.

QEC Affiliated Colleges Department

- In 2023 on Higher education recommendation, Dow University of Health Sciences has taken initiative to establish a department of quality assurance for affiliated colleges embedded in the quality enhancement cell to further strengthen the system.
- It is responsible for monitoring and improving the quality of education and academic programs within affiliated colleges. By embedding department-specific cells within the QEC, Dow University of Health Sciences can ensure a more focused and specialized approach to quality enhancement.
- It works closely with HEC, Accrediting bodies and affiliated colleges to identify areas of improvement and implement quality assurance mechanisms. It helps in maintaining high academic standards, improving the learning experience for students, and ensuring

that the curriculum remains up to date with the latest advancements and recommendations provided by HEC and Accrediting bodies. It also promotes effective communication and collaboration among different colleges, leading to a more cohesive and integrated educational environment.

- The QEC affiliated colleges division assumes a pivotal role in overseeing and enhancing the quality of education and academic programs within affiliated colleges. By integrating department-specific cells within the overarching Quality Enhancement Cell (QEC) structure, DUHS is poised to adopt a more nuanced and targeted approach to quality enhancement initiatives.
- Collaborating closely with key stakeholders such as the Higher Education Commission (HEC), accrediting bodies, and affiliated colleges, The QEC affiliated colleges division is tasked with identifying areas suitable for improvement and implementing robust quality assurance mechanisms. These efforts are instrumental in upholding the university's commitment to maintaining exemplary academic standards, enriching the learning experience for students, and ensuring that curricula remain aligned with the latest advancements and recommendations outlined by regulatory bodies.
- Moreover, the establishment of department-specific quality assurance cells facilitates seamless communication and collaboration among affiliated colleges.

KEY PERFORMANCE INDICATORS OF QEC-DUHS IN UNIVERSITY	Status as of 2023 - 2024
QEC Assessments	
No. of Academic Programs Assessed through Self-Assessment Reporting	Completed for All degree awarding programs
No. of Courses Assessed (Course-Wise Assessment Evaluations)	1532 Courses Assessed Online
No. of Faculty Assessed (Student-Teacher Evaluation as Prescribed by HEC)	971 Faculty Assessed Online
Number of Programs with National or International Accreditations	55 Programs are Accredited
Number of Faculty Trained through Professional Development Center	324 Faculty Trained

HEC prescribed Student Feedback Forms:

QEC-DUHS successfully conducted the following online Performa's for feedback evaluation in all the degree-awarding programs of DUHS:

Faculty Survey	Alumni Survey
Employer Survey	Faculty Resume
Faculty Course Review Report	Teacher Evaluation Form
Research Student Progress Review Form	Survey of Graduating Students
Survey of Department Offering Ph.D. Programs	Student Course Evaluation Questionnaire

3.3. QUALITY INITIATIVES FY 2023 – 2024

The quality initiatives for the Year 2023-2024, in compliance with the Higher Education Commission, Pakistan are the following:

1. Accreditation of All Programs, and application of NOC from HEC for necessary postgraduate programs.
2. Establishment of the QEC Setup within all the affiliated colleges of Dow University of Health Sciences, with dedicated staff to ensure the implementation of the internal quality assurance mechanism.
3. Establishment of QEC affiliated colleges department, embedded in the quality enhancement cell.
4. Reorganization of Quality enhancement Cell:
 - a) Dow University of Health Sciences has reorganized and revamped the Quality Enhancement Cell (QEC)-DUHS, in which a dedicated department for Quality Assurance of the affiliated colleges is embedded.
 - b) This step has been taken on the directives of the Higher Education Commission (HEC) as per the Revised QEC Terms of Reference/functions to further improve the quality of education being offered at affiliated colleges of Dow University of Health Sciences
5. QEC affiliated colleges department currently oversee and monitor 40+ Affiliated colleges of public and private sector. Moreover all colleges are aligned to make their own policies keeping in view DUHS and HEC policies.
6. QEC affiliated colleges department has made it mandatory for All Affiliated colleges to conduct HEC surveys online and feedback is used for further improvements. Recommendations are forwarded to management and faculty. Consolidated Survey reports are submitted to DUHS annually.
7. QEC affiliated colleges department also coordinate effectively with all Affiliated colleges for Yearly performance review 22-23, University wide Data 22-23, Higher education statistics 22-23, HEC Monitoring template and Self-Assessment Reports.
8. All affiliated colleges under the leadership of QEC have successfully adopted New HEC Affiliation Criteria.

3.4. MEMBERSHIP OF QUALITY ASSOCIATIONS/NETWORKS

QEC has valuable memberships of different associations/networks at International/National levels:

S. #	Memberships in Quality Associations/Networks
1.	Accreditation Agency Curacao – AAC
2.	Member of Talloires Network since 2009.

3.	Prospective member of Asia Pacific Quality Network (APQN).
4.	Member of the Learning Innovation Division, HEC Pakistan since 2005.
5.	International Network for Quality Assurance Agencies in Higher Education
6.	Pakistan Network of Quality Assurance in Higher Education-INQAAHE
7.	American Association of Medical Colleges, Visiting Students Learning Opportunities (VSLO)
8.	Corporate and Associate Member of Association of National and International Universities
9.	Research and Educational centers, such as PIQC, Institute of Quality, Pakistan

3.4. ACCREDITATIONS OF DEGREE AWARDING PROGRAMS FROM ACCREDITATION COUNCILS

1.	MBBS program at Dow Medical College (DMC) - Accredited by Pakistan Medical and Dental Council (PMDC)
2.	MBBS program at Dow International Medical College (DIMC) - Accredited Pakistan Medical and Dental Council (PMDC)
3.	Bachelor of Dental Surgery (BDS) program at Dr. Ishrat ul Ebad Khan Institute of Oral Health Sciences (DIKIOHS) – Accredited by Pakistan Medical and Dental Council (PMDC)
4.	Bachelor of Dental Surgery (BDS) program at Dow International Dental College (DIDC) – Accredited by Pakistan Medical and Dental Council (PMDC)
5.	Bachelor of Dental Surgery (BDS) program at Dow Dental College (DDC) – Accredited by Pakistan Medical and Dental Council (PMDC)
6.	Pharm D program at Dow College of Pharmacy (DCOP) - Accredited by the Pakistan Pharmacy Council (PPC) .
7.	Post RN Nursing program at Institute of Nursing (ION) - Accredited by Pakistan Nursing Council (PNC) .
8.	BS Generic Nursing program - Accredited by Pakistan Nursing Council (PNC) .
9.	Post RN BSM , Midwifery program at the Institute of Nursing and Midwifery- Accredited by Pakistan Nursing Council (PNC)
10.	Master of Nursing (MSN) program- Accredited by Pakistan Nursing Council (PNC) .
11.	MPhil (Pharmaceutical Sciences) at Dow College of Pharmacy (DCOP) - Accredited by the Pakistan Pharmacy Council (PPC) .
12.	MPhil (Basic Medical Sciences) at School of Postgraduate Studies- Accredited by Pakistan Medical and Dental Council (PMDC)
13.	Master of Dental Surgery (MDS) program at Dr. Ishrat ul Ebad Khan Institute of Oral Health Sciences (DIKIOHS) - Accredited by Pakistan Medical and Dental Council (PMDC)
14.	Master of Public Health (MPH) at School of Public Health- Accredited by Pakistan Medical and Dental Council (PMDC)

15. MS in Epidemiology and Biostatistics (MSBE) at School of Public Health- Accredited by Pakistan Medical and Dental Council (PMDC)
16. Master in Health Professional Education (MHPE) at Dow Institute of Health Professionals Education- Accredited by Pakistan Medical and Dental Council (PMDC)
17. Master of Surgery (MS) at Department of Postgraduate Studies- Accredited by Pakistan Medical and Dental Council (PMDC)
18. Doctor of Medicine (MD) program at Department of Postgraduate Studies- Accredited by Pakistan Medical and Dental Council (PMDC)
19. BBA & MBA Programs are in the process of accreditation from the National Business Education Accreditation Council (NBEAC) .

3.5. SEMINARS/WORKSHOPS & TRAINING EVENTS AT QEC

QEC Organized Charter Inspection and Evaluation Committee (CIEC) Visit at DUHS

On January 9, 2024, the Charter Inspection and Evaluation Committee (CIEC) of the Sindh Higher Education Commission (HEC) carried out a thorough evaluation visit to Dow University of Health Sciences (DUHS) for the purpose of university ranking. The assessment covered both the main campus at DMC College and the Sub Campus at Ojha.

Starting at 8:30 AM, subject experts/evaluators meticulously assessed various constituents Institutes/Colleges/Schools/including DIMC, SPGS, DIKIOHS, SDCP, DCOB, DIHPE, SPH, DCOP, IBHM, DION&M, DIMT, DIR, DIPMR, DIDC at Ojha Campus, and DMC DDC colleges at the main campus.

At the main campus, a core team from HEC Sindh CIEC received a comprehensive university performance presentation by Director QEC, Ms. Sanam Soomro. The meeting included DUHS leadership, such as the Vice Chancellor Prof. Mohammed Saeed Quraishy Pro Vice Chancellor Prof. Dr. Nazli Hossain, Registrar, Principal DIMC, Controller Examination, Director ORIC, Director Finance, Director Planning & Development, Director HR, and Deans of Dentistry and Pharmaceutical Sciences. They provided valuable insights into their respective domains, addressing queries posed by the CIEC experts.

To enhance the evaluation process, QEC strategically assigned each evaluator with a QEC member at the institutional level. This facilitated seamless coordination with Institute Heads and focal persons, ensuring the provision of all required documents and evidence.

During the visit, CIECs focal person/evaluator received support at the QEC office for administrative documentation, while at the VC boardroom, Direct QEC and Deputy Director QEC facilitated a successful university ranking process.



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CHAPTER 4

Faculty Development

4.1. PROFESSIONAL DEVELOPMENT CENTER (PDC) DUHS

With the establishment of Dow University of Health Sciences (DUHS) in 2004, it was envisioned that Continuing Medical Education (CME) should be promoted within the faculty and students of Dow University. The Professional Development Center started working as the “Office of CME” as of January 2004. Under this office, CME lectures, seminars, symposia and conferences were conducted on a regular basis. Furthermore, International Health Days were celebrated regularly. Over a period of a year and a half, the faculty dedicated to PDC managed to organize more than 100 national and International events, with the dedication and efforts of the Faculty and Alumni abroad.

After the devastating earthquake of 2005, it was thought to add hands-on workshops in addition to the CME lectures, which were mostly theoretical. Thus the Office of CME was amalgamated into a more comprehensive Professional Development Center (PDC) of Dow University of Health Sciences. Also, a formal inauguration was performed by the Chancellor of the University, Governor of Sindh.

Subsequent to its formation, two divisions were formed within the PDC, namely Surgical and Allied and the Medical and Allied, where faculty members were designated as Directors of these two divisions. They were given the task to do a Training Needs Assessment and offer programs for different categories of health Professionals.

The Professional Development Center has a simulated ICU, simulated Operation Theater, Laparoscopic / Endoscopic Suites, three training halls and a Conference Room. Equipped with the latest audio-visual and multimedia systems, state of art equipment, electronic simulators and manikins, the PDC is a site for all those healthcare professionals looking to enhance their skills with hands-on training.

The Professional Development Center currently provides training facilities in the basic and advanced skills to undergraduates, postgraduates, residents, faculty members and other health professionals. PDC has its head office at DMC with its branch at Dow International Medical College (DIMC), Ojha with similar facilities, equipment and instructors. Each wing of PDC has a dedicated Undergraduate Skills Lab.

PDC consists of CME, CPD, and Skills & Misc. Programs

1. Continuing Medical Education (which deals with Seminars, lectures, symposia and conferences).
2. Continuing Professional Development (that deals with long duration & short duration training courses and hands-on workshops).
3. Undergraduate Skills Lab (which deals with the training of undergraduate students).
4. Miscellaneous programs (that include programs like visiting faculty, reproductive health and alumni affairs).

Since its inception in October, 2005 Professional Development Center has conducted CMEs & Miscellaneous Programs in collaboration with National & International Organizations, like

PDC PROFESSIONAL DEVELOPMENT PROGRAMS

Healthcare Professional & Other Faculty Trained by Professional Development Center at DMC & Ojha Campuses.

S. #	Title of Training	No of Workshops	No. of Participants
Workshops/ Trainings/ Professional Skills Development at DMC Campus			
1	Basic Life Support (BLS) (AHA)	66	30
2	Advanced Cardiac Life Support (ACLS) (AHA)	16	32
3	Instructor Course Advanced Cardiac Life Support (ACLS) (AHA)	2	4
4	Pediatric Advanced Life Support (PALS) (AHA)	5	4
3	CME lecture on "Precocious Puberty in Children"	1	3
5	Hands on Workshop on "Neonatal Resuscitation Program (NRP)"	1	4
6	CME Lecture on "Getting Out of your Comfort Zone Tips on Securing Post Graduate Training in USA"	1	5
7	Public Awareness Program on "Breast Feeding Promotion	3	2
8	"Enhancement of Mothers Skills in Child Care & Protection"	1	3
9	CME Lecture on "Understanding and Managing Autism"	1	4
10	CME on 'Disorders of Sexual Development'	1	8
11	CME on "Pediatric Oncological Emergencies'	1	20
12	CME on "Newborn Care in First Golden Hour"	1	4
13	CME on " Update on Common Neonatal Emergencies"	1	10
14	CME on Management of Pediatric Cardiac Emergencies	1	7
15	CME on Helping Babies Survive	1	4
16	CME Lecture on Common Neurological Conditions in Pediatrics-CBL	1	7
17	CME Lectures on "Say no to Corticosteroids"	1	17
18	CME Session on Is ILD an Autoimmune Disease conducted by Department of Medicine	1	8
19	CME Lecture on Management of Neonatal Cholestasis	1	5
	Total	107	181
Workshops/ Trainings/ Professional Skills Development at Ojha Campus			
1	Basic Life Support (BLS) (AHA)	7	9
2	Advanced Surgical Skill	1	10
3	Basic Ilizarov Skills	1	8
4	Basic Surgical Skills	1	7

5	Breast Feeding; Training the Trainers	1	9
6	Dental Implant Prosthodontics	1	2
7	Dental Implant Prosthodontics	1	4
8	Electrocardiography ECG	1	15
9	EMIG	1	3
10	First Responder Course	4	4
11	Orthodontics Diagnosis & Treatment Planning	1	7
12	PCOs Awareness Program	1	7
13	Research Reinvented: The power of Artificial Intelligence	1	31
14	Role of Imaging in Physical Therapy	1	5
15	Smart Strategies	1	43
16	Vertigo & Balance Disorder Symposium	1	7
17	One Day Training Course/ Workshop on 3D CAD/CAM Clear Aligner Technology by Clear path Orthodontics	1	29
18	Crash Course for ENT FCPS II (Parotid & Salivary Gland Disease)	1	5
19	Thyroid, Laryngeal Cancer	1	3
20	Oral Cancer, Nasal Polyps	1	3
21	Tumor of Nose & Paranasal Sinuses	1	2
22	CSOM, Neck Masses	1	3
23	Latest Perspective in Breast Cancer	1	21
24	Bridging the gap b/w Molecule imaging, Theranostics and Radiotherapy Planning in Brain Tumors	1	2
25	English Language Program	5	9
26	2nd International Renal Transplant Symposium	1	33
27	Emergency Maternal & Newborn Care	1	19
28	Untangling the Knot of Chronic Back Pain: A Neurorheumatologic Perspective	1	21
31	CME Lecture on 'Liver Disease in Pregnancy'	1	12
32	Non- Invasive Ventilation	1	4
33	Cardiac Catheterization	1	3
34	Basic Surgical Skills	1	7
35	Role of Robots in Cutting Edge Surgical Era	1	11
36	Basic and Advance Laproscopic skill	1	6
37	Botulinum Toxin for Upper Face	1	4
38	TOACS Prep Activity: Training for Orthodontic Residents	1	4

39	World Hearing Day	1	6
40	Rational for Using Acid Suppressing Agents	1	2
	Total	23	143

FACULTY DEVELOPMENT PROGRAMS

The purpose of faculty development is to support and encourage the activities undertaken for development and professional growth of the faculty members of the Dow University of Health Sciences.

These initiatives are framed keeping in mind the University's Mission to create a culture of academic excellence. Furthermore, the teaching departments of the University are anchored on faculty continuous training and development.

i. EMPOWERING MEDICAL TEACHERS AS MENTORS AT DOW INSTITUTE OF HEALTH PROFESSIONALS EDUCATION (DIHPE)

Dow Institute of Health Professionals Education is conducting the training of trainers Faculty Development program. This Faculty Development program has been funded by the United States Education Foundation in Pakistan (USEFP), the Institute of International Education (IIE), and the US Department of State. This initiative aims to empower Medical Teachers in the healthcare sector. Elevate your teaching skills and be a part of a transformative learning experience. The inaugural session was held on 6th January, 2024 with a program on Practices and Recommendations which was attended by esteemed medical educators across Karachi.

DOW UNIVERSITY OF HEALTH SCIENCES

LEARN TO LEAD
FACULTY DEVELOPMENT PROGRAM

EMPOWERING MEDICAL TEACHERS AS MENTORS
PRACTICES AND RECOMMENDATIONS

Starting from
6 JANUARY 2024
10 am - 3 pm

Dow Institute of Health Professionals Education,
Dow Medical College- DUHS

Who Should Attend
Medical & Dental Faculty,
Allied Health Sciences Faculty,
Physicians, Nurses.

MODERATOR:
Assoc. Prof. Dr. Farhan Saeed Vakani
Dow University of Health Sciences, Pakistan

Prof. Dr. Subina Bano
Harvard Medical School, USA

Prof. Dr. Babunah Zuberi
Aga Khan University, Pakistan

Prof. Dr. Muhammad Saad Gharib
Dow University of Health Sciences, Pakistan

Prof. Dr. Syeda Kaiser Ali
Aga Khan University, Pakistan

Prof. Dr. Anshu Kumar
Dow University of Health Sciences, Pakistan

Prof. Dr. Roshan Karmali
Aga Khan University, Pakistan

Prof. Dr. Salim Zaki
Aga Khan University, Pakistan

Registration Link:
<https://www.duh.edu.pk/faculty-development-program>

Humphrey Impact Awards
Funded by the United States Government
Administered by IIE, and by United States Educational
Foundation in Pakistan

Logos: USA, IIE, USEFP

ii. NATIONAL FACULTY DEVELOPMENT PROGRAM BY NAHE-HEC

National Academy of Higher Education (NAHE) has designed a National Faculty Development Program (NFDP) for the newly inducted faculty members of public sector HEIs of Pakistan. The main objective of the program is to accelerate the transfer of essential knowledge, skills, and attitudes in three dimensions of a successful career as a faculty member i.e. (1) teaching and learning, (2) applied research, and (3) professional practice.

DUHS always encourage its faculty to participate in faculty development programs. Dr. Junaid Ahmed, Lecturer Operative Dentistry, Dr. Ishrat ul Ebad Khan Institute of Oral Health Sciences has attended NFDP in HEC Regional Centre, Lahore from 22nd April, 2024 – 10th May, 2024.

iii. CERTIFIED HEALTH PROFESSIONALS EDUCATION (CHPE)

DUHS offers a six month certificate program in Health Professionals Education which provide healthcare professionals have a significant opportunity and become exceptional instructors and trainers by improving their skills in the ever-evolving healthcare industry. Through the application of a case-based pedagogy, participants gain a comprehensive skill set that allow them to create and execute significant academic and research programs, plan and implement highly successful instructional strategies, and evaluate student performance with skill. In the year 2023-2024 following faculty has completed the CHPE program:

Dr. Mehreen Mehmood Assistant Professor (Hematology)	Dr. Nida Anwer (Psychology)	Dr. Muhammad Asim Associate Professor (Urology)
Dr. Sabhat Sarfaraz Assistant Professor (Pathology)	Dr. Sonia Siddiqui Associate Professor (Bio-Chemistry)	Dr. Riffat Tanveer Associate Professor (Cardiac-Surgery)
Dr. Masroor Hussain Shafi Associate Professor (Paeds Cardiology)	Dr. Rashid Bin Hamid Associate Professor (Urology)	Dr. Malik Waseem Assistant Professor (Ortho)
Prof. Farrukh Mustafa Professor (Anatomy)	Dr. Nazia Shahab Lecturer (Anatomy)	Dr. Umme Aymen Assistant Professor (Radiology)
Dr. Nida Rafiq Assistant Professor (Radiology)	Dr. Faiza Ghuman Assistant Professor (Medicine)	Dr. Ramsha Urooj Lecturer (Forensic Medicine)
Dr. Sana Khurram Assistant Professor (Clinic Hematology)	Dr. Farrukh Ali Khan Assistant Professor (Hematology)	Dr. Furqan Bari Associate Professor (Orthodontics Pathology)
Dr. Muneeb Shaikh Lecturer (Orthodontics)	Dr. Sana Tanzil	Dr. Qaiser Ali Baig Associate Professor (Community and Preventive Dentistry)

School of Public Health

1. Dr. Kashif Shafique attended a course at the London School of Hygiene & Tropical Medicine titled Design & Analysis of Cluster Randomized Trials. (2023).
2. Ms Nida Jawed is attending "Empowering Medical Teachers as Mentors" training of trainers Faculty Development program at DUHS. The course is funded by the United States Education Foundation in Pakistan (USEFP), the Institute of International Education (IIE), and the US Department of State (Jan 2024 - ongoing).

Dow College of Pharmacy

Prof. Dr. Sumbul Shamim, Principal DCOP organized the Workshop for Faculty development on Smart Strategies for Effective Teaching on 25th August, 2023. The workshop facilitated smart teaching techniques, empowering educators with valuable insights and practical tools to optimize their teaching practices. Participants engaged in meaningful discussions and interactive sessions, exploring a wide array of cutting-edge pedagogical methods tailored to promote student learning outcomes.

RETURNED SCHOLARS (FOREIGN UNIVERSITIES)

Returned Ph.D. Scholars (Foreign Universities)		
1. Dr. Asma Khurshid	2. Dr. Rafat Amin	3. Dr. Naresh Kumar
4. Dr. Jawad Safdar	5. Dr. Sadaf Khan	6. Dr. Omer Mustapha
7. Dr. Kashif Shafiq	8. Dr. Syed Jaffar Abbas Zaidi	9. Dr. Mushtaq Hussain
10. Dr. Maheera Moin	11. Dr. Sonia Siddiqui	12. Dr. Samreen Memon
13. Dr. Mansoor Ahmed	14. Dr. Mohsin Wahid	15. Dr. Sumaira Nasim
16. Dr. Tehseen Fatima	17. Dr. Sadia Shakeel	18. Dr. Syed Saoud Zaidi
19. Dr. Muhammad Aamir Mirza	20. Dr. Muhammad Asif Qureshi	21. Dr. Muhammad Furqan Bari
22. Dr. Muhammad Sameer Qureshi	23. Dr. Muhammad Yahya Noori	24. Dr. M Sarfraz

25. **Ms. Sahar Soomro, DION&M, DUHS (MS)** After being selected for the prestigious “Swedish Institute Scholarships for Global Professionals” (SISGP), which is a fully-funded study scholarship for a Master’s programme in Sweden, Ms. Sahar Soomro graduated as a Swedish Institute Scholar with a Master’s in Public Health from Umea University, Sweden in 2022.

4.4. PRESENT SCHOLARS

Present Scholars Within the University			
S #	Name	Degree	Specialty
1.	Mahrukh Qasim	PhD	Anatomy
2.	Sahar Mubeen	PhD	Anatomy
3.	Tehniat Ahsan	PhD	Biochemistry
4.	Qutubuddin	PhD	Molecular Medicine
5.	Zubair Ali Khowaja	PhD	Molecular Medicine
6.	Dr. Ashar Afaq	PhD	Community Dentistry
7.	Ruqaiya Shahid	PhD	Histopathology
8.	Farheen Sultan	PhD	Histopathology
9.	Rubina Gulzar	PhD	Histopathology
10.	Dr. Uzma Bukhari	PhD	Histopathology
11.	Nehad	PhD	Histopathology
12.	Saba Hashmi	PhD	Histopathology

13.	Salman Ahmed	PhD	Pathology
14.	Muniza Omair	PhD	Pathology
15.	Fatima Fasih	PhD	Medical Microbiology
16.	Saima Naseem	PhD	Medical Microbiology
17.	Ambreen Fatima	PhD	Medical Microbiology
18.	Fatima Arshad	PhD	Molecular Pathology
19.	Sana Khurram	PhD	Molecular Pathology
20.	Shazia Jabbar	PhD	Gynae & Obs
21.	Dr. Aynah Charania	PhD	Oral Biology
22.	Dr. Anwar Ali	PhD	Oral Surgery
23.	Shaheen Ahmed	PhD	Oral Surgery
24.	Fuad Shaikh	PhD	Pharmacology
25.	Muhammad Tahir Rizwan Khan	PhD	Public Health
26.	Faryal Nawab	PhD	Public Health
27.	Dr. Washdev	PhD	Public Health
28.	Haji Sohail	PhD	Public Health
29.	Zulfiqar Ali Shaikh	PhD	Public Health
30.	Muhammad Fahad Bin Alam	MPhil	Biochemistry
31.	Alya Shujat	MPhil	Biochemistry
32.	Tuba	MPhil	Biochemistry
33.	Muhammad Wajih Uddin	MPhil	Biochemistry
34.	Maha Ali	MPhil	Biochemistry
35.	Sajida Parveen	MPhil	Biochemistry
36.	Samreen Khan	MPhil	Histopathology
37.	Faiza Shams	MPhil	Pharmacology
38.	Dr. Syed Talha Idrees	MPhil	Pathology
39.	Mr. Raheem Khan	MS	Nursing
40.	Mr. Muhammad Rehan	MS	Nursing
41.	Aisha Nisar	MDS	Science of Dental Materials
42.	Dr. Fahad	MDS	Orthodontics
43.	Dr. Raheel	MDS	Oral Surgery
44.	Dr. Eisha Abrar	MDS	Operative Dentistry

45.	Dr. Fasiha Moin Qazi	MDS	Science of Dental Materials
46.	Dr. Rida Fatima	MDS	Oral Pathology
47.	Dr. Mashal Iftikhar	MSc.	Prosthodontics
48.	Dr. Wards Naseer Bajwa	MSc.	Prosthodontics
49.	Dr. Umer Bin Irfan	MSc.	Prosthodontics
50.	Ms. Nazish Lakhani (Nursing)	MBA	Healthcare Management
51.	Dr. Ambreen Sair	MHPE	Medical Education
52.	Dr. Saira Yasmeen	MHPE	Medical Education
53.	Dr. Hina Khan	MHPE	Medical Education

Present Scholars enrolled in MS/MPhil/PhD, outside DUHS				
S #	Name	Name of Degree	Specialty	Name of University
1.	Dr. Auwais Ahmed Khan	PhD	Pharmacology	University of Karachi
2.	Dr. Hina Tabassum	PhD	Pharmacology	University of Karachi
3.	Dr. Syed Ahsan Ali	PhD	Pharmaceutics	University of Karachi
4.	Dr. Saba Inayat Ali	PhD	Pharmaceutics	University of Karachi
5.	Dr. Kashif Ali	PhD	Pharmacy Practice	University of Campania, Italy
6.	Dr. Sadia Iqbal	PhD	Pharmaceutical chemistry	University of Karachi
7.	Dr. Erum Shah	PhD	Pharmacognosy	University of Karachi
8.	Dr. Sambreen Zameer	PhD	Microbiology	University of Karachi
9.	Dr. Hina Abbas	PhD	Hematology	Liaquat University of Health Sciences
10.	Ms. Anusha Amanullah	PhD	Clinical Medicine	Oxford University, UK
11.	Mr. Ghayas Ahmed	PhD	Management	University of Karachi
12.	Mr. Kashif Baig	PhD	Management	University of Karachi
13.	Ms. Humera Asrar	PhD	Management	University of Karachi
14.	Ms. Wajiha Saghir	PhD	Marketing	Iqra University
15.	Mr. Muhammad Rizwan	PhD	Finance	PAFKIET
16.	Ms. Nadia Shah	PhD	Applied Economics	University of Karachi
17.	Ms. Nida Jawed	PhD	Home Economics (Food and Nutrition)	University of Peshawar

18.	Ms. Tahreem Hussain	PhD	Home Economics (Food and Nutrition)	University of Peshawar
19.	Ms. Tooba Zaidi	PhD	Home Economics (Food and Nutrition)	University of Peshawar
20.	Ms. Mehreen Amer	PhD	Human Nutrition and Dietetics	Ziauddin University
21.	Ms. Sukaina Shabbir	PhD	Human Nutrition and Dietetics	Ziauddin University
22.	Ms. Saba Mughal	PhD	Statistics	University of Karachi
23.	Dr. Salik Rasool	PhD	Microbiology	Baqai Medical University
24.	Dr. Azeem Sumroo	PhD	Microbiology	Liaquat University of Medical and Health Sciences
25.	Dr. Faiza Amin	PhD	Science of Dental Material	University of Karachi
26.	Dr. Sanam	PhD	Microbiology	University of Karachi
27.	Dr. Shahida Maqsood	PhD	Physiology	University of Karachi
28.	Dr. Fareha Kashan	PhD	Physiology	University of Karachi
29.	Ms. Kiran Nuruddin	MPhil	Medical Technology	Sohail University
30.	Mr. Muhammad Asif	PhD	Microbiology	University of Karachi
31.	Mr. Tanseer Ahmed	PhD	Nursing	Manchester University
32.	Mr. Muhammad Rehan	PhD	Nursing	MAHSA University
33.	Mr. Badal	PhD	Nursing	Khyber Medical University
34.	Ms. Muhmooda A. Razzaq	PhD	Nursing	Asia E University
35.	Mr. Faraz Siddiqui	PhD	Nursing	Lincoln University College Malaysia
36.	Mr. Syed Yousuf Shah	PhD	Nursing	Lincoln University College Malaysia
37.	Mr. Amjad Ali	PhD	Nursing	Ziauddin University
38.	Ms. Subia Naz	PhD	Nursing	Aga Khan University
39.	Dr. Binish Rasheed	MHPE	Medical Education	Aga Khan University
40.	Dr. Yahya Noori	MHPE	Medical Education	Aga Khan University
41.	Dr. Anum Arshad Beg	MHPE	Medical Education	Aga Khan University
42.	Dr. Zainab Mohammad Anjarwala	Fellowship	Palliative Medicine	Institute of Palliative Medicine & WHO
43.	Dr. Muhammad Ashfaq	MSc.	Epidemiology & Biostatistics	Aga Khan University

4.4.1. IPFP SCHOLARS

IPFP Scholars present in the university in 2023-2024:

Faculty Name	College/Institute
Dr. Aqsa Mushtaq	Dow College of Pharmacy



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI

DUHS

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CHAPTER 5

Access

5.1. BASIC ENROLLMENT

Total Student enrollment during FY 2023-2024 is **8177** for graduate, post-graduate and diploma programs offered, including FCPS.

5.2 EQUITY

In Dow University of Health Sciences, admissions are granted on transparent open merit basis for all applicants, regardless of gender, sex, race or ethnic background.

5.3 GENDER-WISE DETAIL

Enrollment for the Period of 2023-2024, DUHS				
Institute Name	Programs	Male	Female	Total
Dow Medical College	MBBS	556	1173	1729
Dow Dental College	BDS	32	167	199
School of Postgraduate Studies	Master of Surgery	23	1	24
	Doctor of Medicine	30	19	49
	MPhil	5	40	45
	PhD	17	30	47
	FCPS-II	184	564	748
	Diploma	11	47	58
Sindh Institute of Physical Medicine & Rehabilitation	DPT	16	84	100
	MS Advanced Physiotherapy	0	5	5
Dow Institute of Physical Medicine & Rehabilitation	DPT	48	370	418
	MS Advanced Physiotherapy	2	30	32
Dow International Medical College	MBBS	299	426	725
Dow International Dental College	BDS	37	169	206
Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences	BDS	59	340	399
	MDS	38	50	88
	MSc. DS	0	6	6
School of Dental Care Professionals	BS Dental Care Professional	18	91	109
Dow College of Pharmacy	Pharm-D	115	634	749
	MPhil Pharmaceutical Sciences	1	29	30
	PhD Pharmacology	0	3	3
Dow Institute of Medical Technology	BS Medical Technology	55	362	417

Department of Ophthalmology and Visual Sciences	BS Optometry	10	110	120
Institute of Business & Health Management	BBA	91	225	316
	BS Accounting & Finance	3	3	6
	MBA	23	76	99
	EMBA	38	46	84
Dow Institute of Nursing & Midwifery	BS Nursing	200	199	399
	Post RN BS Nursing	42	26	68
	MS Nursing	21	5	26
Dow Institute of Radiology	BS Radiologic Technology	11	89	100
School of Public Health	BS Nutrition	4	151	155
	BS Public Health	7	53	60
	Master of Public Health	8	40	48
	MS Biostatistics & Epidemiology	3	22	25
Dow College of Biotechnology	BS Biotechnology	59	313	372
Dr. Abdul Qadeer Khan Institute of Behavioral Sciences	BS Psychology	2	58	60
Institute of Health Professionals Education	Master of Health Professional Education	9	26	35
National Institute of Diabetes & Endocrinology	MSc. Diabetes & Endocrinology	18	0	18
Total		2095	6082	8177

5.5. EMPLOYABILITY

The graduates of Dow University of Health Sciences are serving in almost all prominent health care institutions & organizations of Pakistan, as well as at international levels. Some major employers of DUHS graduates include the following:

- Private Hospitals locally, nationally and internationally.
- Public & Private Sector Medical Colleges & Universities
- Multinational and Private Limited companies
- National and Multinational Pharmaceutical Companies
- Manufacturing industry
- Entrepreneurial ventures
- Health Insurance companies
- Banking and Finance Sector

5.6. FACULTY-STUDENT RATIO

In the year 2023-2024, the faculty-student ratio is calculated as follows:

Faculty-Student Ratio	
Total Number of Faculty	901
Total Number of Enrolled Students	8177
Faculty-Student Ratio of University	1 : 9



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI

DUHS

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CHAPTER 6

Universities Building Economies

6.1. UNIVERSITY – INDUSTRY LINKAGES

Dow University of Health Sciences, Karachi is dedicated to building collaborations and linkages with various national and international industries and is still engaged in the process of enhancing strong linkages.

- Dow University of Health Sciences has developed university industry linkages with several pharmaceutical companies for Research and development.
- Dow University has an agreement with the National Research Program for Universities, which is a National program.
- The University enhanced its industry linkage by signing a MOU with the international organization, DICE Foundation. It will act as a pragmatic platform for health-related innovation & for collaboration among academia, industry, government, entrepreneurs and Expatriate community on all matters pertaining to the growth of the health sector in Pakistan.

6.2. INITIATIVES

1. Dow Institute of Radiology introduces new procedures and protocols

• IN MRI

- Gamma Knife MRI Services in DIR-DUHS, OJHA Campus
- MRI Neuro navigation with Contrast
- MRA Thoracic Aorta with and without Contrast
- MRA Abdominal Aorta with and without Contrast
- MRI Lumbar Plexus with & without Contrast
- MRI Brain Perfusion
- MR Spectroscopy Evaluation

• IN INTERVENTION RADIOLOGY

- Soft Tissue Injection Sclerotherapy
- Microwave Ablation of Soft Tissue Tumor

• IN ULTRASOUND

- Joints Ultrasound

• BREAST IMAGING

- Liga Clip Placement for Breast Masses Before Chemotherapy
- Us Guided Breast Needle Localization

• EXTENSION OF SERVICES

- Started Ultrasound Services in Evening and Sundays at:
- Main Ojha Campus
- LEJ Campus
- NCC CAMPUS

• NEW RADIOLOGY SERVICES TO FACILITATE MORE PATIENTS

- 24/7 Radiology Services at Radiology Trauma
- 24/7 Radiology Services at Radiology Trauma

- CT Studies and Ultrasound Facilities at OICD OJHA Campus
 - Ultrasound and X-Ray Services at New OPD at DUHS OJHA Campus
 - Introduced Ultrasound Services at Hussainabad Lab
 - OPG Services at DIR OJHA Campus and NCC Campus
- **PROMOTION AND DISCOUNTS TO FACILITATE MORE PATIENTS**
 - Underprivileged located Radiology Malir Campus
 - Mammography in the Month of October
 - **NEW SOPS FOR BETTER RESULTS AND EFFICIENCY IN TERMS OF QUALITY SERVICE**
 - Information counter to meet and greet as well as to guide the patients
 - Queue Management System (QMS) to maintain patients flow
 - Appointment system for MRI contrast to minimize waiting time
 - 24/7 communication services via WhatsApp to facilitate patients
 - Implementation of HMIS efficient source of data storage and retrieval
 - Patient portal where all reports can be accessed online.

2. Virtual OPEN HOUSE - Dow College of Pharmacy

On 30th December, 2023 a Virtual OPEN HOUSE session was organized by all the program directors of the Faculty of Pharmaceutical Sciences received an overwhelmingly positive response. With approximately 100 participants attending the engaging physical session, and an impressive 2.1 thousand views on the live coverage.

Students and esteemed faculty members from renowned universities in Karachi, including Deewan University, Federal Urdu University, Jinnah University for Women, Iqra University, and University of Karachi, actively participated in the event. The presence of the esteemed Dean of the Faculty of Pharmacy from Deewan University added a touch of prestige to the occasion.



3. Establishment of Dow Fly Research Lab and Stock Center

Establishment of Dow Fly Research Lab and Stock Center at Dow College of Biotechnology, Dow University of Health Sciences. It provides screening of natural and synthetic compounds and extracts on a commercial basis for both research and industrial purposes.



4. Dow Center of Oral Health Research (DCOHR) Lab at DDC

DUHS is a pioneer in research and innovation. The various institutes and departments of DUHS associated with research are spearheading the local and national research front.

The center of the dental research lab was established on the 7th floor of Dow Dental College. It is the first advanced dental research center in the province.

The post-graduate students from DUHS look at other avenues when equipment such as Scanning Electron Microscope is needed. In order to fulfill this research need, an advanced research DCOHR lab dedicated to dental research was envisioned.

Aim:

The aims and objectives of this center are as follows

1. To fulfill research needs of the oral health and medical researchers.
2. To provide a center for research activities at the DMC campus.
3. To train the researchers in cutting edge research techniques.
4. To commercialize the services offered by the center.
5. To build collaborations with research centers and industry nationally and internationally.

Structure:

The Research Center has the following research facilities/equipment available.

1. Bio-Materials Research Lab

- Scanning Electron Microscope (SEM) with EDS
- Universal Testing machine (UTM) (Tensile, flexure, compressive and tear strength)
- HPLC
- Thermal Cycler (For thermal aging of samples)
- UV spectrometry
- Stereo-Microscope
- Saw Microtome



The Bio-materials side of the lab is fulfilling an important research need of the scientific community. Its importance can be gauged from the fact the SEM installed in the lab is only the third such microscope in Karachi after NED university and PCSIR available for research purposes. In addition, the Universal testing machine is a first of its kind for any educational institute.

2. Molecular Research lab

- Cell Culture Lab
- Microbial Culture lab

- Molecular Pathology lab
 - Conventional PCR
 - ELISA
 - Horizontal Gel Electrophoresis
 - Vertical Gel Electrophoresis
 - Western Blotting
 - IEF Two Dimensional Electrophoretic Protein Analysis

6.3 BUSINESS INCUBATION CENTER

Overview of the Business Incubation Center

Four core services of BIC are providing working space, training, coaching and mentorship. Other than that, BIC provides a wide variety of services to incubate e.g. networking opportunities, technological assistance, financial sourcing, and marketing assistance. All these services aim at enhancing the skills, Knowledge and abilities of the incubated companies to give them a push for their new business venture. Furthermore they are also provided with basic infrastructure with necessary equipment, to work on their businesses and conduct meetings or training when needed.

Vision:

To be a center of excellence that nurtures linkages between academia and the industry that fuels entrepreneurial spirit and inculcates research bent of mind in the region and contributes to national economic development.

Mission:

DUBIC will build an ecosystem to support innovative ideas in the region with an environment to enact wealth and create employment opportunities through successful startups
To create entrepreneurial opportunities for students, faculty and researchers
To support technology entrepreneurship in health sciences emerging technologies by mobilizing the resources of DUBIC
To create opportunities and identify key areas for the community-based business ventures and campaigns.
To assist in the commercialization of innovative ideas through capacity building and networking.

Values:

The BIC-DUHS identifies following key values to guide its decisions and operations

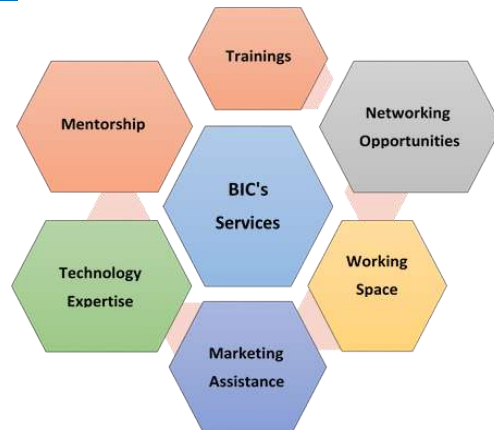
- **Customer Service:**
To respond, be aware and understand.
- **Excellence:**
Be the best and commit to exceptional quality and service
- **Innovation:**
Encourage creative thinking, imagine, create and share
- **Teamwork:**
Engage and collaborate
- **Integrity and Leadership:**

Be a role model and influence others to achieve their best
Have the courage to do the right thing
Take bold and visionary initiatives
Hold yourself and others accountable

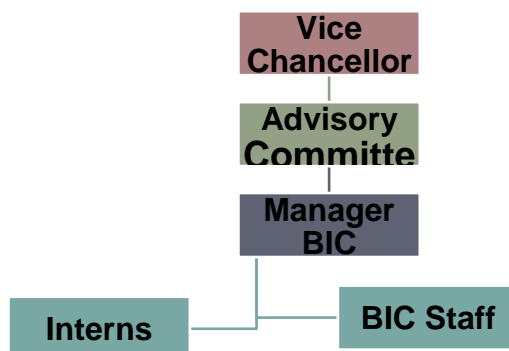
- **Respect and Collegiality:**

Be kind
Listen to understand
Value different opinions

BIC, DUHS Services



Business Incubation Centre Organogram



BIC Programs and Services

Business plan competition for the selection of Startups

It has been a routine practice for BIC-DUHS to collaborate with various organizations and organize an annual Business Plan competition.

The Dow University Business Incubation center has clearly defined its selection criteria for the start-ups and ensures strict compliance; Therefore, BIC has devised a stringent process for incubating ideas. The selection process comprises of the defined steps, explained as follows:

Workshops, Seminars and Training programs

Training and development is the core function of BIC. For this purpose, BIC extends its linkages and invites professional trainers with expertise on the relevant topics. All sessions are conducted in the designated training room of the BIC.

Steps	Event	Execution	Focal	Duration/Timeline
1	Orientation	At Faculty Level for the purpose of outreach of BIC	Manager BIC	Launch of Annual BPC
2	Application	Online/Nominations		2 weeks
3	Idea Assessment (Faculty Level)	In person		3 days
4	Acceleration Camp with 3 workshops as approved	60 Participants		3 days
5	BPC	Annual		1 day

Key Areas for Training and development:

- Business Model Development Market Research
- Product positioning
- Build a Brand/Blue Ocean Strategy
- Logo & Designing
- HR/Team Building
- Marketing- The Practical Approach Art of Selling
- Startup Finance
- Art of Pitching and Fundraising
- Business Writing Skills
- Workplace Ethics

Mentorship

Mentoring is another function of BIC DUHS at the advanced level. For this purpose market experts are invited to BIC for mentoring the startup companies on different issues. Generic as well as specific mentoring sessions are conducted throughout the incubation period. Another concept has been introduced called Junior Mentors, in which BIC invites founders and co-founders of different startups who have already been through the incubation in different incubation centers. Junior mentors share their real life experience and stories of survival and thus is very fruitful as incubated companies can easily connect with the junior mentors.

Mentoring Points

Is the team set up correctly?

Passion and seriousness of team members

How can the startup be more successful?

Is the demand realistic?

Is the revenue stream sufficient to sustain the startup?

Is the startup market strategy properly planned?

What are the next steps for the Startup?

Coaching

Coaching is another important function of BIC DUHS in which commences after one month of incubation. Coaches are assigned to each startup keeping in view the nature and domain of the startups. Coaches are market experts or faculty members who have relevant market experience and knowledge to give a strategic direction to the startups. For each cohort one or two coaches are selected on the basis of the number of startups and startup profiles.

6.3.1. HEC Prime Minister's Youth Programme National Innovation Award Startups

In pursuance of the Prime Ministers National Innovation Awards, two of the winners preferred DUHS BIC for the incubation of their startups.

- 1- Bio Being
- 2- Boltay Huroof

6.3.2. Dow University of Health Sciences Startups

- 1- Dasterast
- 2- Rebellant
- 3- Bioraff
- 4- Her Tea
- 5- Accusurgicals
- 6- Biosafe
- 7- Drosocan

The DUHS startups made it to the top 10 winners of the President of Pakistan National Ideas Bank NIB.

6.4. INCUBATED PROJECTS

Incubated Project	Description/abstract
Green Earth	The product is an Organic Neem Pesticide holding business name Green Earth. The motive behind this innovation is to reduce the use of conventional chemical based pesticides available in the market contaminating our food source as well as environment. Also, we aim to make this product cost-effective yet efficient for the use on larger scales. It is manufactured with all natural ingredients to reduce the disorders our agricultural sector faces.
Noor e Zia	The idea of Noor e Zia is about connecting highly qualified doctors and consultants to the underprivileged low socio economic people via technology at lowest possible cost i.e. in just PKR 150. Our project works on the Hub and Spoke model. At our premises we have international certified consultants related to all fields. We want to open such

	facilities in all underprivileged areas of Karachi at first and then expand to whole Pakistan.
Osteoband (Pain reliever for muscles, joints and osteoarthritis)	Arthritis is a bone swelling disease. There are different types of arthritis and different kind of injuries that happen in routine life due to accidents, disease, sports as well as due to aging that lead to injuries in ligaments, meniscus, cartilage and synovitis. Synovitis, a symptom which is common in both osteoarthritis and in rheumatoid arthritis. NSAIDs, DMARDs, cytotoxic agent and GC are mostly prescribed by doctors to treat injuries. But the idea of transdermal drug delivery has been greatly used to see the high effect in low doses. Transdermal formulations are gel, spray, cream patches etc. Penetration enhancers are used to loosen skin layer to produce channels in the skin. We used gel formulation that have been made to deliver glucosamine through skin. Glucosamine is a natural component in cartilage matrix and have been reported to use or reduce osteoarthritis symptoms orally. Glucosamine is converted into gel which is being applied on a bandage for its use on pain areas. When the bandage is applied, glucosamine gel initially penetrates through the stratum corneum and then passes through the deeper epidermis and dermis without its accumulation in the dermal layer either by trans epidermal or transappendegeal pathway. When it reaches the dermal layer, it becomes available for systemic absorption via the dermal microcirculation. Chondrocytes within the cartilage receive glucosamine by diffusion from surrounding tissues. Bandages with glucosamine formulation (osteoband) are made to reduce arthritis, muscles and joints pain. It is free from any kind of toxicity.
Rebellant	"Rebellant" is an organic mosquito repellent, available in liquid spray form as well as in candle form which contains combination of essential oils from citronella grass (<i>Cymbopogon nardus</i>), peppermint (<i>Mentha piperita</i>), eucalyptus (<i>Eucalyptus globulus</i>), tea tree (<i>Melaleuca alternifolia</i>) and lavender (<i>Lavandula angustifolia</i>). The spray form also has antimicrobial properties due to the presence of alcohol and tea tree oil. To investigate the repellent activity of the organic mosquito repellent spray, BG cage test is performed. Test cages with a size of 41 x 41 x 16 cm were filled with 30 host seeking mosquito females. Test product was applied to a 100 cm ² rectangular area on the forearms of the volunteers, and exposed to the caged population every 30 minutes. Tests are performed for up to eight hours post application or until repellency fails. The test revealed that our product possessed repellency that ranged from 0.5–0.75 h. And to investigate the efficacy of the mosquito repellent candle, the same cages were used and it was observed that mosquitoes didn't land anywhere within the radius of 0.5 - 0.7 meters from the candle.
Delitic Natural Laundry Detergent	Delitic laundry detergent can pretreat stains before washing. It gives you a low suds, natural, and effective clean. It is designed for chemically sensitive people or those with sensitive skin. It gives your clothes a clean refresh. It is manufactured without all the toxic materials, such as parabens, colorants, phosphate, alcohol, or ocular brighteners. Moreover, this natural laundry detergent differs from other laundry products because it's more eco friendly. After all, it requires a lower quantity of water to make.
Nutrolina	Ready-to-use therapeutic food (RUTF) is energy dense, micronutrient enhanced pastes used in therapeutic feeding. These soft foods are a homogenous mix of lipid rich foods used for inpatient therapeutic feeding programs.
Morineem Soap	Morineem soap contains natural ingredients such as plant-derived herbs, glycerin, and essential oils that helps to cure darkness, dullness, acne issues, pimples, fine lines, wrinkles and many other skin related problems. A lot of our customers say that their skin feels better after using organic soap, and that it sometimes help to improve skin conditions, rather than producing further irritation.
Nutritionally balanced Cat food with natural probiotics and probiotics.	After the ban on 'non-essential and luxury' items that the Government of Pakistan announced in the Import Policy Order, 2022. Millions of upset cat owners were frantically looking to stock up on good quality imported food for their fur babies and were also worried about the impact if they were forced to switch to substandard locally manufactured brands available. Such foods have been known to cause painful early deaths among cats of all ages and don't ensure a balanced diet. Production of locally manufactured premium quality cat food comparable to imported quality is our main focus and it will be beneficial in generation of revenue.

Enchantress	<p>'Enchantress' is providing handmade best chosen resin items including Pendants, Earrings, and Keychain that is decorated with innovative and trendy designs and high-quality packaging with smooth and hassle-free delivery. Enchantress is currently present only online at Instagram account: enchantress.pk and Facebook Enchantress dealing with ample of customers happily. Products include: DIY resin keychains, pendants, earrings, paintings. Unique product includes painted keychains and the target market is females and males both (1825 years). For the future, I have decided to launch more resin made related products such as trays, coasters, boxes, and stationery items. Enchantress has positive growth in dates. Total Investment: 7000 Total Revenue: 8500+ Growth Rate: Positive Plans for market expansion: PR marketing and website development.</p>
Acusurgicals	<p>Surgical site infections (SSI) are infections that occur in the incision created by an invasive surgical procedure which is the leading cause of hospital morbidity, increasing ICU admission rates, doubling mortality rates, and increasing overall length of stay. To overcome SSI, we have generated a portable chamber that will be beneficial for small setups in maintaining sterility. The chamber has been designed in a way to provide a constant microorganism free field by introducing HEPA filter, a system which is the backbone of maintaining a sterile area during surgery. This chamber is economical, easy to carry and doesn't need much space in which processes like debridement, incision and drainage are easily carried out. In underprivileged communities, procedures are performed in an open environment which destroys the sterility, usage of such device which is more efficient, cost effective and doesn't occupy much space will guarantee satisfaction. In addition, this device can be used in tertiary care hospitals or in war zones with the decreasing results in the rate of SSI.</p>
Husn	<p>Husn is an "innovative skin care brand" focusing to launch its first batch of ranges of daily routine products with cost effective and safe use for all skin types. At Husn , we are taking great care to innovate the best resulting products but no instant effect in a safe and hygienic manner, using the premium quality materials in a perfect quantity. Husn cares about your skin.</p> <p>Toner</p> <ol style="list-style-type: none"> 1. Hydrating toner 2. Oil skin toner <p>Serum</p> <ol style="list-style-type: none"> 1. Brightening serums for all skin type 2. Exfoliating serum 3. Retinol+vitamin E+ Vitamin B5 and collagen serum <p>Moisturizer</p> <ol style="list-style-type: none"> 1. Gel cream moisturizer (for oily to acne prone skin) 2. Moisturizer (Normal to dry sensitive skin type) Cleanser 3. Hydrating cleanser (non-drying for normal to dry skin types) 4. Exfoliating cleanser (non-stripping for oily to acne prone skin type) <p>Sunblock</p> <ol style="list-style-type: none"> 1. Sunscreen
BamBoost	<p>The idea is to focus on eliminating plastic water bottles from the environment by developing biodegradable bamboo bottles from bamboo and sustaining a healthy lifestyle. BamBoost offers great value to the environment because it is a bamboo-based product that is free from Volatile Organic Compounds (VOCs) and bisphenol-A (BPA), a potentially dangerous chemical. It has antibacterial and hypoallergenic properties as a result of its natural composition. Considering health concerns, it can be safely used because it has undergone laboratory testing for bacterial invasion. A bamboo water bottle is friendly and much easier to clean than other types of plastic or metal bottles.</p>
FEMWELL	<p>Femwell aims to formulate and develop products to make a woman's life easier and simpler.</p> <p>Seeds Granola: A readily available and palatable product for feminine health and well-being using the phenomenon of seed cycling incorporated into granola. The granola aims to stabilize the reproductive hormonal system, regulate periods, reduce</p>

	acne, alleviate the symptoms of polycystic ovarian syndrome (PCOS), PMS, and infertility. It also eases the symptoms of menopause like hot flashes, night sweats, fatigue, and mood swings. The Glow on Beauty Bar: A beauty bar that improves the overall condition of the skin. Using natural and organic products, it fights skin problems and conditions which come along with sun exposure and rough handling, all while providing a scrub gentle enough for daily use.
ROOTIT	Root it is made from waste/recycled paper, engraved with banyan seeds. These trees have high moisture needs; they can be grown under the sun or partial shadow. These seed paper products can be planted anywhere to later grow into plants and trees.
STEENI	The idea behind 'Steeni' is to make Stevia (a natural alternative to sugar) abundantly available to the masses in Pakistan, at a fair rate. Not only is Steeni beneficial for diabetic patients, it is also a potent cardio tonic which normalizes blood pressure and regulates heart rate. Our Stevia formula will consist of compound called Rebiana A, extracted directly from the Stevia leaf making it completely organic. This sugar alternative will be safe, calorie-free, and up to 300 times sweeter than sugar. Contrary to other sweeteners such as artificial sugars, Stevia is the most natural alternative for those who wish to avoid sugar and reach all kinds of health goals, without affecting glucose levels and adversely affecting dental health.

6.5. PATENTS/TRADEMARKS

ORIC-DUHS is a notified TISC; therefore it has been responsive to all the matters related to intellectual property, such as patents, trademarks or company registrations. Dow University of Health Sciences is engaged in the process of trademark registration by the University Legal Consultant.

The registered trademarks of Dow University of Health Sciences are as below:

S #	Name of Lead Inventor	Title of Invention	Status	Date
1.	DUHS	Polyacrylonitrile Based Electrospun Nanofibers Loaded with Zinc Oxide Quercetin Nanoparticles for Wound Healing.	National	15 Jul, 2023

S. #	App. #	Class	Trademark	Date	Status
1	308949	44	DOW	21/10/14	Registered
2	344473	5	Shaffaf (Logo)	05/08/13	Registered
3	344474	32	Riva (Label Mark)	05/08/13	Registered

Following Patents are applied for Grants:

S #	Name of Lead Inventor	Title of Invention	Status	Date
1	Dr. Mushtaq Hussain	Poultry vaccine against Ranikhet, Bird Flu and Gumboro using Indigenous Viral Strain	National	17/06/2023
2	Dr. Mushtaq Hussain	Makkhimeter, AI Based Web Application	National	17/06/2023
3	Dr. Mushtaq Hussain	Filed on multivariate mRNA Vaccine Construct	National	29/04/2022
4	Dr. Talat Roome	Licensing for Preclinical Contract Laboratory	National	24/05/2022

6.6. INTERNSHIPS AND PLACEMENT OFFICE

Clinical Electives In the recent years, there is an increasing interest of the final year students of Medicine for doing electives in different medical schools/hospitals in the United States. The Quality Enhancement Cell, QEC-DUHS, is also responsible for developing collaboration and linkages with other universities and colleges around the globe in different areas of interest. DUHS has developed a Memorandum of Agreement with one of the prestigious foreign Medical Schools and associations for clinical electives namely:

Associations of DUHS for clinical electives with the following colleges	
University of Illinois	Chicago
AAMC	Visiting Students VSLO Learning Opportunities
1. Jackson park hospital, Chicago.	Clinical Electives offered at various National & International Hospitals
2. Holyoke Medical Centre, MA	
3. Mayo Clinic, Rochester USA.	
4. Mount Sinai Hospital, New York.	
5. Specialty hospital of Washington.	
6. Harvard Medical School, Boston USA.	
7. North West General Hospital, Peshawar	
8. Robert Wood Johnson University Hospital. New Jersey.	
9. Harrison County Hospital, Corydon, USA.	
10. Winnie Palmer Hospital, Florida USA.	
11. Florida International University, USA	

Internships

The Placement office of each College/ Institute or School ensures the student secures a placement, which will support their learning requirements and nurture their professional development.

All work placements must be officially approved by the Registrar-DUHS and primarily involve the process of CV selection and competitive interview (if necessary) by the HoD/ Principal or Director, but can also be secured by direct matching if the student applies directly. The selection process is determined by the host organization. The Placement coordinator provides both group and one-to-one support to the students in the researching, sourcing, securing of placement and ongoing support of students whilst on internship or placement.

We are fully conscious of the utility of earning practical experience for students by undergoing internship(s) during their studies and after completion of their studies. Interning in a field of

choice will stand out on students' resumes and help them with their job search after graduation. Students/interns should endeavor to gain on-the-job training that integrates education and career development; while organizations and companies hosting interns also benefit from the contributions of creative and innovative students. Students' networking during the course of their internship subsequently become professional "contacts" who can help guide their career path as they make their way into the professional world.

Dow Institute of Physical Medicine & Rehabilitation provide electives to students from Ziauddin College of Rehabilitation Sciences, People's University of Medical and Health Sciences for Women, and Liaquat University of Medical & Health Sciences.

Graduates of **Dow College of Pharmacy** find placements in Liaquat National Hospital, NICVD, AKUH, Kiran hospital, Dr. Ziauddin Hospital, Indus Hospital and Dr. AQ Khan Institute of Behavioral Sciences. The Placement office of DCOP facilitated the screening activity of students for placement at Martin Dow.

Dow Institute of Medical Technology provide internship to graduates at Dr. Ruth Pfau hospital Karachi, South City Hospital, NICVD, Dow University Hospital, Memon Medical Institute, Aga Khan University Hospital, Liaquat National Hospital, Essa Lab, Shaukat Khanum Laboratory, LUMHS laboratory, Dow Diagnostic and Reference Laboratory, Hussaini Blood Bank, SMBB Institute of Trauma, Anatolia Gene Products (Turkey), Allmed, SZABIST, University of Karachi, Dr. Panjwani Center for Molecular Medicine and Drug Research, Dadabhoy Institute of Higher Education, Red Crescent, Dow University of Health Sciences, Aga Khan University and Liaquat National Hospital

Institute of Business & Health Management provides in-house internships of six months duration to ensure that the students secure a placement that will support their learning requirements and nurture professional competence.

School of Public Health: A profound and comprehensive internship has been devised for BS Nutrition students in their final semester. This internship program has been developed to provide students with hands-on experience of dealing with clinical and therapeutic scenarios in hospitals. Students are supposed to complete 12 credit hours which require them to be working 6 days a week (Monday to Saturday). During these hours they are required to complete the assigned tasks along with a minimum of 80% attendance. Following are a comprehensive detail of the rules and responsibilities. Our Internship program for graduate students in Public health organizations and clinical settings provide opportunities for capacity building around the SDGs goals of Pakistan. Following are the organizations our students completed their internships.

The students pursue their internships at Dow University Hospital, The Indus Hospital, Tabba Heart Institute, Sindh Institute of Urology and Transplantation, The Kidney Centre, Fatmiyah Hospital, National Medical Centre, Tabba Kidney Institute, Cancer Foundation Hospital.

The students are being provided with a monthly stipend as per policy and as well as an internship certificate at the end of internship period.

Benefits of Internship for Students

The placement department offers paid internships for 6 months to graduates, who have applied for the internship and are selected by the placement committee. They benefit from the internship and are placed in different departments of DUHS after the approval of the Registrar, DUHS. The duration of internships are from May-October, according to the duty roster which was designed on rotational basis, was handed over the interns, before going to their relevant departments such as Registrar Head office, Finance, HR, OPD, Radiology, IBHM and DDRRL. The purpose of offering those internships was to increase their career related knowledge and provide them valuable work experience.

6.7. STUDENT COUNSELING AND CAREER GUIDANCE

DUHS Counseling Services for Students available at ION, Ground Floor, OJHA Campus and DMC, PDC building 1st floor.

If students are experiencing any of the following, DUHS has a provision for counseling services offered to the students. Counseling may offer them safe and confidential non-judgmental support for their learning needs.

- A safe place to learn to be them, with holistic health counseling for their well-being
- Academic issues and stress/anxiety, time management
- Family related issues.
- A response to their learning disabilities or learning issues.
- Helping them to navigate change in their lives
- Issues with friends and other relationships

Furthermore, a student's Counseling Cell has been inaugurated by the Vice Chancellor DUHS, Honorable Prof. Dr. Saeed Quraishy on the occasion of World Mental Health Day at the Dr. A. Q. Khan Center, Institute of Behavioral Sciences exclusively for Dow Students, where they can get free of cost further extensive treatment and services. The Student Counseling Services are provided at the departmental level regarding academics, personnel or group counseling, crisis assessment/ management, career exploration and professional training guidelines. Student counseling is also offered through the official mentoring program at the Departmental/Collegiate level. Student Counseling involves meeting with and seeking help from a trained professional who can help you identify your strengths, weaknesses and interests regarding academic/career matters and also offer emotional support and guidance.

The Dow University of Health Sciences has hired an experienced Psychologist for student counseling services to be offered for its students. The professional has knowledge of student counseling/career guidance to students with a variety of issues, ranging from behavioral issues to career preparation. The professional will assist the students with Career and Academic Development and work directly with students to develop academic and career related solutions.

There are two modes of student counseling available within the University:

- Educational and Career counseling.
- Personal or Psychological counseling is being provided by professional psychologists through A. Q Khan Center Center for Behavioral Sciences.
- Academic or career counseling is being provided by faculty members.

- Batch counselors are allotted, who look after the whole batch and provide all kinds of counseling regarding student progression, selection of electives and participation in curricular and co-curricular activities.

Student-teacher interaction also helps us ascertain students' need for career counseling. Teachers and management personnel are always available to the students to hear their queries.

Additionally, Dow College of Pharmacy has developed a system of mentoring, which may serve as a platform for addressing the needs of the students. Other Colleges & Institutes also have a well-developed mentoring system. In the mentoring system of DUHS, there are assigned mentors for every 20 students and a chief mentor to lead all the mentors. Apart from this they also periodically organize career counseling sessions in which experts from the industry are invited to guide students.

- **Institute of Business and Health Management**

The Dramatics and Entertainment society, organized a Guest Speaker Session on 13th September, 2023 with the captivating theme "The Educational and Employment Opportunities in Turkey: How and What to Communicate?" The guest speaker for this informative event was Hafiz Uzair Ali Khan who is Secretary International Students in Turkey (IIFSO). In the session he talked about Turkish organizations' expectations from prospective employees, what to expect when entering professional careers, how to overcome language barriers and how can Pakistani students plan their corporate or educational journey through different scholarship in Turkey. Faculty and students from different departments were presented and also participated in QnA session.



- **Dow College of Pharmacy**

Following industrial visits were arranged by DCOP to provide students with valuable real-world experiences and insights into various fields of work.

1. In October 2023, Industrial visits were arranged to Brookes Pharmaceuticals, Getz Pharma and Novartis Pharma for DCOP students. These visits provided valuable insights into various pharmaceutical processes, from research and development to production and marketing.



- **Dow International Medical College**

At DIMC counseling service is available free of charge from 10:00 am to 2:00 pm, six days a week. The college provides counselling for issues such as family problems, anxiety, depression, financial difficulties, and stress. Additionally, they also conduct group sessions. Dow University aims for all enrolled students to succeed in life and pursue their desired careers. DIMC also organized a mental health camp for both students and faculty members.

Furthermore, mentoring sessions related to career counselling are conducted for 4th and final-year MBBS students during the academic session 2023 to 2024.

EPI Centre Visit

First-year MBBS students visited the Expanded Program on Immunization (EPI) Centre to observe vaccination processes, understand immunization schedules, and learn about the importance of vaccination in disease prevention. This hands-on experience allowed students to witness firsthand the impact of immunization on public health.

- **Dow Medical College**

Dow Medical College (DMC) alumni hosted a successful session on the United States Medical Licensing Examination (USMLE).

The session took place on Monday, May 6, 2024, at the Anatomy Lecture Hall at Dow Medical College. The session, titled "It's a Match," underscored the importance of the USMLE for graduates aiming to pursue residency training in the United States.

This informative session proved to be a valuable resource for the students.

- **School of Public Health**

A visit to Hilal food factory provides public health nutrition graduates with a significant and educational opportunity to gain firsthand insights into the multifaceted world of food production. By stepping inside the bustling facility, students can observe and immerse themselves in the intricacies of food processing, becoming acquainted with the meticulous procedures involved in ensuring both safety and quality control throughout each stage. Ultimately, this immersive and hands-on encounter equips them with practical knowledge that complements their theoretical foundation, preparing them to make informed decisions and advocate for public health in the realm of food production and safety.





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CHAPTER 7

Strengthening Physical Infrastructure

Directorate of Planning & Development

Planning & Development play a vital role in the growth & development of the university and in achieving the strategic objective of delivering quality education and health care services. The main purpose of the Planning & Development Department is to identify feasible projects for the expansion of the university, prepare & submit PC-I and feasibility reports (PC-II) for the development schemes for seeking funding from federal & provincial sponsoring agencies, and further supervise/monitor the status of the schemes till completion.

7.1. DEVELOPMENT PROJECTS (LABORATORIES, LIBRARIES ETC.)

Following development projects are being implemented at Dow University of Health Sciences.

S #	Project Title	Funded by	Status
1.	Establishment of Trauma Centre, BSL -2 Lab and Provision of support services at Institute of Chest Diseases Ojha Campus of Dow University of Health Sciences, Karachi	ADP	Ongoing
2.	Sindh Infectious Diseases Hospital & Research Centre At NIPA, Gulshan-e-Iqbal, Karachi	ADP	Ongoing / PCI Submitted for Revision
3.	Provision of Linear Accelerator with Integrated High Field MRI System in Sindh	ADP	Ongoing
4.	Establishment of Biosafety Lab (BSL-III) at Sindh Infectious Diseases Hospital & Research Centre at Karachi	ADP	Ongoing
5.	Establishment of Department of Nuclear Medicine PET-CT Scanner / Dose on Demand Cyclotron System	DUHS	Ongoing
6.	Strengthening & Development of Dow University of Health Sciences Ojha Campus, Karachi	PSDP	In process

i. ANNUAL DEVELOPMENT PROGRAM SCHEMES:

1. ESTABLISHMENT OF TRAUMA CENTRE, BSL -2 LAB AND PROVISION OF SUPPORT SERVICES AT INSTITUTE CHEST DISEASES OJHA CAMPUS OF DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI.

The On-going project will help to improve the health care services for the seriously injured and trauma patients round the clock, especially at the time of major road / air / sea accidents, bomb blasts and natural calamities like heavy rains, cyclones & hurricanes etc. the total cost of the project is amounting to Rs. 681.284 Million (Rupees Six Hundred Eighty One Million & Two Hundred Eighty Four Thousand only) i.e. Capital Rs. 297.580M & Revenue Rs. 383.704M The expenditure incurred till August, 2022 is 394.670 M. The capital component of scheme has been completed. However, for Trauma Centre only the procurement of equipment is in process now. The project cost has recently been revised amounting to Rs 1554.242 M for its revenue component completion due to cost escalation.

2. SINDH INFECTIOUS DISEASES HOSPITAL & RESEARCH CENTRE AT NIPA, GULSHAN-E-IQBAL, KARACHI

Sindh Infectious Diseases Control Hospital and Research Center at Nipa, Gulshan-E-Iqbal Karachi is available for the patients suffering from infectious diseases. Thus, it served as a center in prevention and control of existing & emerging infectious diseases. The facilities of all major infectious disease control and General OPD, indoor and emergency treatment facilities are available round the clock. In the first phase, 200-bedded hospital housed in Block-A and B has been completed. It was visited and inaugurated by Sindh Chief Minister on 5th July, 2020.

3. PROVISION OF LINEAR ACCELERATOR WITH INTEGRATED HIGH FIELD MRI SYSTEM IN SINDH

The Project is in accordance with the Provincial Healthcare Initiatives to provide quality and advanced healthcare facilities to the cancer patients of Sindh, in specific and all over Pakistan, in general. MRI-Linear accelerator (MR-LINAC) is powerful device with MRI facilities for real time imaging and linear accelerator for focused beams of radiation.

4. ESTABLISHMENT OF BIOSAFETY LAB (BSL-III) AT SINDH INFECTIOUS DISEASES HOSPITAL & RESEARCH CENTRE AT KARACHI

The potential for harm associated to work with these infectious agents can be minimized through the application of high containment facilities, such as BSL lab III.

BSL-III facilities are needed for the safe manipulation of such agents. Moreover activities involving high concentrations of live SARS-COV-2 virus, or large volumes of infectious samples should be performed in no less than a BSL-III environment.

5. ESTABLISHMENT OF DEPARTMENT OF NUCLEAR MEDICINE PET-CT SCANNER / DOSE ON DEMAND CYCLOTRON SYSTEM

Acknowledging the growing clinical and research demand in the field of Nuclear Medicine, DUHS has taken a crucial step in establishing the Department of Nuclear Medicine at its OJHA Campus, Karachi. The department will house a state-of-the-art purpose-built facility, spanning approximately 20,000 square feet, equipped with the latest cutting-edge technology, including:

1. Dose on Demand - Shelf Shielded Cyclotron System from Best ABT, USA
2. 64 Slice Digital PET-CT Scanner System
3. Radiology Suite comprising various imaging and diagnostic modalities.

The estimated cost of this transformative project is Rs. 2 Billion, which covers the building infrastructure and equipment expenses. The establishment of the Department of Nuclear Medicine marks a significant milestone in the overall healthcare services provided to the community, particularly as Pakistan faces an alarming increase in cancer incidents, with more than 200,000 new cases estimated annually.

The project is currently in progress, with the building construction underway and medical/diagnostic equipment in transit from various manufacturers. The target date for project completion and commencement of patient services is planned for March 2025.

7.2. RESEARCH EQUIPMENT

Dow University of Health Sciences has modern research equipment and research centers which are available for faculty and students to facilitate them in their research work. Recently, DUHS has established an Advanced Molecular Genetics and Genomics Diseases Research and Treatment Centre at Ojha Campus.

7.3. ONGOING-CONSTRUCTION PROJECTS

1. Establishment of Biosafety Lab (BSL-III) at Sindh Infectious Diseases Hospital & Research Centre at Karachi to Rs. 801.328 M
2. Sindh Infectious Diseases Hospital & Research Centre At NIPA, Gulshan-e-Iqbal, Karachi amounting to Rs. 4637.346 M
3. Revised Provision of Linear Accelerator with Integrated High Field MRI System in Sindh amounting to Rs.2847.239 M.



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CHAPTER 8

Strengthening Technological Infrastructure

8.1. DIGITAL LIBRARY

HEC spearheaded the Digital Library initiative to support researchers and mentor at public sector universities. The digital libraries established by the Dow University of Health Sciences across its campuses and institutes provide access to a wide range of cross-disciplinary, globally insightful writing in the context of online distribution, peer-reviewed journals, databases, articles, and e-books. The HEC digital library gives users access to over 75,000 electronic resources and is accessible from all DUHS computerized libraries. The following lists the digital libraries at the various Dow University of Health Sciences campuses along with the number of systems that are available:

- Digital Library (Ojha Campus) – 60 Computer Systems
- Digital Library (DMC Campus) – 80 Computer Systems
- Digital Library (Dow Institute of Nursing & Midwifery) – 39 Computer Systems
- Digital Library (Institute of Business & Health Management) – 30 Computer Systems
- Digital Library (Dow College of Pharmacy) – 17 Computer Systems
- Digital Library (Dow College of Biotechnology) – 20 Computer Systems
- Digital Library (Dow International Dental College) – 35 Computer Systems

Total 281 upgraded and/or new Computer systems in all Digital libraries of DUHS.

8.2. PERN (PAKISTAN EDUCATION AND RESEARCH NETWORK)

PERN was first introduced in 2002 as a component of an IT action plan that offered Internet access and communication across institutions in order to integrate data banks, collaborate on research projects, and improve teaching and learning methodologies. Dow University of Health Sciences (DUHS) is obtaining PERN-II Network services in addition to receiving a total of 730 Mbps in DMC and Ojha Campus. Every other campus receives a further distribution of the bandwidth. Our campuses now have a PERN Backup link, which we recently enabled. This will provide us with backup connectivity and fault-tolerant PERN services.

Pakistan Education & Research Network (PERN) is offering alliance services on the equity model to the education and research community of Pakistan. Including, high speed internet, in addition to PERN, there is the following addition:

- 1 Gbps link speed connectivity
- Academic Social Networking
- Eduroam (federated Wi-Fi network authentication)
- Local content hosting, for the partner universities/ institutes.

Through PERN we have acquired:

- 730 Mbps internet bandwidth
- 40 Mbps Internet bandwidth and
- 48 Live IP Addresses

The internet bandwidth is divided between:

- Dow Medical College Campus (100 Mbps)
- Ojha Campus (630 Mbps)

The Smart University Wi-Fi project has been deployed in Ojha campus which is also sharing internet bandwidth of Ojha campus.

8.3. VIDEO CONFERENCING

Conferences are conducted in the designated Seminar Halls/Rooms, Faculty Meeting Rooms of each department and VC Board Room at Ojha and DMC Campus.

This facility is provided by the information technology department in all campuses. It is being used in different domains within campus needs and promoting flexible learning utilized by both faculty and students.

- The Clary Icon (PC based web conferencing) setup is installed in Ojha Campus for advanced conferencing. Huawei TE-50 is installed at the Video Conferencing hall at Head Office DMC Campus.
- Tandberg (Cisco) 990 MXP (Multiple unit supporting up to 4 sites) is deployed in the VC Board Room, DMC campus. Polycom PVX software is utilized in Ojha Campus for seamless video conferencing and web conferencing experience; which works on H-323 protocol.
- Web-based Conferencing such as International Days, Seminars and other Medical events are being utilized under the web streaming's of HEC Pexip Infinity Connect, Zoom Webinars, Facebook 'go live', Hangouts and Google Meet.
- APPNA Merit training, CTU (CRCP and CRC) classes, HEC workshops, interviews and official meetings are usually conducted through the Cisco WebEx facility of DUHS.

8.4. CAMPUS MANAGEMENT SOLUTION (CMS)

DUHS is aimed at providing students, faculty, and staff with immediate access to real-time information and connects that information to specific action. CMS is logically divided into several modules, each of which maps to a university function/department. DUHS worked closely with the HEC (Higher Education Commission) and the "Campus Management Solution" project was initiated. The Higher Education Commission selected six public sector universities for the implementation of Oracle PeopleSoft Campus Solutions.

The Campus Management software is an integrated solution which takes care of the various activities of an educational institution like institution management, student management, administrative functions, etc. The solution is available as a basic integrated application upgradeable to an Intranet / Internet system.

Oracle Corporation has a customized ERP Solution for academic institutions i.e. Campus Management or Student Information System. The solution is a combination of software and hardware. It helps manage the business processes of an academic institute in an efficient and

professional manner. The integration between various processes and departments i.e. admissions (electronic and manual), enrolment, examination, fees etc. helps in automating the manual and traditional methods of functioning of a campus.

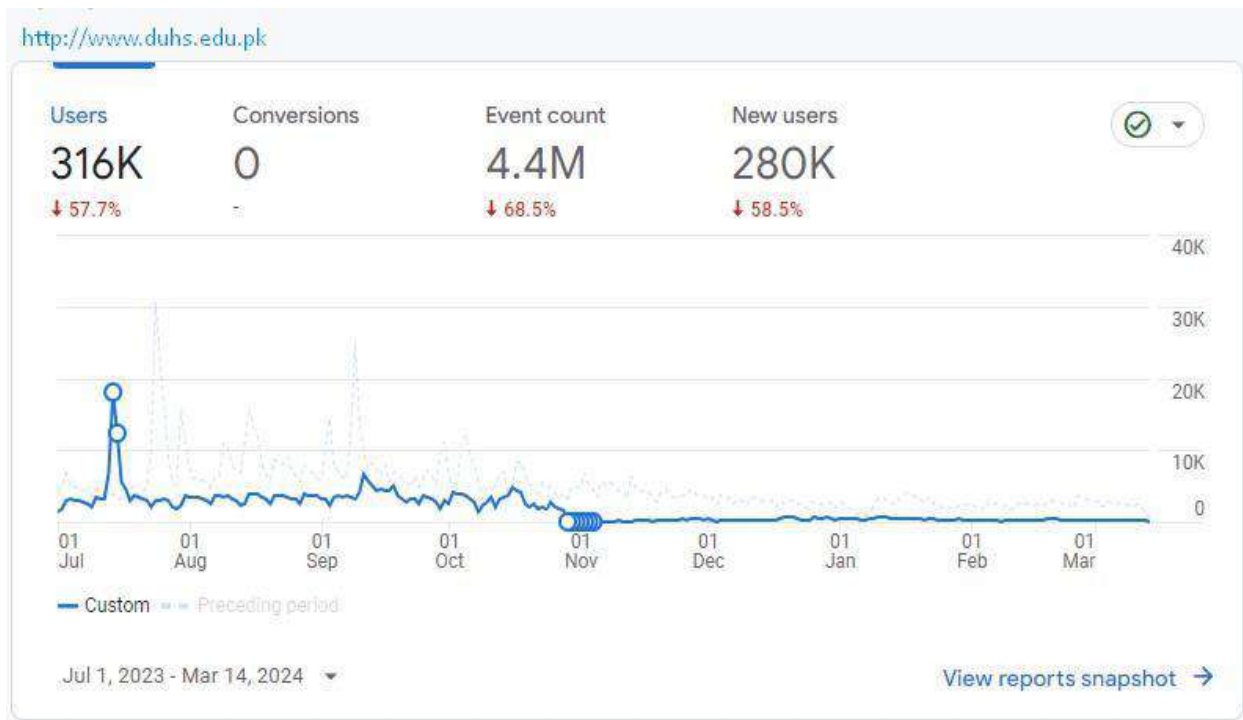
CMS Features

- CMS ERP makes it easier to prepare and generate reports from different required aspects.
- The web-based features enable the faculty, students as well as the management to interact.
- Users Profile Setup as per Job Roles and Responsibilities.
- Easily integrated with other software applications.
- Integrated with Microsoft Dynamic 365
- Student Attendance integrated with Bio-Metric attendance devices.
- The security levels can be administered at three levels.

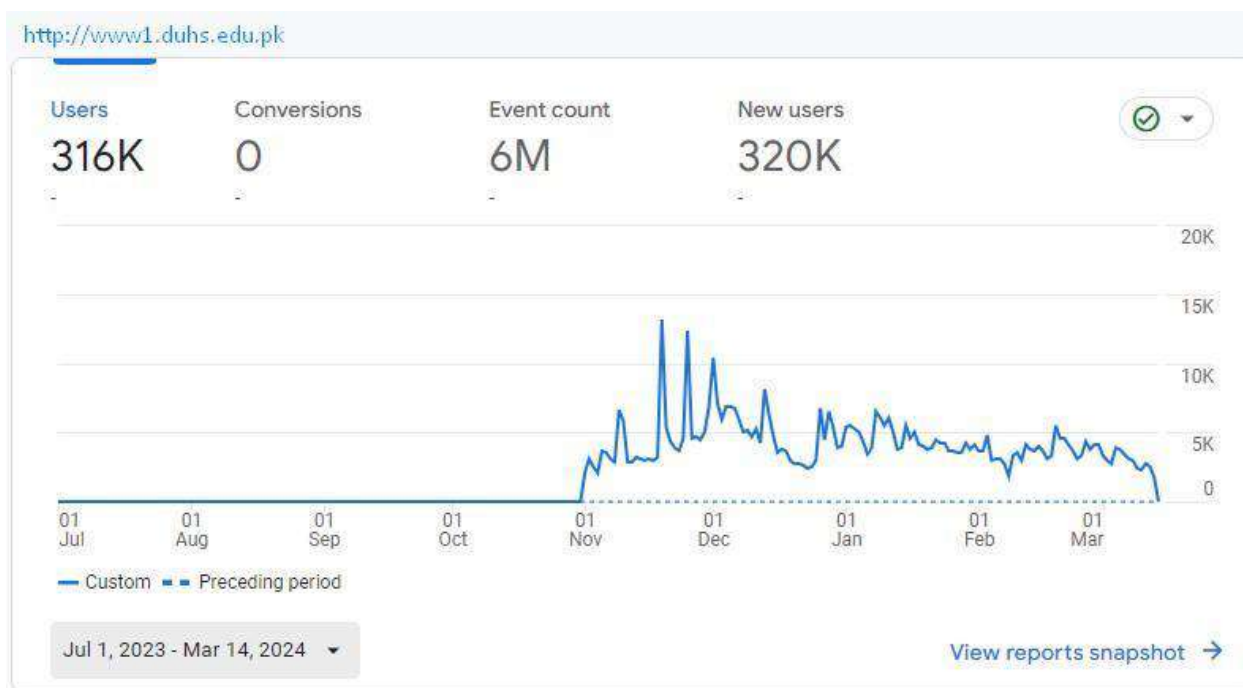
8.5. WEBSITE OF DUHS

The Website of Dow University of Health Sciences assists in the timely updating of news, events, and information which is managed by the IT department. It provides all the information regarding admissions, curriculum, examination and events planned in the university. Following facilities are provided through a web portal.

- Faculty profiles
- DUHS Job Portal
- Microsoft 365 access for all users, faculty/staff portal
- Tenders and Admissions
- Accessibility to DUHS official email.
- Curriculum and course outline of MBBS
- DUHS CME (Continuous Medical Education)
- Learning Management System (LMS)
- Alumni Association Webpage for Connecting with Dow
- Professional Development Center workshops schedule
- Office of Research Innovation and Commercialization (ORIC)
- JDUHS (Journal of Dow University of Health Sciences)
- Dow Diagnostics (Online Lab & Radiology Reports)
- Online Fee & Donation Payment gateway
- Individual academic programs and Colleges/ Institutes and Health Services Data/ Information



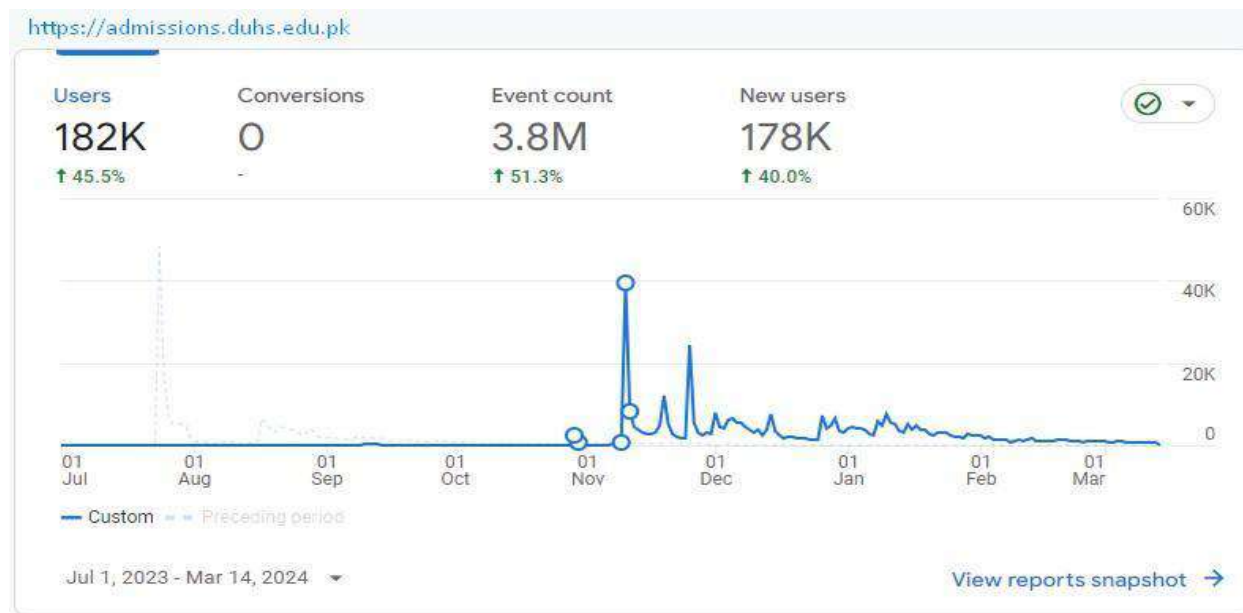
Due to website revamp and heavy traffic, from 1st November 2023 website has been divided in to section admissions portal and www1 (main website) <http://www1.duhs.edu.pk>



8.6. ONLINE ADMISSION SYSTEM

The online admissions portal assists in reducing the workload, avoid data entry mistakes, minimizes entry mistakes at the admissions end, providing convenience for applicants and of course in keeping up to date records by electronic means. DUHS announces admissions in various degree and diploma programs. The online admission assists in form filling over the website, provision of electronic copy of prospectus along with related information, eligibility criteria & fee structure of the courses, day to day updates and news alerts about admissions, entry test & interview dates announcements, display of online Merit list.

The online admission portal allows applicants to create an account, set up a profile, pay fees online, download the prospectus, and access related information such as eligibility criteria and fee structure for the degree/diploma programs. It also provides daily updates, notifications, and instructions regarding admissions, entry tests, merit lists, interviews, and other relevant updates. <http://admissions.duhs.edu.pk>



8.7. CLOUD SERVICES FOR ACADEMICS: STUDENT ACCOUNT IDS

As part of the ICT Directorate's overall initiative to facilitate and enhance the learning experience at DUHS, the Microsoft Office365 cloud platform has been acquired and disseminated to the students: It will enable collaboration among faculty & students.

The services being offered through this platform are:

- Outlook for Email
- MS Office Online
- Microsoft Teams as collaborative workspace
- Microsoft Planner for teamwork planning
- Skype for Audio/Video Conference
- Yammer for social networking, etc.

To initiate the use of this platform, online accounts have been created for students. Roll out activities are being planned to hand-over these accounts to the students & give them a brief overview.

DOW CONNECT

Dow Connect connects all departments with our people, across DUHS and also serves as a student grievance portal. In order to streamline requests and better serve you:

1. We utilize a **Dow Connect System** to solve your issues as early as possible.
2. Every request is assigned a unique number which you can use to track the progress and responses online.
3. For your reference we provide complete archives and history of all your requests.

4. A valid email address is required to submit a request through the following features:

Ticket Filters

Define rules to route incoming tickets to the right department, concerning officers, as well as trigger actions.

By using the filter system, Dow Connect empowers you to automate the creation and routing of tickets. Set actions such as ticket rejection, department/concerning officer assignment or even send an automated canned response. Rule criteria of the filter can include any custom field added to the forms as well as user data.

Assign, Transfer & Referral

Transfer tickets between departments to make sure it's being handled by the correct concerning officer or assign tickets to a particular department or team of agents.

Refer to a ticket to maintain view-only access to tickets when transferred or assigned to a department/officer. Tickets can be auto-assigned by help topics or departments when they arrive, but what if they need to be reassigned? No problem! You can reassign tickets to agents or a team of agents or transfer to a different department all together. Transfer, Assignment, and Referral notes are logged in the ticket thread to keep track of what happened in the ticket.

Auto-Responder

Configurable automatic reply sent out when a new ticket is opened, or a message is received. Auto responses can be formatted to pull information from the ticket to personalize the email. Dow Connect supports placeholder variables which will pull the user's first name in the auto response. Auto responses can be edited and customized for each department as well as associated with Help Topics.

Thread Action

Officers now have the ability to create a Ticket or Task from a Ticket's thread entry or from a Task's thread entry. Need to create a separate ticket or task from a user's message to separate or expand on that item? No problem! Now with thread action, agents can simply create a new ticket or task with the message and keep it in the original ticket thread. Thread actions are noted in the original ticket thread with reference to both the new item as well as the thread item it was pulled from.

Tasks: Create an Internal to-do list for Agents

Tasks can be associated with tickets or they can stand alone in the help desk. When tasks are ticket-related, this prevents the tickets from being closed until all tasks within the ticket are complete. Add collaborators to include external users to the task items while keeping them separate from the ticket thread and contents. [HTTP://DC.DUHS.EDU.PK/INDEX.PHP](http://dc.duhs.edu.pk/index.php)

Please Follow DOW Connect Portal Link To Register Your Complaint-
<http://dc.duhs.edu.pk/>

Microsoft Dynamics

Microsoft Dynamics 365 Finance & Operations Dynamics 365 Finance & Operations is a cloud-based Enterprise Resource Planning (ERP) system well-suited for large or diversified companies. It offers you the ability to keep track of all your finances and inventory.

Dynamics 365 Cloud based solution licensing is provided to DUHS by HEC. Following are the most popular modules (the complete list is much more extensive):

- Accounts payable
- Accounts receivable
- Budgeting
- Financial management
- Cash and bank management
- Cost accounting
- Project management and accounting
- Asset management
- Inventory management
- Warehouse management
- Human resources management
- Cost management
- Master planning
- Procurement and sourcing



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI

DUHS

ANNUAL STANDARDIZED REPORT

2023-24

CHAPTER 9

Universities Building Communities

9.1. UNIVERSITY-COMMUNITY INTERACTION

University and Community Interactions in 2023-2024	
1. Community Camp at Ojha Campus, DUHS	Dow International Medical College (DIMC)
2. Corporate Social Responsibility Society, Arrangement of Dowry for Janitorial Staff Daughter	Institute of Business and Health Management (IBHM)
3. Workshop on 'Exercise Basics'	Dow Institute of Physical Medicine & Rehabilitation (DIPM&R)
4. Free Dental Camps at Different Schools of Karachi	Dr. Ishrat ul Ebad Khan Institute of Oral Health Sciences (DIKIOHS)
5. SPH collaborated with Age Care Technologies (ACT) in Promoting Health Awareness in Older Adults	School of Public Health (SPH)
6. Community-based research project: Metabolic Syndrome and Risk for Cardiovascular Disease in Apparently healthy Pakistani Adults	
7. Visit to Taqseem Ilm School	
8. Nutrition Camp at Indus Hospital	
9. Health Promotion Initiative (Ongoing Project)	
10. Dental Camp at Sirat ul Jannah Orphanage	Community Service and Community Building Activities of Dow Dental College (DDC)
11. Dental Awareness Activity at JDC's The Education School	
12. Dental Awareness Camp at Al-Furqan School	
13. Camp for Oral Health Advocacy at HealthAsia moot	
14. School Children, Teachers Visit Dow Dental College	
15. Visit to Kotwal Boys Secondary School	
16. Visit to Madarsa for Oral Screening of students	
17. World Oral Health Day – Shield Corporation	Dow International Dental College (DIDC)
18. Special Children School (SRSC) (3 visits)	
19. Govt. School Korangi School Health Visit	
20. 20th Health Asia Conference & Exhibition	
21. Colgate Oral Health Week	
22. Oral Screening Camp on World Diabetes Day and Ramzan Diabetes event	School of Dental Care Professional (SDCP)
23. Free Stalls for Medicine on Word Sight Day 2023	Department of Ophthalmology & Visual Sciences (DOVS)
24. Free Eye Care Camp at Annual Health Innovation Exhibition	
25. Health Awareness Camp at Marora Goth, Karachi	Dow Institute of Nursing & Midwifery (DION&M)

9.2. UNIVERSITY'S ROLE IN BUILDING THE COMMUNITY

The Dow University of Health Sciences, since its inception, has been focusing on community services to provide preventive, diagnostic and treatment facilities for community health care especially to the underprivileged class. The students of various undergraduate and postgraduate programs of DUHS are also actively involved with the faculty members in all the Civic Engagements of DUHS.

9.2.1. DOW SKILLS DEVELOPMENT CENTER (DSDC)

The Dow Skills Development Centre (DSDC), formerly Dow Vocational Training Centre, was established in 2010, primarily to support underprivileged communities accessing DUH services in Sindh. The center focuses on uplifting disadvantaged groups, especially DUH patients and families. Serving as the safest educational hub in the area, DSDC offers certified skill development in technology, business, and healthcare, benefiting over 3,000 students since its inception. Annually, more than 750 students benefit from the center's programmes, securing employment and freelance opportunities in marketable digital and textiles skills. The programmes include various ICT courses (including a nationwide recognized Diploma), specialized tracks for women and young girls in a safe and secure environment, and a host of soft skills training via the Institute of Business and Health Management. All the courses are endorsed or certified by the Sindh Board of Technical Education, Karachi as well as Dow University of Health Sciences.

In 2022, DSDC initiated self-sustainable projects through enhance industrial collaborations. The first successful example of this was turning the defunct stitching & tailoring unit at the center into an industry sponsored Textile Learning Factory (TLF). This is a self-sustainable stitching & tailoring facility within the Ojha campus that imparts industry relevant skills to underprivileged persons, while also providing them job opportunities at the center itself. Also, in 2022, responding to the rapidly increasing need for quality Health Care personnel in Pakistan, particularly in the aftermath of the pandemic, DSDC initiated the DUHS Skills Enhancement Programme for DUHS Staff across all spectrums.

DSDC aims to become Pakistan's premier provider of Inclusive Hands-on Upskilling Training in Healthcare to enhance the quality of healthcare professionals in the public sector while creating new avenues for youth employment. Our work is in line with Pakistan's commitment to the DUHS Strategic Goals IV, V, and VI as well as UN Sustainable Development Goals, specifically SDG 3 (Good Health and Well-being), 4 (Quality Education), 5 (Gender Equality), and 8 (Decent Work and Economic Growth).

Vision:

Pakistan's premier providers of Hands-on Upskilling & Training in healthcare as well as trades relevant to Pakistan's industrial environment in line with Pakistan's commitment to the UN Sustainable Development Goals, specifically SDG 3 (Good Health and Well-being) and 4 (Quality Education).

Mission:

To enable youth and marginalized segments of Pakistan's populations to become skillful and financially independent by empowering them with the training as well as emotional health and well-being to think, create, change, and improve upon society.

The following Courses have been conducted by Dow Skills Development Centre from July 2023 to June 2024:

Vocational training/courses offered by DSDC during the period 2023-2024			
S. #	Name of Training/Course	Date	No. of Participants
1.	Service Excellence	18 Jan, 2024 to 10 Feb, 2024	120
2.	Intensive English Communication Training	1 Nov, 2023 to 10 Nov, 2023	90
3.	Service Excellence (Care For Connect)	21 Sept, 2023 to 7 Oct, 2023	125
Course offered by DSDC during the period 2023- 2024			
S. #	Name of Training/Course	Date	No. of Participants
1.	AI And NVivo Software Workshop	3 Mar, 2024 & 16 Mar, 2024	16
2.	IELTS Preparatory Crash Course Batch 03 (DMC)	22 Feb, 2024	5
3.	IELTS Preparatory Crash Course Batch 03 (Ojha)	21 Feb, 2024	5
4.	Basic Of Blood Banking	18 Feb, 2024	12
5.	DIT	16 Jan, 2024	65
6.	CIT (Morning Batch 02)	15 Feb, 2024	56
7.	Graphics Design Batch 03	7 Dec, 2023	17
8.	CIT (Evening Batch 02)	8 Nov, 2023	20
9.	CIT (Evening Batch 01)	27 Sep, 2023	30
10.	IELTS Preparatory Crash Course Batch 02 (Ojha)	16 Sep, 2023	10
11.	IELTS Preparatory Crash Course Batch 02 (DMC)	15 Sep, 2023	5
12.	CIT (Morning Batch 02)	7 Sep, 2023	56
13.	CIT (Morning Batch 01)	11 Jul, 2023	89
14.	Graphics Design Batch 02	4 Jul, 2023	15
Total			736

DIPLOMA IN INFORMATION TECHNOLOGY
Admissions Open Now

Course Details

- Information & Communication Technology
- Office Automation
- Web Designing & Development
- Operating System
- C-Programming
- Core Hardware & PC Maintenance
- Desktop Publishing

LIMITED SEATS AVAILABLE

For admission visit our department
Dow Skill Development Centre, 1st Floor,
QIMC Central Library Building, DUHS Ojha Campus.

DOW UNIVERSITY OF HEALTH SCIENCES

GRAPHIC DESIGN BATCH-3

3 MONTHS HANDS-ON COURSE

Learn the technical and artistic tools of Graphics design needed to master 3D Animation and visual effects for film, Video, and content creation

REGISTER NOW

TUESDAY | THURSDAY | SATURDAY
3:30 PM - 5:30 PM

VENUE:
IBHM COMPUTER LAB 4TH FLOOR INSTITUTE OF NURSING BUILDING DOW UNIVERSITY OF HEALTH SCIENCES OJHA CAMPUS, SUPARCO RD, KARACHI

CONTACT:
0319-366-DSDC (3732)
dsdc@duhs.edu.pk

DUHS

DOW SKILL DEVELOPMENT CENTRE
DOW UNIVERSITY OF HEALTH SCIENCES

ONLINE CLASSES

IELTS PREPARATORY CRASH COURSE

MAKE THE MOST OF YOUR SUMMER BREAK WITH DSDC

SKILLS BOOTCAMP

MON | WED | FRI
6.30 PM - 8.30 PM

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FACILITATORS

Syed Jaffar Abbas Zaidi
Deputy Director
Digital Learning Centre

Dr. Ather Akhlaq
Director, DRIC

Investment
PKR 6,500/-

2nd and 9th March 2024

Time
03:00 pm to 06:00 pm

2-Day Workshop, Every Saturday

The deadline for fee submission has been extended to 1st March 2024

Register Today! 0319-366-3732 dsdc@duhs.edu.pk

DOW UNIVERSITY OF HEALTH SCIENCES

CERTIFICATE COURSE IN BASICS OF BLOOD BANKING

For all Blood Banking Professionals, including Doctors

Course Duration:
4 months

Course Fee:
12,500/- Per month

Classes on Sundays only
Classes are Starting from 18th February
AT OJHA CAMPUS

Attend our first class for FREE before you pay!

For Further Details, Whatsapp us at 0319-366-3732

DUHS

DOW SKILL DEVELOPMENT CENTRE
DOW UNIVERSITY OF HEALTH SCIENCES

CERTIFICATE IN INFORMATION TECHNOLOGY

Discover the world of IT with our comprehensive CIT program. From understanding computer hardware to harnessing the power of software.

- Office Automation (MS Word, MS Excel, MS Excel)
- Basic Graphics with Adobe Photoshop
- Web Designing through Dreamweaver
- Internet

ONLY 2 DAYS LEFT TO GET REGISTER

0319-366-3732

9.2.2. GREEN INNOVATE WASTE CONFERENCE

The Institute of Business Administration (IBA), Karachi organized a one-day 'Green Enovate Waste Conference', focusing on solid and liquid waste management in collaboration with Higher Education Commission (HEC) and Prime Minister Youth Programme (PMYP). Dow College of Biotechnology project **Nourishx** is selected in Top 9 Projects out of 700. (22nd January 2024).

9.2.3. 9.2.3 DIMC SUMMER INTERNSHIP PROGRAM FOR SCHOOL STUDENTS

The Summer Internship Program for School Students, organized by Dow University of Health Sciences, aimed to provide young learners with hands-on experiences in various healthcare and public health settings. Over the course of four days, participants gained valuable insights into non-communicable diseases, infectious diseases, environmental health, occupational health, and adolescent health.

Day 1: Non-Communicable Diseases and Public Health Importance

On the first day of the program, students focused on non-communicable diseases (NCDs) and their public health significance. They visited key healthcare facilities including National Institute of Diabetes and Endocrinology, Gamma Knife Radiosurgery and Institute of Physical Medicine and Rehabilitation to understand the prevention, management, and impact of NCDs on individuals and communities.



Day 2: Infectious Diseases and Public Health Importance

The second day focused on infectious diseases and their public health implications. Students visited healthcare facilities like National Institute of Liver and Gastroenterology, Immunization Centre and TB Clinic dedicated to the prevention, diagnosis, and treatment of infectious diseases.



Day 3: Environment and Occupational Health

On the third day, students explored environmental and occupational health concerns, including hazards and preventive measures. Students visited Animal House where students learned about animal research facilities and the importance of ethical practices in biomedical research. Incinerator where students learned about waste management practices and Riva

Water Plant where students gained insights into water purification techniques and quality control measures.

Day 4: Adolescent Mental Health

The final day focused on adolescent health, addressing the unique health needs and challenges faced by young individuals. Food Laboratory: Students learned about food safety and quality control measures

Trauma Centre: Students gained insights into emergency care services for traumatic injuries AQ Khan Institute of Behavioural Science: Students explored mental health issues and psychosocial challenges faced by adolescents.



KEY ACHIEVEMENTS OF SUMMER INTERNSHIP PROGRAM:

Experiential Learning: Participants gained hands-on experiences in various healthcare and public health settings, enhancing their understanding of health issues and healthcare delivery systems.

Community Engagement: By engaging with healthcare professionals and visiting healthcare facilities, participants were inspired to pursue careers in healthcare and public health, contributing to future workforce development in the field.

i. DOW MEDICAL COLLEGE (DMC)

Community Activities of Community Medicine Department, Dow Medical College				
S. No.	Date	Faculty	Event/Activity	Venue
1	2 nd May, 2023	Dr. Muhammad Khalid Shafi	World Immunization week Awareness session	Sindh Govt. Infectious disease hospital
2	4th July 2023	Dr. Muhammad Khalid Shafi	Health Show	Geo TV
3	20 th Aug 2023	Dr. Muhammad Khalid Shafi	XDR Typhoid public massage	Geo TV
4	15th July, 2023	Dr. Muhammad Khalid Shafi	Immunization Awareness session	Geo TV
5	4 th Aug 2023	Dr. Muhammad Khalid Shafi Dr. Gaiti Ara	Breastfeeding workshop with mothers	OPD Civil Hospital Karachi
6	8 th Aug 2023	Dr. Muhammad Khalid Shafi	National Guideline for Oxygen Therapy in children Workshop	CLF Office CHK
7	8 th Aug 2023	Dr. Muhammad Khalid Shafi	Breastfeeding Promotion session	Sindh TV
8	28 th Aug 2023	Dr. Muhammad Khalid Shafi	Polio Meeting with Ulma	EOC Sindh

9	24 th Aug 2023	Dr. Muhammad Khalid Shafi	Breastfeeding Session	DMC and Ojha Campus, DUHS
10	24 TH Oct 2023	Dr. Muhammad Khalid Shafi	Polio Eradication Public Awareness session on TV	PTV Debat @ 8 Program
11	24 th Oct 2023	Dr. Muhammad Khalid Shafi	Polio Update	Geo TV
12	24 th Oct 2023	Dr. Muhammad Khalid Shafi	Polio Awareness Session	Public TV
13	24 th Oct 2023	Dr. Muhammad Khalid Shafi	Polio and Immunization session	Metro TV
14	10 th Nov 2023	Dr. Muhammad Khalid Shafi	Polio Session With Mothers	Bayview School DHA Karachi
15	25 th Nov 2023	Dr. Muhammad Khalid Shafi	Breastfeeding Promotion Bill	Awaz TV
16	28 th Nov 2023	Dr. Muhammad Khalid Shafi	Polio Awareness session	Bol News
17	30 th Nov 2023	Dr. Muhammad Khalid Shafi	Polio Vaccination Message	Bol News
19	1st Jan 2024	Dr. Muhammad Khalid Shafi	The Grand EPI & Polio Awareness walk	Karachi Mazare Qaid
20	8 th Jan 2024	Dr. Muhammad Khalid Shafi	Polio Awareness Session	Dawn News
21	11th & 15th Jan 2024	Dr. Muhammad Khalid Shafi	Polio Awareness Session	Aaj News
22	16th Jan 2024	Dr. Muhammad Khalid Shafi	Turning Disability into Ability Chaired session Youth Parliament	IDA RIEU Karachi
23	29th & 30th Jan 2024	Dr. Muhammad Khalid Shafi	Help Baby Survive TOT	Karachi SICHN
24	7th and 9th Feb 2024	Dr. Muhammad Khalid Shafi	Trickle Down Training HELP BABIES SURVIVES	Karachi Zainab Panjwani Hospital
25	18-Feb-24	Dr. Muhammad Khalid Shafi	Polio Awareness Session with Parents Beacon house DHA	Beacon House DHA Karachi
26	21st Feb 2024	Dr. Muhammad Khalid Shafi	Polio Awareness Session with Parents Bahria School	Baharia School Karachi
27	26th Feb 2024	Dr. Muhammad Khalid Shafi	Polio Awareness Session	ARY News

ii. DOW INTERNATIONAL MEDICAL COLLEGE (DIMC)

DIMC: Community Camp at Ojha Campus, DUHS

In collaboration with the School of Public Health and the Dental Department, we organized a two days community health camp to provide comprehensive healthcare services to the underserved population. The camp offered free medical consultations, dental check-ups, immunizations, and health education sessions on various topics such as hygiene, nutrition, family planning, and NCD prevention.



iii. DOW INTERNATIONAL DENTAL COLLEGE (DIDC)

DIDC: Visit to Society for the Rehabilitation of Special Children (SRSC) – (6th Mar, 2024 and 31st Jan, 2024)

Dow International Dental College, DUHS, organized Oral Screening and Health awareness sessions in collaboration with The Society for the Rehabilitation of Special Children (SRSC), at Saddar, Karachi.

The 1st visit to SRSC was held on 31st Jan, 2024 and 2nd session of this year was held on March 6th, 2024. There were a total of 5 team members from DIDC, DUHS including the Principal, Faculty members and house officers visited SRSC.



The session started with Oral health awareness through a presentation on oral hygiene awareness, given to the children and the team of caretakers SRSC, and continued with a Question/Answer session with the SRSC caretakers. An interactive hands-on session with special children was done by the faculty and house officers. After that follow-up consultation and follow-up physical measurement was done for all of the special children. It was the first time the special children of SRSC were exposed to the dental screening program so the team was enthusiastic to participate in the voluntary work.



The session ended by giving Colgate kit samples to all children by the faculty of DIDC.

DIDC: World Oral Week Community Outreach activity (21st Feb, 2024 to 8th Mar, 2024)

The administration and Faculty of Dow International Dental College, DUHS, organized free Oral Screening and Health awareness sessions in different schools in Karachi in collaboration with The Shield Pakistan.

These free school camps were started on the 21st 2024 of February and ended on the 8th of March 2024, there were a total of 6 team members from DIDC, DUHS which included the Faculty members and house officers -who visited and covered almost all districts of Karachi, where more than 2500 school students get a free consultation and oral hygiene instructions.

The session ended by giving Shield kit samples to all children by the faculty of DIDC



DIDC: Visit to Govt: Girls Primary School NO. 7 Korangi NO. 6 (2nd Nov, 2023)

The Community Outreach program was organized by the Department of Community and Preventive Dentistry DIDC, DUHS held on November 2nd, 2023. All Faculty members of the Community and Preventive Dentistry Department and Students of 3rd year BDS activity participated in the community outreach program.

The primary objective of the event was to provide Oral screening and proper brushing methods taught by the students, also given furthermore instructions about good food and bad food were given with the help of chat and play cards.



Brushing kits/ samples were also given to every student and the importance of brushing was demonstrated at the end of the session. School health service was provided for the students to promote, protect their health, and maintain their oral health overall.

DIDC: 20th HEALTH ASIA 2023 & International Exhibition & Conferences

Health Asia International Exhibition and Conferences being held at Karachi Expo Centre it's a Biggest Health & Medical Industry Event of Pakistan.

Faculty and House Officers of Dow International Dental College, DUHS participated in this event on 21st October 2023, a team of DIDC interacted and consult more than 60 foreigners.



The day's agenda was packed with informative dental knowledge, and the essential aspects of proper oral hygiene practice and also provided guidance on preventive measures and necessary referrals.

DIDC: Free Oral Screening Colgate Oral Health Week (18th Sep, 2023 – 22nd Sep, 2023)

Dow International Dental College DUHS, organized a free oral screening week in collaboration with Colgate Pakistan. Faculty and house officers of Dow International Dental College actively participated in this event held from 18th September 2023 to 22nd September 2023, team members of DIDC aimed to provide accessible dental care to school-going children and also intended to raise awareness about oral health and promote early detection for any kind of dental issues.



The event was for all primary and secondary Karachi-based school students both girls' and boys' sections, students were checked and their problems were addressed by more than 75 highly qualified faculty of DIDC.

ACTIVITIES:

Oral Health Screening: proper examination, for signs of cavities and gum disease were checked.

Education Sessions: oral hygiene practices, including brushing techniques, flossing was demonstrated

In the end, Colgate brushing kits were distributed to all students, reinforcing key messages about oral health maintenance.



iv. DEPARTMENT OF OPHTHALMOLOGY AND VISUAL SCIENCES (DOVS)

DOVS: Free Stall of Medicines on World Sight Day 2023

In honor of World Sight Day 2023, a global awareness day focusing on vision health, free medicine stalls set up by the students of BS Optometry at Dow University Hospital to provide vital medications to patients suffering from various eye conditions. By offering these medications free of charge, patients can alleviate financial burden associated with their conditions and focus on managing their eye health effectively.



DOVS: Free Eye Care Camp and Awareness Program at Annual Health Innovation Exhibition

A free eye camp and awareness program was organized during the Annual Health Exhibition, offering members of the community an opportunity to receive eye check-ups and learn about the importance of eye health. The event aimed to raise awareness about common eye conditions and provide access to necessary resources for maintaining good eye health. Attendees had the chance to interact with healthcare professionals, ask questions about eye care, and obtain information on preventive measures. The eye camp and awareness program underscored the commitment to promoting overall health and well-being within the community and fostering a culture of proactive healthcare engagement



v. SCHOOL OF PUBLIC HEALTH (SPH)

SPH: Metabolic Syndrome and Risk for Cardiovascular Disease in Apparently Healthy Pakistani Adults (Ongoing)

Metabolic syndrome is a constellation of metabolic aberrations that collectively increase the risk for cardiovascular disease and type 2 diabetes. In the past few years, several expert groups have attempted to set forth simple diagnostic criteria for use in clinical practice to identify patients who manifest the multiple components of the metabolic syndrome. Greater understanding of Metabolic syndrome developments may provide insight into targeted prevention strategies for individuals at greatest risk. With a research grant of 1 million, medical camps at various locations in Karachi were set up to assess for metabolic syndrome in healthy appearing adults up for screening.



The participants are provided with free physical examination and free vouchers for diagnostic laboratory tests. All self-reported chronic conditions were further assessed by physical examination, medical history of the participants and laboratory findings. These camps make sure people are getting the healthcare at the right time, and seeing the doctor early enough before a small health problem turns serious. In continuation of last year, a research based activity was performed to screen apparently healthy individuals for metabolic syndrome. In this activity, anthropometric measurements, blood pressure measurement, doctor's consultation and sugar and lipid profile tests were investigated free of cost.

SPH: Visit to PPHI Nutrition stabilization Centre at Liaquat University of Medical & Health Sciences (LUMHS), Hyderabad and Jamshoro.

Field visit of students and faculty to PPHI Nutrition stabilization Centre at Liaquat University of Medical & Health Sciences (LUMHS), Hyderabad and Jamshoro. Mr. Zakir Hussain Samo, District Nutrition Coordinator PPHI Sindh Jamshoro gave a tour of Nutrition stabilization center that caters to the communities of Sindh and Balochistan. Students had a profound and invaluable learning experience. NSCs typically cater to children suffering from severe acute malnutrition (SAM) or other forms of malnutrition. Students witnessed firsthand devastating effects of malnutrition on individuals and communities, including stunted growth, compromised immune systems, and increased susceptibility to diseases. Students learnt about Assessment and Screening, Treatment Protocols and how Cultural Sensitivity and Contextual Understanding is important in interaction with patients and their families also how cultural, social, and economic factors



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influence nutrition status in different communities. This understanding is essential for designing culturally appropriate interventions.

vi. DOW INSTITUTE OF PHYSICAL MEDICINE & REHABILITATION

DIPM&R: Workshop on Exercise Basics (27 Feb, 2024)

Dr. M Sarfraz (Assistant Professor & HOD at DUHS Fitness and Sports Rehab Centre), led a comprehensive workshop on "Exercise Basics" on February 27th, 2024 at DUHS F&SRC. The session enlightened attendees, including DUHS Family (students, staff, employees) and the community, on foundational exercise principles, emphasizing proper form, warm-up and cool-down routines, setting fitness goals, and dispelling misconceptions about weight training. This insightful workshop equipped participants, whether beginners or those midway through their fitness journey, with valuable knowledge to optimize their workouts and prevent injuries.

vii.DR. ISHRAT UL EBAD KHAN INSTITUTE OF ORAL HEALTH SCIENCES (DIKIOHS)

DIKIOHS-Free Dental Camps at Different Schools of Karachi

As part of the comprehensive study program, the Community Dentistry department collaborated with Colgate Palmolive Pakistan to organize a Health Week initiative. Throughout the week, a series of events were conducted to promote oral health awareness among the youth. One of the key highlights of the initiative was providing free Dental Checkups at various schools in Karachi. The professional dental teams not only conducted the checkups but also engaged with the children, imparting valuable knowledge on the importance of Oral Hygiene. These interactive sessions included educational demonstrations on proper brushing techniques, the significance of regular dental visits, and how maintaining good oral health can contribute to overall well-being. The students were encouraged to ask questions, fostering an open dialogue about dental care.



viii. DOW DENTAL COLLEGE (DDC)

DDC: Dental Camp at Sirat ul Jannah Orphanage

The Department of Community Dentistry at DOW Dental College (DDC), keeping up its commitment to educate the young members of society about their oral health held a dental camp at the Sirat ul Jannah orphanage as part of its regular Community Outreach Programme.

Under the guidance of Assistant Professor Dr. Muhammad Taqi, alongside Dr. Adnan and Dr. Amber Saeed from the Faculty of Community Dentistry, in conjunction with the DDC Students



Assembly, a dedicated team of volunteer students visited Sirat ul Jannah orphanage to interact with 185 children.

The itinerary for the day was, featuring informative presentations and engaging animated videos covering fundamental dental hygiene concepts, including proper brushing and flossing techniques using dental models. Additionally, a lively quiz based on the shared information was conducted, with successful participants receiving goodie bags containing toothpaste, stationery items, and colourful stickers. Dental checkups for children were also carried out simultaneously.

DDC: Visit to JDC's The Education School (30th Jan, 2024)

The Department of Community Dentistry at Dow Dental College spearheaded a collaborative initiative with Shield Pakistan aimed at improving the oral health of children. This initiative involved partnering with the School of Dental Care Professionals, specifically engaging student leaders from the Dental Hygiene Program.

Students of BDS and BS Dental Hygiene along with faculty visited JDC House of Education School where children were provided oral health guidance, emphasizing essential oral hygiene practices with a focus on regular check-ups, proper tooth brushing, effective flossing techniques, maintaining a healthy diet, and overall oral health maintenance. The team organized an interactive quiz on oral health, incentivizing student's participation and giving goodie bags, containing toothpaste, colorful stationery, and stickers, to those giving correct answers.



DDC: Dental Awareness Camp at Al-Furqan School (23rd Nov, 2023)

In a community health education initiative, the Dow Dental College's (DDC) Department of Community Dentistry (DCD) organized a dental camp at Al-Furqan School, in collaboration with the Al Huda International Welfare Foundation. The program led by Assistant Professor Muhammad Taqi, and Dr Adnan and Dr Amber from the Faculty of Community Dentistry, was supported by the DDC Students Assembly and a team of volunteer students.



The camp featured the inaugural implementation of fluoride application treatments, a crucial preventive strategy against dental caries, specifically targeting high-risk caries patients, not only through treatment but also to actively prevent dental health issues.

The DDC team organized an interactive quiz on oral health, incentivizing student's participation and giving goodie bags, containing toothpaste, colorful stationery, and stickers, to those giving correct answers. This approach fostered an engaging and enjoyable learning environment. As the event culminated, teachers and the principal of Al-Furqan School commended the efforts of the DDC.

DDC: Camp for Oral Health Advocacy at HealthAsia Exhibition (20 Oct, 2023)

Dow Dental College's Department of Community Dentistry held an innovative dental camp at the HealthAsia Conference 2023 at the Expo Center recently, gathering expert healthcare professionals from various fields, amid the bustling exhibits and enlightening courses. More than just offering complimentary oral health checkups, the dental camp provided a comprehensive experience for the participants who received personalized guidance on oral hygiene practices and were educated about the risks associated with tobacco products, such as cigarettes and betel nuts. The camp featured a team of seasoned experts from DDC Department of Community Dentistry. The faculty, including Dr Taqi, Dr Adnan, Dr Mona, Dr Babar, and Dr Amber, alongside 11 dedicated house officers, ensured that each participant got valuable insights and recommendations.



DDC: School Children, Teachers Visit Dow Dental College (23rd Oct, 2023)

The Government Boys Secondary School, Kotwal Building, students and teachers went on an educational trip to the Dow Dental College led by the headmaster under an initiative by Dr Taqi, Head of the Community and Preventive Dentistry Department at the DDC.

The 35 students and 7 teachers of the school were given a comprehensive presentation by Dr Adnan Sukkurwalla, providing an overview of the institution's rich legacy and ongoing initiatives. Subsequently, the students were divided into groups, each guided by Dr Mona, Dr Babar, and Dr Amber, who led them to various DDC departments, facilitating insightful interactions with the faculty, who informed them about their respective functions and operations. Simultaneously, a group of teachers was escorted through different dentistry departments under the supervision of Dr Adnan Sukkurwalla.



DDC: Visit to Kotwal Boys Secondary School (7th Dec, 2023)

As part of a recent community outreach programme, third-year BDS students from Dow Dental College and BS Dental Hygiene students organized a camp at the Kotwal Boys Secondary School. Under the guidance of Assistant Professor Dr. Muhammad Taqi, alongside Dr Adnan,

Dr Mona, Dr Babar, and Dr Amber, the outreach activity involved hands-on clinical examinations conducted by the BDS students, enabling them to apply their clinical expertise in identifying potential dental issues among the school students. Specific treatment plans were recommended for individuals identified as high-risk for dental caries, addressing their oral health needs. A total of 200 schoolchildren underwent examinations during the visit.



In a bid to further support the community's oral health, free toothbrush kits were distributed among the students. The school headmaster presented a letter of thanks to Dr Muhammad Taqi for organizing an impactful community visit to Kotwal Boys Secondary School.

DDC: Visit to Madarsa for Oral Screening of students (23rd Sept, 2023)

The Dow Dental College (DDC) Department of Community Dentistry provided oral health guidance and services to as many as 600 students of Madrasa Jamia Ansaria between the ages of 5 to 21 years during a visit to the seminary on the outskirts of Karachi. The activity was conducted by a dedicated team comprising final-year dental students, house officers, and faculty members under the guidance of Dr Muhammad Taqi, the Head of the Department of Community Dentistry for the underprivileged students of the seminary. During this outreach activity, a total of 600 students were provided oral health guidance in both Pashtu and Urdu languages, emphasizing essential oral hygiene practices with a focus on regular check-ups, proper tooth brushing, effective flossing techniques, maintaining a healthy diet, and overall oral health maintenance. The DDC team conducted comprehensive screenings of the students to identify common oral health issues such as caries, bleeding gums, infections, and ulcers. The screenings were facilitated by the team of faculty members, comprising Dr Adnan Anwar, Dr Babar Zia, and Dr Mona Shah, in collaboration with final-year dental students Aliza Adil, Noreen, and Ayesha Siddiqua



ix. SCHOOL OF DENTAL CARE PROFESSIONALS (SDCP)

SDCP: Oral Screening Camp on World Diabetes Day and Ramadan Diabetes Event

Students of BS Dental Hygiene program set up free dental screening camp on the occasions of World Diabetes Day and Ramzan Diabetes event which was organized by NIDE, DUHS simultaneously on 14 Nov, 2023 and 17 Feb, 2024. In both events the individuals and patients

were given free dental checkups and provide with awareness on how to maintain dental hygiene.

SDCP: Visit at Al-Umeed Rehabilitation Association (AURA)

On May 20th, 2024, dedicated students from the School of Dental Care Professionals (SDCP) went to the Al-Umeed Rehabilitation Association (AURA). This initiative brought together 3rd and final-year SDCP students with the opportunity to provide oral screenings for individuals with Cerebral Palsy and other inclusive needs at AURA.

This trip highlights the commitment of SDCP students to giving back to the community and providing essential dental care services to those who might not otherwise have easy access.



x. DOW INSTITUTE OF NURSING & MIDWIFERY (DION&M)

DION&M: Health Awareness Camp at Marora Goth, Karachi (27th Jan, 2024)

On January 27th, 2024, the BSN Semester VIII students from GBSN Dow Institute of Nursing and Midwifery, DUHS, arranged a health awareness session in Marora Goth, Karachi. The session included a variety of engaging activities, featuring blood sugar and blood pressure monitoring stations. In addition, the students established informative stalls about critical health topics such as malaria, dengue, family planning, and diabetes. These stalls served as focal points for community members, offering them accessible information and resources to promote well-being. Both men and women from the community actively participated in the event.



This initiative was seamlessly integrated into the curriculum's framework, aligning with the objectives of the Community Health Nursing-III course and the principles of the PNC curriculum. Through collaborative efforts and proactive engagement, the session epitomized the institution's commitment to fostering community health and empowerment.

9.3. ALUMNI AFFAIRS: OUTSTANDING ACHIEVEMENTS

Alumni from Dow University of Health Sciences are serving in various medical and allied health sciences of national as well international repute.

International Alumni of DUHS

Over 3000 graduates of Dow University of Health Sciences are practicing in various medical institutions of USA, UK, KSA and other countries. Majority of them are supervising the different medical departments, contributing in the medical researches and in their respective fields as alumni of DUHS.

Prof. Khurshid Akhtar is a graduate of Dow Medical College in 1983. With more than 30 years of professional experience, he is an extensively trained **consultant general and upper GI (gastrointestinal) surgeon** who is renowned for his skill. The majority of Professor Akhtar's postgraduate surgical training took place in the North West of England. His ambition for his sub-specialty led him to specialist centers in Japan and the US for further training. In 2000 he began working as a consultant surgeon in the Pennine NHS Trust, and later joined Salford Royal University Teaching Hospital in 2010. Currently, patients can access his private surgical care at his clinics in BMI. The Alexandra Hospital, Spire Manchester Hospital and The Wilmslow Hospital.



- **Dr. Zoha Aziz, MD**, a proud graduate of DIMC (Dow International Medical College) Batch of 2021, has successfully matched into Internal Medicine at UPMC Mercy in Pittsburgh, Pennsylvania! Graduating in 2021, Dr. Aziz passed Step 1 with flying colors and achieved an impressive score of 254 on Step 2 in 2023.

During her intern year at AKUH, she stood out among 82 candidates, emerging as one of the top five interns, a testament to her dedication and excellence. Her extensive involvement in community work and commitment to quality improvement audits were pivotal factors in her successful match this year.



- **Ms Anusha Amanullah** is the alumni of Dow College of Biotechnology (DCOB) batch 2020 (BS Biotechnology) and 2023 (MPhil Biotechnology). She will be continuing her D.Phil studies at Oxford University, UK under a fully funded faculty development program of Dow University of Health Sciences.

Ms. Anusha has 6 publications with over 50 impact factor and 450 citations. This incredible milestone is a testament to your unwavering dedication, hard work, and exceptional talent in the field of Clinical Medicine.



National Alumni: Outstanding Achievements

A large number of graduates of Dow University of Health Sciences are serving humanity throughout the country and hold key posts. Majority of them are the heads of various health care institutions. Graduates of Dow College of Pharmacy are rendering their services in highly reputable private and public sector organizations. Some notable entities where alumni of our institute are performing their duties include Drug regulatory authority of Pakistan, Aga Khan

University Hospital, South city Hospital, NMC Hospital, NIBD, Kiran Hospital, Indus Hospital Korangi, leading pharmaceutical manufacturing companies and many others. Several graduates are also playing their roles in industrial pharmacy and working in multinational and local pharmaceutical industries including Abbot, GSK, Brookes Pharma (Private) Limited, Bosch Pharmaceuticals, The Searle Company Ltd., Hilton Pharma (Pvt) Ltd, AGP Limited, among many others.

Dr. Shah Kamal Hashmi, PhD Public Health 2022

Dr. Shah Kamal Hashmi has been appointed as the Founding Principal, Ziauddin College of Public Health at Ziauddin University



Nawal Shabbair, BS Nutrition-SPH

Having graduated with a gold medal and the Best Graduate Award in her Bachelor's in Nutrition Program from the School of Public Health in 2023, Nawal Shabbir currently serves as a Program Executive at the Pakistani chapter of DKT International- a global leader in the Sexual and Reproductive Health ambit.



NOTABLE ALUMNI OF DUHS, CONSTITUENT COLLEGES

- **Neha Shamriaz Khan**, a DUHS 2018 BBA graduate, defied traditional norms to pursue education. With determination, she balanced studies and four internships, securing a full-time HRBP role at Eplanet Global Pakistan.
- **Dr. Mahnoor Hafeez**, a Dow graduate and European Radiology diplomat, defied physical disability to excel in medicine. With over 25 research articles published and board exams cleared on the first attempt, she leads a team of radiologists, spreading the message of perseverance to differently-abled individuals worldwide.
- **Dr. Meha Fatima Aftab**, an advocate for medical technology, joined IMT in 2018 to counsel students and promote research culture. Her vision led to the success of the "Acusurgicals" project, with undergraduate students representing their startup at MIT. Proud to graduate from DUHS, she has recognition and opportunities in the field.

Alumni of Dow College of Pharmacy

- **Dr. Affan Ali** - Deputy Director at Drug Regulatory Authority Pakistan
- **Dr. Tahir Waqas** - Deputy Director at Drug Regulatory Authority Pakistan
- **Saad Hussain** – Group Manager, Medical Affairs and Business Development, BOSCH
- **Affan Ali Qureshi** – Assistant Director, Drug Regulatory Authority of Pakistan
- **Tahir Waqas** – Assistant Director, Drug Regulatory Authority of Pakistan
- **Hina Siddiqui** -Us Product Manager, Cardiac Rhythm Management, Abbot Laboratories Pvt, Ltd



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CHAPTER 10

Sports

10.1. INTER-DEPARTMENTAL SPORTS AT DUHS

Every year, DUHS schedules Sports Week so that the maximum number of students and faculty can participate in sporting activities as part of their co-curricular activities. A state-of-the-art gymnasium and cricket ground at Dow University is available where the students can play during and after college hours, as part of their co-curricular activities.

DUHS has provided regular sessions for training students with expert coaches who can groom these players to shine nationally and internationally. During the last few years, with the growth of the university, the faculty participation in sporting activities has also taken place. Therefore we also held faculty matches in which most of the faculty also participated with enthusiasm.

DUHS sporting activities include fitness facilitation to regular training sessions and provide support to athletes so they can progress to the highest sporting level whilst studying at Dow University of Health Sciences. During the annual sports week, various events also take place like English and Urdu Debating competitions, Declamation contests, Literary Festival etc.

Outdoor track events like cricket (for both boys and girls), football, running races, shot put, javelin throw are offered for students to participate; whereas, indoor events, like basketball, throw ball, netball, badminton, and table tennis are offered within the state-of-the-art Gymnasium at the Ojha Campus.

Intra DUHS Indoor Sports 2023

Sports Directorate arranged Intra DUHS Indoor Sports Event 2023. The series of event started on 23rd October, 2023 with various indoor games including chess, table tennis, volley ball, basketball, throw ball and badminton. Students from 15 institutes and colleges participated in the event. The series had total 16 games with 8 games were of boys and 8 games were of girls teams. The league had a Finale on 28th October, 2023, where we had several winners in different games as shown in below table:



	Teams	Badmint on Girls Singles	Badminton Boys Singles	Badminton Girls Doubles	Badminto n Boys Doubles	Table Tennis Girls Singles	Table Tennis Boys Singles	Table Tennis Girls Doubles	Table Tennis Boys Doubles
1	Dow Institute of Medical Technology-DIMT	1	1	1	1	0	2	0	1
2	Dow Institute of Nursing & Midwifery-DION&M	2	2	1	1	0	2	0	1
3	Dr. Ishral ul Ebad Khan Institute of Oral Health	1	1	1	1	0	1	0	1

	Sciences-DIKIOHS								
4	Dow College of Pharmacy-DCOP	2	0	1	0	0	0	0	0
5	School of Public Health-SPH	1	1	1	1	0	0	0	0
6	Department of Ophthalmology & Visual Sciences-DOVS	2	2	1	1	0	0	0	0
7	Dow International Medical College-DIMC	2	2	1	1	0	2	0	1
8	Dow College of Biotechnology-DCOB	2	2	1	1	2	1	1	1
9	School of Dental Care Professional-SDCP	2	2	1	1	0	0	0	0
10	Dow Institute of Radiology-DIR	2	1	1	0	0	0	0	0
11	Dow Dental College-DDC	2	2	1	1	2	0	0	0
12	Institute of Business & Health Management-IBHM	0	2	0	1	0	1	0	1
13	Dow Medical College-DMC	2	1	1	1	1	2	0	1
14	Dow Institute of Physical Medicine & Rehabilitation-IPM&R	2	2	1	1	2	2	1	1
15	Institute of Behavioral Sciences-IBS	0	0	0	0	1	0	0	0
Total		23	21	13	12	1	13	2	8
Winners		Faheela DMT	Sani IBHM	Faheela /Unsia DMT	Ali Haider/Shaf DMC	Sidratul Muntaha DDC	Asadullah DIMC	Urmeen/Maida DCOB	Asadullah/Ahmed DIMC
Runners UP		Unsiya DMT	Ali Haider DMC	Zoha Shahid/Misbah DPT	Abdullah Sani/Shoaib IBHM	Urmeen Khan-DCOB	Arqam DMC	Humna/Aqsa DIDC	Abdullah/Arqam DMC

	Team	Volley ball Girls	Volley ball Boys	Throw Ball Girls	Throw Ball Boys	Basketball Girls	Basketball Boys	Chess players Girls	Chess players Boys
1	Dow institute of Medical Technology-DMT	Yes	Yes	Yes		Yes		2	2
2	Dow Institute of Nursing & Midwifery-DION&M	Yes	Yes	Yes			Yes		

3	Dr. Ishral ul Ebad Khan Institute of Oral Health Sciences-DIKIOHS	Yes	Yes	Yes				3	1
4	Dow College of Pharmacy-DCOP		Yes	Yes		Yes		3	
5	School of Public Health-SPH			Yes				2	
6	Department of Ophthalmology & Visual Sciences-DOVS			Yes					1
7	Dow International Medical College-DIMC	Yes	Yes	Yes	Yes	Yes	Yes		4
8	Dow College of Biotechnology-DCOB		Yes	Yes		Yes	Yes	2	4
9	School of Dental Care Professional-SDCP	Yes		Yes				4	
10	Dow Institute of Radiology-DIR			Yes	Yes			1	1
11	Dow Dental College-DDC			Yes		Yes		4	
12	Institute of Business & Health Management-IBHM			Yes				1	2
13	Dow Medical College-DMC	Yes	Yes	Yes		Yes	Yes		4
14	Dow Institute of Physical Medicine & Rehabilitation-IPM&R		Yes	Yes		Yes		2	2
15	Institute of Behavioral Sciences-IBS							1	
Total		6	8	14	2	7	4	26	21
Winners		DIMC	DMC	DIKIOHS	-----	DIMC	DIMC	Roushan Tanveer-SDCP	Daniyal Abbasi DMC
Runners		DMC	DCOB	DCOP	-----	DCOB	DMC	Maryam Shahzad-DCOB	Usman Murad DMC

10.2. PARTICIPATION IN NATIONAL CHAMPIONSHIPS

Students from DUHS participated in the different national level sports events:

Pakistan Marine Academy, NUST and AKU Sports Event

23rd August, 2023, the sports contingent with 48 members to participate in 5 games set off to the Pakistan Marine Academy in the DUHS point. The contingent clad in blue with the DUHS flag held high, showed the power of team efforts and clinched winning trophies in 3 games

1. Badminton
2. Basketball
3. Table Tennis

The cricket team reached the quarter final

All teams had a fair proportion of talent from all over DUHS.

Points were calculated for qualification in the category of the University with best performance. Here DUHS clinched the winning trophy for exceptional performance in the PMA sports gala 2023. The house trophy amongst 15 universities was bagged by DUHS highlighting us as a tough competitor in sports around the city.



DIKIOHS team participated in the Intercollege Cricket Tournament organized by the Liaquat College of Medicine & Dentistry in the memory of Late Prof. Talha M. Siddiqui. DIKIOHS team was runner up in the event.



10.3. ACHIEVEMENTS AT NATIONAL LEVEL

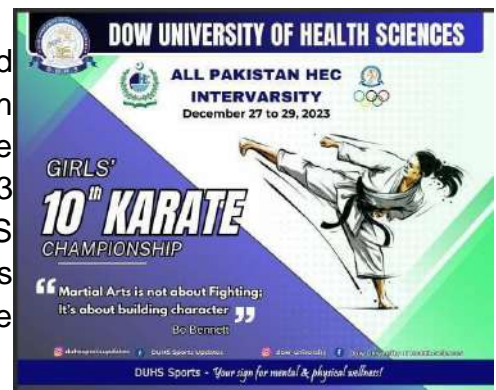
Hosting HEC Intervarsity Zone M Table Tennis (BOYS)

Dow University of Health Sciences successfully hosted the HEC Intervarsity Boys Table Tennis competition. The event held on 4, 5 and 6th November, 2023 at Ojha Campus, DUHS. 8 universities from all over country participated in the event. The competition showcased the immense talent and dedication of the student athletes. Institute of Business Management, Karachi emerged victorious and achieved first position, followed by Institute of Business Administration, Karachi securing 2nd position while Dow university of Health Sciences stood at 3rd position. The event was not only a true test of skill and sportsmanship but also a platform for fostering camaraderie and mutual respect among the participating institutions, solidifying the significance of competitive sports.



Hosting All Pakistan Intervarsity Karate (Girls)

Dow university of Health Sciences successfully hosted and organized Girls 10th Karate Championship in which more than 18 universities participated from all over the country. The event held from 27th – 29th December, 2023 at Ojha Campus, DUHS. A souvenir designed by DUHS sports and made by the Dow skill development centre was presented to the guests. The awards and winners of the event can be shown in the table below:



Category	Gold	Silver	Bronze	Bronze
Individual Kumite 45 kg	University of Veterinary & Animal Sciences - UVAS Lahore Mehreen	University of Central Punjab Huma	University of Management & Technology Aisha Kanwal	Iqra University Faiqa
50 kg	University of Central Punjab Hafiza Iqra Munawwar	Iqra University Amina Qazi	Institute of Business Management Areesha Nadeem	University of Management & Technology Shaista Khalid
55 kg	University of Central Punjab Mahira	Arid Agriculture University Mishal Zulfiqar	Punjab University Humana	University of Karachi Nabeera
61 kg	Punjab University Javeria	University of Lahore Saira Ibrahim	Arid Agriculture University Hamna	Lahore College for Women University Fatima
68 kg (below)	University of Veterinary & Animal Sciences - UVAS Lahore Zille Noorain	University of Karachi Asfia	University of Management & Technology Nida	University of Central Punjab Mahira
68 kg (above)	Iqra University Mubeen Fatima	University of Management & Technology Menal Rosie	Lahore College for Women University Umme Habiba	Punjab University Amna Amjad
Individual Kata	Superior University Nimra Ali	Punjab University Armeen Tariq	Institute of Business Management Samra Ejaz	University of Veterinary & Animal Sciences - UVAS Lahore Mehreen
Team Kata	University of Central Punjab Sumayya Razaqat Farah Khalid Hafiza Iqra	University of Veterinary & Animal Sciences - UVAS Lahore Bushra Zille Noorain Mehreen	Punjab University Armeen Tariq Sabiqa Javeria	University of Lahore Saira Batool Saira Tariq Farhana
Team Kumite	University of Lahore Saira Batool Gulshan Saira Zareef	University of Central Punjab Iqra Mahir Hamn	University of Karachi Asfia Nabeer Yumna	University of Management & Technology Menal Rosie

		Summaiyya	Hurmat	Sana m Bano Rahim al Shaista Khalid
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Management of 16th HEC National Karate Championship

Chairman HEC” 16th National Women Karate Championship, 2024

The 16th National Women Karate Championship, which was chaired by HEC, took place from January 26th to 28th, 2024. Leading the event as the manager was Dr. Mehnaz Gitay, Director of Sports at DUHS. HEC's participation in the championship resulted in remarkable achievements across various categories. Notably, in the Junior Category, HEC secured a silver medal, showcasing their strength and talent in the competition. Furthermore, in the adult category, HEC demonstrated outstanding performance by clinching a total of 3 silver medals and 2 bronze medals, highlighting their dedication and skill in karate.



10.4. INCENTIVES AND HONORS/AWARDS FOR SPORTS PERSONS/STUDENTS GIVEN

Students received shields in recognition of their achievements and motivate their continued participation. These awards play a vital role in motivating participants in sports activities, acknowledging their efforts, and encouraging them to continue their athletic pursuits.



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CHAPTER 11

Universities Building Leadership

11.1. FACULTY LEADERSHIP

Awards and Representation in Government Policy making committees, memberships on various councils etc.

Faculty Leadership Awards of faculty members are mentioned below:

Name of Faculty Member	Title of Award	Year	Name of Org.
Prof. Mohammed Saeed Quraishy	Tamgha e Imtiaz	August 2020	Government of Pakistan, awarded by President Dr. Arif Alvi.

- On February 22nd, 2024, at the Punjab Governor House, Dr. Arif Alvi, the former President of Pakistan, presented the 'Presidential Award of Service Excellence' to **Dr. Uzma Ata**, acknowledging her remarkable dedication in the field of blood transfusion medicine.

Dr. Ata, serving as the Project Head at RBC DUHS (Regional Blood Center, Dow University of Health Sciences), was honored alongside 14 other distinguished doctors from across Pakistan. These doctors were recognized for their steadfast commitment to providing blood components and treatment to patients afflicted with various blood disorders. Dr. Uzma Ata proudly represented Dow University of Health Sciences, exemplifying the institution's dedication to advancing healthcare and addressing critical medical needs within the nation.



- Dr. Muhammad Khalid Shafi**, Associate Professor of Community Medicine won PAUL HARRIS FELLOW Award by Rotary International, 22nd Jan, 2024.
- Dr. Farhan Vakani** Associate Professor and Director Dow Institute of Health Professionals Education won HUMPHREY IMPACT AWARD by USEFP and US Department of States in the event 'Faculty Development Program-Empowering Medical Teachers as Mentors: Practices And Recommendations'. Jan 6, 2024-May 4, 2024.
- Syed Saoud Zaidi**, an assistant Professor of Pharmaceutics at the Dow College of Pharmacy received the top poster and Presidential Trainee Award at the 2024 Annual Meeting of the American Society for Clinical Pharmacology & Therapeutics (ASCPT) by its president Walter Kraft. This meeting at the Broadmoor, Colorado Springs celebrated 125 years of the American Society for Clinical Pharmacology and Therapeutics (ASCPT).
- Ms. Rubina Qasim**, Assistant Professor and Acting Director Nursing at Dow Institute of Nursing & Midwifery won Global Research Nurses Pump-priming Grants 2023: Research Project Award on "Mapping determinants impacting immunization and co-designing contextual intervention to



reach zero-dose children of highly marginalized populations living in peri-urban slums of Karachi and Peshawar, Pakistan” of £10,000, November, 2023.

- **Ms. Samina Baig-Med** Lab Technologist at Dow Institute of Medical Technology won Travel grant to attend GPS/JUNO Advanced Bioinformatics workshop at Hacettepe University, Turkey Jan-Feb 2024.
- **Dr. Meha Aftab** won MIT Solve award, where young innovators from around the world were called upon to submit solutions that address community and global issues. Out of 831 applicants from 90 countries, ACUSURGICALS, made its way among the top 20 shortlisted projects.

Global Research Nurses Pump-priming Grants 2023: Research Project Award

How closed

The Global Research Nurses Pump Priming grants: Research Awards November 2023 Winners

Rubina Qasim, Acting nursing director at Dow Institute of Nursing & Midwifery, Dow University of Health Sciences Karachi, Pakistan

Country: Pakistan

Project: Stopping determinants impacting immunization and co-developing contextual intervention to reach zero-dose children of highly marginalized populations living in peri-urban slums of Karachi and Peshawar, Pakistan

This research project aims to address the critical issue of zero-dose children (those lacking BCG-containing vaccines) in highly marginalized populations residing in peri-urban slums of Karachi and Peshawar, Pakistan. The primary objectives involve measuring the prevalence of zero-dose children, identifying social and behavioral drivers using the Beto framework, and co-designing acceptable and feasible contextual interventions. The research responds to the global interest in reaching zero-dose children, particularly in countries like Pakistan where a significant proportion is concerned. While national estimates exist, there is a lack of granular information about these children, their risk factors, and the factors influencing vaccine acceptance. The study emphasizes the importance of co-designing interventions involving end-users and stakeholders for better acceptance, sustainability, and addressing social and behavioral determinants to build trust in vaccines.

Awards: £10,000

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Announcing the 2023 Solv[ED] Youth Innovation Challenge Finalists

March 15, 2023

ELIZA BERG
Lead, Learning, MIT Solve

Meet the 2023 Finalists

Acusurgicals: Portable Biosafety Surgical Chamber, based in Karachi, Pakistan, provides a point-of-care surgical system for the interventional management of surgical cases.

Representation in Govt. Policy Making Committee (FY 2023-24)

Name of Faculty Member	Name of Committee / Representation	Name of Org.
Prof. Dr. Saba Sohail	Chairperson, Special Board, Services Hospital Karachi	Health Department Govt. of Sindh
	National Academic Board	Pakistan Medical and Dental Council
Dr. Muhammad Khalid Shafi	Chair, National Immunization Technical Advisory Group (NITAG)	Expanded Program on Immunization, Govt of Pakistan
	Technical Advisory Group (TAG) for Polio Eradication	World Health Organization
	Immunization Committee	International Pediatric Association (IPA)
	National Task Force for Newborn Survival Strategy	Ministry of National Health Govt of Pakistan
	TWG Newborn Survival Strategy Sindh	Director General of Health Govt of Sindh

	Polio Expert Review Committee	Director General of Health Govt of Sindh
Prof. Muzammil Shabana Ejaz	Provision expert review committee (PERC)	Expanded Program on Immunization, Govt of Sindh
Dr. Waseem Jamalvi	Member of "Protection and Promotion of Breastfeeding & Young Child Nutrition Rules"	Ministry of National Health Services, Regulation & Coordination, HEALTH SERVICES ACADEMY

Membership in Various Associations/Councils (FY 2023-24)

Name of Faculty Member	Status	Name of Council/ Body
Prof. Dr. Saba Sohail	Member	Radiological Society of North America The Royal Society of Medicine, UK Radiological Society of Pakistan Body Imaging Society of Pakistan Pakistan Association of Medical Editors World Association of Medical Editors Eastern Mediterranean of Medical Editors European Society of Radiology European Society of Hybrid Imaging Central Purchase Committee, Health Health Department Govt. of Sindh Special Committee for Sindh Medicolegal Bill 2023, Health Health Department Govt. of Sindh
Dr. Muhammad Khalid Shafi	Secretary General Joint Secretary	Pakistan Pediatric Association South Asia Pediatric Association
Dr. Farjad Sultan	Member Vice President Member	COVID-19 Response & other natural calamities control programe-Sindh Pakistan Society of Anesthesiologist Sindh Central Procurement Committee
Prof. Farhan Zaheer	Member General Secretary Member	Sindh Healthcare Commission, Health Department Govt. of Sindh Society of Surgeons Pakistan Pakistan Medical Association
Dr. Safia Zafar Siddiqui	Member Executive Member Member	Sindh Central Procurement Committee Pakistan Society of Anesthesiologist Pakistan Medical Association
Dr. Ashok Kumar Dr. Arsalan Jamil	Member	Asian Society of Paediatric Anesthesiologist
Dr. Khurshid Ahmed Samo	Life Member	Pakistan Medical Association
Prof. Naseem Ahmed Shaikh	Member	Pakistan Medical Association Pakistan Association of Pathologists
Dr. Muhammad Yahya Noori	Member	American Society for Microbiology
Dr. Shaima Sultana Mehmood	Member	Pakistan Association of Pathologists Pakistan Medical Council Health Professionals Council of South Africa

Prof. M. Nawaz Lashari	Fellow Awarding Committee of PCS-FCPS President Finance Secretary Central Procurement Committee	Pakistan Cardiac Society Pakistan Hypertension League Pakistan Cardiac Society Health Department Sindh
Dr. Arshad Ali Shah	Fellow	American College of Cardiology
Dr. Ghulam Abbas Shaikh	Chapter Coordinator Karachi	Pakistan Hypertension League
Prof. Haris Alvi	Councilor Sindh	Pakistan Society for Gastroenterology and GI Endoscopy
Dr. Fakhshena Anjum	Executive Member Member Member	Pakistan Pharmacists Association, Sindh Chapter. Pediatric Oncology East and Mediterranean (POEM) Group, American University of Beirut, Lebanon Pakistan Biological Safety Association
Prof. Sumbul Shamim	Member	Independent Ethics Committee (IEC) International Centre for Chemical and Biological Sciences (ICCBS) Dr. Panjwani Centre for Molecular and Drug Research (PCMD), University of Karachi. American Society of Gene and Cell Therapy (ASGCT) American Society of Experimental Pharmacology and Therapeutics (ASPET)
Prof. Ambrina Qureshi	Member	British Association for the Study of Community Dentistry (BASCD)
Dr. Ashar Afaq	Member	Faculty of Dental Trainers, Royal College of Surgeons, Edinburgh, UK
Dr. Shazia Akbar	Member	Pakistan Society for Microbiology (PSM), American Society for Microbiology (ASM), Pakistan society of Oral and Maxillofacial Pathology
Dr. Farhan Vakani	Member	Global Alliance for Medical Education (GAME) Society for Academic Continuing Medical Education (SACME)
Dr. Farah Saeed	Member	Pakistan Pharmacy Council Pakistan Pharmacist Association National Council of Homoeopathy
Dr. Sadia Shakeel	Member	Pakistan Pharmacy Council Pakistan Pharmacist Association
Dr. Muhammad Sajjad Ashraf	Member	Association of Paediatrics Surgeons of Pakistan (APSP)

Dr. Syed Waqas Ali	Member	Association of Paediatrics Surgeons of Pakistan (APSP)
Dr. Salik Rasool	President	Sindh Council, Pakistan Society of Maxillofacial Pathology
Dr. Umesh Kumar	Information Secretary	PPTA (Sindh Chapter)
Dr. Zareen Kiran	Member	Pakistan Endocrine Society
Ms. Sanam Soomro	IPE Evaluator & Postgraduate Program Reviewer	Higher Education Commission, Pakistan
Dr. Zafar Hydrie	Life Member Member Member	College of Family Medicine, Pakistan Cancer Society, Pakistan Diabetic Association of Pakistan
Dr. Mansoor	Member	Pakistan Medical & Dental Council Higher Education Commission of Pakistan Epidemiology Society of Pakistan
Dr. Maria Atif	Member	Public Health Association of Australia Pakistan Medical and Dental Council
Dr. Sumaira Nasim Dr. Habiba Ms. Nida Jawed Ms. Tehreem Hussain Ms. Tooba Zaidi Ms. Mehreen Amer Ms. Mehreen Zaidi Ms. Sukaina Shabbir Ms. Sidra Mashkoor	Life Member	Pakistan Nutrition and Dietetic Society (PNDS)
Rubina Qasim Rukhsana M Haroon	Inspection Team Member	Pakistan Nursing & Midwifery Council
Mr. Badal		Pakistan Nursing & Midwifery Council
Ms. Samina Baig Mr. Zaib Hussain	Member Member	American Society for Microbiology Medical Microbiology and Infectious Diseases Society of Pakistan

11.2. STUDENT LEADERSHIP

Co-curricular Activities: University Dramas, Exhibitions, Expos, Competitions & Debates at National and International Levels

Students participated in various competitions held all over the country by different institutes.

S #	Name of Student	Program Name	Date	Event Name	Organized By	Position
1.	Ishmal Aftab	BS Psychology-IBS	10 th Aug, 2023	Jashn-e-Azadi Quiz Competition 2023	Pakistan Quiz Society	Consolation Prize
2.	Kashaf Khan	Pharm D-DCOP	9 th Sep, 2023	Calligraphy Competition	Youth Media Network	2 nd Position
3.	Kashaf Khan	Pharm D-DCOP	11 th Sep, 2023	Painting Competition	Youth Media Network	2 nd Position

4.	Fatima Ghaffar	Pharm D-DCOP	30 th Sep, 2023	World Pharmacists Day 2023 (Model Competition)	Dow College of Pharmacy	1 st Position
5.	Maryam Naveed Zaidi	Pharm D-DCOP	30 th Sep, 2023	World Pharmacists Day 2023 (Model Competition)	Dow College of Pharmacy	3 rd Position
6.	Laraib Shaikh	Pharm D-DCOP	30 th Sep, 2023	World Pharmacists Day 2023 (Model Competition)	Dow College of Pharmacy	3 rd Position
7.	Maham Batool	Pharm D-DCOP	30 th Sep, 2023	World Pharmacists Day 2023 (Model Competition)	Dow College of Pharmacy	3 rd Position
8.	Zuhaib Ahmed	Pharm D-DCOP	18 th July, 2023	2 nd Undergraduate Research Poster Competition	Hamdard University	1 st Position
9.	Zuhaib Ahmed	Pharm D-DCOP	30 th Sep, 2023	World Pharmacists Day 2023 (Model Competition)	Dow College of Pharmacy	3 rd Position
10.	Muniba Hashim	Pharm D-DCOP	30 th Sep, 2023	World Pharmacists Day 2023 (Model Competition)	Dow College of Pharmacy	3 rd Position
11.	Alizay Zaheer	Pharm D-DCOP	30 th Sep, 2023	World Pharmacists Day 2023 (Model Competition)	Dow College of Pharmacy	2 nd Position
12.	Warisha Sheikh	Pharm D-DCOP	30 th Sep, 2023	World Pharmacists Day 2023 (Model Competition)	Dow College of Pharmacy	2 nd Position
13.	Taha Shakir	BS Biotechnology-DCOB	14 th Aug, 2023	Intra DUHS National Song Singing Competition	DUHS Literary and Debating Society	3 rd Position

Global UGRAD Exchange Program 2023

• Department of Ophthalmology & Visual Sciences (DOVS)

Ms. Vanika, student of Bachelor of Science degree in Optometry, was chosen for the prestigious UGRAD Exchange program offered by The United States Educational Foundation in Pakistan, 2023. As part of this program, she traveled to the United States, specifically to the University of Northern Iowa (UNI), where she embarked on a transformative educational journey. During her time at UNI, she delved into the field of Public Health and received grade A on her academic performance. This experience not only deepened her understanding of Public Health but also allowed her to gain valuable insights into American culture and academia.



Students Achievements in Scientific Events

- **Dow College of Biotechnology (DCoB)**
- Ms. Iffat Waqar (alumni and MPhil scholar) of DCoB and Ms. Sukaina Arshad (BS final year student at DCoB) have successfully drafted the complete Mitochondrial Genome of indigenously developed fly line of *Drosophila melanogaster* (white eye mutant), sequenced using NGS platforms. This makes the first drafted eukaryotic genome of DUHS and first of any model organism from Pakistan, 3rd November 2023. The poster won the Best Research Poster Prize at MMDR-8 event held at ICCBS University of Karachi, 27th-30th November 2023.
- Dua Zafar (BS Final Year Student) won 3rd Prize in Poster Competition at 2nd International Conference of Biotechnology (Biocon-2.0), organized by Department of Biotechnology, University of Karachi, 05-06th March 2024.
- Democasin Foot-A Noval Organic Antifungal Spray. 3rd Prize TENCOMS Karachi Start-up Contest 3.0 PAFKIET, 16th November 2023.
- 4 projects of DCoB were placed in the Top 50 and of those 2 projects of 3rd Year and Final Year student stand in Top 30 in the National Idea Bank Competition held at Islamabad. The students were invited at the President House for the Award Ceremony, 3rd-4th February 2024.
- **Kit Drosocan** (An in vivo system for Carcinogen Detection, basic research funded by VCSFI) developed at Dow Fly Research Lab and Stock Center, Dow College of Biotechnology won First Position, Her Tea- Fourth Position 4th, Alzahak and Regim Spirulina- Fifth Position and BioSafe and Bioraff-Sixth Position in Interuniversity Hult Prize Competition, 24th February 2024.
- DCoB final year students, won Silver Medal (Second Position) for Poster Presentation entitled "**Bioinstrumentation Innovation for Fragrance Creation; Introducing Hasht Essence Extractor**" at 1st International Conference of Salim Habib University, 28-29th February 2024.





DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI

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CHAPTER 12

Finance

12.1. DUHS FINANCES & KPIs

Final Demand Budget Estimates (2023-2024)

In Rupees (PKR) Millions

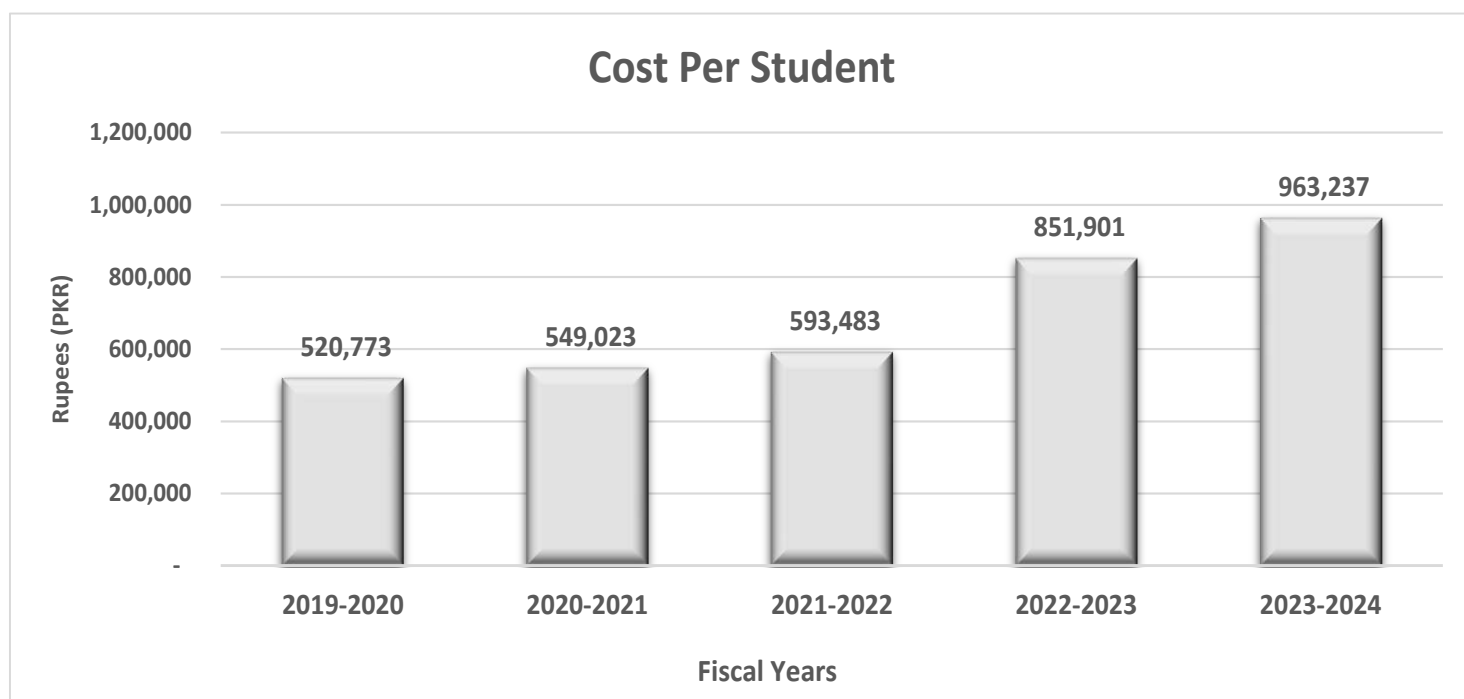
<u>Receipts</u>		
Total Recurring Grants	1,484.99	
Total Own Resources	5,382.23	
Total Available Resources		<u>6,867.22</u>
<u>Expenditures</u>		
Total Establishment Charges	3,905.90	
Total Non Salary Expenses	2,980.28	
Total Expenditures		<u>6,886.19</u>
<u>Surplus / (Defecit)</u>		<u>(18.97)</u>

DOW UNIVERSITY FUNDS

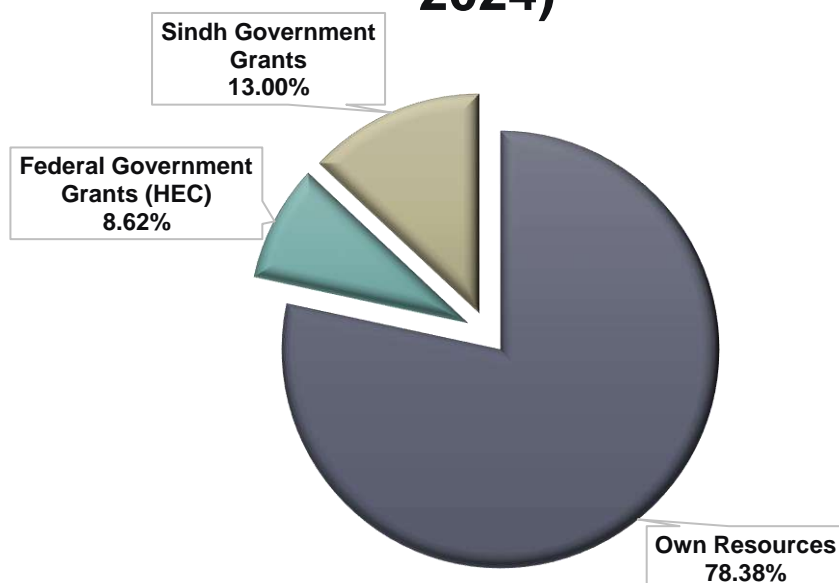
(2023-24)

In Rupees (PKR) Millions

No.	Head of Investment	Principal Amount
1	Benevolent Fund	28.54
2	GP Fund	480.63
3	Endowment Fund	594.35
4	Pension Fund	1,641.28
Total		2,745



Proportion of Revenue Streams Towards Meeting Cost of Student (2023- 2024)



Key Indicators / Ratios

Ratios	2022-2023	2023-2024	Projected in FY 2024-2025
Faculty : Staff Ratio (Regular Faculty / Staff)	1 : 1	1 : 1	1 : 1
Faculty : Staff Ratio (Regular + Contractual)	1 : 1.4	1 : 1.4	1 : 1.4
Faculty (Regular +Contractual) : Student Ratio	1 : 12	1 : 12	1 : 12
Self-Generated Income as % of total Resources	80.63%	78.06%	78.38%
Self-Generated Income as % of total Expenditures	80.16%	76.75%	78.88%
Recurring Grant as %age of total Expenditures	10.07%	8.60%	8.04%
Students Fees as % of Cost per student	67.73%	67.29%	68.74%
Salary as % of Total Expenditure	53.15%	56.72%	59.47%
Non-Salary as % of Total Expenditure	46.85%	43.28%	40.53%

12.2. STUDENT FINANCIAL AID:

Dow University of Health Sciences, Karachi, has established a University Advancement Cell and Financial Aid Office for the financial facilitation/assistance to the students. The University is engaged in the process of increasing the number of funding organizations / philanthropists and signing MOUs with them.

The University future planning is to enhance the duration of refunding amount of scholarships and develop a new fee structure with emphasis on minimizing the burden of the scholarship awardee, to increase promotional activities through workshops, seminars, social media etc. and to arrange awareness sessions of different funding agencies with students, so that they may explain their program to students directly.

Financial Aid Provided to Students in 2023-2024:

S #	Institution/Organization Offerings Financial Aid/Scholarships to DUHS Students	No. of Students 2023-24	Type of Assistance
1	Ehsas Scholarship	264	Scholarship
3	NEST Scholarship	In Process	Scholarship
4	British Counsilate (scotland) Scholarship	In Process	Scholarship
5	Abdullah T. Wehwaria and Farhat Aleem Trust Scholarship	0	Scholarship
6	Balochistan and Fata Scholarship	In Process	Scholarship
7	Board of Intermediate Scholarship	0	Stipend
8	Dr. Abdul Aziz Khan Memorial Scholarship	0	Scholarship
9	HEC Scholarship for Afghan National Students	In Process	Scholarship
10	Ministry of Minority and Religious Affairs, Minority Scholarship	0	Stipend
11	Professional Education Foundation (PEF)	In Process	Scholarship/Interest Free Loan/Zakat
12	Scheduled Caste Students Tharparkar Scholarship	In Process	Stipend
13	Sindh Endowment Education Scholarship	In Process	Scholarship
14	The A&N Foundation	0	Scholarship
15	University of Karachi Alumni Association (UKAA)	In Process	Scholarship
16	GEAR Trust	0	Scholarship
17	Pakistan Bait Ul Maal	0	Stipend/Zakat
18	Ihsan Trust	15	Interest Free Loan
19	DUHS Financial Assistance	0	Financial Assistance
20	Patient Aid Zahid Bashir Scholarship	0	Scholarship
21	Sindh Indigenous HEC	1	Scholarship
22	Al Seha Foundation	4	Scholarship
23	HEC Srilank Nationals	49	Scholarship
24	Dr Abdul and Zarina Hafeez Shaikh	13	Scholarship
25	Ahmer Muzammil Scholarship USA	1	Scholarship
26	Gul Ahmed Textile	1	Scholarship



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI

DUHS

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CHAPTER 13

University Governance

The Governance mechanism of the University is strong with regular meetings of the statutory bodies, as listed below.

13.1. SYNDICATE MEETINGS:

- | |
|---|
| 1. 100 th meeting of Syndicate held on Thursday, 22 nd February, 2024. |
| 2. 99 th meeting of Syndicate held on Tuesday, 26 th December, 2023. |
| 3. 98 th meeting of Syndicate held on Wednesday, 20 th September, 2023. |
| 4. 97 th meeting of Syndicate held on Tuesday, 20 th July, 2023. |

13.2. ACADEMIC COUNCIL MEETINGS:

- | |
|--|
| 1. 28th meeting of Academic Council held on Tuesday, 30 th January, 2024. |
| 2. 27th meeting of Academic Council held on Tuesday, 12 th September, 2023. |

13.3. BOARD OF ADVANCED STUDIES AND RESEARCH MEETINGS:

- | |
|--|
| 1. 73 rd meeting of the Board of Advanced Studies and Research held on 5 th April, 2024 |
| 2. 72 nd meeting of the Board of Advanced Studies and Research held on 27 th November, 2023. |
| 3. 71 st meeting of the Board of Advanced Studies and Research held on 11 th August, 2023. |



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI

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CHAPTER 14

Office of Resource Generation/ Development

14.1. DEPARTMENT OF ALUMNI MARKETING AND COMMUNICATIONS

Dow University of Health Sciences (DUHS) is one of the leading medical universities in Pakistan, providing quality education in the field of medicine, dentistry, and allied health sciences. However, like any other educational institution, DUHS requires funds to continue its operations and improve its facilities. The Vice Chancellor of Dow University of Health Sciences leads the functions of Resource Generation & Development. He has assigned this responsibility to staff of the Dept. of Alumni and Marketing Communications to organize, administer and manage projects regarding resource generation.

The department of Alumni Marketing and Communication plays a critical role in building and maintaining relationships with alumni, fostering a sense of community and pride, and ultimately supporting the financial health and success of the institution through fundraising efforts.

Market Analysis

The target market for this fundraising initiative is alumni, businesses, and individuals who value education and healthcare. The DUHS has a strong alumni network and has established relationships with businesses and philanthropic organizations in Pakistan and abroad.

Marketing Strategy

The marketing strategy include online and offline channels. The online channels include social media, email, SMS and the DUHS website. The offline channels include Alumni events, community outreach programs, and partnering with corporate sponsors to develop mutually beneficial partnerships that align with DUHS's mission and values. DUHS will create a donor database to keep track of all potential donors and their giving history, and using this information to personalize communication and tailor fundraising efforts to their interests and preferences.

Revenue Model

The revenue model will be based on donations from individuals, businesses, and philanthropic organizations. The DUHS will also offer recognition to donors, including naming rights to buildings and programs.

Marketing via Social Media and SMS

Dow University of Health Sciences Department of Marketing, Communication, and Alumni frequently promotes events and alumni achievements via social media and SMS marketing. With targeted outreach, we keep our alumni community informed and connected while also encouraging participation in our varied range of events. Through targeted messages, we seek to promote a sense of belonging and participation in alumni, thereby enhancing the DUHS community.

Our department is dedicated to efficiently representing DUHS and establishing links with alumni through a strategic mix of event management, targeted advertising, and engaging content.

Fundraising

We believe that Corporate Social Responsibility (CSR) initiatives can be a powerful force for change and transformation. The fundraising vision of Dow University of Health Sciences is to pioneer innovative approaches in healthcare education, research, and patient care through sustained philanthropic support, fostering excellence, equity, and impactful advancements in health outcomes for communities locally and globally.

Fundraising Strategies

Our campaign employed a variety of fundraising strategies, including:

1. **ONLINE DONATIONS:** The marketing department created an easy-to-navigate online donation platform that allowed supporters to contribute directly through our website.
2. **SMS:** More than 25 thousand SMS have been sent to the general public, Donors, and Corporates.
3. **SOCIAL MEDIA MARKETING:** We leveraged the power of social media to spread awareness and encourage online donations. The Marketing Department of the university maintains active profiles on major social media platforms such as Facebook, Twitter, Instagram, and LinkedIn
4. **IN-HOUSE BANNER PLACEMENT:** Fundraising banners were placed at the prominent spots of both the campuses of Dow University of Health Sciences to get the maximum viewership
5. **FLYER AND STANDEE PLACEMENT:** We placed fundraising flyers and standee at 40 different labs of Dow University of Health Sciences located in Karachi and interior Sindh.
6. **RADIO:** A media ad for Fundraising Radio was created and broadcast on three prominent channels, including 106.2, 107, and 107.4, to bolster the fundraising campaign.
7. **DIGITAL VIDEO COMMERCIAL:** A meticulously crafted digital media advertisement has been developed to highlight the comprehensive range of hospital services available to patients. Emphasizing quality care and affordability, the ad showcases the dedication of the medical staff and the excellence of the treatment provided. It aims to convey the hospital's commitment to ensuring that every patient receives top-notch care at rates that are within reach.
8. **SPONSORED ADS:** Sponsored fundraising ads have been launched to support the initiative. These ads are strategically crafted to reach a wide audience, emphasizing the importance of the cause and encouraging participation. With targeted messaging and captivating visuals, the sponsored ads aim to raise awareness and drive donations for the campaign.

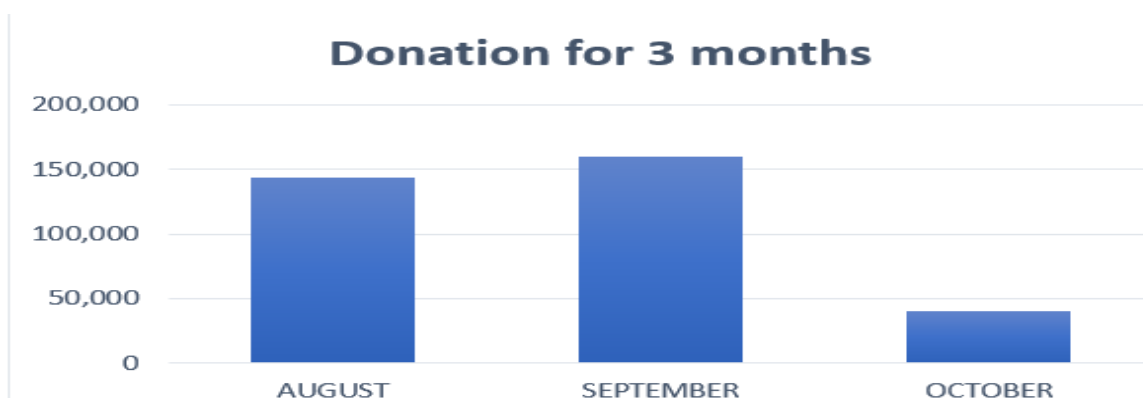
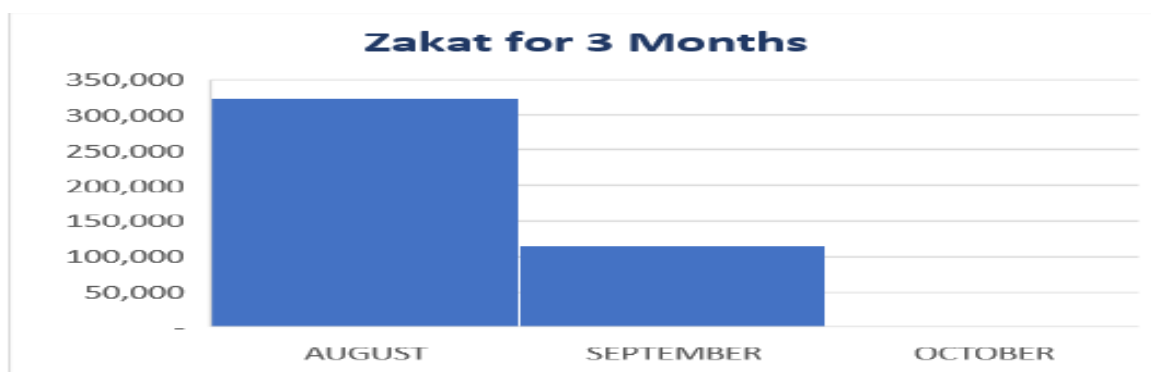


Milestone Campaign

The Milestone campaign was launched to create an impact and aware the donors and supporters of Dow University of Health Sciences. The motive of this campaign was to portray the total number of patients treated by the funds donated by our generous supporters to Dow University of the Health Sciences.

FUNDRAISED: Through Milestone campaign for the period of three month, The Marketing Department has raised; Zakat RS. 440,110 and Donation Rs. 344,126 which sums up to a total of Rs. 7,328,435.

August, 2023 – October, 2023



Sponsorships:

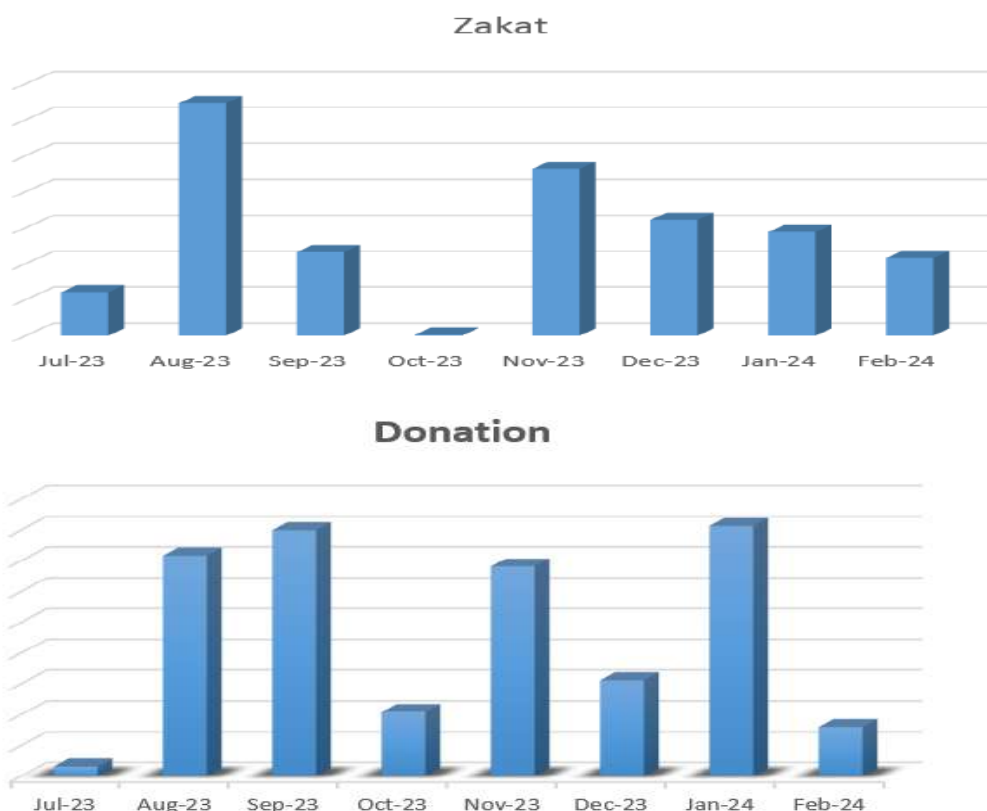
1. One of the significant sponsorships secured this year was with Careem, a leading transportation network company. Following the signing of the Memorandum of Understanding (MoU), an agreement was made that Careem would collaborate with us to brand DUHS buses. The branding will cost around 2 million which would consist of a balanced representation, with 50% featuring DUHS branding and the other 50% showcasing Careem branding. This partnership was established with the primary objective of fundraising, leveraging the visibility of the branded buses to generate support for our initiatives.
2. Dow University of Health Sciences collaborated with MEDISURE LABORATORY for the creation of the annual table calendar. The partnership serves as a valuable resource for students, faculty, and healthcare professionals alike. The calendar not only highlights key dates and events within the university but also provides insights into medical advancements, promoting awareness and education within the healthcare community.

Financials

The Department of Alumni Marketing and Communication opted for a 360 marketing strategy to create awareness among donors and corporations and requested them from time to time to support the noble mission of Dow University of Health Sciences. From July 2023 till February 2024, we have raised Zakat Rs.1,644,939 Donation Rs.7,44,893 which sums up to a total of Rs.2,389,778/-

The contribution made by our generous donors and supporters will be supervised by our welfare committee. Regular external accounting audits are also performed with proper reporting to ensure transparency and accountability.

July, 2023 – February, 2024



14.2. NEW INITIATIVES & PLANS FOR IMPLEMENTATION

Department of Alumni and Marketing communications is persistently working on the Alumni engagement, industry relationships and fundraising activities.

The following initiatives will be implemented to generate funds for DUHS:

3. The Marketing department of DUHS will launch annual giving campaigns to encourage alumni and other donors to contribute to the university.
4. Targeted appeals based on the donor's giving history and interests, as well as recognition programs to show appreciation for their support.
5. The Marketing department of DUHS partnered with corporate sponsors to generate funds and support specific initiatives.
6. The partnerships will include naming opportunities, sponsored programs, and employee giving campaigns.
7. Engagement of Multiple Clubs for Zakat/Donation flyer insertion and awareness sessions.
8. Internal Faculty get together event for Zakat and donation awareness.
9. Alumni Dinner and session.
10. Alumni Reunion.

14.3. FUTURE PLANS FOR DEVELOPMENT

1. The marketing department will be commencing an event for the Dow Graduates Association of North America (DOGANA) to strengthen our Alumni Network.
2. An internal fundraising event is being planned with the support and approval of the welfare committee. This event aims to enhance the fundraising efforts within Dow University of Health Sciences and will involve various activities and initiatives to engage employees and encourage participation.
3. The Marketing department will be hosting a corporate dinner to express gratitude to their supporters. This event will provide an opportunity for networking and relationship-building with key stakeholders, partners, and sponsors who have contributed to the success of the fundraising initiatives.
4. The Marketing Department will establish an automated system of WhatsApp integration, in which visual messages will be scheduled and sent from time to time to the community.

The Dow University Fundraising Business Plan aims to raise funds to support the DUHS in Pakistan. The fundraising campaign will target alumni, businesses, and individuals who value education and healthcare. The revenue model will be based on donations, and the funds will be allocated to the deserving patients. With a targeted marketing strategy and a dedicated fundraising team, the DUHS is poised to achieve its fundraising goals and continue its mission to provide quality education and healthcare services to the community.

14.4. ALUMNI ENGAGEMENT AND REUNION ACTIVITIES

• Grand Alumni Reunion

On 17 February, 2024 a Grand Alumni Reunion, was organized at Dow Medical College by the Department of Marketing, Communications, and Alumni, which was a delightful gathering that

brought together alumni for an evening of joy. Approximately 200 alumni and faculty members graced the occasion, making it a truly memorable and well-attended event.

The Grand Alumni Reunion was a success, providing participants with an opportunity to reconnect and celebrate

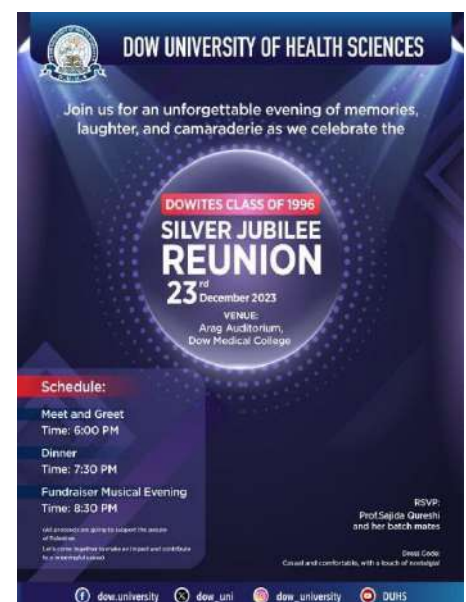


the bonds formed during their time at DUHS. It was an evening filled with laughter, nostalgia, and a sense of community spirit.

● Reunion for the Class of 1996 MBBS Graduates

An Alumni Reunion on 23rd Dec 2023, was organized exclusively for the individuals who graduated with an MBBS degree. The Class of 1996 MBBS enjoyed a remarkable time reconnecting with one another, as they shared stories from their medical school days and remembered old bonds.

The DUHS Alumni Reunion for the Class of 1996 MBBS Graduates served as a reminder of the shared experiences and dedication to excellence that continue to define DUHS graduates. Department of Marketing, Communications, and Alumni, Dow University of Health Sciences is committed to building strong relationships with its respected alumni. We aim to develop lasting relationships and establish a favorable image of DUHS among our alumni community through these events.





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CHAPTER 15

Health Centre/ Medical Facilities

15.1. MEDICAL FACILITIES OF DOW UNIVERSITY OF HEALTH SCIENCES

Dow University Health System, a clinical services unit of Dow University of Health Sciences is the largest and the most comprehensive healthcare provider of tertiary clinical care in the region. Anchored by Dow University Hospital, the System is comprised of Dow Institute of Radiology, Dow Diagnostic Research & Reference Laboratory, OJHA Institute of Chest Diseases, Dr. Abdul Qadeer Khan Institute of Behavioral Sciences, Institute of Physical Medicine & Rehabilitation, National Institute of Diabetes & Endocrinology, National Institute of Liver & GI Diseases, and Dr. Ishrat-ul-Ebad Khan Institute of Blood Diseases.

Dow University Hospital (DUH) was established in 2009 as a tertiary care teaching and training facility for students, residents and fellows in medicine, pharmacy, nursing, dental, and other allied health sciences. With a capacity of over 500 beds, DUH is the only modestly priced tertiary care hospital that serves the burgeoning healthcare needs of the community. It provides education and internship/ on the job training to both undergraduate and postgraduate students in the following colleges/schools/institutes in DUHS:

• Dow Institute of Nursing & Midwifery
• Dow College of Pharmacy
• Dow College of Biotechnology
• Dow International Dental College
• Dow International Medical College
• Dow Institute of Medical Technology
• Institute of Business & Health Management
• Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences

It is among the few hospitals in the region that provide services for liver, kidney and bone marrow transplantation. Additionally, it offers complex and advanced medical and surgical care needed for patients in the areas of cardiology, cardiac surgery, neurology, neurosurgery, gynecology & obstetrics, emergency medicine, pediatrics, nephrology, physical medicine & rehabilitation, dermatology and other disciplines.

Service area within Dow University- OJHA campus are:

• Renal Transplant Unit
• Dow University Hospital (DUH)
• Dow Institute of Radiology (DIR)
• Center For Surgical Oncology
• Dr. Abdul Qadeer Khan Institute of Behavioral Sciences
• National Institute of Diabetes And Endocrinology (NIDE)
• Dow Diagnostic Research & Reference Laboratory (DDRRL)

- National Institute Of Liver And Gastrointestinal Diseases With Liver Transplant Unit (NILGID)
- Dental Sections, DIMC & DDC (With 10 Units For Oral & Maxillo-Facial Surgical Procedures) & Dental OPD Of DIKIOHS

Pharmacy Services

Pharmacy provides 6 days a week services to its customers. All prescription drugs and over the counter drugs are provided by the IPD & OPD pharmacy to cater to the needs of our patients as well as walk-in patients.

Vaccination Services

Vaccination services are available as provided by the National Expanded Programme of Immunization (EPI) and free of cost at OICD.

Physical Therapy Services

The Department of Physiotherapy provides comprehensive inpatient and outpatient services. All Physiotherapists are here to assess and treat patients of all ages and ailments and provide an important support service for our inpatients and outpatients in need of dire physical therapists.

In-patient Departments- IPD

Surgical	Medical	Pediatrics
E.N.T	Dialysis	Psychiatry
Orthopedic	Gynae / Obs	Ultrasound/ VIR

Critical care Units

EEG	CTG	VEP	EMG / NCV
G.A Fitness	Labor Room	Surgical ICU (06 Bed)	Dialysis lab (Newly built)
Medical ICU (11 Bedded)	Neonatal ICU (06 Incubators)	Operation Theater (04 O.T Tables)	Emergency Department (15 monitored Bed)
Pulmonary Function Test	Sleep Lab (Polysomnography)	Fully equipped 24 hours running ER including separate minor O.T, Ultrasound & X Ray.	

In summary, Dow Hospital provides following services and facilities to their patients:

- Intensive Care Unit (ICU)
- Dialysis Department
- Living donor Liver transplant

• High Dependency Unit (HDU)
• Outpatient Department (OPD Block)
• Neonatal Intensive Care Unit (NICU)
• Hepato-pancreatic biliary surgeries
• 24 hours Emergency Service Department
• 24 hours Emergency Service Department
• Vascular Interventional Radiology (VIR), highly specialized procedure for various diseases minimizing major surgeries
• All types of medical & surgical treatments to cardiac patients
• Operation Theater (OT) Complex for all major & minor surgeries

Dow Diagnostic Research and Reference Laboratory (DDRRL)

Dow Diagnostic Research and Reference Laboratory (DDRRL) was established in October 2007 to provide reliable, high quality diagnostic services of International standards for routine and specialized tests at economical rates (i.e. approximately at 30% as compared to private rates), for all socio economic segments of the population. The laboratory is the fastest growing lab in Pakistan, whose internal quality assurance is guaranteed by daily controls. DDRRL also has the provision of online electronic reporting and Image transfer facilities for all patients.

Radiological Testing Services

The Dow Institute of Radiology and Dow Diagnostic Complex are facilitated with services that include the provision of all modern diagnostic facilities like:

X-rays	Ultrasound	Fluoroscopy
Mammography	Echocardiography	General Radiography
Computed Tomography (CT) Scan	Magnetic Resonance Imaging (MRI)	Dual Energy X-Ray Absorptiometry (DEXA) Scan

Operation Theater (OT) Complex

Dow University Hospital established a huge operation purpose built theater i.e. OT Complex of International standards having 80,000 sq. ft. area which is fully equipped with most modern equipment. The OT Complex has nine 09 operation theaters. Two are designated for Liver Transplant and hepato-pancreatic biliary surgeries while two theaters are designated for Cardiac and Orthopedic Surgeries; the required special instruments and gadgets for the purpose are installed and provided.

The remaining five Theatres are also fully equipped with most modern equipment to have operations of General Surgery, Urology, ENT, Plastic Surgery, Neuro Surgery and Thoracic Surgery, Bariatric Surgery etc. This complex also has a fully equipped recovery

room. The operation floor has a unique channelizing operation in automation to collect the dirty liner with safety, which is then washed, sterilized and stored hygienically preventing infection.

The OT complex has state of art equipment including ventilators, invasive hemodynamic monitoring system and hemodialysis. Since various specialties also provide Postgraduate training, camera recording and CCTV system is also installed for telecasting live operative procedures. This new OT complex has a lot of facilities for the doctors, staff and students, including rest rooms, canteens and separate lockers besides other facilities.

Physiotherapy Services Department

Dow University of Health Sciences also offers physiotherapy services to outpatients through the attached department of the School of Physical Therapy at Institute of Physical Medicine & Rehabilitation (IPM&R). This department provides comprehensive rehabilitation services, i.e. cardiac, neurological musculoskeletal and pediatric rehabilitation, currently providing physiotherapy services to more than 55 patients per day. Since its establishment 14000 patients have been provided with physiotherapy services.

Blood Transfusion Services Program

Safe blood is a crucial and irreplaceable component in the medical management of many diseases. In Karachi, because of the massive influx of patients from interior Sindh and other rural countryside, the demand for safe blood for transfusion could not be met with only replacement donors. Blood shortage in Pakistan is documented to be about 40% and this problem is further accelerated by the inappropriate use of blood and its products.

Dow University of Health Sciences has taken the initiative towards provision of safe blood products to the needy patients. The overall project objective is to contribute to lowering hemorrhage mortality and to reduce the risk of transfusion transmitted infectious diseases and provision of safe and efficacious blood and blood products. The Voluntary non-remunerated blood donation (VNRBD) is the ideal source of quality blood, which forms less than 15 % of the blood demand in Pakistan. Under this initiative, Safe Blood Transfusion Services have been initiated with the strong pillars of voluntary blood donation with considerable community outreach, training of human resource in blood banking and transfusion medicine as per the recent scientific techniques and under the WHO recommended Quality Management principles, developing service delivery in blood banking and transfusion laboratory sciences with continuous education and research in transfusion medicine.

DUHS blood donation services are extremely active under the Donor Management Department of the Centre and disseminating the message of Voluntary Blood Donation to the population at large. The purpose is:

- Creation of a culture of voluntary blood donation through communication and education.

- | |
|--|
| <ul style="list-style-type: none"> ● Build a stable blood donor pool by motivating and recruiting new donors from low-risk populations, and encouraging existing or lapsed donors to become regular donors and to recognize the contribution to society made by blood donors. |
| <ul style="list-style-type: none"> ● Provide quality donor care, so that blood donation is not onerous |
| <ul style="list-style-type: none"> ● Provide quality assured blood products to all the needy patients |
| <ul style="list-style-type: none"> ● And create a sustainable foundation of advanced WHO recommended blood banking in Pakistan. |

OJHA Institute of Chest Diseases (OICD) & Chest Disease Clinics

OICD was established in the early forties, as a TB sanatorium and now recognized as a center of excellence for Tuberculosis by the World Health Organization (WHO). The services provided here are free of cost and normally such types of ICU services cost around Rs. 20,000 - Rs. 50,000 / day in private hospitals.

The facilities provided to patients include high quality diet, recreation environment with TV, cable etc. and vocational training and support in the form of training for candle making and stitching etc. The Dow University takes the responsibility to sell their products for them.

Four out-patient clinics of OICD in the periphery of the city are also functioning, these are chest clinics of Iqbal Yad, Nazimabad, Lyari and Malir, Each clinic has a well-organized DOT (Directly Observed Treatment), where these patients with TB are provided medicines and health education.

Daily about 600 patients visit these TB clinics for DOTS treatment and follow up.

TB HOSPITAL of 250 beds provides all possible facilities to indoor and outdoor patients for diagnosis and treatment of tuberculosis.

MULTI DRUG RESISTANT (MDR) TB is a great problem. In Pakistan about 15,000-20,000 tuberculosis patients presently suffering from Multi-Drug Resistant (MDR TB), each patient requires approx 500,000 Rs. for management including costly medicines and other logistics but at OICD their treatment is free.

15.2. HEALTH INSURANCE FOR DUHS EMPLOYEES

Hospitalization Insurance Department at Dow University of Health Sciences covering both in-patient and out-patient hospitalization claims. We are dedicated to providing comprehensive health insurance coverage to all employees, appointed on a regular and contractual basis ensuring their well-being and peace of mind during medical emergencies. Our insurance plan encompasses both in-patient and out-patient services, offering a wide range of benefits to support our valued employees. The insurance coverage is currently provided by Adamjee Insurance. At DUHS, we prioritize the health and well-being of our employees, and our hospitalization Insurance Department is committed to providing comprehensive coverage and support for all their medical needs. Currently there are 17371 lives covering employees & their family.

In-Patient Coverage: Our insurance plan covers all expenses related to in-patient hospitalization, including room charges, doctor's fees, surgical procedures, diagnostic tests, medications, and other necessary treatments. Employees can utilize a network of affiliated hospitals and healthcare providers for in-patient services, ensuring quality care and convenience.

Out-Patient Coverage: In addition to in-patient coverage, our plan also includes out-patient services such as doctor consultations, laboratory tests, prescription medications, and preventive care. Employees have access to a network of clinics and healthcare facilities for out-patient services, making healthcare more accessible and affordable.

Key Features:

- Easy enrollment process for employees, with clear information on coverage, premiums, and policy terms.
- Efficient claims processing system, ensuring quick reimbursement or direct payments for covered expenses.
- Dedicated customer support and guidance for employees, assisting them in understanding their benefits and navigating the insurance process.
- Compliance with all legal and regulatory requirements, maintaining confidentiality and security of employee health information.

The Employees & their dependents covered are divided in the following categories:

Benefit Structure for Employees and Staff of DUHS

Benefits/ Coverage	Categories and Annual Entitlements in Rs.		
	Category - A Grade 19 and equivalent	Category - B Grade 16 to 18 equivalent	Category - C Grade 15 and below
Inpatient Department Coverage (IPD)			
Per Annum Per Participant/Covered Person For Employees & Spouses (each)	1,000,000/-	700,000/-	400,000/-
Per Annum Per Participant/Covered Person For Children (each)	750,000/-	350,000/-	200,000/-
Per Annum Per Participant/Covered Person For Parents (each)	1,000,000/-	500,000/-	300,000/-
Daily Room & Board Limit	40,000/-	25,000/-	15,000/-
Outpatient Department Coverage (OPD)			
	80,000/-	50,000/-	30,000/-
MATERNITY BENEFITS			
Normal Delivery & Miscarriage	150,000/-	100,000/-	75,000/-
Cesarean Section/Multiple Births/Forceps	300,000/-	200,000/-	150,000/-

Benefits of Employees Covered under IPD/ Hospitalization

<p>Complimentary Accidental Cover: Enhancement of Hospitalization limit in case of Accidental Injuries, Cancer, Hepatitis B & C treatments & Kidney Dialysis.</p>	<p>The maximum available Hospitalization limit under each category will automatically be increased by 50% in case of hospitalization due to accidental injuries</p>
<p>Accidental Emergency Treatment:</p> <ul style="list-style-type: none"> • Emergency room treatment for Accidental emergencies. • Treatment of fractures & Lacerated Wound • Local road ambulance for emergencies only, Emergency Dental treatment due to • Accidental Injuries (within 48 hours of pain relief only) 	<ul style="list-style-type: none"> • Pre-Post Hospitalization: within 30 days prior to or after Hospitalization (Diagnostic Tests, Consultation Charges & prescribed Medicines) • Treatment of Congenital Ailments are covered up to Hospitalization benefit limit • Pre-existing conditions are fully covered • Anti-Viral Therapy (Injectable & Oral) for Hepatitis "B" & "C" is Covered up to Hospitalization benefit • Psychiatric treatment are covered (Inpatient) • COVID-19 related covered expenses will be excluded for non-vaccinated individuals, over the age of 18 years
<p>Covered Daycare procedures: Following procedures performed under LA will be covered as per medical necessity:</p> <ul style="list-style-type: none"> • Painful/infected In grown toe nail (IGTN) • Infected cases (Abscess/cyst) Incision / drainage • Painful Lipoma (Cosmetic removal is not covered) • Painful Planter warts • Carpel Tunnel Syndrome Surgery/ daycare orthopedic procedures such as POP Back slabs • Cubital Tunnel Syndrome Surgery • Cataract Surgery (Cost of IOL shall be covered up to maximum amount of Rs.25,000/-) • Injection Avastin • Injection Lucentis • All medically necessary eye procedures under LA, e.g. Pterygium (blurring vision), 	<ul style="list-style-type: none"> • Nasolacrimal duct blockage • Chalazion, painful internal, external hordeolum etc. • Any eye disorder leading towards vision impairment e.g. retinal detachment, Preretinal membrane, Keratoconus • Painful Sebaceous Cyst • USG guided Abscess drainage/Biopsy • Painful Ganglion • Endoscopic Ultrasound procedure • Dialysis • RFA Procedure (Radio Frequency Ablation , for abnormal electrical conductivity of Heart) • Lithotripsy (for Kidney Stones) • Chemotherapy • Radiotherapy
<p>Scopes</p> <ul style="list-style-type: none"> • Gastroscopy • Endoscopy • Bronchoscopy • Colonoscopy <p>Conduction Studies</p> <ul style="list-style-type: none"> • NCS/EMG • EEG <p>Graphic Studies</p> <ul style="list-style-type: none"> • Coronary Angiography • Mammography <ul style="list-style-type: none"> • ETT • Holter Monitoring • Echo/Stress Echo • All types of Biopsies • OCT • FFA 	<p>Scans</p> <ul style="list-style-type: none"> • MRI • CT scan • Thyroid scan • Renal scan • Thallium scan • PET scan • Bone scan (only for cancer pts) • Carotid Doppler • Barium Meal • Barium Swallow • Barium Enema • CT Angio • MRA • MRV

<p>Medical Emergency</p> <ul style="list-style-type: none"> • ER management of Renal or Biliary Colic • requiring injectable analgesics • IV treatment in ER for dehydration cases due to • Gastroenteritis • Severe Skin eruptions due to lacerations requiring stitching or dressing • ER Management of Epileptic Fits • ER management of Hyperglycemia and Hypertension 	<ul style="list-style-type: none"> • ER Management of High-Grade Fever requiring IV antibiotics & antipyretics • ER Management of Chest Pain • ER Management of Acute Bronchial Asthma • POPS for fractures in ER • ER treatment/gastric lavage of accidental cases of over-dosage/poisoning especially among children • ER management of upper GI bleeds • ER observation for Head Injury cases
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Benefits of Employees Covered Under Maternity

•	Pre & Post Natal Expenses.
•	Circumcision Charges of Newborn Baby Boys upto Rs. 5000/- (in case of twin deliveries is Rs. 10,000/-) subject to availability of the Maternity limit.
•	Normal/Caesarea/Multiple Births/Force Delivery.
•	Legal abortions DNC/DNE
•	Nursery care for the baby while the mother is confined.
•	Declare/Undeclared Pre-Existing conditions of married female employees/spouses are fully covered up to 50 years of age

Benefits Covered Under OPD

1.	Vaccinations.
2.	Prescribed Medicine
3.	Psychiatric Treatment
4.	Homeopathic/ Hakim treatment.
5.	Prescribed Diagnostics Tests
6.	Accident Related Dental Treatment.
7.	Declared / Undeclared Pre-Existing Conditions.
8.	Physician / Consultant's fees
9.	Pathology, Radiology and Diagnostic Tests, X-rays & Ultrasounds.
10.	Costs for Treatment by Therapists and Complementary Medicine Practitioners.
11.	Wellness Mammogram, Pap smear, Prostate Cancer Screening or Colon Cancer Screening.
12.	Dental Treatment including Extractions Teeth, Root Canaling or Capping or Similar Treatment.
13.	Follow up visits of patients during and after pregnancy

15.3. COUNSELING FOR STRESS REDUCTION

For Students:

Dow University of Health Sciences, Karachi, has taken the initiative to counsel the University students for their stress reduction by facilitating or providing financial assistance through various Institutions/Organizations. There are various organizations which are not in connection with the University, in such organizations University still facilitates students as a forwarding authority like others. Currently, the University signed an MOU with various philanthropists, to facilitate students as well as channelize the system. Meanwhile, University forwarded applications to the following Institutions with respective assistance/facility.



DUHS Counselling Services for Students

Students-Are you dealing with any of the following?



DUHS has a provision for counselling services offered to our students.

Counselling may offer you:

- Confidential non-judgmental support for your learning needs.
- A safe place to learn to be you
- A response to your learning disabilities or learning issues.
- Help you to navigate change in your life

Email for appointments

Ms. Fouzia Rehman

Student Counsellor Office
located at Ground Floor, Nursing Building
Email: fouzia.rehman@duhs.edu.pk
Ext: 2608

Ms. Areeba Rehman

Student Counsellor
Dow International Medical College,
DJHA Campus
Email: areeba.rehman@duhs.edu.pk



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI

DUHS

ANNUAL STANDARDIZED REPORT

2023-24

CHAPTER 16

Sustainability

16.1. GOOD HEALTH & WELL BEING - SDG 03

Global and National Collaborations:

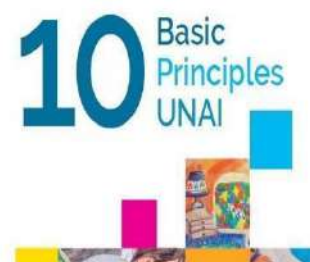
The Dow University of Health Sciences collaborated with different organizations / bodies at local, national and international levels to improve health and wellbeing.

At Global level, DUHS has developed a WHO collaborating Centre at Ojha Institute of Chest

Diseases (OICD)-DUHS for Tuberculosis (TB) Research.

Also, DUHS has acquired United Nation Academic Impact (UNAI) Membership Citation in April 2020, and as a member, values it's commitment to its 10 principles, which include:

1. Commitment to the United Nations Charter,
2. Human Rights,
3. Educational opportunity for all,
4. Sustainability,
5. Capacity-building in higher education systems,
6. Global citizenship,
7. Peace and conflict resolution,
8. Addressing poverty,
9. Higher Education opportunity for every interested individual
10. The “unlearning” of intolerance.



Community Outreach Programs:

- **Department of Community Medicine, Dow Medical College (DMC)**

The Department of Community Medicine, DMC organized various outreach and awareness sessions for the community. Below is the event calendar hosted by the Community Medicine Department during 2023-2024:

Community Activities of Community Medicine Department, Dow Medical College				
S. No.	Date	Faculty	Event/Activity	Venue
1		Dr. Muhammad Khalid Shafi	World Immunization week Awareness session	Sindh Govt Infectious disease hospital
2	4th July 2023	Dr. Muhammad Khalid Shafi	Health Show	Geo TV
3	20 th Aug 2023	Dr. Muhammad Khalid Shafi	XDR Typhoid public massage	Geo TV

4	15th July, 2023	Dr. Muhammad Khalid Shafi	Immunization Awareness session	Geo TV
5	4 th Aug 2023	Dr. Muhammad Khalid Shafi Dr. Gaiti Ara	Breastfeeding workshop with mothers	OPD Civil Hospital Karachi
6	8 th Aug 2023	Dr. Muhammad Khalid Shafi	National Guideline for Oxygen Therapy in children Workshop	CLF Office CHK
7	8 th Aug 2023	Dr. Muhammad Khalid Shafi	Breastfeeding Promotion session	Sindh TV
8	28 th Aug 2023	Dr. Muhammad Khalid Shafi	Polio Meeting with Ulma	EOC Sindh
9	24 th Aug 2023	Dr. Muhammad Khalid Shafi	Breastfeeding Session	DMC and Ojha Campus, DUHS
10	24 TH Oct 2023	Dr. Muhammad Khalid Shafi	Polio Eradication Public Awareness session on TV	PTV Debat @ 8 Program
11	24 th Oct 2023	Dr. Muhammad Khalid Shafi	Polio Update	Geo TV
12	24 th Oct 2023	Dr. Muhammad Khalid Shafi	Polio Awareness Session	Public TV
13	24 th Oct 2023	Dr. Muhammad Khalid Shafi	Polio and Immunization session	Metro TV
14	10 th Nov 2023	Dr. Muhammad Khalid Shafi	Polio Session With Mothers	Bayview School DHA Karachi
15	25 th Nov 2023	Dr. Muhammad Khalid Shafi	Breastfeeding Promotion Bill	Awaz TV
16	28 th Nov 2023	Dr. Muhammad Khalid Shafi	Polio Awareness session	Bol News
17	30 th Nov 2023	Dr. Muhammad Khalid Shafi	Polio Vaccination Message	Bol News
19	1st Jan 2024	Dr. Muhammad Khalid Shafi	The Grand EPI & Polio Awareness walk	Karachi Mazare Qaid
20	8 th Jan 2024	Dr. Muhammad Khalid Shafi	Polio Awareness Session	Dawn News
21	11th & 15th Jan 2024	Dr. Muhammad Khalid Shafi	Polio Awareness Session	Aaj News
22	16th Jan 2024	Dr. Muhammad Khalid Shafi	Turning Disability into Ability Chaired session Youth Parliament	IDA RIEU Karachi
23	29th & 30th Jan 2024	Dr. Muhammad Khalid Shafi	Help Baby Survive TOT	Karachi SICHN
24	7th and 9th Feb 2024	Dr. Muhammad Khalid Shafi	Trickle Down Training HELP BABIES SURVIVES	Karachi Zainab Panjwani Hospital
25	18-Feb-24	Dr. Muhammad Khalid Shafi	Polio Awareness Session with Parents Beacon house DHA	Beacon House DHA Karachi
26	21st Feb 2024	Dr. Muhammad Khalid Shafi	Polio Awareness Session with Parents Bahria School	Baharia School Karachi
27	26th Feb 2024	Dr. Muhammad Khalid Shafi	Polio Awareness Session	ARY News

- **Department of Community Medicine, Dow Dental College (DDC)**

Camp for oral health advocacy at Health Asia moot

Dow Dental College's Department of Community Dentistry held an innovative dental camp at the Health Asia Conference 2023 at the Expo Center, gathering expert healthcare professionals from various fields, amid the bustling exhibits and enlightening courses.

More than just offering complimentary oral health checkups, the dental camp provided a comprehensive experience for the participants who received personalized guidance on oral hygiene practices and were educated about the risks associated with tobacco products, such as cigarettes and betel nuts.

Available to all conference attendees, the camp featured a team of seasoned experts from DDC Department of Community Dentistry. The faculty, including Dr. Taqi, Dr. Adnan, Dr. Mona, Dr. Babar, and Dr. Amber, alongside 11 dedicated house officers, ensured that each participant got valuable insights and recommendations.

A multitude of Health Asia Conference 2023 attendees reaped substantial benefits from this enlightening dental camp. Not only did they gain vital knowledge about maintaining oral health, but they also became aware of the accessible subsidized dental services offered at DDC.



DDC Team Screens 600 Seminary Students for Oral Ailments

The Dow Dental College (DDC) Department of Community Dentistry provided oral health guidance and services to students of Madrasa Jamia Ansaria between the ages of 5 to 21 years during a visit to the seminary on the outskirts of Karachi. The activity was conducted by a dedicated team comprising final-year dental students, house officers, and faculty members under the guidance of Dr. Muhammad Taqi, the Head of the Department of Community Dentistry.

During this outreach activity, a total of 600 students were provided oral health guidance in both Pashtu and Urdu languages, emphasizing essential oral hygiene practices with a focus on regular check-ups, proper tooth brushing, effective flossing techniques, maintaining a healthy diet, and overall oral health maintenance.



The DDC team conducted comprehensive screenings of the students to identify common oral health issues such as caries, bleeding gums, infections, and ulcers. The screenings were facilitated by the team of faculty members, comprising Dr. Adnan Anwar, Dr. Babar Zia, and Dr. Mona Shah, in collaboration with final-year dental students Aliza Adil, Noureen, and Ayesha Siddiqa. They explained personalized management plans to each student, providing those free medications and medicated toothpaste to promote long-term dental wellness within the community.

Dow Dental College BDS students examine 200 school kids



As part of community outreach programme, third-year BDS students from Dow Dental College organized a camp to promote oral health among 200 students at the Kotwal Boys Secondary School, under the guidance of Assistant Professor Dr. Muhammad Taqi, alongside Dr. Adnan, Dr. Mona, Dr. Babar, and Dr. Amber, the outreach programme aimed to empower students with essential oral hygiene practices.

The students engaged with the school community, imparting knowledge on proper tooth brushing techniques and effective flossing methods to instill habits conducive to optimal oral health in them. The outreach activity involved hands-on clinical examinations conducted by the BDS students, enabling them to apply their clinical expertise in identifying potential dental issues among the school students. Specific treatment plans were recommended for individuals identified as high-risk for dental caries, addressing their oral health needs.

DDC Visit to JDC Foundation's House of Education

The Department of Community Dentistry at Dow Dental College spearheaded a collaborative initiative aimed at improving the oral health of children. This initiative involved partnering with the School of Dental Care Professionals, specifically engaging student leaders from the Dental Hygiene Program, as well as collaborating with the JDC Foundation's House of Education.



Under the guidance of Assistant Professor Dr. Muhammad Taqi, alongside Dr. Adnan and Dr. Amber Saeed from the Faculty of Community Dentistry, in conjunction with the DDC Students Assembly, a dedicated team of volunteer students visited an orphanage to interact with 185 children.

The program featured informative presentations and engaging animated videos covering fundamental dental hygiene concepts, including proper brushing and flossing techniques by practical demonstration where children were taught correct brushing techniques using dental models. Additionally, a lively quiz based on the shared information was conducted, with successful participants receiving goodie bags containing toothpaste, stationery items, and colorful stickers. Simultaneously, dental checkups were carried out, allowing the doctors not only to assess the children's dental health but also to offer guidance on preventive measures and make necessary referrals when required.

Community Department in coordination with Colgate Palmolive Pakistan organized Health Week

As part of the comprehensive study program, the Community Dentistry department collaborated with Colgate Palmolive Pakistan to organize a Health Week initiative. Throughout the week, a series of events were conducted to promote oral health awareness among the youth. One of the key highlights of the initiative was providing free Dental Checkups at various schools in Karachi. The professional dental teams not only conducted the checkups but also engaged with the children, imparting valuable knowledge on the importance of Oral Hygiene. These interactive sessions included educational demonstrations on proper brushing techniques, the significance of regular dental visits, and how maintaining good oral health can contribute to overall well-being. The students were encouraged to ask questions, fostering an open dialogue about dental care.



- **Dow Institute of Physical Medicine and Rehabilitation, DUHS**

F&SRC workshop at DIPM&R

Dr. M. Sarfraz, (Assistant Professor & HOD at DUHS Fitness and Sports Rehab Centre), led a comprehensive workshop on "Exercise Basics" on February 27th, 2024 at DUHS F&SRC. The session enlightened attendees, including DUHS Family (students, staff, employees) and the community, on foundational exercise principles, emphasizing proper form, warm-up and cool-down routines, setting fitness goals, and dispelling misconceptions about weight training. This insightful workshop equipped participants, whether beginners or those midway through their fitness journey, with valuable knowledge to optimize their workouts and prevent injuries.



- **Events by Department of Visual Sciences-DUHS**

Name of Event	Date of Event	Activities	Organized By
Word Sight Day 2023	12 October, 2023	Free stall of medicines for patients	Eye Department Of Dow University of Health Sciences
Annual Health Innovation Exhibition	21 November, 2023	Free Eye camp and awareness program	Dow University of Health Sciences
Orthoptics Exhibition	9 October, 2023	Awareness through model and chart presentation	Optometry Department Of Dow University of Health Sciences
Low Vision Exhibition	4 November, 2023	Awareness through model and chart presentation	Optometry Department Of Dow University of Health Sciences

- **Outreach Activities by School of Dental Care Professionals, DUHS**

Students of BS-DCP Dental Hygiene Program participated in Oral Screening on world Diabetes Day held on 14-11-2023 organized by National Institute of Diabetes & Endocrinology, DUHS.



Students of BS DCP Dental Hygiene Program Participated in community visit along with BDS students of Dow Dental College at Kotwal Government School held on 7-12-2023.



Students of BS-DCP Dental Hygiene Program participated in Oral Screening on “Ramazan Diabetes” event held on 17-2-2024 organized by National Institute of Diabetes & Endocrinology, DUHS.



- **Outreach Activities by School of Public Health, DUHS**

February 2024: With a research grant of 1 million, Medical camps at various locations in Karachi were set up to assess for metabolic syndrome in healthy appearing adults up for screening. The participants were provided with free physical examination and free vouchers for diagnostic laboratory tests. All self-reported chronic conditions were further assessed by physical examination, medical history of the participants and laboratory findings. These camps make sure people are getting the healthcare at the right time, and seeing the doctor early enough before a small health problem turns serious. In continuation of last year, a research based activity was performed to screen apparently healthy individuals for metabolic syndrome. In this activity, anthropometric measurements, blood pressure measurement, doctor's consultation and sugar and lipid profile tests were investigated free of cost.

March 2024: A field visit organized to observe disease incidences and sample collection for the development of biological control approaches using epiphytic yeast is an excellent opportunity for students to gain practical insights into agricultural research and postharvest management. The project "Development of biological control approaches using epiphytic yeast to maintain postharvest quality and control fruit rot of mango, citrus & tomato" is approved for funding by NRPU, HEC 2021. (The research study is ongoing)



January 2024: Field visit of students and faculty to PPHI Nutrition stabilization Centre at Liaquat University of Medical & Health Sciences (LUMHS), Hyderabad and Jamshoro. Mr. Zakir Hussain Samo, District Nutrition Coordinator PPHI Sindh Jamshoro gave a tour of Nutrition stabilization center that caters to the communities of Sindh and Balochistan. Students had a profound and invaluable learning experience. NSCs typically cater to children suffering from severe acute malnutrition (SAM) or other forms of malnutrition. Students witnessed firsthand devastating effects of malnutrition on individuals and communities, including stunted growth, compromised immune systems, and increased susceptibility to diseases. Students learnt about Assessment and Screening, Treatment Protocols and how Cultural Sensitivity and



Contextual Understanding is important in interaction with patients and their families also how cultural, social, and economic factors influence nutrition status in different communities. This understanding is essential for designing culturally appropriate intervention



- **Outreach Activities by Department of Community Dentistry, Dow International Dental College, DUHS**

6th Mar, 2024 and 31st Jan, 2024: Visit to Society for the Rehabilitation of Special Children (SRSC)

Dow International Dental College, DUHS, organized Oral Screening and Health awareness sessions in collaboration with The Society for the Rehabilitation of Special Children (SRSC), at Saddar, Karachi.

The 1st visit to SRSC was held on 31st Jan, 2024 and 2nd session of this year was held on March 6th, 2024. There were a total of 5 team members from DIDC, DUHS including the Principal, Faculty members and house officers visited SRSC.

The session started with Oral health awareness through a presentation on oral hygiene awareness, given to the children and the team of caretakers SRSC, and continued with a Question/Answer session with the SRSC caretakers. An interactive hands-on session with special children was done by the faculty and house officers. After that follow-up consultation and follow-up physical measurement was done for all of the special children. It was the first time the special children of SRSC were exposed to the dental screening program so the team was enthusiastic to participate in the voluntary work. The session ended by giving Colgate kit samples to all children by the faculty of DIDC.



21st Feb, 2024 to 8th Mar, 2024: World Oral Week Community Outreach Activity

The administration and Faculty of Dow International Dental College, DUHS, organized free Oral Screening and Health awareness sessions in different schools in Karachi in collaboration with The Shield Pakistan.

These free school camps were started on the 21st 2024 of February and ended on the 8th of March 2024, there were a total of 6 team members from DIDC, DUHS which included the

Faculty members and house officers -who visited and covered almost all districts of Karachi, where more than 2500 school students get a free consultation and oral hygiene instructions.

The session ended by giving Shield kit samples to all children by the faculty of DIDC.



2nd Nov, 2023: Visit to Govt Girls Primary School NO. 7 Korangi NO. 6

The Community Outreach program was organized by the Department of Community and Preventive Dentistry DIDC, DUHS held on November 2nd, 2023. All Faculty members of the Community and Preventive Dentistry Department and Students of 3rd year BDS activity participated in the community outreach program.

The primary objective of the event was to provide Oral screening and proper brushing methods taught by the students, also given furthermore instructions about good food and bad food were given with the help of chat and play cards.



Brushing kits/ samples were also given to every student and the importance of brushing was demonstrated at the end of the session. School health service was provided for the students to promote, protect their health, and maintain their oral health overall.

20th HEALTH ASIA 2023 & International Exhibition & Conferences

Health Asia International Exhibition and Conferences being held at Karachi Expo Centre it's a Biggest Health & Medical Industry Event of Pakistan.

Faculty and House Officers of Dow International Dental College, DUHS participated in this event on 21st October 2023, a team of DIDC interacted and consult more than 60 foreigners.



The day's agenda was packed with informative dental knowledge, and the essential aspects of proper oral hygiene practice and also provided guidance on preventive measures and necessary referrals.

18th Sep, 2023 – 22nd Sep, 2023: Free Oral Screening Colgate Oral Health Week

Dow International Dental College DUHS, organized a free oral screening week in collaboration with Colgate Pakistan. Faculty and house officers of Dow International Dental Collage actively participated in this event held from 18th September 2023 to 22nd September 2023, team members of DIDC aimed to provide accessible dental care to school-going children and also intended to raise awareness about oral health and promote early detection for any kind of dental issues.



The event was for all primary and secondary Karachi-based school students both girls' and boys' sections, students were checked and their problems were addressed by more than 75 highly qualified faculty of DIDC.

ACTIVITIES:

Oral Health Screening: proper examination, for signs of cavities and gum disease were checked.

Education Sessions: oral hygiene practices, including brushing techniques, flossing was demonstrated

In the end, Colgate brushing kits were distributed to all students, reinforcing key messages about oral health maintenance.

- **Outreach Activities by Dow Institute of Nursing & Midwifery, DUHS**

On January 27th, 2024, the BSN Semester VIII students from GBSN Dow Institute of Nursing and Midwifery, DUHS, orchestrated a comprehensive health awareness session in Marora Goth, Karachi. The session encompassed a variety of engaging activities, prominently featuring blood sugar and blood pressure monitoring stations. In addition, the students established informative stalls that delved into critical health topics such as malaria, dengue, family planning, and diabetes. These stalls served as focal points for community members, offering them accessible information and resources to promote well-being.



Both men and women from the community actively participated in the event, immersing themselves in the diverse array of activities and eagerly receiving educational leaflets. Colorful posters adorned the venue, serving as vibrant conduits for the dissemination of vital health information throughout the community. This initiative was seamlessly integrated into the curriculum's framework, specifically aligning with the objectives of the Community Health Nursing-III course and the overarching principles of the PNC curriculum. Through collaborative efforts and proactive engagement, the session epitomized the institution's commitment to fostering community health and empowerment.

- **Go Green Breathe Clean- Mangroves Plantation by Green Youth Movement (GYM) Club**

To celebrate 76 years of independence the students and Faculty of DUHS joined the Sindh Forestry department to plant mangroves, an ecologically much needed plantation. In connection with the green youth movement (GYM), HEC to plan and execute the agenda of Go Green Breathe Clean DUHS a highly energized meeting was held in the Principal Board Room, DIMC chaired by Pro.Vice Chancellor Dr. Jahan Ara Hassan.

Dr. Sumbul Shamim, Principal Dow college of Pharmacy/Focal Person for the GYM briefed to her the past and pending activities to be executed through a designed line of action. A presentation explaining the concept of Urban forest and highlighting the current activities of the social forestry department was made by Mr. Zeeshan.



- **Outreach Activities by Institute of Business & Health Management, DUHS**

The Community Service & Sustainability Society at the Dow University of Health Sciences, Institute of Business and Health Management, arranged a dowry for the daughter of a janitorial staff member, showing their support and care. In a demonstration of compassion, the society pooled resources to provide essentials for the young bride-to-be's new journey. Among the items generously contributed were a Super Panasonic stitching/sewing machine enclosed in a sturdy wooden cover, four sets of Prestige hotpot and cooler sets to ensure comfort in daily life, a lavish Fantasy Dinner set serving six persons, along with an assortment of practical kitchenware including 17 pieces of Super National non-stick cookware and 15 pieces of United Cookware. This act of kindness highlights the university's commitment to its community, ensuring that everyone feels valued and supported.

- **Department of Community Dentistry, Dow International Medical College (DIMC)**

In collaboration with the School of Public Health and the Dental Department, we organized a two days community health camp to provide comprehensive healthcare services to the underserved population. The camp offered free medical consultations, dental check-ups, immunizations, and health education sessions on various topics such as hygiene, nutrition, family planning, and NCD prevention.



Smoke-free Campus

Dow University of Health Sciences has the Policy for Tobacco & Smoke Free Environment at DUHS which was created on April 11, 2020 and publicly available on DUHS website. The department of Community Medicine, Dow Medical College – DUHS organized an awareness session for all the staff and students on Smoking and Tobacco Control & Cessation, to encourage a smoke free environment. Moreover, The Marketing department of DUHS organized an anti-smoking team visit by Commissioner Karachi & WHO Representative on 16th June, 2022, in which DUHS was declared as Pakistan First Smoke-Free University.



16.2. QUALITY EDUCATION – SDG 04

Educational Outreach Activities

- School children & teachers visited Dow Dental College



The students and teachers of Government Boys Secondary School, Kotwal Building visited to the Dow Dental College led by the headmaster under an initiative by Dr. Taqi, Head of the Community and Preventive Dentistry Department at the DDC.

The 35 students and 7 teachers of the school were given a comprehensive presentation by Dr. Adnan Sukkurwalla, providing an overview of the institution's rich legacy and ongoing initiatives. Subsequently, the students were divided into groups, each guided by Dr. Mona, Dr. Babar, and Dr. Amber, who led them to various DDC departments, facilitating insightful interactions with the faculty, who informed them about their respective functions and operations. Simultaneously, a group of teachers was escorted through different dentistry departments under the supervision of Dr. Adnan Sukkurwalla.

At the end of the trip, the students and teachers met with Dr. Muhammad Taqi, and shared their newfound insights, appreciating the invaluable learning experience. The excursion not only encouraged the students' curiosity, but also enriched their academic journey.

- **World Oral Health Day marked at DDC**

To mark World Oral Health Day, the Dow Dental College (DDC) organized a series of presentations and activities focused on promoting dental wellness.



In collaboration with Platinum Pharma, the DDC's Community Health Department and its faculty, including the Head of the Department Dr. Muhammad Taqi, Dr. Adnan, Dr. Mona, Dr. Babar, and Dr. Amber, organized the event. The festivities commenced with a warm welcome to the participants, where the organizers highlighted the significance of World Oral Health Day and maintaining good oral hygiene. The speakers on the occasion shared their expertise in various aspects of oral health. Dr. Mona Shah delivered a comprehensive presentation on the importance of maintaining good oral hygiene. Following this, Dr. Chandar Kumar, Head of the Department of Periodontology, discussed the role of pharmaceutical companies in promoting oral health awareness and accessibility to dental care products.

As the event concluded, the speakers were presented with shields to laud their contributions to the success of the World Oral Health Day event. Platinum Pharma representative expressed his gratitude to the college principal by presenting him with a bouquet. He reiterated the shared commitment to enhancing oral health awareness and accessibility to dental care products.

Executive & Vocational Training/Courses Programs

DUHS provides a platform for health care professionals by signing an agreement with Pakistan Institute of Quality. An executive education program which is Certified **Healthcare Quality Professionals**, and is open to all, not just those from the University. This program equips professionals to be certified as a Healthcare quality professional and the 4 months course provides lectures and interactive discussion sessions, each semester, open specifically to personnel working in health services or healthcare management.

Moreover, Dow University of Health Sciences has a separate department for training with the name of **Dow Skills Development Centre (DSDC)**. It is registered/ affiliated with Sindh Board of Technical Education Karachi and National Vocational & Technical Training Commission (NAVTTTC), and conducts Professional Computer Courses as well as regular vocational training

for faculty/ staff. The program particularly focuses on key technical skill areas identified as the most crucial for Health Care Professionals at DUHS to improve the level of services DUHS is providing to the nation. However, there are specialized textile sector courses for girls in a safe & secure environment.

Vocational training/courses offered by DSDC during the period 2023-2024			
S. #	Name of Training/Course	Date	No. of Participants
1.	Service Excellence	18 Jan, 2024 to 10 Feb, 2024	120
2.	Intensive English Communication Training	1 Nov, 2023 to 10 Nov, 2023	90
3.	Service Excellence (Care for Connect)	21 Sept, 2023 to 7 Oct, 2023	125
Course offered by DSDC during the period 2023- 2024			
S. #	Name of Training/Course	Date	No. of Participants
1.	AI and NVivo Software Workshop	3 Mar, 2024 & 16 Mar, 2024	16
2.	IELTS Preparatory Crash Course Batch 03 (DMC)	22 Feb, 2024	5
3.	IELTS Preparatory Crash Course Batch 03 (Ojha)	21 Feb, 2024	5
4.	Basic of Blood Banking	18 Feb, 2024	12
5.	DIT	16 Jan, 2024	65
6.	CIT (Morning Batch 02)	15 Feb, 2024	56
7.	Graphics Design Batch 03	7 Dec, 2023	17
8.	CIT (Evening Batch 02)	8 Nov, 2023	20
9.	CIT (Evening Batch 01)	27 Sep, 2023	30
10.	IELTS Preparatory Crash Course Batch 02 (Ojha)	16 Sep, 2023	10
11.	IELTS Preparatory Crash Course Batch 02 (DMC)	15 Sep, 2023	5
12.	CIT (Morning Batch 02)	7 Sep, 2023	56
13.	CIT (Morning Batch 01)	11 Jul, 2023	89
14.	Graphics Design Batch 02	4 Jul, 2023	15
Total			736

16.3. GENDER EQUALITY - SDG-05

The Dow University of Health Sciences practices equal access to resources and opportunities, regardless of gender, including employment, admission and decision-making.

Women Applications and Entry

The scope of non-discrimination with regards to gender on admission of students is covered in the **DUHS Act 2004** (policy document of the University) which states in Clause No. 5.1 Under Section that the University is Open to All, ***“The University shall be open to all persons of either sex of whatever religion, race, creed, color who are academically qualified for admissions to the courses of study offered by the university and no such persona shall be denied to the privilege on the ground of only sex, religion, creed, race, class, color”***. Furthermore, **DUHS demonstrates equal employment opportunity** without any discrimination to genders and encourages a participative work culture of equality and professionalism in all the endeavors at DUHS. These aspects include, hiring, learning, development, performance enhancement etc.

Women's Access Schemes

Mentoring programs are being offered at constituent Institutes/ Colleges/ Schools at DUHS such as DCOP & DIPM&R. Furthermore, DUHS also have scholarship programs in which different scholarships are awarded to students and Ehsaas Undergraduate Scholarship Program is one of them. It is the country's largest undergraduate scholarship program provided by the Higher Education Commission (HEC) -Pakistan, in which students are given need and merit-based scholarships, with 50% scholarships reserved for girls.

- **An Interactive session on Importance of Nutrition for Women's Mental and Physical Well-Being**

On Women's Day, Dow University of Health Sciences celebrated the strength and achievements of women in both mental and physical health. The event showcased the unity and support within DUHS, symbolized by the various hues of purple. Dr. Faisal Yameen initiated the program with insights on holistic wellness, highlighting the significance of physical activity across all aspects of life. Ms. Badder Hina emphasized the importance of nutrition for women's mental and physical well-being.

The interactive Q&A session allowed participants to engage directly with speakers, with discussion on contemporary health issues. The yoga session, guided by Dr. Noor along with Ms. Rohi Naz and Ms. Mahawish Asher, instilled tranquility and taught techniques for managing stress. The Pro Vice Chancellor Prof. Dr. Jahan Ara Hasan, Dr. Zeba Haque, Prof. Dr. Sumbul Shamim, and Dr. Mehnaz Director of Sports DUHS shared invaluable wisdom, inspiring all

attendees. The event exemplified DUHS's commitment to empowering women without limits, making it a day of immense pride for all associated.

Maternity Policy

At DUHS, the maternity policy is in place from 2007 as mentioned in the Statutes of DUHS, Maternity Leave Clause No. 11 of the Section, Leaves Statues of DOW University Statues 2007, which are translations of the Act (policy document for every university). However, the formal policy was created in 2019. As a semi-autonomous organization, we follow all Sindh government rules and regulations, which has granted paternity leave to employees as allowed through the Gazette of Pakistan 2019.

Childcare facilities for students, staff and faculty

Dow University of Health Sciences has Dow Day Care Center which offers a subsidized day care facility to the students, staff and faculty which allow them to continue their studies and ensure work compliance of all the employees. The Day Care provides child care services to infants of age 3 months to 5 years. It maintains a good hygienic environment by following standard child care practices under supervision of trained professionals. It also promotes early childhood development by providing facilities and engaging children in physical and interesting age-appropriate learning activities, day celebrations and by providing best hygiene, furniture equipment, meal, snack time, play time & sleeping time. The details can be found at provided web links of Day Care Centers at both campuses of DUHS.



Protection against Discrimination

DUHS has formal policy in place for the protection against discrimination, for instance Policy for Grievance of Students & Policy for Grievances of Employee. Besides the formal policy for the said purpose, we also have various forums/ mechanisms in place which deal with and allow reporting of cases regarding such discriminations. "Dow Connect" (<http://dc.duhs.edu.pk/>) is the confidential e-portal for registering complaints/requests of faculty, staff & students regarding discrimination from educational or employment disadvantage. The students can also register their educational matters/complaints to the Academic Committee of DUHS, which meets as and

when required and furnishes its recommendations/suggestions to the competent authority for approval. Also, the faculty and staff can put up their concerns in the “Grievance Committee”, which resolves the cases accordingly.

16.4. PARTNERSHIP FOR THE GOALS – SDG 17

Collaboration with NGOs to tackle the SDGs

Dow University of Health Sciences has its own student run non-profit, non-political welfare organizations i.e. Pakistan Welfare Association (PWA), Dow Patient Care Association (DPCA), & Serve Our Community Health (SOCH).

PWA was established to help those in need, to remove the despair and unease from the lives of those patients who are struggling with poverty. Some activities by PWA for the year 2023-24 are as follows:

PWA Activities during the period 2023-24		
S. No.	Event Date	Event Description
1.	7 July, 2023	A tour of PWA was given to students of SOCH Student Volunteer Program, explaining the importance and working of PWA's Blood Bank and Thalassemia Daycare Centre.
2.	12 July, 2023	SOCH SVP volunteers arranged an activity for TDC patients, along with goodie bags distribution.
3.	22 July, 2023	Med-Connect (Episode 1); a session was conducted by Dr. Najeib Ahmed, Dow Graduate of Batch 2001, on "Core principles of Diagnostic Radiology for Undergraduates".
4.	6 August, 2023	Med Connect (Episode 02); a session conducted by Dr. Muhammad Shoaib Khan, Dow graduate of 2012, on "Paving a path to success, training opportunities in Pakistan and the United States".
5.	9 August, 2023	Hepatitis Awareness webinar was held in collaboration with The Health Foundation, in which Dr. Saad Khalid Niaz was invited as guest speaker.
6.	14 August, 2023	Independence day celebration with thalassemia patients was held at Thalassemia Daycare Centre, PWA. The event included speeches, quiz competition, games and cake cutting ceremony.
7.	17 August, 2023	A healthy mind activity was arranged for the Thalassemia patients at Thalassemia Daycare Centre by a graduate of Batch 2023 to instill the value of personal hygiene and health for our young warriors.
8.	19 September, 2023	Storytelling activity was arranged for patients at Thalassemia Daycare Centre in collaboration with GoRead.
9.	23 September, 2023	PWA's Donors' Conference 2023 was held at Muin Hall, Dow Medical College. A presentation of PWA's financial and departmental reports along with progress over the past year, future plans and aims were discussed at event. It was attended by the volunteers, alumni, board members and our esteemed donors and well-wishers. Vice-Chancellor DUHS Dr. Saeed Muhammad Quraishy (TI), Medical Superintendent Civil Hospital Karachi Dr. Syed Khalid Bukhari, Director JK

		Enterprises Mr. Javed Iqbal, and CEO Tata Textiles Mills Mr. Shahid Anwar Tata were some of the renowned names amongst the attendees.
10.	7 October, 2023	Awareness session on Thalassemia and Voluntary Blood Donation was arranged for the volunteers of Nixor Hospital. They also visited the Thalassemia Daycare Centre and Blood Bank, where they were introduced to the working of PWA.
11.	11 October, 2023	Awareness Session at Kiran Foundation, for the locals of Lyari. We visited one of their setups: Salma Ghar KF, for an Awareness Session for the mothers and women of the community. The session was centered on “Thalassemia, from a mother’s perspective”.
12.	14 October, 2023	The founder of “The Faryal Kamran Initiative” Miss Faryal Kamran arranged ‘Healing through Art’ activity for patients at Thalassemia Daycare Centre.
13.	19-21 October, 2023	The volunteers of PWA arranged a stall at 20th Health Asia International Exhibition and Conferences, held at Expo Center Karachi.
14.	13 November, 2023	PWA's volunteers held an awareness session at Shamsi School and College. The students from class 9th till 12th were provided knowledge about thalassemia, blood donation, and the importance of volunteerism.
15.	14 November, 2023	The PWA volunteers held an awareness session at Mazin Academy, which is an NGO working to educate children of rural communities. Two separate sessions about blood donation and thalassemia were held. One aimed at students and another one for their parents.
16.	15 February, 2023	The volunteers of PWA welcomed the Dow Batch of 2029 by arranging an Orientation session at New Lecture Hall-1, DMC. The students were also given a tour of the Blood Bank and Thalassemia Daycare Centre.
17.	7 March, 2023	The volunteers of PWA arranged a kiosk at Spring Fest at BMM PECHS Government College for Women.
18.	7 March, 2023	A stall was set up at Society Orientation held at Dow Medical College.
BLOOD DONATION CAMPS		
19.	25 July, 2023	At Imam Bargah Wahdatul Muslimeen, Johar / IMI
20.	27 July, 2023	At Markazi Imam Bargah, Steel Town / IMI
21.	28 July, 2023	At Manzoor Colony / BMT
22.	28-29 July, 2023	At Numaish / IMI
23.	07 September, 2023	Chehlum blood camp in collaboration with BMT
24.	07 September, 2023	Chehlum blood camp in collaboration with IMI
25.	22 October, 2023	MMSJ Bloodcamp
26.	12-14 December, 2024	At Movenpick Hotel

27.	19 February, 2024	In collaboration with Baltistan Medical Trust
28.	25 February, 2024	At Dynamik Gym
29.	6-7 February, 2024	At VisionTech Export, Landhi
30.	3 March, 2024	In collaboration with MMSJ
31.	5 March, 2024	At A. F. Ferguson & Co.



DPCA, or Dow Patient Care Association, was founded in 2012 and is a resident non-profit, non-political welfare organization that aims to bridge the gap between needy patients and healthcare.

In addition to their focus on addressing patient financial needs, DPCA regularly participates in community awareness initiatives and public health movements to improve the quality of life on Ojha Campus and the surrounding area.



S. No.	DPCA activities during the period 2023-24
1.	DPCA provided over PKR 2,500,000 or 1/4 crore (greater than 2x the amount ever spent on patient welfare than any other year in DPCA history) worth of medical procedures, diagnostic or laboratory tests, and medication to the non-affording, underprivileged patients of Dow University Hospital.
2.	During the past year, DPCA financially supported up to 100 patients every month, a new record in DPCA history.
3.	Introduced the "Medicinal Welfare System", a new initiative allowing DPCA to sponsor medication for the non-affording, underprivileged patients of Dow University Hospital, in addition to medical procedures and laboratory testing.
4.	Expanded DPCA operations into other colleges, with active operations in the Dow International Medical College, Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences, and Dow College of Biotechnology.
5.	Opened and provided leadership and skill-learning opportunities to over 200+ DPCA members through wing head positions, sub-executive positions, volunteering positions, and ambassador positions.
6.	Blood Drive collected up to 150 blood donations for the DUHS Regional Blood Center, whilst gaining coverage in many reputable newspapers due to the success.
7.	Eid in Paeds — gifts & toys were given to sick paediatric patients, uplifting their spirits and allowing them to have a fun Eid celebration, despite their illnesses.
8.	Dr. Javed Iqbal Speaker Session — an enlightening motivational session on one of the most dire problems being faced by Pakistan: Brain Drain.
9.	Bikeathon — a fun event with the aim of combating and raising awareness for the world's top killer and leading cause of morbidity, Cardiovascular Diseases, for World Heart Day.
10.	Clothing Donation Drive — a campaign where students donated clothes, encouraging a culture of recycling and giving.
11.	Bakesale — a fun and sweet fundraiser with the aim of raising Breast Cancer awareness.
12.	Cricket Screening — a screening of the Pakistan vs. India cricket match to promote a healthier sportive culture, whilst raising funds for the non-affording patients.

FRIP (First Response Initiative of Pakistan) was founded in 2010 in an effort to save the lives of those inflicted by trauma. It is a Karachi based group of young doctors, medical students and others with an interest in Trauma, First Response and saving lives. A first responder is the first person at a scene of trauma/injury. In a city like Karachi, the lack of a streamlined system leaves trauma victims at the mercy of the general population in the first few minutes. How first responders react to a situation can make or break the victims chances of survival. To make the general population aware of the responsibilities and to teach them appropriate skills to handle emergency situations will significantly reduce the adversity associated with trauma.

FRIP Activities during the period 2023-24

From July 2023 to March 2024, FRIP organized a total of 278 workshops, training 6603 participants in basic lifesaving skills to act in case of emergencies, such as CPR, heart attack, fractures heat stroke etc management.



LEVEL 1

Level 1 conducts a two-day workshop for medical students, comprising of Basic Life Saving Skills protocols, hands-on practice and a test at the end of the workshop.

LEVEL 1

FRIP conducted 24 Level 1 workshops in different medical colleges such as AKU, LNMC, UMDC, JSMU etc. training 684 medical students.

LEVEL 2

The level 2 department conducted 18 workshops which added 225 new instructors to our instructor pool.

INDESIGN AND OUTREACH

The InDesign and Outreach trained 2039 participants by conducting workshops in corporate sector, underprivileged communities and areas outside Karachi.

EDUCATION

FRIP's Education Department organized over 137 workshops training 4009 students and education faculty ranging from primary school children to university graduates.

MEDIA AND PUBLIC RELATIONS

FRIP set up 6 stalls dedicated to Media and Public Relations (MPR) to further engage the community in emergency preparedness efforts.

Volunteer Force against Hepatitis Transmission (VFAHT) DUHS Local Council has been actively striving to achieve its objective of eradicating infectious diseases in Pakistan through the help of awareness sessions and campaigns.

VFAHT activities during the period 2023-24	
S. No.	Event Description
1.	On 18th August, a Breastfeeding Awareness session at was held at Kiran Foundation.
2.	A Naegleria awareness campaign was conducted at Civil Hospital by Malaria and Dengue Division on 22nd August.

3.	On 23rd August, Tuberculosis awareness session was held at the Government Girls Secondary School Muslim Association by the TB Division.
4.	An Immunization Awareness Walk was held at Civil Hospital, Karachi on the 26th August by Project Support Division.
5.	Awareness session at Baithak school regarding malaria, dengue, conjunctivitis for school children and their mothers on 26th September.
6.	On the 6th of October a Conjunctivitis Awareness Session at Panah Shelter for women.
7.	General hygiene awareness session at IMC Montessori on account of Global Hand washing Day on 17th October.
8.	A donation drive was conducted to collect funds which were used to distribute hygiene kits (including soaps and miswak) to a slum area along with a hand washing awareness session with the community in collaboration with HANDS.
9.	Awareness session was held on Hep A, E, Typhoidnat Kent City School on the 8th November aimed at primary school students.

HAMARA MUSTAQBIL is a non-profit NGO, initiated by some students of Dow Medical College that strives towards both the education and holistic development of our youth, primarily focusing on the underprivileged. Their primary aim is to take the underprivileged children of Pakistan, those who were never given a decent chance at life, and arm them with the necessary tools that can pave their road to a better tomorrow. The secondary aim is to approach different schools of Pakistan with entire modules dedicated to conducting lectures and activities regarding the development of a student outside of conventional education.

Activities by HUMARA MUSTAQBIL during the period 2023-24

1. Conducted Skill share Week: under this a series of workshops were conducted throughout the week on topics like Prime professionalism, public speaking, freelancing and AI in education. These sessions were conducted by guest speakers having expertise in the topic. This was one of our most popular events this year.
2. Held MDCAT open house for students of all boards: Outreach Department conducted Career counseling workshops covering MCAT, ECAT and CA degrees.
3. Our Outreach department conducted a leadership workshop covering topics like public speaking, communication and teamwork.
4. Conducted Skills and Training workshops: A workshop regarding CV making and interview skills was conducted.

5. Conducted a workshop on “Self-sufficiency and empowerment” in Koohi Goth Women hospital.
6. Our School Health department conducted a total of 28 workshops in various institutions including fixit family homes, Idara ul Khair, RAAST, Nixor Hospital, school of hijrit colony, khadija qazi foundation and Orange tree foundation. These workshops mainly covered topics like personal hygiene, environment, health safety (e.g. tobacco use) and mental health.
7. The School Health department collaborated with VFAHT and HANDS for a ‘WASH project’. In this we raised awareness regarding personal hygiene and sanitary packs were distributed.
8. Continued with “Mental Health Mondays”: under this a post related to mental wellbeing is shared on our social media pages and on the batch groups every Monday.
9. Continued mentoring the children for a holistic development under our Mentorship Program.

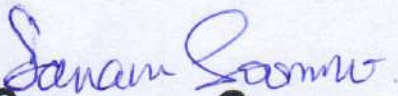


Dedicated Courses That Address Sustainability and the Unsustainable Development Goals

Apart from a commitment to meaningful education through all programs around the SDGs across the University, Dow University of Health Sciences also offers dedicated courses (full degrees and electives) that address sustainability and the SDGs. In this regard, Fundamentals of Public Health, Environmental Occupational Health, Reproductive Health & MCH, Community and Preventive Dentistry, Biomechanics and ergonomics, International Relations and Current Affairs, Environmental Sciences, Sociology, Development Economics, Legal & Regulatory Environment for Business and Health Policy Economics etc. are some courses which are offered in BS Nutrition, MS in Public Health, Bachelor of Business Administration, Bachelor of Dental Surgery and Doctor of Physical Therapy.

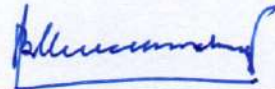
**ENDORSEMENT OF THE
ANNUAL STANDARDIZED REPORT 2023-2024**

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Sanam Soomro

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