## ITEM NO. 2



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI

# DUHS

ANNUAL STANDARDIZED REPORT

2022-23

#### **TABLE OF CONTENTS**

M	ESSAGE	BY THE VICE CHANCELLOR	6
PI	RO- VICE	CHANCELLORS, DOW UNIVERSITY OF HEALTH SCIENCES	7
E	KECUTIV	E SUMMARY (2022-2023)	8
VI	SION ST	ATEMENT	9
M	ISSION S	TATEMENT	9
D	VERSIT	STATEMENT	10
N	ON-DISC	RIMINATION AGAINST WOMEN	10
N	ON-DISC	RIMINATION FOR TRANSGENDER	10
A	BOUT DO	DW UNIVERSITY OF HEALTH SCIENCES (DUHS)	11
	College	s Institutes & Schools of DUHS	12
	BRIEF	PROFILES OF INSTITUTES, COLLEGES & SCHOOLS	14
1.	1. UNI	DERGRADUATE & POSTGRADUATE PROGRAMS	22
U	NDERGR	ADUATE PROGRAMS:	22
P	OSTGRA	DUATE PROGRAMS:	22
1.	2. MS/	M.PHIL. AND PH.D. PROGRAMS	24
1.	3. AC	ADEMIC ACHIEVEMENTS	25
1.	4. FOI	REIGN ACADEMIC LINKAGES	27
1.	5. HO	NORS AND AWARDS	28
1.	6. INS	TITUTIONAL LINKAGES	28
2.	1. RES	SEARCH & DEVELOPMENT - AN OVERVIEW	32
	2.1.1. (IBBPS)	INSTITUTE OF BIOLOGICAL, BIOCHEMICAL, AND PHARMACEUTICAL SCIENCES 35	
2.	2. RES	SEARCH PROJECTS	36
	2.2.1.	COMPLETED PROJECTS	36
	2.2.2.	NEWLY LAUNCHED PROJECTS (RESEARCH)	36
2.	3. PUI	BLICATIONS & AUTHORS CREDITED TO DUHS	39
2.	4. CO	NFERENCES, SEMINARS AND WORKSHOPS	39
2.	5. RES	SEARCH JOURNAL	40
2.	6. RES	SEARCH COLLABORATIONS	41
	2.6.1.	Indigenous Research Collaborations:	41
	2.6.2.	Foreign Research Partners	41
	2.6.3.	Grant Awarding Bodies for Research and Innovation	43
	2.6.4.	National Linkages	43
	2.6.5.	Funding Grants for Research & Development	46
	i.	FUNDING GRANTS FOR R&D FROM HEC, 2022-2023	46
	ii.	FUNDING GRANTS FOR R&D FROM NON-HEC, 2022-2023	47
	2.6.6.	Vice Chancellor's Seed Funding Initiative (VCSFI)	49
	2.6.7.	Operations of the Office of Research, Innovation and Commercialization (ORIC)	51

2.	7.	RESEARCH ACHIEVEMENTS	54
2.8	3.	THE 7 <sup>TH</sup> ALL PAKISTAN DUHS-DICE HEALTH INNOVATION EXHIBITION	55
2.8	<b>3.1.</b>	COMMERCIALIZATION ACTIVITIES OF DUHS	56
2.8	3.2.	PRIZE WINNING PROJECTS OF THE DICE EVENT	57
2.8	3.3.	CONSULTANCY CONTRACTS EXECUTED THROUGH IBBPS WITH INDUSTRY	58
3.1.	IMP	ACT OF QUALITY ASSURANCE IN THE UNIVERSITY	60
3.2.	QUA	ALITY ENHANCEMENT CELL AT DUHS	61
3.3.	KEY	PERFORMANCE INDICATORS OF QEC-DUHS IN UNIVERSITY	62
3.4.	QUA	ALITY INITIATIVES FY 2022 – 2023	62
3.5.	MEN	MBERSHIP OF QUALITY ASSOCIATIONS/NETWORKS	63
3.6.	ACC	CREDITATIONS OF DEGREE AWARDING PROGRAMS FROM ACCREDITATION COUNCILS	64
3.7.	SEM	/INARS/WORKSHOPS & TRAINING EVENTS AT QEC	65
4.1.	PRO	DFESSIONAL DEVELOPMENT CENTER (PDC) DUHS	68
4.1.1	. Р	DC PROFESSIONAL DEVELOPMENT PROGRAMS	69
4.2.	FAC	CULTY DEVELOPMENTS PROGRAMS	70
i. PF	ROFE	FACULTY DEVELOPMENT TRAINING AT DOW INSTITUTE OF HEALTH SSIONALS EDUCATION (DIHPE)	71
ii. S1	TUDE	PROFESSIONAL ENGLISH LANGUAGE TRAINING PROGRAM FOR FACULTY & NTS	71
iii.		NATIONAL FACULTY DEVELOPMENT PROGRAM BY NAHE-HEC	71
4.2.1	. FACI	ULTY DEVELOPMENT	71
4.3.	RET	TURNED SCHOLARS (FOREIGN UNIVERSITIES)	72
4.4.	PRE	ESENT SCHOLARS - ENROLLED IN PHD PROGRAMS	72
4.4	4.1.	IPFP SCHOLARS	75
5.1.	BAS	SIC ENROLLMENT	77
5.2	EQU	JITY	77
5.3	GEN	NDER-WISE DETAIL	77
5.5.	EMF	PLOYABILITY	78
5.6.	FAC	CULTY-STUDENT RATIO	79
6.1.	UNI	VERSITY – INDUSTRY LINKAGES	81
6.2.	INIT	TATIVES	81
6.3	BUS	SINESS INCUBATION CENTER	85
6.4.	INC	UBATED PROJECTS	88
6.5.	PAT	TENTS/TRADEMARKS	91
6.6.	INT	ERNSHIPS AND PLACEMENT OFFICE	92
6.7.	STU	JDENT COUNSELING AND CAREER GUIDANCE	94
7.1.	DEV	/ELOPMENT PROJECTS (LABORATORIES, LIBRARIES ETC.)	98
i.		ANNUAL DEVELOPMENT PROGRAM SCHEMES:	98
7.2.	RES	SEARCH EQUIPMENT	99
7.3.	ONG	GOING-CONSTRUCTION PROJECTS Error! Bookmark not defin	ed.

8.1.	DIGITAL LIBRARY		
8.2.	PERN (PAKISTAN EDUCATION AND RESEARCH NETWORK)	101	
8.3.	VIDEO CONFERENCING	102	
8.4.	CAMPUS MANAGEMENT SOLUTION (CMS)	102	
8.5.	WEBSITE OF DUHS	103	
8.6.	ONLINE ADMISSION SYSTEM	104	
8.7.	CLOUD SERVICES FOR ACADEMICS: student account ids	104	
8.8.	DOW CONNECT	105	
8.9.	MICROSOFT DYNAMICS	106	
9.1.	UNIVERSITY-COMMUNITY INTERACTION	108	
9.2.	UNIVERSITY'S ROLE IN BUILDING THE COMMUNITY	109	
9.2	.1. DOW SKILLS DEVELOPMENT CENTER	109	
9.2	.2. DUHS-KGS SUMMER INTERNSHIP PROGRAM	113	
9.2	.3. DUHS AT PHC JOB FAIR	114	
9.2	.4. BACHELOR OF SCIENCE IN PUBLIC HEALTH (BSPH) PROGRAM	115	
9.2	.5. FLOOD RELIEF CAMPS AT DUHS	115	
i.	DOW MEDICAL COLLEGE (DMC)	116	
ii.	DOW INTERNATIONAL MEDICAL COLLEGE (DIMC)	118	
iii.	INSTITUTE OF BUSINESS & HEALTH MANAGEMENT (IBHM)	119	
iv.	DOW INTERNATIONAL DENTAL COLLEGE (DIDC)	120	
iv.	SCHOOL OF PUBLIC HEALTH (SPH)	121	
٧.	DOW INSTITUTE OF PHYSICAL MEDICINE & REHABILITATION	123	
vi.	DOW DENTAL COLLEGE (DDC)	124	
vii.	DOW INSTITUTE OF NURSING & MIDWIFERY (DION&M)	127	
viii	. DOW INSTITUTE OF MEDICAL TECHNOLOGY (DIMT)	127	
9.3.	ALUMNI AFFAIRS: OUTSTANDING ACHIEVEMENTS	127	
10.1.	INTER-DEPARTMENTAL SPORTS AT DUHS	133	
10.2.	PARTICIPATION IN NATIONAL CHAMPIONSHIPS	134	
10.3.	ACHIEVEMENTS AT NATIONAL LEVEL	134	
10.4.	INCENTIVES AND HONORS/AWARDS FOR SPORTS PERSONS/STUDENTS GIVEN	136	
11.1.	FACULTY LEADERSHIP	138	
11.2.	STUDENT LEADERSHIP	142	
FINA	NCIAL YEAR AT GLANCE (2022-2023)	149	
12.1.	APPROVED BUDGET	150	
12.2.	FINANCIAL YEAR AT GLANCE (2022-2023)	151	
12.3.	AUDIT REPORT	152	
12.4.	RECURRING BUDGET (2022-2023) Rs. in Million	154	
12.5.	SELF-GENERATED INCOME (2022-23) Rs. in million	157	
12.6.	STUDENT FINANCIAL AID:	158	

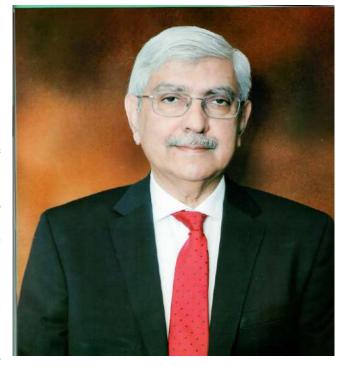
13.1.	SYNDICATE MEETINGS:	160
13.2.	ACADEMIC COUNCIL MEETINGS:	160
13.3.	BOARD OF ADVANCED STUDIES AND RESEARCH MEETINGS:	160
14.1.	DEPARTMENT OF ALUMNI MARKETING AND COMMUNICATIONS	162
14.2.	ACTIVITIES OF ZAKAT AND DONATIONS 2022-2023	163
14.3.	NEW INITIATIVES & PLANS FOR IMPLEMENTATION	163
14.4.	FUTURE PLANS FOR DEVELOPMENT	163
14.5.	ALUMNI ENGAGEMENT AND REUNION ACTIVITIES	164
15.1.	MEDICAL FACILITIES OF DOW UNIVERSITY OF HEALTH SCIENCES	167
15.2.	HEALTH INSURANCE FOR DUHS EMPLOYEES	172
15.3.	COUNSELING FOR STRESS REDUCTION	175
16.1.	GOOD HEALTH & WELL BEING - SDG 03	178
16.2.	QUALITY EDUCATION - SDG 04	187
16.3.	GENDER EQUALITY - SDG-05	190
16.4.	PARTNERSHIP FOR THE GOALS – SDG 17	192

## 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 Times Higher Education World and Asia Rankings from last year, where we were reporting status to this year, where we have achieved a worldwide rank of 601- 800 out of 1799 reporting institutions (2023) and a 201-250 range of THE World Rankings Asia, 2023, which is a significant milestone for the University. We are ranked highest in the citations pillar along with international outlook for the University, and also ranked #2 in the subject of Medicine regionally consistently through the QS rankings each year. I look forward to more future prosperous years of DUHS.

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

#### PRO-VICE CHANCELLORS, DOW UNIVERSITY OF HEALTH SCIENCES



**Prof. Dr. Nighat Nisar**MBBS, MPH, MCPS, FCPS

Professor & Head, Department of Community Medicine, Dow Medical College Pro-Vice Chancellor, Dow university of Health Sciences



Prof. Dr. Nazli Hossain

MBBS, MCPS, FCPS

Professor of Obstetrics & Gynecology

Pro-Vice Chancellor

Dow University of Health Sciences

### **EXECUTIVE SUMMARY (2022-2023)**

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 2022-2023, the University has approximately 7524 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 4000 employees, including approximately 935 faculty members as of 2022-2023.

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 2022-2023, 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 2022-2023, 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 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 32 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 17 Schools/Colleges and Institutes, including 9 clinical entities, and 27 other non-academic, administrative departments.

## **C**OLLEGES 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 (DIMT)					
13	School of Public Health (SPH)					
14	Dow College of Biotechnology (DCOB)					
15	School of Postgraduate Studies (SPGS)					
	a. Institute of Clinical Sciences					
	b. Institute of Biomedical Sciences					
	c. Institute of Health Sciences					
16	School of Dental Care Professionals (SDCP)					
17	National Institute of Diabetes & Endocrinology (NIDE)					
Clin	ical Departments of DUHS					
1.	Dow University Hospital					
	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, National Stadium Road					

7.	Dr. Ishrat UI Ebad Khan Institute of Blood Diseases (DIKIBD)				
8.	Gamma Knife and Radiosurgery Center				
9.	DHA City Medical Center				
10.	Dr. Abdul Qadir Khan Institute of Behavioral Sciences				
11	Sindh Infectious Diseases Hospital and Research Center.				
12	Dow International Dental College & Hospital				
13	Dr. Ruth Pfau Civil Hospital, Karachi				
14.	Outpatient Department and Clinics				
Oth	er Non-Academic, Research Core and Administrative Entities				
1.	Day Care Centers				
2.	Library				
3.	Finance Directorate				
	a. Financial Aid Office				
4.	b. CMS Fee section  Registrar Secretariat				
5.	-				
	Clinical Trials Unit (CTU)				
6.	Internal Audit Directorate				
7.	Dow Institute for Advanced Biological & Animal Research (DIABAR)				
8.	Examination Department				
9.	Question Bank (Bank)				
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. Campus Management Solution (CMS) b. Digital Libraries (Multiple Departmental Libraries) of DUHS				
	b. Digital Libraries (Multiple Departmental Libraries) of Dorro				

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)
27.	Girls and Boys Hostel

## 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 MBBS program is a five years course divided into professional years. A new system of integrated teaching consisting of applied knowledge has been introduced and implemented, 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 PM&DC 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 & Dental Council (PM&DC) 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.

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 & Dental Council (PMDC). 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 Outpatient 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, 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:

- 1. Clinical Laboratory Sciences
- 2. Respiratory and Critical Care Technology
- 3. Surgical Technology
- 4. Clinical Ophthalmic Technology
- 5. 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. Institute of Biomedical Sciences (IBMS)

Institute of Basic Medical Sciences (IBMS) has been established for M.Phil. And PhD courses in Basic Sciences i.e. Anatomy, Physiology, Biochemistry, Pathology, Microbiology and Pharmacology to develop human resources. It is a part of the medical research city at OJHA Campus. The building has spacious air-conditioned lecture halls and seminar rooms having necessary audiovisual multimedia facilities.

The contemporary techniques involved in basic sciences research activities are conducted in the labs of different departments, which are well equipped with modern equipment for a variety of anatomical, physiological, biochemical, hematological, pathological, pharmacological, immunological and molecular biological experiments for specific research. The curriculum has been designed with a multidisciplinary approach, focusing at molecular and cellular level. In addition, core and supportive courses provide competencies in research Biostatistics, critical analysis, and interpersonal communication. This institute is helping in bridging the deficiency gap of Basic Medical Sciences research in Pakistan.

#### 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 Master of Public Health, Master of Sciences (Biostatistics and Epidemiology), and Master of Sciences in Public Health. 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. 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
- CT Scanner System, SOMATOM GO ( AI Powered)
- 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, which is the '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)

The Dow College of Biotechnology is located in the graceful building of Dow International Medical College, OJHA Campus. Currently, a four-year BS Biotechnology program is offered through Dow College of Biotechnology. The College has an excellent teaching faculty, consisting of foreign and nationally qualified PhD students. Scientists, who are extensively involved in research activities and hence are well aware of the recent developments in the field of sciences.

Teaching methodology at Dow College of biotechnology is a well-planned blend of theory and practical skills learned in laboratories; therefore, this program is for students who have a passion for becoming scientists. For those students, Dow College of Biotechnology can provide an excellent platform. 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. Our program offers the students the opportunity to work on research projects that provide valuable insight and impact people's lives.

#### xviii. School of Dental Care Professional (SDCP)

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, termed as 'four-handed dentistry'. Such a trained workforce adds value to the ever increasing need for qualified para-dental staff for prevention and quality dental treatment. The SDCP is offering bachelor programs (BS) in Dental Hygiene and Dental Technology since 2007. The graduates are not only working in Pakistan but also in dental clinics and hospitals of Saudi Arabia, Canada, United Kingdom etc.



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI



## **CHAPTER 1**

# Academic Activities

#### 1.1. UNDERGRADUATE & POSTGRADUATE PROGRAMS

#### **UNDERGRADUATE PROGRAMS:**

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

#### **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 Biology

A 4-Years Program in the following Specialties of Clinical Sciences

- 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 Pathology

A 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.	<b>Executive Masters of Business Administration</b>	(EMBA)
10.	Master of Science in Public Health	(MSPH)
11.	MSc. in Diabetes & Endocrinology	(MSc. D&E)

#### 12. Clinical Diploma Programs

. •	a. D.p.oma i rogiamo	
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)
Χ.	Diploma in Dermatology	(D-DERM)
XI.	Diploma in Radiology	(DMRD)
XII.	Diploma in Tuberculosis & Chest Disea	ases (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

Ph.D. programs advertised (HEC approved & Accreditation Council approved programs) in 2022-2023

Ph.D. programs advertised in the Academic Session 2023				
Biotechnology	Medical Genetics			
Medical Microbiology	Biochemistry			
Pharmacology	Public Health			
Physiology	Histopathology			
Molecular Pathology				

#### 1.3. ACADEMIC ACHIEVEMENTS

#### Dr. Ishrat UI Ebad Khan Institute of Oral Health Sciences

• Sindh Health Care Commission on 29<sup>th</sup> May, 2023 awarded Full License to DIKIOHS on completion of 97.5% of the required criteria.

#### **Dow Dental College**

- Dow Dental College was awarded the prestigious Sindh Healthcare Commission regular license at a ceremony hosted at the Vice Chancellor Secretariat at Dow University of Health Sciences on Thursday, September 29, 2022.
- Quality Reviewer Award (Pak-UK Education Gateway)

Pak-UK Education Gateway, Collaborative Project of Higher Education Commission of Pakistan and British Council conducted a specialized training program for HEC Grants Program Reviewers in Karachi from February 7- 10, 2023 at Avari Hotel, Karachi which was attended by 55 Professors from different Universities from all over Sindh. Seven participants represented Dow University of Health Sciences. Among the top-5 Quality Reviewers announced by Coventry University UK were two Professors, i.e. Prof. Ambrina Qureshi and Prof. Naresh Kumar from DUHS.

#### **Dow Institute of Nursing & Midwifery**

• The Nursing & Midwifery Leadership Delegates of Kyrgyzstan visited Dow Institute of Nursing and Midwifery – DUHS (11th January, 2023)

On 11th January 2023, The Nursing & Midwifery leadership delegates of Kyrgyzstan (Ms. Gulzat, Ms. Alima, Ms. Gulnara, Ms. Gulnoor and Ms. Gulzat) along with Dr. Yasmeen Parpio (Assistant Professor, AKU SONAM) visited Dow Institute of Nursing and Midwifery - DUHS.

The purpose of the visit was to meet the nursing leadership of DIONAM and discuss the academic plan, curriculum, educational standards, and policies. They also explored and appreciated the infrastructure and resources that DIONAM provides to aspiring nurses and midwives in order to practice skills and gain expertise.

These delegates expressed their gratitude and were inspired by the vision of DIONAM to empower nurses in Pakistan. They were delighted to see the quality of nursing education of DIONAM and also showed interest in collaboration for professional growth and development of nursing profession.



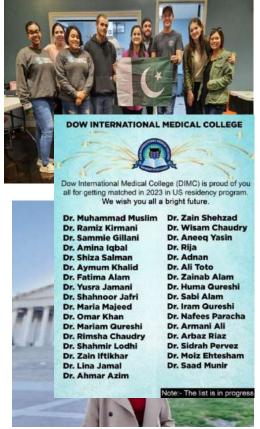
**Ms. Rubina Qasim,** Acting Principal and Assistant Professor, DIONAM received a travel grant to travel to the second annual conference, co-convened with UNICEF, and co-sponsored by GAVI, the Vaccine Alliance, and in support of COVID-19 Vaccine Delivery Partnership for priority countries, held in Bangkok, Thailand in June 2023.

#### School of Public Health

#### • Exchange Student Opportunities: Global UGRAD Exchange Program in 2022

BS Nutrition Batch 4 student Gulan Pari, Samra Maqbool and Dua Saleem were selected for the Global UGRAD Exchange Program. They went to Taxes, USA.

Gulan Pari firmly believes in "Life begins at the end of your comfort zone," which is why she moved ahead against all the odds and challenges incurred and got selected for the Global UGRAD Exchange Program Spring 2022 intake among 16000 students from Pakistan. Pari has recently graduated as a Nutrition student at Dow University of Health Sciences and is the Co-Founder of Healthy Earth Organization; an initiative that is striving for sustainable, healthy, and peaceful planet. She studied one semester focusing on Public Health at South Dakota State University. Her four months in the : South Dakota State University-USA helped in shattering the embedded stereotypes of being a dependent individual and helped her to know her authentic self and unleash her hidden potential. She improved her knowledge of public health and to communicate with the fellows. She enhanced her teamwork skills and learned to face challenges with the right approach. The most beloved impression she found



was that people over there are kind, and always welcoming to others' opinions. She says, "I believe we all have the potential to do wonders. So never stop dreaming, and never be afraid of trying new things. Remember, "Where there is a will, there is a way.

#### **Dow International Medical College**

#### • US Residency Program 2023

The remarkable students of Dow International Medical College have achieved an extraordinary feat by successfully matching in the prestigious US residency program 2023.

Accomplishments not only bring immense pride to the institution but also serve as an inspiration for aspiring juniors at the college. A bright future in the US residency program is a testament to the exceptional education and training received at Dow International Medical College.

DUHS wishes them to shine brightly as they embark on this new chapter of their medical journey.

Congratulations once again, and may their future endeavors be filled with success, fulfillment, and countless opportunities to make a positive difference in the lives of patients around the world.

#### 1.4. FOREIGN ACADEMIC LINKAGES

For the year 2022-23, academic linkages were continued or established with the foreign medical boards/associations/universities, including the following:

	Torong i medical boards/associations/aniversities, 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.	DOGANA (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 Opthalmique 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

- 21 new research project grants were newly acquired in 2022-2023 with funding of 140,072,337 Rupees from local, national and international research funding agencies.
- The research in recognized and peer reviewed publications for the years 2023 and 2022 are 415.

## The following research grants were awarded to the faculty of Dow College of Biotechnology.

- "Novel approach to combat antimicrobial resistant fungal infections by epigenetic regulation; Expression profiling of histone deacetylases and screening of novel deacetylases inhibitors as potential therapeutic agents for antifungal resistant C.albicans infection. Research grant from Health Research Institute (HRI), National Institute of Health (NIH) Grant No: SG/22/R3-20/RDC/1640. (1.8 million PKR-Dated: 14-04-2023).
- Polymorphism in IFN-γ and IL-10 genes and risk of Mtb infection in type II diabetes patients in Karachi, Pakistan. Research grant from Health Research Institute (HRI), National Institute of Health (NIH). Grant No: SG-22/R3-27/RDC/DUHS/2025. (2 million PKR 1.5Yr-Dated: 25-05-2023).
- 3. "Development of Dow Fly Research Lab and Stock Center", funded by Dow University of Health Sciences (1.4 million PKR)
- 4. "Poultry Vaccine against Ranikhet, Bird Flu and Gumboro using Indigenous Viral Strain" funded by Dow University of Health Sciences (3 million PKR).

#### 1.6. INSTITUTIONAL LINKAGES

We are linked with the following organizations:

S #	Name	Key Initiatives to be Undertaken	Field	Scope of Collaboratio n	Duration	Linkage Establishment Date
1.	Hashmanis Group of Hospitals	FCPS Trainees of Ophthalmologists	Ophthalmolo gy	Academic	2 Years	12 <sup>th</sup> Apr, 2022
2.	KOHAT University	To establish an academic link between DUHS and KUST	Academia	Academic	1 Year	26 <sup>th</sup> Aug, 2021
3.	Salim Habib University	Strengthen and promote academic-industry relationship	Biomedical Engineering	Academic	5 Years	28 <sup>th</sup> Oct, 2021
4.	IBA-Center of Executive Education	To establish mutual collaboration between the	Healthcare Management	Academic	3 Years	11 <sup>th</sup> Aug, 2021

		IBHM, DUHS and CEE, IBA				
5.	Aga Khan University	Rotation of postgraduate trainees at DUHS	Trainees placement	Academic	1 Year	17 <sup>th</sup> Jun, 2021

#### **Institutional Linkages**

- 1. Martin Dow Limited
- **2.** Patel Hospital, Karachi
- 3. Karachi Adventist Hospital
- 4. Tabba 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. KIBGE, University of Karachi, Karachi
- 33. Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology
- 34. Jinnah University for Women
- **35.** Shifa International Hospitals Limited, Islamabad.
- **36.** Balochistan Awami Endowment Fund Social Welfare Department (Govt. of Balochistan)
- 37. Nova Care (Dvago) Pharmacy chain
- 38. Herbion Pharma for Internships
- **39.** National Institute of Diabetes & Endocrinology-DUHS collaborates with PES Pakistan Endocrine society. Students and faculty actively participate in the monthly PES meetings in collaboration with Aga Khan University, Baqai Institute of Diabetes and Endocrinology and Liaquat National Hospital.



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI



## **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. JDUHS has listed in HJRS as a Y-Category journal for the year 2022-2023, with a cite score of 0.2 based on the Scopus Database. 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.

## 2.1.1. INSTITUTE OF BIOLOGICAL, BIOCHEMICAL, AND PHARMACEUTICAL SCIENCES (IBBPS)

In addition to ORIC, Dow University has also established the Institute of Biological, Biochemical, and Pharmaceutical Sciences (IBBPS) in 2013, as per the international FDA/WHO/ICH-GCP/EMEA standards and national standards (DRAP), with the aim of providing clinical research at DUHS facility on approved trial sites and the Bioequivalence study center for the provision of economical quality medicines to the health care sectors.

Dow Institute of Biological, Biochemical & Pharmaceutical Sciences (IBBPS) is a Drug Regulatory Authority of Pakistan DRAP) Licensed Contract Research Organization (CRO) of Pakistan, which is situated in the well-renowned and world-class healthcare organization "Dow University of Health Sciences", is one of the biggest stakeholders in the country's healthcare sector.

#### Vision of IBBPS

To bring innovation in the Biological, Clinical and Pharmaceutical sector by providing valuable studies as per optimum standard for the improvement in quality of life.

#### **Mission of IBBPS**

Providing outstanding patient centered education, training and clinical care informed by cutting edge research and innovation generating and disseminating new knowledge.

#### Objectives of Research and Development at IBBPS:

- 1. To facilitate the pharmaceutical industry in exporting their drug products by providing them a Bioequivalence study report as per international standards.
- 2. To encourage the industries for the conduct of Phase IV trials (Post-marketing surveillance studies)
- 3. To facilitate the national and international clients for new product development.
- 4. To provide services to the international CROs, for the execution of multicenter trials on approved trial sites operating in Pakistan.
- 5. To encourage the DUHS consultants for initiating the investigator-initiated trials

#### **Key Functions of IBBPS:**

- 1. Medical writing (Protocol, ICF, CRF, IB, Report)
- 2. Data collection, Management, and Analysis through EDC tool (Electronic data capturing)
- 3. Pharmaceutical and Bioanalytical drug testing
- 4. Randomization
- 5. Regulatory submission (NBC & DRAP)
- 6. Investigational product shipments including Import permit and Customer Clearance
- 7. Project budgeting
- 8. Subject management

#### 2.2. RESEARCH PROJECTS

#### 2.2.1. COMPLETED PROJECTS

	03			
S #	Name of Grant Awarding Body	National/ International	Name of PI	Thematic Area
1.	National Research Program for Universities (NRPU)	National	Rakhshinda Habib	Health Sciences
2.	World Health Organization (WHO)	International	Dr. Maria Atif	Public Health
3.	National Research Program for Universities (NRPU)	National	Prof. Dr. Ambrina Qureshi	Medical & Health Sciences

#### 2.2.2. NEWLY LAUNCHED PROJECTS (RESEARCH)

Total number of Newly Launched in 2022-2023					21
S #	Name of Research Grant	Date of Proposal Approval	Name of PI	Thematic Area	Title of Research Proposal
1	National Research Program for Universities (NRPU)-HEC	16-02-2022	Dr. Faiza Shahid	Biotechnolog y	Development of pilot scale system system for phycoremediation of textile effluent with concomitant production of algae biomass
2	RAPID Technology Transfer Grant-HEC	06-02-2023	Dr. Talat Roome	Flood Response	Rapid Manufacuring from antivenom to releif the flood victims in Pakistan
3	National Research Program for Universities (NRPU)-HEC		Dr Mahwish Akhtar Assistant Professor	Biological and Health Sciences	Chrysin: A Promising Anticancer Agent its Designing, Synthesis of Analogs and Polymeric Drug loaded Nano- Particles and Activity Against Human Breast Cancer Cell
4	National Research Program for Universities (NRPU)-HEC	01-03-2022	IFTIKHAR HAIDER NAQVI Associate Professor	Biological and Health Sciences Engineering and Technology	A search for an early metabolomics signatures (candidate biomarkers) for diabetic foot ulcers in patients of diabetes by non-targeted metabolomics analysis.
5	National Research Program for Universities (NRPU)-HEC	01-03-2022	Prof. Muhammad Zafar Iqbal Hyderi	Biological and Health Sciences Engineering	Use of Digital Technology for improving Emergency Medical Services to develop

			Profeesor (Public Health / Epidemiology	and Technology	mobile apps for Road Awareness and early response to Road Traffic Accidents
6	National Research Program for Universities (NRPU)-HEC	28-04-2022	Dr. Naresh Kumar, Professor	Dentistry	Development of Novel Silk Based Glass Ionomer Restoratives for the Stress Bearing Posterior Teeth
7	National Institute of Health, Islamabad	21-03-2023	Rafat Amin	Health Sciences	Novel approach to combat antimicrobial resistant fungal infections by epigenetic regulation; Expression profiling of Histone deacetylases and screening of novel deacetylase inhibitors as potential therapeutic agents for antifungal resistant C. albicans infections
8	National Institute of Health, Islamabad	17-08-2023	Prof. Kashif Shafique	Public Health	Development of gastational Diabetes Mellitus (GDM) Management App "Maa love 2B" for Pakistani pregnant Mother: A randomized Control Trial to evaluate the impact of app use on maternal health and pregnancy outcomes
9	National Institute of Health, Islamabad	25-05-2023	Maria Atif	Public Health	- Assessing the effectiveness of an mHealth intervention versus the usual standard of care for improving medication adherence and selfmanagement among type II diabetics in Pakistan: A randomized controlled trial
10	World Health Organization	28-02-2023	Maria Atif	Public Health	The WHO 10 group classification system to reduce unnecessary cesarean sections: evidence from a multicenter study in Karachi, Pakistan
11	National Institute of Health, Islamabad	22-03-2023	Prof. zafar Iqbal Hydri	Public Health	Assessing the prevalence and impact of mental health disorders amongst flood affected population across Pakistan: A translational

		1		1	
					approach to public health practice
12	Pakistan Innovation Fund (PIF)	2023	Dr. Talat Roome	Health Sciences	Rapid Development of Next-Generation Anti- Venomin Pakistan: Recombinant MbAS against cobra species
13	Shah Murad Sugar Mills. Ltd.	30-01-2023	Dr. Mohsin Wahid	Health Sciences	Research and Development Work
14	Innovator Seed Fund (ISF)-HEC	28-10-2022	Dr. Nida Dastagir	Health Sciences	In vitro and vivo studies of camel Milk Proteins and peptides - A Potential Therapeutic approach Towards Liver Cirrhosis
15	National Institute of Health, Islamabad	25-05-2023	Dr. Sadaf Khan	Health Sciences	Polymorphism in interferon-y and interleukin 10 genes and risk of mycobacterium tuberculosis infection in type II Diabetes patients in Karachi, Pakistan

## **NEWLY LAUNCHED IBBPS RESEARCH PROJECTS IN 2022-2023**

S #	Name of project	National/ International	Thematic Area	Budget
1	Booster dose Vaccine trial	International	Phase III Clinical Trial	134,000,000
2	Antiviral Effect of Drug in Non Hospitalized high-risk patients with Covid-19	International	Phase III Clinical Trial	10,000,000
3	A Clinically oriented Antimicrobial Resistance surveillance network for healthcare-associated infections	International	Survilleinec study	20,000,000
4	Anticoagulation for stroke prevention in patients with recent episode of Atrial Fibrillation after non-cardiac surgery	International	Phase IV study	CTA in process
5	Bioequivalence study of Clarithromycin	National	Bioequivalence Study	2,000,000
6	Bioequivalence study of Eperisone	National	Bioequivalence study	2,200,000

## 2.3. PUBLICATIONS & AUTHORS CREDITED TO DUHS

Category	2022	2023
W	67	27
X	55	30
Y	196	40
Z	0	0
TOTAL	318	97

## 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
Workshop on Systematic review & meta-analysis	20 <sup>th</sup> May 2023	Research	Students / Faculty / Researcher
Basic & Advance statistical analysis through IBM SPSS software	4 <sup>th</sup> Feb 2023	Research	Students / Faculty / Researcher
Workshop on Scientific Manuscript writing	28 <sup>th</sup> Jan 2023	Research	Students / Faculty / Researcher
7th All Pakistan DUHS-DICE Health Innovation Exhibition	4 <sup>th</sup> November, 2022	Exhibition / Competition	Students / Faculty / Researcher
Mental Health & capacity building	26 <sup>th</sup> Oct 2022	Health management	Students / Faculty
Sustainable development goals International conference	21 <sup>st</sup> -23rd Oct2022	International Conference	Students / Faculty / Researcher
Drafting Patent application	7 <sup>th</sup> September 2022	Patents	Students / Faculty / Researcher
Intellectual Property Rights	4 <sup>th</sup> August 2022	Intellectual Property	Students / Faculty / Researcher
Data handling & analysis with R-practical	30 <sup>th</sup> July 2022	Research	Students / Faculty / Researcher
Green & clean environment	16 <sup>th</sup> July 2022	Environment	Students / Faculty / Researcher

#### 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 Scopus indexed journal as of 2022.

#### **Aims and Scope**

The Journal of the Dow University of Health Sciences (JDUHS) is a double-blind peerreviewed 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.

#### **Updated of JDUHS**

• The JDUHS is listed in HJRS as a Y-Category journal for year 2022-2023 with a cite score of 0.2 based on Scopus Database.

- JDUHS has significantly improved the number of international publications in past years. In the last issue of JDUHS (Volume 16, Issue 3, Year 2022), all the published papers were international while in the current issue (Volume 17, Issue 1, Year 2023), 5 out of 8 (62%) published papers are international.
- 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.

Volume - 17	Issue - 1	January - April – 2023 (1 <sup>st</sup> Apr, 2023)
Volume - 16	Issue - 3	September - December - 2022 (21st Dec, 2022)
Volume - 16	Issue - 2	May-August – 2022 (10 <sup>th</sup> Nov, 2022)

Total 03 Issues of Journals published in the month of July 2022 to June 2023

#### 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.	World Health Organization	International	Dr. Maria Atif	Public Health
2.	National Institute of Health, Islamabad	National	Prof. Zafar Hydri	Public Health
3.	Shah Murad Sugar Mills. Ltd.	National	Dr. Mohsin Wahid	Health sciences
4.	Sarhad Rural Support Programme	National	Dr. Asma Khursheed	Environment al Pollution and toxins

## 2.6.2. Foreign Research Partners

S #	Collaborating Agency/Institution	Field of Study / Research	Scope of Collaboration
1.	Loyola University Health System, Loyola University Chicago	Vaccines	COVID-19 Vaccination association modulation of biomarkers, biomarkers of thrombo-inflammation, anti-heparin platelet factor 4 antibodies and release of endothelial glycosaminoglycans.
2.	Chapman University	Proteins	Modeling Human Disease in Drosophila melanogaster
3.	Universiti Malaysia Pahang	Variant Proteins	SARS-Cov-2 Delta Variant

4.	Queen Mary University of London	Biological Materials	Research Purpose and Material Transfer
5.	Conservation Food & Health Foundation, Inc	Public Health	Mental health capacity-building for primary healthcare providers to promote good health & well-being
6.	Imperial College of London, UK	Health Management	Dr. Raheelah Ahmad is an Adjunct Professor of IBHM. She is a member of IBHM's Board of Faculty.  IBHM arranged two webinars and submitted a project for funding last year with her as a collaborator; at present, the DUHS is a shadow site with Imperial College for a research fund of the Wellcome Foundation, UK.
7.	University of Huddersfield, UK	Pharmaceutical Management	Dr. Hamid Ali Merchant is an Adjunct Professor. We worked on a half dozen articles and four of them were published in the local (general) press. He also conducted webinars (with DUHS & PPMA) on the current issues being faced by the pharmaceutical industry in Pakistan. During his visits, he gave valuable suggestions for improving operations of Dow Institute of Life Sciences. Moreover, he guides the scientists with his expert advice whenever a typical problem emerges ( <i>pro bono basis</i> ). He visited thrice during the last three years and will visit again in Dec. 2022.
8.	National University of Singapore		A Clinically-Oriented Antimicrobial Resistance Surveillance Network for Healthcare- associated Infections (ACORN-HAI)
9.	World Health Organization	Public Health	The WHO 10 Group Classification System to Reduce Unnecessary Cesarean Sections: Evidence from a Multicenter Study in Karachi, Pakistan.
10.	Cochrane Collaboration-UK	Diabetes & Periodontitis	Prof. Ambrina Qureshi published a systematic review for the Cochrane Database as a coauthor about the "Treatment of periodontitis for glycaemic control in people with diabetes mellitus" in April 2022 leading to the updated version of NICE Guidelines for diabetics in June 2022.
11.	United States Pharmacopeia (USP)	Promoting the Quality of medicines plus (PQM+)	LoU signing with United state Pharmacopeia promoting the Quality of medicines plus (PQM+)
12.	SGS	CRO	Strategic Collaboration with SGS
13.	Collaboration agreement with supreme board for drugs and medical appliances Ministry of health and populations, Republic of Yemen	Bioequivalence study	Collaboration agreement with supreme board for drugs and medical appliances Ministry of health and populations, republic of Yemen

- **14.** Research collaboration between Dow college of Biotechnology and Dr. Izhar Hassan from **RH Nanopharmaceuticals, USA** on pharmacogenomics.
- **15.** Research collaboration between Dr. M. Ansar, **Université de Lausanne Hôpital Ophtalmique** Jules-Gonin Lausanne, Switzerland and Dr. Salman Ahmed, Dow College of Biotechnology was established to facilitate research work on Intellectual Disabilities.
- **16.** Research collaboration between Prof Karl-Heinz Department of Pathology and Immunology PATIM, **University of Geneva, Switzerland** and Dr. Salman Ahmed, Dow College of Biotechnology was established to facilitate research work on Tumor Microenvironment.

#### 2.6.3. Grant Awarding Bodies for Research and Innovation

- 1. DICE Foundation, USA
- 2. RAPID Technology Transfer Grant-HEC
- 3. Sarhad Rural Support Programme
- 4. Start-Up Research Grant Program-HEC
- 5. Islamic Bank Development Transform Fund
- 6. NIHR-Welcome Partnership for Global Health Research Collaborative Award
- 7. NRPU (HEC): National Research Program for Universities

#### 2.6.4. National Linkages

S#	Collaborating Agency/Institution at the National Level	Field of Study / Research	Scope of Collaboration
1.	Neurology Research Grant, GETZ Pharma	Neurology	Impact of Ketogenic diet in children with Refractory Epilepsy, A randomized control trial in Pakistan
2.	Neurology Research Grant, GETZ Pharma	Neurology	Phosphorylation of TAU Protein and beta Amyloid-42 in differentiating Parkinsonism and its impact on disease severity
3.	Neurology Research Grant, GETZ Pharma	Neurology	Screening of anti-parkinson's compounds by rotenone induces BV2 Cell Activation
4.	Pharmevo Research Forum	Public Health	Metabolic Syndrome and Risk for Cardiovascular Disease in Apparently Healthy Subsets of Pakistani Adult Population.
5.	Defense Science and Technology Organization (DESTO)	Vaccine	Rabies Vaccine Development Project
6.	Salim Habib University	Biomedical Engineering	Research Partnership between DUHS AND SHU
7.	Center for executive education, Institute of Business Administration (CEE, IBA Karachi)	Healthcare Management	Research Collaboration
8.	Karachi Institute of Radiotherapy and Nuclear Medicine (Kiran Hospital)	Biomedical Sciences	Collaboration in Research of Biomedical Sciences
9.	Aga Khan university Hospital		Early Detection of oral precancerous lesions among smokeless tobacco users adolescents by analyzing salivary metabolites and cytokines

10.	Shahmurad Sugar Mills	Health	Research and Development work
	-	Sciences	
11.	IQVIA RDS EAST ASIA PTE.LTD	Health	Phase 3 multicentric, randomized,
		Sciences	double blind case srudy
12.	Metrics Research Pvt Ltd	Health	Phase 3 Clinical Study
		Sciences	•
13.	Shifa Internationals, Islamabad		Phase I study Pharmacokinetic
			Analysis

- **14.** MoU signed between Dow College of Biotechnology and Sindh Institute of Animal Health (SIAH) for joint research activities on poultry and livestock vaccines development and training of undergrads and postgrads students.
- **15.** Dr. Muhammad Khawaja Hammad Uddin from Department of Science of Dental Materials, DIKIOHS developed Institutional linkage with Sindh Institute of Urology & Transplantation (SIUT) for research & development.
- **16.** Research collaboration between Dow College of Biotechnology and Usman Institute of Technology (UIT) for collaborative development of "Makhimeter", An Al-powered image processing tool.
- 17. Research collaboration between Dr. Sidra Pervez, Shaheed Benazir Bhutto Women University (SBBWU), Peshawar and Dr. Faiza Nadeem, Dow College of Biotechnology has been established to facilitate research work on HEC-NRPU project entitled: "Single Batch Desizing, Bleaching and Bioscouring of Cotton Fabric: Eco-friendly and Green Solution for Textile Processing" (Grant No: 20-14910/NRPU/R&D/HEC/2021 2021).
- **18.** Research collaboration between Dr. Faraz Moin, Z.H.Z Center of Proteomics, University of Karachi, Dr. Humera Waheed and Prof. Mushtaq Hussain, Dow College of Biotechnology on "Drosophila melanogaster as a Model for Toxicological Profiling of Big Four Venomous Snakes of Pakistan" has been established.
- **19.** Research collaboration between Dr. Tabassum Hussain, Institute of Sustainable Halophyte Utilization, University of Karachi, Dr. Mahera Moin and Prof. Mushtaq Hussain, Dow College of Biotechnology on studying anticancer and antiviral potential of various plant species of Pakistan.
- 20. Research collaboration between Prof. Raza Shah, Prof. Shabana Simjee, ICCBS, University of Karachi and Dr. Anum Gul, Dow College of Biotechnology has been established to facilitate research work on HEC-NRPU project entitled: "Development of Raloxifene-Loaded Self-Nanoemulsifying Drug Delivery System (SNEDDS)" (Grant No: 20-15102/NRPU/R&D/HEC/2021 2021).
- 21. Research collaboration between Dr. Afsheen Amanat, KIBGE, University of Karachi, and Dr. Faiza Nadeem, Dow College of Biotechnology has been established to facilitate research work on HEC-NRPU project entitled: "Development of Pilot Scale System for Phycoremediation of Textile Effluent with Concomitant Production of Algal Biomass" (Grant No: 20-16273/NRPU/R&D/HEC/2021 2021)
- 22. Research collaboration between Dr. Hammad Afzal, Shaheed Zulfiqar Ali Bhutto Institute of Science & Technology, Dr Naheed Kausar, Jinnah University for Women and Dr. Sheeba Naz, Dow College of Biotechnology has been established to facilitate research work on VCSFI-2021 project entitled: "In-vitro Propagation and Enhanced Cannabinoids Production of Cannabis Sativa L. (Industrial Hemp)" (Grant No: DUHS/VC/2021 /11-61).

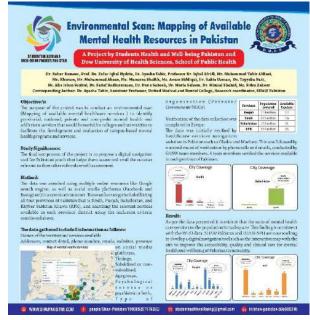
#### School of Public Health

#### School Health and Wellbeing Project (SHAW) Pakistan

As a part of continuous research activities, SPH has developed collaborative partnerships with

different academic and research organizations, including Wellbeing Project (SHAW) Pakistan, Applied Economics Research Centre, Mohammad Ali Jinnah University, Karachi.

Various research based activities and community engagement programs have been undertaken as part of the collaboration. SPH with SHAW Pakistan initiated a project named "Environmental Scan", the primary purpose and focus of this project to collect the information of "Mental Health Services" available in all over the country. This Project will help our people to find the nearest Mental Health Center for assistance that is mandatory for all of us. SPH also facilitated SHAW to conduct Needs Assessment Survey. The project PRISM aims to promote awareness and



build the capacity of the Pakistani healthcare system by implementing a coherent, context-based, and localized version of a mental health framework to tackle the mental health problem in educational institutions in Pakistan.

#### • Department of Computer Sciences, Karachi University (UBIT)

The PI, Dr. Muhammad Zafar Igbal Hydrie has interest in Prevention and Intervention strategies in NCDs and supervised a published project on the burden and pattern of RTA victims coming to a tertiary center in Karachi. With recent advancements in mobile apps technology he realized the potential to integrate this technology with RTA surveillance and along with Dr. Nadeem Mahmood who is the Chairman of Department of Computer Science (UBIT), University of Karachi and has research interest with papers on use of digital technologies in healthcare, both of these are working on a HEC project to develop a mobile app and pilot it in Karachi In this grant application they have plan to implement this app across Pakistan with our collaborators in selected cities across each province. Starting in Sindh, along with DUHS there are 2 more academic collaborators, one at Liaguat University of Medical & Dealth Sciences (LUMHS) in Jamshoro and another collaborator at Department of Public Health, Faculty of Life Sciences. Shaheed Zulfikar Ali Bhutto Institute of Science and Technology [SZABIST] in Karachi. Simultaneously in Baluchistan, our collaborator at the Civil Provincial Hospital (CPH) in Quetta along with the Medical Director will coordinate the activities in Quetta and its surroundings. In Punjab, our academic collaborator at the Department of Public Health, University of Health Sciences in Lahore will be looking at the project across the province. University of Health Sciences has many teaching hospitals and medical colleges affiliated with it across Punjab and it will play a key role in linking the selected cities across Punjab. Finally in Khyber Pakhtunkhwa (KPK), we are honored to have the Vice Chancellor of Khyber Medical University in Peshawar as our collaborator. He is the Professor and Dean of Public Health & Decial Sciences, Khyber Medical University, have worked on Injury prevention projects, and will be well placed to spearhead our project across KPK from Peshawar into the province. They also have plans to provide first aid training workshops to increase volunteers who know CPR

## 2.6.5. Funding Grants for Research & Development

## i. FUNDING GRANTS FOR R&D FROM HEC, 2022-2023

S#	Name of Research Grant	Title of Research Proposal	Amount Approved (Rs.)	Date of Approval
1.	RTTG	Rapid Manufacuring from antivenom to releif the flood victims in Pakistan	19.26 Million	06 <sup>th</sup> Feb, 2023
2.	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	
3.	NRPU	Development of pilot scale system system for phycoremediation of textile effluent with concomitant production of algae biomass	7906800	16 <sup>th</sup> Jun, 2022
4.	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 <sup>th</sup> May 2022
5.	SHEC	Metabolic Syndrome and risk for cardiovascular disease in apparently healthy subset of Pakistani adult Population	1,925,000.00	28 <sup>th</sup> Apr 2022
6.	NRPU	Development of Novel Silk Based Glass Ionomer Restoratives for the Stress Bearing Posterior Teeth	6,132,000.00	28 <sup>th</sup> Apr 2022
7.	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 <sup>th</sup> Apr 2022
8.	GCF	Rabies Vaccine: Development of inactivated human rabies vaccine against wild-type strain in Pakistan.	53,472,500.00	23 <sup>rd</sup> Mar 2022
9.	NRPU	A search for early metabolomic signatures (candidate biomarkers) for diabetic foot ulcers in patients of diabetes by non-targeted metabolomic analysis.	1,450,900.00	1 <sup>st</sup> Mar 2022
10.	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 <sup>st</sup> Mar 2022
11.	NRPU	Molecular mechanism of neuronal protection and differentiation by natural compounds in human neural organoid cultures	2,750,000.00	5 <sup>th</sup> Jan 2022
12.	NRPU	Correlation Between Salivary Statherin And Calcium Levels And Its Interrelationship With Calcium Homeostasis And Bcl-2 In Oral Precancer And Oral Cancer Patients	4,922,500.00	22 <sup>nd</sup> Dec 2021
13.	NRPU	Whole exome sequencing for identification of small mutations and derivation of mutation specific induced pluripotent stem cells from Duchenne Muscular dystrophy Patients	5,711,200.00	15 <sup>th</sup> Dec 2021
14.	NRPU	Development of biological control approaches using epiphytic yeast to maintain postharvest	9,520,500.00	22 <sup>nd</sup> Nov 2021

		quality and control fruit rot of mango, citrus & tomato.		
15.	NRPU	Development of Raloxifene-loaded self- nanoemulsifying drug delivery system (SNEDDS) with enhanced bioavailability Potential: A therapeutic implication in osteoporosis	6,129,200.00	17 <sup>th</sup> Nov 2021
16.	SRSP	Evaluation of Anti-Rheumatic Potential of ticagrelor in rheumatoid arthritis fibroblast like synoviocytes via modulation of NLRP-3 Inflammasome	2,600,000	9 <sup>th</sup> Sep, 2021
17.	SRGP	Metabolics & Urine-Cells MicroRNA profiling for Prognostication of acute kidney allograft Rejection and Post-Transplantation Infection Management	1,000,000	23 <sup>rd</sup> Sep, 2021
18.	SRGP	Aligning Comparative Proteomic and Genomic Profile of Indiginous Halophytes	1,000,000	15 <sup>th</sup> Jan, 2021
19.	SRGP	Microalgae mediated Synthesis of Silver and Chromium nanoparticles, a new biotechnological approach for industrial effluent treatment	1,000,000	15 <sup>th</sup> Jan, 2021
20.	RRG	IVIG production from convalescent plasma of COVID-19 survivors: a low risk, high efficiency passive immunization strategy against SARS-CoV-2	9,847,220	19 <sup>th</sup> Aug, 2020
21.	NRPU	Heterologous expression of streptokinase from beta hemolytic Streptococcal strain for pilot scale production of recombinant streptokinase	1,492,274	4 <sup>th</sup> Mar, 2019

## ii. FUNDING GRANTS FOR R&D FROM NON-HEC, 2022-2023

\$ #	Name of Research Grant	Title of Research Proposal	Amount Approved (Rs.)	Date of Approval
1.	National Institute of Health, Islamabad	Development of gestational Diabetes Mellitus (GDM) Management App "Maa love 2B" for Pakistani pregnant Mother: A randomized Control Trial to evaluate the impact of app use on maternal health and pregnancy outcomes	4,192,110	May, 2023
2.	National Institute of Health, Islamabad	Assessing the effectiveness of an mHealth intervention versus the usual standard of care for improving medication adherence and selfmanagement among type II diabetics in Pakistan: A randomized controlled trial	2,826,200	25th May, 2023
3.	National Institute of Health, Islamabad	Novel approach to combat antimicrobial resistant fungal infections by epigenetic regulation; Expression profiling of Histone deacetylases and screening of novel deacetylase inhibitors as potential therapeutic	1.79 M	21 <sup>st</sup> Mar, 2023

		agents for antifungal resistant C. albicans infections		
4.	Pakistan Innovation Fund (PIF)	Rapid Development of Next- Generation Anti-Venomin Pakistan: Recombinanat MbAS against cobra species	19.90M	2023
5.	World Health Organization	The WHO 10 group classification system to reduce unnecessary cesarean sections: evidence from a multicenter study in Karachi, Pakistan	2,152,000	28th Feb, 2023
6.	Shah Murad Sugar Mills. Ltd.	Research and Development Work	540,500	30th Jan, 2023
7.	Medisure Laboratories (Pvt.) Ltd.	Bioequivalence Study of Rahmacin (Clarithromycin) 250mg/5mlsuspension in Healthy Human Subjects.	2,049,731.00	30 <sup>th</sup> Jun 2022
8.	Platinum Pharmaceutical's (Pvt) Ltd	Bioequivalence Study of Perispa (Eperisone) Tablets 50mg in Healthy Human Subjects.	2,459,677.00	30 <sup>th</sup> Jun 2022
9.	Dynatis Pakistan (Pvt) Ltd.	Impact of Glite on Glycemic Control as an Add-On Therapy Among Type 2 Diabetic Patients	2,049,731.00	30 <sup>th</sup> Jun 2022
10.	Metrics Research Private Limited	A Multicenter, Randomized, Double-Blinded, Placebo-Controlled Study to Assess Safety and Efficacy of SIR1-365 in Patients with Severe COVID-19	2,664,650.00	30 <sup>th</sup> Jun 2022
11.	Hongkong Tigermed Co., Limited	A Global, Multi-Center, Randomized, Double-Blind, Placebo-Controlled, Phase III Clinical Study to Evaluate the Efficacy, Safety, and Immunogenicity of Sequential Immunization of Recombinant SARS-CoV-2 Fusion Protein Vaccine (V-01) Against COVID-19 in Healthy Adults Aged 18 Years and Older after the Vaccination of 2 Doses of Inactivated Vaccines	2,664,650.00	30 <sup>th</sup> Jun 2022
12.	Martin Dow	Awareness Regarding Pre-Diabetes- Collaborative Research Project	1,500,000.00	13 <sup>th</sup> Jun 2022
13.	Conservation Food & Health Foundation, Inc	Mental health capacity-building for primary healthcare providers to promote good health & well-being	4,099,462.00	20 <sup>th</sup> May 2022
14.	National Institute of Health	COVID-19 Vaccination during pregnancy: Perinatal outcome, safety and acceptance of vaccine.	449,800.00	16 <sup>th</sup> Apr 2022
15.	National Institute of Health	Metabolic Syndrome and Risk for Cardiovascular Disease in Apparently Healthy Subsets of Pakistani Adult Population.	1,780,348.00	16 <sup>th</sup> Apr 2022
16.	National Institute of Health	Genomic predictor of oral squamous cell carcinoma OSCC metastasis and malignant transformation in oral submucous fibrosis OSF: Expression of PLOD2 gene and miRNA 26a and 26b.	2,325,160.00	16 <sup>th</sup> Apr 2022

17.	Pharmevo Research Forum	Metabolic Syndrome and Risk for Cardiovascular Disease in Apparently Healthy Subsets of Pakistani Adult Population.	300,000.00	7 <sup>th</sup> Mar 2022
18.	Neurology Research Grant	Screening of anti-parkinson's compounds by rotenone induces BV2 Cell Activation	500,000.00	24 <sup>th</sup> Jan 2022

## 2.6.6. Vice Chancellor's Seed Funding Initiative (VCSFI)

No funds are generated for current Fiscal Year 2022-2023

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

	DUHS Vice Chancellor Seed Fund Initiative (VCSFI): Start Date 23-May-2019						
S #	Grant No	Level of Faculty Appointment	Title of Research Proposal	Amount Approved (Rs.)	Amount Received (Rs.)	Completion/ Pmt. Fulfilled Dates	Project Status
1	2019B -0043	Assistant Professor	Role of 7-ketocholesterol (7-kcho)in pathophysiology of diabetic nephropathy (DN):STREPTOZOTOCIN(STZ)ind uced disease model	500,000	499284	10/16/2020	Completed
2	2019B -0074	Associate Professor	Preclinical studies of a novel simvastatin -lecithin stabilized Nano formulation against atherosclerosis in Apo-E knockout mice	500,000	500000	9/10/2020	Completed
3	2019B -0072	Assistant Professor	Gene correction of specific 619 BP deletion using CRIS-PR-Cas9 in Induced Pluripotent stem cell derived from beta Thalassemia patients	500,000	500,000	6/23/2022	Completed
4	2019B -0078	Assistant Professor	Role of Autophagy in Different Histological subtypes of Adult diffuse gliomas	350,000	350000	2/8/2021	Completed
5	2019B -0015	Senior lecturer	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	699994	10/4/2021	Completed
6	2019B -0016	Assistant Professor	Osteogenic differentiation of Wnt Activated human periodontal ligament stem cell (hPDLSCs) in Three dimensional (3D) hydrogels	500,000	500000	12/28/2020	Completed
7	2019P G- 0065	Post Graduate	In vitro and in vivo anticancer studies of targets flower extract and pure compound against hepatocellular carcinoma	250,000	250000	12/28/2020	Completed
8	2019P G- 0075	Post Graduate	Investigation c-MYC sequential and expressional polymorphism in oral squamous cell carcinoma	250,000	250000	8/2/2022	Completed
9	2019P G- 0036	Post Graduate	Investigation role of kaiso target proteins expression in field cancerization and tumor progression of oral squamous cell carcinoma (OSCC)	250,000	250000	2/8/2021	Completed
10	2019P G- 0011	Post Graduate	Investigation the synergistic effects of bevacizumab and celecoxib on angiogenesis using in vitro derived human umbilical vein endothelial cells	250,000	249300	10/7/2020	Completed

11	2019P G- 0040	Post Graduate	Association of polymorphisms in cytochrome P450 3A4 and deoxycytidine kinase genes on the adverse effects by cytarabine in treatment of acute lymphoblastic/myeloid leukemia	250,000	250000	5/27/2021	Completed
12	2019B -0053	Assistant Professor	Microbial De Phosphorylation of phytic acid - An alternative approach to increase the bioavailability and bio access	500,000	475375	3/5/2020	In Process
13	2019B -0004	Dean and Principal	Pharmacodynamics and pharmacokinetic studies on analogues of fluoroquines against MDR-TV	900,000	195000	11/11/2021	In Process
14	2019B -0005	Assistant Professor	Experimental validation of computationally designed anticancerous peptide, dip-36, against c-myc-usp 36 complex in diffused last beta-cell	725,000	400000	8/28/2020	In Process
15	2019P G- 0004	Post Graduate	Impact of brain derived neurotrophic factor gene polymorphism on its peripheral levels in schizophrenic patients	250,000	225000	7/10/2021	In Process
16	2019P G- 0077	Post Graduate	Comparative analyses of physical and elemental characteristics of dental material of vertebrates	165,500	144949	7/28/2021	In Process

DU	DUHS Vice Chancellor Seed Fund Initiative (VCSFI): Start Date 19th Nov 2021						
\$ #	Grant No	Level of Faculty Appointmen t	Title of Research Proposal	Amount Approved (Rs.)	Date	Status	
1	2021C- 0002	Professor	Investigating Genetic Variants In Esophageal Carcinoma Using Massively Parallel (Next-Generation) Sequencing Methods	1,500,000	20.8.2022	Completed	
2	2021B- 0020	Assistant Professor	Neural Regeneration: Transplantation Of Wnt, Notch And FGF-9 Activated Human Neural Progenitor Cells In Animal Model Of Neurodegenerative Disorder	500,000	25.6.2022	Completed	
3	2021P G-0002	Phd	Association Of SARS Cov-2 And Its Variants With The Disease Outcome And Laboratory Parameters Among Hospitalized Patients	250,000	21.6.2022	Completed	
4	2021P G-0009	M.Phil.	Subgenomic Mutation Analysis Of Receptor Binding Domain Of SARS-Cov-2 Spike Protein	250,000	29.6.2022	Completed	
5	2021P G-0020	M.Phil.	Investigation Of Anti-Inflammatory Potential Of Isolated Phenolic Compound(S) From Melia Azedarach (L). Flower Via NF-Kb And MAPK/P38 Signaling Pathway	250,000	21.7.2022	Completed	
6	2021P G-0021	M.Phil.	Design, Synthesis, And Characterization Of Novel Celecoxib Derivatives And Their Anticancer And Anti-Inflammatory Potential, And Molecular Docking	250,000	16.9.2022	Completed	
7	2021P G-0022	M.Phil	Error Rate And Coefficients Quantification Of Neurological Defects Due To Consanguineous Mating Using Drosophila Melanogaster Model	250,000	13.7.2022	Completed	

8	2021P G-0023	M.Phil	Investigating Gene Expression Based Drug Screening On Alzheimer's Disease Patients-Specific Neuronal Cells Derived From Ipscs	250,000	4.8.2022	Completed
9	2021P G-0016	Mds	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	18.6.2022	Completed
10	2021P G-0025	Mph	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	22.8.2022	Completed
11	2021B- 0023	Assistant Professor	IN-VITRO Propagation And Enhanced Cannabinoids Production Of Cannabis Sativa L. (Industrial Hemp)	1,000,000	18.6.2022	In Process
12	2021B- 0027	Assistant Professor	Development And Characterization Of A Transdermal Patch Containing FDA Approved NSAID For The Treatment Of Arthritis	421,000	26.8.2022	In Process
13	2021B- 0004	Assistant Professor	Formulation Development Of Iontophoresis Based Transdermal Delivery System Of Anti Migraine Drug	707,000	29.8.2022	In Process
14	2021B- 0008	Assistant Professor	Identification Of Histopathological And Molecular Subtypes Of Preeclampsia	1,500,000	21.6.2022	In Process
15	2021B- 0013	Assistant Professor	Modulation And Transplantation Of Umbilical Cord Derived Mesenchymal Stem Cells In Animal Model Of Alzheimer's Disease: A Preclinical Study	1,000,000	21.7.2022	In Process
16	2021B- 0014	Assistant Professor	Isolation, Purification And Characterization Of Bioactive And Anti-Cancerous Small Molecules From Oxalis Corniculata	980,000	21.6.2022	In Process
17	2021B- 0018	Assistant Professor	Osteoinductive Potential Of Selenium Nanoparticles Via Regulation Of Oxidative Stress In Human Umbilical Cord Derived- Mesenchymal Stem Cells: A Promising Therapeutic Approach In Bone Disorders	1,000,000	18.6.2022	In Process
18	2021C- 0006	Assistant Professor	Expression Of PD-1 And PDL-1, The Immune CheckPoint In Triple Negative Breast Cancer – Exploring New Avenues To Treat The Untreatable.	660,000	21.6.2022	In Process
19	2021P G-0012	M.Phil.	Modulation Of Apoptotic And AKT/Pl3K/Mtor Signaling Pathways In Glioblastoma Cells Using Small Molecules	250,000	****	In Process

## 2.6.7. 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.

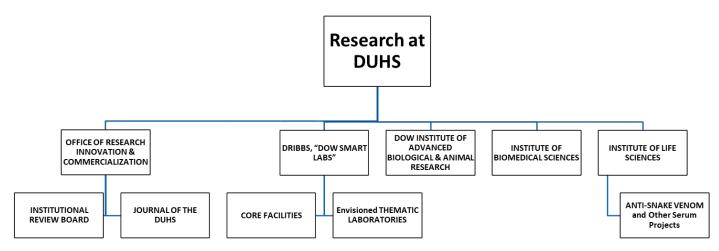
The ORIC, DUHS since then, adapted policies for augmenting activities related to innovation and commercialization at DUHS. The ORIC office at DUHS has divided its activities into four

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, 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 7 annual health innovation exhibitions from 2015-23 respectively. In the last exhibition which was held in 2022, 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:

- 1. Workshop on "Novel Coronavirus (nCoV): Fear VS Negligence & Emergency Response"
- 2. Session on Endnote for Referencing
- 3. Scientific Manuscript Writing
- 4. BCQ Writing Skills
- 5. Seminar on Medicinal & Nutritional Benefit Moringa Oleifera
- 6. Seminar on Patent Database Search
- 7. Workshop on "Biosafety and Security in Health Care Institutions
- 8. Seminar on Marketing University technologies
- 9. Workshop on Writing a Business Plan
- 10. Session for Aspiring entrepreneurs
- 11. Workshop on Digital Marketing

#### 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.

There have been over 50 grants awarded to Dow University since the inception of ORIC office and ORIC office ensures the timely disbursement of these grants and maintains systematic records.

#### **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.

#### **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

#### School of Public Health

#### 1. Prof. Dr. Kashif Shafique, Nida Jawed, Tooba Zaidi and Tahreem Hussain

Development of gestational Diabetes Mellitus (GDM) Management App "Maa love 2B" for Pakistani pregnant Mother: A randomized Control Trial to evaluate the impact of app use on maternal health and pregnancy outcomes (Approved for funding by Health Research Institute 2022)

#### 2. Prof. Dr. Kashif Shafique, Nida Jawed, Tooba Zaidi and Tahreem Hussain

Development of gestational Diabetes Mellitus (GDM) Management App "Maa love 2B" for Pakistani pregnant Mother: A randomized Control Trial to evaluate the impact of app use on maternal health and pregnancy outcomes (Approved for funding by Health Research Institute 2022)

#### 3. Prof. Dr. Kashif Shafique and Syed Omair

Metabolic Syndrome and risk for cardiovascular disease in apparently healthy subset of Pakistani adult Population. (Approved for funding by Health Research Institute 2022)

#### 4. Dr. Habiba Shah

Development of biological control approaches using epiphytic yeast to maintain postharvest quality and control fruit rot of mango, citrus & tomato. (Approved for funding by NRPU, HEC 2021-ongoing study)

#### 5. Prof. Dr. Kashif Shafique and Dr. Iqra Ansari

Mental health capacity-building for primary healthcare providers to promote good health & well-being.(Approved for funding by International Organization 2022)

#### 6. Dr. Maria Atif and Prof. Dr. Kashif Shafique

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 (Approved for funding by Health Research Institute 2023, for a period of 18 months)

#### 7. Dr. Maria Atif and Prof. Dr. Kashif Shafique

The WHO 10 group classification system to reduce unnecessary cesarean sections: evidence from a multicenter study in Karachi, Pakistan (Funded by WHO, amounting to PKR 2,152,000/for a period of 6 months 2023)

#### 8. Prof. Dr. Zafar Iqbal, Dr. Maria Atif and Ms. Nadia Shah

Assessing the prevalence and impact of mental health disorders amongst flood affected population across Pakistan: A translational approach to public health practice (Approved for funding by Health Research Institute 2023)

#### 9. Prof. Dr. Zafar Iqbal and Ms. Nadia Shah

Use of Digital Technology for improving Emergency Medical Services to develop mobile apps for Road Awareness and early response to Road Traffic Accidents" (Approved for funding by HEC NRPU grant 2022)

#### **Dow Institute of Medical Technology**

#### Ms. Ruquia Feroz (RCCT: Med Tec) and Ms. Afshan Arzo (RCCT: Lecturer)

Approved grant ROUND III CALL FOR RESEARCH PROPOSAL Health Research Institute, National Institutes of Health; Title of the Research Project: Assessing the prevalence and impact of mental health disorders amongst flood affected population across Pakistan: A translational approach to public health practice.

## 2.8. THE 7<sup>TH</sup> ALL PAKISTAN DUHS-DICE HEALTH INNOVATION EXHIBITION

Dow University of Health Sciences is on a mission to revolutionize academia with

entrepreneurial activities. The 7<sup>th</sup> All Pakistan DUHS – DICE Health Innovation Exhibition was held on November 4<sup>th</sup>, 2022. 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.



The main objectives of this exhibition are:

- 1. To establish a strong linkage between Academia and Health providing institutions.
- 2. Motivate professionally educated youth to generate innovative ideas and utilize currently available state of art technologies and software, for practically possible development of health related products and services.
- To foster a culture of innovation and Entrepreneurship in the country and make it a part of Nation's DNA.
- 4. Creating a positive and favorable image of Pakistan's health sector.

## **National Innovation Basket Session (NIB)**

Activity followed by Panel discussion to list down short term, medium term and long term projects for the sustainable growth of textile exports of Pakistan.

5 sessions related to improving the quality of life of every individual were also the highlights of this auspicious event participated by well-known personalities related to medical devices, alternative medicine, health care, pharmacy & nutrition.

**DUHS-DICE Shark Session** An initiative to pitch Top 10 good student research projects to CEOs/Technical Directors for funding with the objective to encourage innovation by youth and to make it beneficial for industry.

### **Participation from Industry:**

- Bosch Pharmaceuticals
- ICI Pharmaceuticals Ltd
- Martin Dow Pvt Ltd
- Kair Pharmaceuticals
- Getz Pharmaceuticals Pvt Ltd

Number of Projects: 300 Total Prize Money: 1 Million Total Number of Universities: 48

#### 2.8.1. 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 2022-223, including the following:

S#	Project Leader	Project Title	University/Institute
1	Sibrah Sohail	Morineem soap	Dow College of Biotechnology
2	Nabiha Aejaz 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	ACUSURGICALS	Dow Institute of Medical Technology
8	Amat ul Aziz	Husn	Dow university of health sciences

## 2.8.2. PRIZE WINNING PROJECTS OF THE DICE EVENT

S no	Title	Description
1	Zango Transport	It was designed as it was observed that lots of neonates died on the way to our hospital to prevent that mortality it was designed and has been helping us since then. The Neonatal Transport Program maintains a specially trained team capable of transporting the neonate and infants from other hospitals to our North West General Hospital Neonatal Intensive Care Unit (NICU) when they require the highest level of care that can only be provided at our NICU. The Transport Team functions as a complete Unit, utilizing a specialized portable incubator with integrated ventilator and monitor, so that the patient remains fully supported throughout the transport process. Depending on the degree of illness and distance, the team transports babies by this ambulance. The program is committed to providing team within 60 minutes or less, with in Peshawar Transport incubators with selfcontained power supplies to maintain neutral thermal environment, continuous cardiopulmonary monitoring, mechanical ventilation, blended oxygen, suction devices, and infusion pumps. Other supplies and medications are readily available to the team. Because each baby is unique, our neonatal transport team provides individualized care to each baby. The neonatal care services we provide include: High frequency, conventional and noninvasive ventilation for babies with breathing issues Endotracheal intubation Surgical airway management Arterial line placement to continually measure blood pressure Blood administration
2	Nutrolina	Our main idea is to focus on the production of highenergy food products using edible algae, Spirulina. This alga is rich in essential amino acids, energy and many crucial vitamins and minerals.
3	3D Printed Medical devices	3D printed additive manufacturing technology can be used to make medical equipment such as dental Aligners, fracture Casts, artificial limbs and prosthetics.
4	Developmen t of First Fly Stock Center of Islamic World	Drosophila melanogaster is considered model of the modelled organisms in the life sciences. Leading Universities around the world have their dedicated Fly Stock center. In addition few major Fly Stock centers have been established around the world which ship desired fly strains to the respective laboratories on commercial basis. Unfortunately, of 56 Islamic countries no such facility exists, hampering research and development in the area of fly biology in the same. This project entails development of fly stock center that could very well be considered as the first of its kind in the Muslim World.
5	Rebellant	Throughout all tropical and subtropical countries, mosquitoborne diseases are a major concern for human and animal health. Malaria, filariasis, yellow fever, Japanese encephalitis, and dengue fever are among the most common diseases that are caused by mosquitoes. DEET can cause irritation, redness, rashes, and swelling as well as stomach upset, vomiting, and nausea upon ingestion. Occasionally DEET even has been associated with seizures in people. A potential alternative are organic products that are both effective and environmentally friendly. Essential oil compounds and their derivatives have proven to be an efficient way of controlling pesky mosquitoes. The presence of monoterpenes and sesquiterpenes in essential oils has been attributed to their effectiveness as repellants. Moreover, their characteristic of quick d egradation in the environment has an additional benefit justifying its usage. Our product "Rebellant" is an organic mosquito repellant, available in liquid spray form as well as in candle form which contains combination of essential oils from citronella grass (Cymbopogon nardus), peppermint (Mentha piperita), eucalyptus (Eucalyptus globulus), tea tree (Melaleuca alternifolia) and lavender (Lavandula angustifolia). The spray form also has antimicrobial properties due to presence of alcohol and tea tree oil.

6	Noor e Zia	Health care access is right of all human beings. According to our survey and personal experiences, underprivileged areas in Karachi, Pakistan, are full of quacks and untrained old school thought general practitioners. Most of them are not educationally and technically equipped to handle the emerging diseases and also most of the qualified doctors and consultants do not want to
7	Natural Laundry Detergent	Delitic laundry detergent can pretreat stains before washing. It gives you a lowsuds, 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#39s more ecofriendly. After all, it requires lower quantity of water to make.

## 2.8.3. 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	A Phase 3, multicenter, randomized, double-blind, 48-week study of the clinical and antiviral effect of S 217622 compared with placebo in non-hospitalized high risk participants with COVID 19	IBBPS, DUHS	IQVIA RDS EAST ASIA PTE.LTD	Analysis	24 <sup>th</sup> May, 2023
2	Phase 3 Clinical Study to Evaluate the Efficacy, Safety and Immunogenicity of SARS-CoV-2 Bivalent mRNA Vaccine	IBBPS, DUHS	Metrics Research Pvt Ltd	Testing	24th May, 2023
3	A Clinically-Oriented Antimicrobial Resistance Surveillance Network for Healthcare-associated infections (ACORN-HAI)	IBBPS, DUHS	national University of Singapore	Testing	24th May, 2023



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI



2022-23

## **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.

### **Comparison of Rankings**

Ranking Agencies	2020	2021	2022	2023	
1. Times Higher Education Asia				201-250	
2. Times Higher Education World University Rankings	Not ranked	Not ranked	Not ranked	<ul> <li>601-800 out of 1799 institutions</li> <li>4<sup>th</sup> Nationally/29 Universities</li> <li>Highest Ranked pillar of '428' in Research Citations</li> <li>3% international student population</li> <li>Student: Faculty ratio – 6.8:1</li> </ul>	
3. THE World University Rankings by Subject-Clinical & Health	Not ranked	Not ranked	Not ranked	501-600	
The Impact Ranking Overall	601+	801- 1000	801- 1000	801-1000 (out of 1591 institutions)	
SDG 3-Good Health & Well Being	401- 600	201- 300	101- 200	96 (out of 1218 institutions)	
SDG 4-Quality Education	401- 600	601- 800	601- 800	601-800 (out of 1304 institutions)	
SDG 5-Gender Equality	201- 300	201- 300	401- 600	201-300 (out of 1081 institutions)	
SDG 17-Partnerships for the goals	601+	1001+	1001+	801-1000(out of 1625 institutions)	

4. QS Ranking Medicine	World by	University Subject-	Not ranked	601- 650	551- 600	601-650
5. QS	Asia	University	451-	401-	351-	Not eligible for ranking
Ranking			500	450	400	Not eligible for fariking

#### 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 established department of quality assurance for affiliated
  colleges embedded in quality enhancement cell to further strengthening the system.
- It is responsible for monitoring and improving the quality of education and academic programs within an 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 work 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 recommendation provided by HEC and Accrediting bodies. It also promote effective communication and collaboration among different colleges, leading to a more cohesive and integrated educational environment.

3.3. KEY PERFORMANCE INDICATORS OF QEC- DUHS IN UNIVERSITY	Status as of 2022 - 2023
QEC Assessments	
No. of Academic Programs Assessed through Self-Assessment Reporting	All degree awarding programs
No. of Courses Assessed (Course-Wise Assessment Evaluations)	2265 Courses Assessed Online
No. of Faculty Assessed (Student-Teacher Evaluation as Prescribed by HEC)	1347 Faculty Assessed Online
Number of Programs with National or International Accreditations	96 Programs are Accredited
Number of Faculty Trained through Professional Development Center	243 Faculty Trained

#### **HEC prescribed 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

#### 3.4. QUALITY INITIATIVES FY 2022 – 2023

The quality initiatives for the Year 2022-2023, 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 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. Establishment of the QEC Setup at all the affiliated colleges of Dow University of Health Sciences, as required by HEC, Pakistan in the FY 2022-2023.

Establishment of the QEC Setup at all the affiliated colleges of Dow University of Health Sciences, as required by HEC, Pakistan in the FY 2022-2023

- 1. Fountain College of Nursing & Allied Health Sciences
- 2. National Institute of Physical Therapy & Rehabilitation Sciences

#### 3.5. 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

# 3.6. 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)**
- 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 Institute of Basic Medical Sciences- 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.** MS in Public Health (MSPH) at School of Public Health- Accredited by **Pakistan Medical** and **Dental Council (PMDC)**
- 17. Master in Health Professional Education (MHPE) at Dow Institute of Health Professionals Education- Accredited by Pakistan Medical and Dental Council (PMDC)

- 18. Master of Surgery (MS) at Department of Postgraduate Studies- Accredited by **Pakistan** Medical and Dental Council (PMDC)
- 19. Doctor of Medicine (MD) program at Department of Postgraduate Studies- Accredited by Pakistan Medical and Dental Council (PMDC)
- **20.** BBA & MBA Programs are in the process of accreditation from the **National Business Education Accreditation Council (NBEAC).**

#### 3.7. SEMINARS/WORKSHOPS & TRAINING EVENTS AT QEC

Following seminars/workshops and training QEC organized and contributed in the year 2022 - 2023.

S. #	Name of Event/Seminar/Workshop/ Training	Date	Purpose
1.	Self- Institutional Performance Evaluation (IPE) for the University Portfolio Report (UPR) 2021-2022 at Shaheed Mohtarma Benazir Bhutto Medical University Larkana, Sindh, assigned by HEC, Islamabad	30th May, 2023 - 1st June, 2023	To conduct an external evaluation as part of training exercise to train quality professionals in Sindh Province.
2.	Guest Speaker Session on "Future of Quality and Organizational Excellence" organized by QEC-DUHS, by Mr. Atif Shahab Butt and Dr. Muhammad Wasif.	6th June, 2023	Speakers highlighted the emerging trends and strategies for organizations to achieve quality and organizational excellence, this session gain insights on harnessing technology, meeting changing expectations, and adopting best practices.
3.	QECACs Monitoring and Evaluation (M&E)-Meeting Session	23rd May,2023	QECACs Monitoring and Evaluation (M&E)-Meeting Session to discuss and provide guidance on HEC Monitoring Template and its efficacy
4.	3rd Round of two days quality assurance workshop for QA professionals of public and private sector universities / DAIs of Sindh	15th-16th May, 2023	Participants will gain expertise in review methodologies, data collection techniques, and report writing, enabling them to effectively assess institutions and programs for quality assurance purposes
5.	Professional English Language Training Program	2nd-6th May, 2023	Enhancing the professional English language skills of faculty members, this program aims to equip them with the necessary tools to effectively communicate and engage in an academic setting.

6.	2nd Round of two days quality assurance workshop for QA professionals of public and private sector universities / DAIs of Sindh	14th-15th March, 2023	Participants will gain expertise in review methodologies, data collection techniques, and report writing, enabling them to effectively assess institutions and programs for quality assurance purposes
7.	Quality Assurance Workshop for QA Professionals of Sindh aimed at producing trained institutional / Programme Reviewers arranged by Sindh Higher Education Commission	1st -3rd February,202 3	To train participants as skilled institutional and program reviewers, contributing to improved educational quality in the region.
8.	Progress Review Meeting and Training of QECACs of DUHS' conducted by QEC-DUHS	6th February, 2023	To strengthen the Internal Quality Assurance mechanism at the QECACs and to educate regarding the functioning, roles and responsibilities of these cells, as per prescribed HEC policies.
9.	Awareness Session on 'Preparation of Program Self-Assessment Report' conducted by QEC-DUHS	12th January, 2023	To aware the participants about the importance and procedure of SAR with respect to quality assurance of academic program.
10.	Analysis and use of Course & Faculty Evaluation Survey Performance Results	22 December, 2022	A capacity building session to identify ways to analyze and use data gathered from the survey and increase survey response rates, based on evidence backed practices and successful experience from peers
11.	Invited as guest speaker for workshop on 'Strategic Planning for Quality Education' at Indus University, Karachi	25th October, 2022	Providing participants with the knowledge and skills to develop effective strategies that align with educational goals and standards.
12.	NEBAC Workshop: Experiential Learning (EL) - Incorporating Innovative Pedagogies	18th-19th October, 2022	Participants will explore to discuss innovative pedagogies that promote active and engaging learning experiences for students.



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI



## **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 PTC Foundation UK, American Heart Association, North Middlesex University Hospital, London, IMPACT Nepal, Amber Institute of California, INTER BURNS, INFORM, EMAME & EmONC, FALAH, US AID, UNFPA & WHO.

#### 4.1.1. 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	Audience Type (student /faculty /staff)	
1	Basic Life Support (BLS) (AHA)	55	15	Faculty	
2	Live Surgery Workshop "Endoscopic Sinus Surgery" Theme: Basic Principles	1	2	Faculty	
3	Neonatal Resuscitation Program	1	7	Faculty	
4	An insight into Mini-clinical Evaluation (Mimi-CEX) Tool	1	12	Faculty	
5	"Obstacles to Child Health Surmountable or Unconquerable" "Acute Kidney Injury Tool Kit"	1	4	Faculty	
6	"Obstacles to Child Health Surmountable or Unconquerable" "To Close or Not to Close: Shunt Lesions"	1	2	Faculty	
7	Problem Based Learning for Diagnoses and Workup of Bleeding Disorders	1	21	Faculty	
8	World Hearing Day Theme: Ear and Hearing Care for All	1	3	Faculty	
9	CME Lecture on 'Understanding &Management of HIV in Children'	1	4	Faculty	
10	CME Workshop on 'Understanding the Dynamics of Medico- Legal Consideration in Obs & Gyn	1	7	Faculty	
11	CME Lecture on 'Approach to a Child with Developmental Dealy'	1	2	Faculty	
12	Clinicopathological Review of Ovarian Tumors	1	9	Faculty	
	2 day Workshop/ Training/ Professional Skills Development at DMC Campus				
13	Advanced Cardiac Life Support (ACLS) (AHA)	11	9	Faculty	
14	Instructor Course Advanced Cardiac Life Support (ACLS) (AHA)	2	2	Faculty	
15	Peadiatric Advanced Life Support (PALS) (AHA)	2	1	Faculty	
	Total	81	100		

	Workshops/ Trainings/ Professional Skills Development at OJHA Campus				
1	Interpretation of Electrocardiography (ECG)	1	15	Faculty	
2	Laprosopic Surgery	1	3	Faculty	
3	Surgical Instrument in Renal Transplant Surgery	1	4	Faculty	
4	Acute Management of Stroke	1	11	Faculty	
5	Endocarditis Prophylaxis	1	19	Faculty	
6	Sirm Fertility Pre Conference	1	11	Faculty	
7	An Insight into Mini - Clinical Evaluation Exercise (mini - CEX): Tool for workplace Assessment	1	12	Faculty	
8	Obstetrics Refresher Workshop on Maternity Care	1	4	Faculty	
9	Leprosy Overview	1	1	Faculty	
10	Best practices Integration of Simulation in Teaching and Learning	1	22	Faculty	
11	Neonatal Resuscitation Program	1	5	Faculty	
12	Pediatric Critical Care Nutrition	1	2	Faculty	
13	Pakistan Life Saving Programme	10	14	Faculty	
14	Symposium on Simulation in Health Care Education	1	20	Faculty	
	Total	23	143		

#### 4.2. FACULTY DEVELOPMENTS 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. FACULTY DEVELOPMENT TRAINING AT DOW INSTITUTE OF HEALTH PROFESSIONALS EDUCATION (DIHPE)

Dow Institute of Health Professionals Education and HR Directorate, in collaboration with the Sindh Higher Education Commission, successfully conducted a 10-day pre-service training for newly inducted faculty members 7th - 16th June 2023 under the HEC master training faculty development programme.





## ii. PROFESSIONAL ENGLISH LANGUAGE TRAINING PROGRAM FOR FACULTY & STUDENTS

Dow University of Health Sciences conducted a 5 day English language proficiency program from 2<sup>nd</sup> May to 6<sup>th</sup> May, 2023 at DUHS, for the faculty and staff of DUHS. The purpose of this activity is to make medical professionals able to read, write and well conversed in Professional English. The faculty sessions were held on 2<sup>nd</sup> and 3<sup>rd</sup> May, 2023 at DMC Campus-DUHS. Faculty from all constituent institutes of DUHS has participated the program.

#### iii. 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. Syeda Sara Kazmi, Sr. Registrar, Department of Surgery-DMC has attended the NFDP in Islamabad from 30<sup>th</sup> January, 2023 - 17<sup>th</sup> February, 2023. Dr. Ayedha Gul, Sr. Registrar, Department of Surgery-DMC has attended the program from 20<sup>th</sup> February, 2023 – 10<sup>th</sup> March, 2023 at Lahore.

#### 4.2.1. FACULTY DEVELOPMENT

Dr. Ishrat ul Ebad Khan Institute of Oral Health Sciences, Department of Science of Dental Materials

 Dr. Muhammad Khawaja Hammaduddin completed Certified Health Professionals Education (CHPE), Certified Health Quality Professionals (CHQP) and Self-Assessment Review (SAR) Course for Institutional Review Boards courses.

#### Institute of Business & Health Management (IBHM)

• Ms. Yasmeen Bashir from Institute of Business & Health Management is awarded from PIQC for obtaining the first position in the 1st batch of three months training program on "Certified Healthcare Project Management Professional".

## 4.3. RETURNED SCHOLARS (FOREIGN UNIVERSITIES)

Returned Ph.D. Scholars (Foreign Universities)				
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	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. Syed Imran Mehmood	15. Dr. Mohsin Wahid		
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. Sumaira Nasim		

### 4.4. PRESENT SCHOLARS - ENROLLED IN PHD PROGRAMS

	Present Scholars Within the University, Ph.D. programs				
S #	# Name Specialty				
1.	Naheed Khan	Anatomy			
2.	Khalida Parveen	Anatomy			
3.	Mahrukh Qasim	Anatomy			
4.	Syed Inayat Ali	Anatomy			
5.	Sahar Mubeen	Anatomy			
6.	Iffat Raza	Anatomy			
7.	Tehniat Ahsan	Biochemistry			
8.	Sahar Iqbal	Chemical Pathology			
9.	Ashar Afaq	Community Dentistry			
10.	Tazeen Mustansar	Histopathology			
11.	Durr-e-Sameen	Histopathology			

12.	Ruqaiya Shahid	Histopathology
13.	Farheen Sultan	Histopathology
14.	Rubina Gulzar	Histopathology
15.	Bushra Sikandar	Histopathology
16.	Uzma Bukhari	Histopathology
17.	Fatima Fasih	Medical Microbiology
18.	Saima Naseem	Medical Microbiology
19.	Ambreen Fatima	Medical Microbiology
20.	Mehveen Iqbal	Medical Microbiology
21.	Muhammad Masroor	Medicine
22.	Fatima Arshad	Molecular Pathology
23.	Shazia Jabbar	Gynae & Obs
24.	Amynah Charania	Oral Biology
25.	Sofia Ali Syed	Oral Pathology
26.	Anwar Ali	Oral Surgery
27.	Shaheen Ahmed	Oral Surgery
28.	Fuad Shaikh	Pharmacology
29.	Nighat Rukhsana	Physiology
30.	Malik Tajuddin	Public Health
31.	Muhammad Tahir Rizwan Khan	Public Health
32.	Mazhar Iqbal	Public Health
33.	Zeeshan Noor Shaikh	Public Health
34.	Syeda Kanwal Aslam	Public Health
35.	Qamar Saeed	Public Health
36.	Nabil	Public Health
37.	Shiraz Shaikh	Public Health
38.	Zaeema Ahmar	Public Health
39.	Sana	Public Health
40.	Umm-e-Rabab	Public Health
41.	Haji Sohail	Public Health
42.	Zulfiqar Ali Shaikh	Public Health
		73

	Present Scholars enrolled in PhD, outside DUHS				
S #	Name	Specialty			
1.	Dr. Auwais Ahmed Khan	Pharmacology			
2.	Dr. Hina Tabassum	Pharmacology			
3.	Dr. Syed Ahsan Ali	Pharmaceutics			
4.	Dr. Saba Inayat Ali	Pharmaceutics			
5.	Dr. Kashif Ali	Pharmacy Practice (Italy)			
6.	Dr. Sadia Iqbal	Pharmaceutical chemistry			
7.	Dr. Erum Shah	Pharmacognosy			
8.	Dr. M Sarfraz	Physiotherapy			
9.	Ms. Nadia Shah	Applied Economics			
10.	Ms. Nida Jawed	Home Economics (Food and Nutrition)			
11.	Ms. Tahreem Hussain	Home Economics (Food and Nutrition)			
12.	Ms. Tooba Zaidi	Home Economics (Food and Nutrition)			
13.	Ms. Mehreen Amer	Human Nutrition and Dietetics			
14.	Ms. Sukaina Shabbir	Human Nutrition and Dietetics			
15.	Ms. Quratulain Amir	Physiology			
16.	Ms. Kamila Mariam	Management Sciences in Healthcare			
17.	Dr. Anosh Tahir	Pharmacology			
18.	Ms. Samina Baig	Microbiology			
19.	Mr. Zeb Hussain	Microbiology			
20.	Mr. Muhammd Asif	Microbiology			
21.	Ms. Maryam Moula Bakhsh	Management Sciences			
22.	Mr. Tanseer Ahmed	Nursing			
23.	Mr. Muhammad Rehan	Nursing			
24.	Ms. Amber Hussain	Nursing			
25.	Mr. Faraz Siddiqui	Nursing			
26.	Mr. Syed Yousuf Shah	Nursing			

27.	Mr. Amjad Ali	Nursing
28.	Ms. Subia Naz	Nursing
29.	Ms. Muhmooda A. Razzaq	Nursing Education

# 4.4.1. IPFP SCHOLARS

IPFP Scholars present in the university in 2022-2023:

Faculty Name	College/Institute
Dr. Muhammad Usman	Dow Institute for Advanced Biological & Animal Research
Dr. Aqsa Mushtaq	Dow College of Pharmacy



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI



2022-23

# **CHAPTER 5**

Access

#### **5.1. BASIC ENROLLMENT**

Total Student enrollment during FY 2022-2023 is **7524** 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 2022-2023, DUHS				
Institute Name	Programs	Male	Female	Total
Dow Medical College	MBBS	446	965	1411
Dow Dental College	BDS	30	167	197
	Master of Surgery	19	1	20
School of Postgraduate	Doctor of Medicine	25	13	38
Studies	FCPS-II	164	536	700
	Diploma	19	42	61
	DPT	31	156	187
Sindh Institute of Physical	BS Occupational Therapy	5	23	28
Medicine & Rehabilitation	BS Prosthetics & Orthotics	3	6	9
	MS Advanced Physiotherapy	0	7	7
Dow Institute of Physical	DPT	33	279	312
Medicine & Rehabilitation	MS Advanced Physiotherapy	1	11	12
Dow International Medical College	MBBS	312	420	732
Dow International Dental College	BDS	35	166	201
Dr. Ishrat-ul-Ebad Khan	BDS	61	332	393
Institute of Oral Health	MDS	44	60	104
Sciences	MSc. DS	5	9	14
School of Dental Care Professionals	BS Dental Care Professional	17	99	116
Dow College of Pharmas:	Pharm-D	115	613	728
Dow College of Pharmacy	MPhil Pharmaceutical Sciences	1	14	15
Dow Institute of Medical Technology	BS Medical Technology	60	348	408

Department of Ophthalmology and Visual Sciences	BS Optometry	10	102	112
	BBA	86	169	255
Institute of Business & Health Management	MBA	12	34	46
·	ЕМВА	28	24	52
	BS Nursing	199	193	392
Dow Institute of Nursing &	Post RN BS Nursing	36	18	54
Midwifery	Post RN BS Midwifery	0	3	3
	MS Nursing	15	9	24
	BS Radiologic Technology	7	70	77
Dow Institute of Radiology	Diploma in Medical Radiology	2	15	17
	Diploma in Echocardiography	2	2	4
	BS Nutrition	2	151	153
	BS Public Health	8	21	29
School of Public Health	Master of Public Health	0	4	4
	MS Public Health	3	16	19
	MS Biostatistics & Epidemiology	4	26	30
Dow College of Biotechnology	BS Biotechnology	50	333	383
Dr. Abdul Qadeer Khan Institute of Behavioral Sciences	BS Psychology	1	29	30
Institute of Biomedical	MPhil	4	36	40
Sciences	PhD	12	26	38
Institute of Health Professionals Education	Master of Health Professional Education	12	33	45
National Institute of Diabetes & Endocrinology	MSc. Diabetes & Endocrinology	18	3	21
OJHA Institute of Chest Diseases	Diploma in Tuberculosis & Chest Diseases	1	3	3
Total		1937	5587	7524

# 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 2022-2023, the faculty-student ratio is calculated as follows:

Faculty-Student Ratio		
Total Number of Faculty	935	
Total Number of Enrolled Students	7524	
Faculty-Student Ratio of University	1:8	



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI



# **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 International Dental College has now mandated for its House Surgeons to produce at least one research paper.

### 1. OPEN HOUSE Postgraduate Session - Dow College of Pharmacy

The OPEN HOUSE POST Graduate Session 2023-2024 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.







### 2. 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
  - o IEF Two Dimensional Electrophoretic Protein Analysis

# 3. May 2023: Clean and Green Karachi, Prime Minister's Program of Green Youth Movement Club (GYM-DUHS)

The Green Youth Movement (GYM) Club, is a Prime Minister initiative for a safe and clean environment in Pakistan. Certificate and prize distribution ceremony of proposal writing competition on "Clean and Green Karachi", Prime Minister's Program of green youth

movement club (GYM-DUHS) was held on 31st May 2023 at Dow College of Pharmacy, Dow University of Health Sciences.

The students of both campuses, DMC as well as OJHA campus, participated in the competition. Faculty members of DUHS also enthusiastically participated in the competition. The Honorable Pro Vice Chancellor DUHS Prof. Dr. Nazli Hossain, Regional Director HEC Dr. Javed Ali Memon, Principal Dow College of Pharmacy and Focal Person to HEC for GYM-DUHS Prof. Dr. Sumbul Shamim, Principal Dow International Medical College, Prof. Dr. Zeba Haq, graced the occasion along with the Chairpersons and the senior faculty members.

graced the occasion along with the Chairpersons and the senior faculty members.

The guest speaker was Mr. Muhammad

Saifullah, Entrepreneurship and ecosystem specialist, Communication and PR, Partnerships and Synergies, Shell LiveWIRE (Shell Tameer) Pakistan. The lecture given by the guest speaker motivates the young audience members.

The results of the competition were announced by the jury members, which comprises Dr. Farzana Sadaf from Hamdard University and Maryam Ahmed from Karachi University. Among faculty members, there was a tie for 1st position between two proposals "Empress Market Version II" by Ms. Surraya Shams, faculty at Dow Institute of Medical Technology and "Organic



Waste Management and Composting" by Ms. Mehwish Jamali and Prof. Zeba Haq, faculty at Dow International Medical College.

"Mountains students, Among the proposals submitted by the proposals Garbage: Karachi Looming Crisis and What Needs to Be Done?" by Hareem Fatima MS-1, Dow Medical College (DMC) and "Promoting Low-cost and Recycled Solutions for Sustainable Development (SDGs 9 and 12) by Shehnila Usmani and Syed Awais Aftab Dow College of Pharmacy (DCOP) tied for 1st Position. The 2nd position was awarded to the proposal titled "Microbial Enzyme Production: A Promising Path towards Sustainable Industries" by Alishba khan and Dr. Mahera Moin of Dow College of Biotechnology. For 3rd position, there was a tie between the proposals viz.: "THE CLEAN and GREEN KARACHI" by Syed Ahmed Arbaaz, Dow Dental College and "Clean and Green Karachi without Chemicals" by Barkha, Dow College of Pharmacy 2nd Year. The program ended with the presentation of the winners to the audience.

### 4. Inauguration of Dow Fly Research Lab and Stock Center

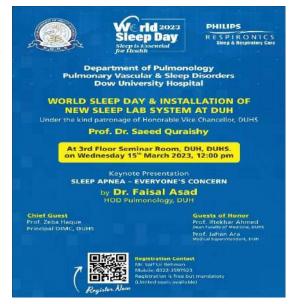
A dedicated institute for Dow college of Biotechnology and Dow Fly Research Lab and Stock Center was inaugurated by Prof. Ahsan Iqbal Chaudhary and Vice Chancellor Dow University of Health Sciences on 20th January 2023.





# 5. Installation of a New Sleep Lab System at the Department of Pulmonology, DUH OJHA Campus

On 15th March, 2023, Department of Pulmonology - DUH, Dow University of Health Sciences in collaboration with PHILIPS Pakistan on World Sleep Day,2023 is organizing an Inauguration Ceremony for the Installation of a New Sleep Lab System at DUH (OJHA Campus) followed by a keynote presentation on the topic "SLEEP APNEA-EVERYONE'S CONCERN" by Dr. Faisal Asad (HoD Pulmology, DUH).



# 6. Pakistan's First Hematology Automation System at Dow university of Health Sciences

On 2<sup>nd</sup> March, 2023, Dow University of Health Sciences with collaboration of Abbott Pakistan inaugurated Pakistan's First Hematology Automation System. A Total Lab Automation Solution System at Dr. Ishratul Ebad Khan Institute of Blood Diseases





#### 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

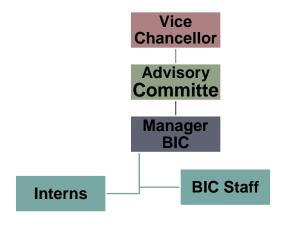
#### Respect and Collegiality:

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		Launch of Annual BPC
2	Application	Online/Nominations		2 weeks
3	Idea Assessment (Faculty Level)	In person	Manager BIC	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 cofounders 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.

#### 6.4. 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	Health care access is right of all human beings. According to our survey and personal experiences, underprivileged areas in Karachi, Pakistan, are full of quacks and untrained old school thought general practitioners. Most of them are not educationally and technically equipped to handle the emerging diseases and also most of the qualified doctors and consultants do not want to work in the hard situations due to security risk and hassle of conveyance. Our 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.

Throughout all tropical and subtropical countries, mosquito borne diseases are a

#### Rebellant

major concern for human and animal health. Malaria, filariasis, yellow fever, Japanese encephalitis, and dengue fever are among the most common diseases that are caused by mosquitoes. The use of synthetic chemicals, like DEET (N, Ndiethylmetatoluamide) to manage insects and arthropods currently raises various environmental and human health concerns. DEET can cause irritation, redness, rashes, and swelling as well as stomach upset, vomiting, and nausea upon ingestion. Occasionally DEET even has been associated with seizures in people. A potential alternative are organic products that are both effective and environmentally friendly. Essential oil compounds and their derivatives have proven to be an efficient way of controlling pesky mosquitoes. The presence of monoterpenes and sesquiterpenes in essential oils has been attributed to their effectiveness as repellants. Moreover, their characteristic of quick degradation in the environment has an additional benefit justifying its usage. Our product "Rebellant" is an organic mosquito repellant, available in liquid spray form as well as in candle form which contains combination of essential oils from citronella grass (Cymbopogon nardus), peppermint (Mentha piperita), eucalyptus (Eucalyptus globulus), tea tree (Melaleuca alternifolia) and lavender (Lavandula angustifolia). 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 repellant spray, BGcage 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<sup>2</sup> 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 repellant candle, the same cages were used and it was observed that mosquitoes didn't land anywhere within the radius of 0.50.7 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#39s 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. Organic soap is not only beneficial for you but it's also better for others. It's better for the environment because its ingredients have less of an environmental impact, and because those ingredients break down easily and cause fewer problems after they go down the drain. And finally, organic soap is better for the economy, because it is often made by small, local producers, so you can spend your money as it's pocket friendly

#### 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.

### Startup Enchantress

Established in December 2021 Enchantress promises to continue growth with high standards. My Brand '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 key chains, pendants, earrings, paintings. Unique product includes painted key chains 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.

### Acusurgicals

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.

# Husn

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.

#### Toner

- 1. Hydrating toner
- 2. Oil skin toner

#### Serum

- 1.Brightening serums for all skin type
- 2.Exfoliating serum
- 3.Retinol+vitamin E+ Vitamin B5 and collagen serum

#### Moisturizer

- 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-striping for oily to acne prone skin type)

#### Sunblock

1.Sunscreen

# 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	An indigenous strain of <i>Aspergillus</i> niger (BERG-17) and its Application in Citric Acid Production	National	09 <sup>th</sup> Feb, 2022
2.	Dr. Muhammad Raza Shah Dr. Talat Roome	Polyacrylonitrile based electrospun nanofibers loaded with Zinc Oxide-Quercetin nanoparticles for wound healing	International	Jan 2022

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.			
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.	Clinical Electives offered at various		
7. North West General Hospital, Peshawar	National & International Hospitals		
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, and 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.

Public Health Organizations	Clinical Dietetics
Nutrition Support Program-(NSP) Sindh	Aga Khan University Hospital
Water and Sanitation Hygiene (WASH)	SIUT
People's Primary Health Care Initiative (PPHI)	Patel Hospital
	National Medical Center (NMC)

Fatimiyah Hospital
Indus Hospital
Dow University 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 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.

#### • Career Counseling at Dr. Ishrat ul Ebad Khan Institute of Oral Health Sciences

DIKIOHS arranged an event on 22nd March 2023 for the leaning and information of ADC (Australian Dental Council Exams) by one of our Alumni Dr. Asiya Sabri BDS Batch-7 DIKIOHS. She has recently passed the ADC exams and eligible to get license for practice over there.



#### 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 2022, a Career drive and an Industrial visit were arranged in collaboration with Herbion Pharma for DCOP students.
- 2. Students' industrial visits to Brookes Pharmaceuticals and Martin Dow Limited were arranged in the months of November 2022 and January 2023 respectively.
- In March 2023, an academic trip to the Indus Hospital was arranged for the students of DCOP by Department of Pharmacy Practice.



#### Learning Session for USMLE and PLAB at Dow International Medical College

On 22<sup>nd</sup> October, 2022, students of 4th and 5th Year, MBBS - DIMC were invited to attend a learning session for USMLE, PLAB, and residency matching processes which was led by Dr. Ayema Haque, a graduate of DUHS' MBBS program. Dr. Ayema Haque is a prestigious alumni of DUHS who has successfully cleared the USMLE Step exams and is currently applying for the match in the United States of America. She has very graciously participated in other interviews as well to aid her junior students in preparing better for their futures.

#### **Objectives:**

- To increase awareness of the requirements and process to apply for medical board licensing exams
- To aid in the management of time in preparing for the process of applying and matching to residency programs
- 3. To foster a sense of urgency and responsibility in students to become more competitive applicants.



#### **Accomplishments:**

- More than 94 students were able to receive crucial information regarding the process of clearing the board exams, and how to improve their CVs in preparation for the match.
- Several questions from students were answered from questions personally by Dr. Ayema Haque.
- Students successfully acquired a sense of direction by which to better organize their time.



#### Conclusion:

The event was received with much enthusiasm from students and a high turnout rate was observed. The event drew a large audience and questions were submitted beforehand through a Google Form which helped greatly in addressing the most pressing questions of concern. Overall, the event was a great success as students responded positively to seeing their.



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI



# **CHAPTER 7**

Strengthening Physical Infrastructure

# **Directorate of Planning & Development**

The Department of Planning and Development of Dow University has completed renovations and refurbishments of the old Dow Medical College and a number of old buildings and infrastructure at the OJHA campus.

#### 7.1. DEVELOPMENT PROJECTS

The following are development projects being implemented at DUHS, Khi.

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	Annual Development Fund	Ongoing
2.	Sindh Infectious Diseases Hospital & Research Centre At NIPA, Gulshan-e-Iqbal, Karachi	ADP	Ongoing
3.	Provision of Linear Accelerator with Integrated High Field MRI System in Sindh	ADP	Revised & Now 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 of Demand Cyclotron System	DUHS	Ongoing
6.	Strengthening & Development of Dow University of Health Sciences Ojha Campus, Khi.	PSDP	Submitted for Approval to HEC

#### 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.

# 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 5<sup>th</sup> 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. Department of Nuclear Medicine (Oncology Ward)

Department of Nuclear Medicine (Oncology Ward) is under construction with a total cost of Rs. 1.166 billion, the cost includes Rs. 456 million for Cyclotron, Rs.360 million for PET-CT Scanner and Rs.350 million for Oncology Ward construction. The Oncology Ward at DUHS will provide treatment to several types of Cancer patients as a commitment to the Vision of the University, which is to change and save lives.

### 7.2. UPDATED & NEW EQUIPMENT

Dow University of Health Sciences has modern equipment for clinical and research facilities, which is available for faculty and students to facilitate them in their research work.

 The National Institute of Liver and Gastrointestinal Diseases also approved and planned to purchase new endoscopy equipment, which will enhance the capacity of the department to offer services to 35-40 procedures a day. These are new but routine endoscopes.

#### 7.3. COMPLETED PROJECTS

- 1. Establishment of Department of Serobiological and providing power generation by gas along with heat recovery system at OJHA campus of DUHS, Karachi.
- 2. Establishment of an Advanced Molecular Genetics and Genomics Diseases Research and Treatment Centre at OJHA Campus, Dow University of Health Sciences, Karachi



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI



# **CHAPTER 8**

Strengthening Technological Infrastructure

#### 8.1. DIGITAL LIBRARY

The Digital Library program was propelled by HEC to help researchers and mentor at public sector universities. Digital Libraries developed by Dow University of Health Sciences in their various campuses and institutes give access to global insightful writing in view of online delivery, peer- reviewed journals, databases, articles and e-books crosswise over extensive variety of controls. Through HEC digital library, which is available from all computerized libraries built up in DUHS, clients can get to more than 75,000 electronic substances. Taking after are the rundown of digital libraries at various campuses of Dow University of Health Sciences alongside the quantity of accessible systems:

- Digital Library (OJHA Campus) 60 Computer Systems
- Digital Library (DMC Campus) 80 Computer Systems
- Digital Library (Dow Institute of Nursing & Midwifery) 40 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) 34 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 initially launched in 2002 as a part of an IT action plan providing Internet facility and interconnectivity between universities for data bank integration, research collaboration and upgrading learning and teaching skills. Dow University of Health Sciences receives a total of 730 MBPS in Dow Medical College and OJHA Campus; DUHS is acquiring the services of the PERN-II Network. The bandwidth is further distributed to all other campuses. We have also activated PERN Backup link connectivity between both of our campuses & it will offer us fault tolerant PERN services, having a backup connectivity.

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.

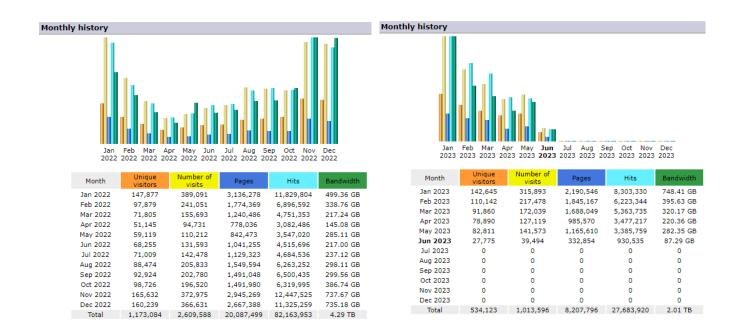
#### **CMS Features**

- CMS 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.
- 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 on the official website of the university 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



#### 8.6. ONLINE ADMISSION SYSTEM

The online admissions portal assist 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 different programs; 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.

# 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.

#### 8.8. 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.

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

#### 8.9. 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



# **CHAPTER 9**

Universities Building Communities

# 9.1. UNIVERSITY-COMMUNITY INTERACTION

Univ	University and Community Interactions in 2022-2023					
1.	Blood Donation Day Drive	Community Service, Community Building Activities of Dow International Medical College (DIMC)				
2.	Visit at old home in Karachi – Dar-ul-Sukoon					
3.	Heat Stroke Awareness Campaign					
4.	Awareness Seminar at Beaconhouse Systems College in Gulshan, Karachi					
5.	Visit of Habib Boys Public School, Karachi at DIMC					
6.	Breast Cancer Awareness Seminar at Beaconhouse School					
7.	Corporate Social Responsibility Society, Ration Drive 2023 – Rishta Ahsas Ka	Community Service, Community Building Activity of Dow Institute of Business and Health Management (IBHM)				
8.	World Physical Therapy Day – Visit to Edhi Village	Dow Institute of Physical Medicine & Rehabilitation (DIPM&R)				
9.	SPH collaborated with Age Care Technologies (ACT) in Promoting Health Awareness in Older Adults	School of Public Health (SPH)				
10.	Community-based research project: Metabolic Syndrome and Risk for Cardiovascular Disease in Apparently healthy Pakistani Adults					
11.	Visit to Taqseem Ilm School					
12.	Nutrition Camp at Indus Hospital					
13.	Health Promotion Initiative (Ongoing Project)					
14.	Dental Camp at Sirat ul Jannah Orphanage	Community Service and Community Building Activities of Dow Dental College (DDC)				
15.	Dental Camp at Government Boys Secondary School, Kotwal Building					
16.	Oral Health Awareness Campaign, Ayesha Academy					
17.	Online Oral Health Session for Zubaida Academy Junior Public School in Bhakkar District of Punjab					
18.	Oral Cancer Awareness Campaign					
19.	Society for the Rehabilitation of Special Children (SRSC)	Community Service and Community Building Activities of Dow International Dental College (DIDC)				
20.	Dental Camp at DIDC- Hospital Chanesar Campus					
21.	Visit at Seerat Secondary School, Sachal Goth	Community Service, Community Building Activities of Dow Institute of Nursing & Midwifery (DION&M)				
22.	World Optometry Day	Dow Institute of Medical Technology (DIMT)				

#### 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

The Dow Skills Development Centre (DSDC) was founded in 2008 as a social responsibility of Dow University of Health Sciences in an effort to improve the economic conditions of low-income households surrounding the OJHA Campus area, by offering short-term Technical and Vocational Education and Training (TVET) geared towards income generation. The programs 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, 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 Program for DUHS Staff across all spectrums.

This is an Annual Hands-on Up-skilling & Training Pathway covering over 3000 DUHS employees targeted to improve the level of services offered by DUHS Hospitals and Tertiary care Units and for HCPs to excel in their chosen professions.

#### Why is Skills Up skilling and Skills Development Necessary?

Skills acquisition is vital for an economy to compete and grow, particularly in an era of rapid technological change. Vocational Education and Training (VET) is a direct means of providing people, particularly those with limited academic backgrounds, with skills relevant to the evolving needs of employers and the economy. Living in an era driven by information technology makes investing in our youth through ICT education (including Emerging Technologies) and other hands-on skills relevant to Pakistan's industrial environment a necessity.

#### Vision:

Pakistan's premier providers of Hands-on Up skilling & 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 2022 to June 2023:

#### Vocational training/courses offered by DSDC during the period 2022-2023 S. # No. of Name of Training/Course Date **Participants** Certificate Information System 1. 4 June, 2022 to 2 July 2022 64 Morning 2. Microsoft Office 18 June 2022 to 30 Sep 2022 23 Certificate Information System 3. 5 Sep 2022 to 4 Jan 2023 83 Morning 4. Digital and Social Media Marketing 3 Jan 2023 to 26 Jan 2023 80 5. Diploma in Information System 11 Jan 2023 to 10 March 23 56 6. Graphic Design with School Of Animations 7 Feb 2023 to 20 Feb 2023 80 Certificate Information System 7. 1 March 2023 to 15 May 2023 35 Morning 8. Stitching and Cutting 16 March 2023 to 15 May 2023 15 9. **IELTS Preparatory Classes** 14 8 April 2023 to 8 May 2023 10. Graphic Design with School of Animations 22 March 2023 to 21 June 2023 04 11. Certificate Information System 1 June 2023 to 21 June 2023 60 12. Infection Control 21 June 2022 to 28 June 2022 23 13. 16 May 2022 to 28 July 2022 Digital Literacy 32 14. Digital Literacy 24 May 2023 to 27 July 2022 33 15. Patient Care/Service Excellence By PIMS 19 Nov 2023 to 24 Dec 22 179 16. Service Excellence By PSTD Part 1 25 Feb 2023 to 18 March 2023 173 17. Service Excellence By PSTD Part 2 6 May 2023 to 10 June 2023 155 Total 965

















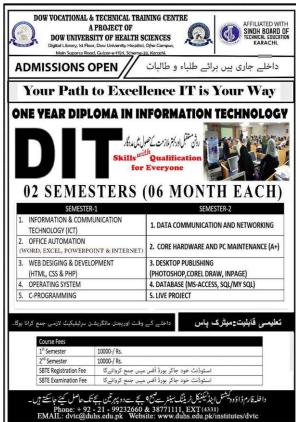
(First Floor Digital Library Building Ojha Campus DUHS)

## **Admission Open**

Admission Open in <u>CIT & Ms Office</u> from 1<sup>st</sup> July 2022.

Days: Wednesday - Thursday
Timing: 10:00 am to 11:00 am
Class will start from 03<sup>rd</sup> August 2022.

ADMINISTRATOR
Dow Vocational & Technical Training Centre



**Dow Skills Development Centre** 

(First Floor Digital Library Building Ojha Campus DUHS)

## **Admission Open**

Admission Open in CIT & Ms Office

from 1st September 2022.

<u>Days: Tuesday - Thursday - Saturday</u> <u>Timing: 09:00 am to 11:00 am</u>

Class will start from 04th October 2022.

ADMINISTRATOR

Dow Skills Development Centre

#### 9.2.2. DUHS-KGS SUMMER INTERNSHIP PROGRAM

The **DUHS-KGS** Summer Internship Program aims to provide KGS students with an exceptional learning experience in the fields of healthcare and biotechnology. Under the quidance of our experienced professionals, the students of Karachi Grammar School will immerse themselves in our dynamic environment, gaining invaluable insights and practical exposure.

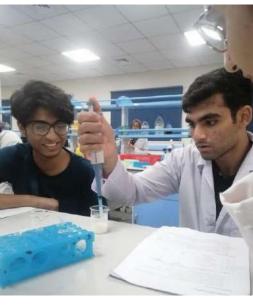
This internship spans six different departments and institutes within DUHS, ensuring a comprehensive and holistic

learning experience. From medicine to research, from business administration to allied health sciences.

So far, students have been actively engaged in hands-on experiments at the Dow College of Biotechnology department, where cutting-edge research happens every day. Imagine being immersed in the world of vaccine development, DNA testing, Fly Research, and other groundbreaking activities, all conducted in state-of-the-art laboratories. Students will continue their journey this week with the Institute of Medical Technology, Dow Diagnostic Research and Reference Laboratory (DDRRL), Dow International Medical College, Institute of Business & Health Management (IBHM), and Dow Skill

Development Centre (DSDC).





#### 9.2.3. DUHS AT PHC JOB FAIR

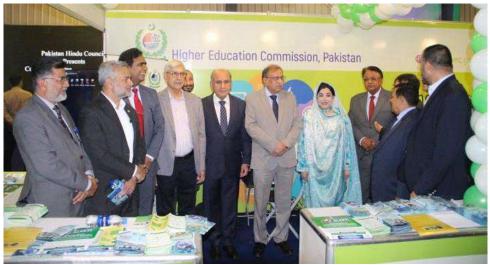
As a participant at the Pakistan Hindu Council Job Fair, Dow University of Health Sciences

provided (DUHS) free dental checkups and oral hygiene kits to well visitors. as as shared information about the admissions in a wide range of undergraduate and postgraduate programs of DUHS, and created awareness about Dow College of Biotechnology, Fly Lab and other services of DUHS.

The Executive Director of Higher Education Commission (HEC) visited the stall of DUHS and appreciated the efforts. Their encouragement motivated DUHS students and staff to continue serving our community through education and healthcare initiatives.







# 9.2.4. BACHELOR OF SCIENCE IN PUBLIC HEALTH (BSPH) PROGRAM

The School of Public Health, Dow University of Health Sciences has recently launched the Bachelor of Science in Public Health (BSPH) program. This is a 04 year degree program, designed to enable the next generation of public health professionals to acquire positions in the entry-level workforce where they will contribute to generating evidencebased practices, providing health promotion and education, advocating a healthy lifestyle, and prescribing communitytailored interventions. This course will prepare candidates for the Master of Science in Public Health (MSPH) and PhD Public Health programs and will pave way for a variety of careers in a wide range of industries at both national and international levels, including provincial and federal health departments, hospitals and medical facilities, local and non-profit organizations, international research. and academic institutes.



#### 9.2.5. FLOOD RELIEF CAMPS AT DUHS

Last year the floods in various areas of Pakistan have wreaked the lives of many. The people in the affected areas were without shelter, food, medicines and other necessities. Dow

University of Health Sciences and its institutes were deeply grieved, and to overcome the devastation it requested its all (HoD) Head of Departments, DUHS to comply with the following points, which enabled us to channel the donations to the flood victims:

- Essential Medicines
- Food Items (Biscuits, Dates, Juices & Milk)
- Mineral Water Bottles
- Clothes (Washed & Ironed)
- Shawls & Towels
- Blankets Large & Small (Washed & Ironed)
- Slippers (Gents & Ladies)
- Mosquito Repellents
- Wipes



## i. DOW MEDICAL COLLEGE (DMC)

	Awareness Sessions held at Dow Medical College					
NO.	DATES	PROGRAM	VENUES			
1.	30 <sup>th</sup> July, 2022	World Hepatitis Day	Muin Auditorium, DMC Campus			
2.	20 <sup>th</sup> August, 2022	World Senior Citizen Day	Muin Auditorium, DMC Campus			
3.	13 <sup>th</sup> September, 2022	(IFMSA) Anti-Harassment Seminar	ARAG Auditorium, DMC Campus			
4.	10 <sup>th</sup> October, 2022	Pink Day and Public Awareness Session on Breast Cancer	ARAG Auditorium & DMC Courtyard			
5.	10 <sup>th</sup> October, 2022	World Mental Health Day	Muin Auditorium, DMC Campus			
6.	26 <sup>th</sup> November, 2022	World Germ Day	Muin Auditorium, DMC Campus			
7.	21 <sup>st</sup> December, 2022	Antimicrobial Resistance	ARAG Auditorium, DMC Campus			
8.	03 <sup>rd</sup> March, 2023	World Hearing Day	DIHPE, DMC Campus			
9.	21 <sup>st</sup> March, 2023	Awareness of Islamic Banking- Session By Meezan Bank	ARAG Auditorium, DMC Campus			
10.	07 <sup>th</sup> April, 2023	World Health Day	PDC Seminar Room & DMC Courtyard			
11.	17 <sup>th</sup> May, 2023	World Hypertension Day – Awareness Walk	DMC Courtyard, DMC Campus			
12.	31 <sup>st</sup> May, 2023	World No Tobacco Day – Awareness Walk	DMC Courtyard, DMC Campus			
13.	07 <sup>th</sup> June, 2023	PWA (Thalassemia Awareness Seminar)	Muin Auditorium, DMC Campus			
14.	08 <sup>th</sup> June, 2023	(IFMSA) Self Defense Workshop for Women	ARAG Auditorium, DMC Campus			
15.	26 <sup>th</sup> June, 2023	International Day against Drug abuse & Illicit Trafficking	Muin Auditorium, DMC Campus			





#### AWARENESS OF ISLAMIC BANKING

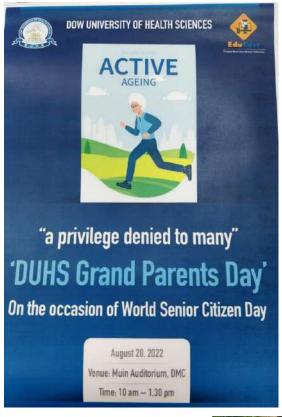
DOW UNIVERSITY OF HEALTH SCIENCES

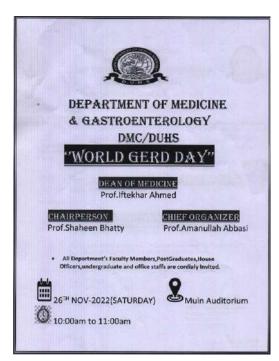
Speaker:

Muhammad Faisal Siddiqui (Senior Vice President SME / Commercial & Investment Banking) Shariah Compliance Department

March 21, 2023 | Time: 11:00 AM - 12:30 PM











#### ii. DOW INTERNATIONAL MEDICAL COLLEGE (DIMC)

#### Visit of Habib Boys School at DIMC (30th August, 2022)

The community medicine department of DIMC facilitated the visit of Habib Boys School.

Students of grade 10 biology visited DIMC to gain knowledge about the medical university, students eagerly explored the various departments and facilities of the university, immersing themselves in the world of medical science. Under the guidance of Dr. Sana Tanzil, Assistant Professor, they were given the opportunity to witness captivating demonstrations and engaging lectures that deepened their understanding of human anatomy, physiology, and the intricate



workings of the human body. The visit not only enriched their theoretical knowledge but also sparked their passion for pursuing careers in medicine and healthcare.

#### Breast Cancer Awareness Seminar at Beaconhouse School (22nd October, 2022)

The department of community medicine DIMC conducted a seminar on 'Breast Cancer Awareness' Beaconhouse at School System on 22nd October, 2022 to celebrate the month of Breast Cancer awareness. Dr. Ramlah and Dr. Sana from DIMC were invited quests by as the school management. The students of O and A level were taught about this critical health issue and made aware of signs, symptoms and screening. The awareness seminar not only equipped with valuable information but also inspired compassion, empathy, and a commitment to promoting women's health and well-being.



#### **Breast Cancer Awareness Seminar at DIMC (4th October, 2022)**

On 4th October, 2022, the department of community medicine arranged a Breast Cancer seminar at DIMC

#### DPCA & DIMC: Blood Donation Day Drive (14th-16th June, 2023)

Dow Patient Care Association (DPCA) and Students of DIMC along with members of Care NGO organized a blood donation drive on 14<sup>th</sup>-16<sup>th</sup> June, 2023 to generate awareness on Blood Donation and its significance in saving lives during emergencies particularly during Obstetric emergencies and accidents. The purpose of this activity was to provide practical support and to help and encourage patients to take more responsibility for their own health. DPCA and DIMC achieved a milestone with 130 blood donations in the span of 2 days. With each pint having the ability to impact 3 lives, the



contributions have directly saved 390 lives.



#### iii. INSTITUTE OF BUSINESS & HEALTH MANAGEMENT (IBHM)

IBHM- Corporate Social Responsibility Society, Ration Drive 2023 – Rishta Ahsas Ka (6<sup>th</sup> April, 2023)

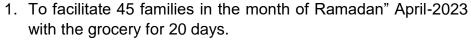
Ration drive is organized by CSSS in the month of Ramadan for deserving community. In 2022, total 49 families were given monthly grocery whereas in 2021 total 30 families were facilitated. CSSS primary goal is to serve community who are suffering from hunger and lacks to access to adequate food.



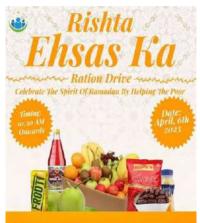
The prime objective of 'Ration drive 2023' is to achieve SDG 2 " Zero

Hunger" and reach out & provide grocery items to the IBHM Staff and Janitorial & guards at

ION building which includes IBHM, SPH, ION & IMT department. Team CSSS worked hard to raise funds and grocery items for distribution to the DUHS community so that the Holy month of Ramadan is filled with less fretting and more tranquility.



- 2. To collect 140,000 rupees via donation for running out Ration Drive-2023.(Financial Objective)
- To create positive image of IBHM and CSSS among rest of the departments of DUHS and employees too. (Non-financial objective)



#### **Learning Outcomes & its Impact:**

Students developed their fund raising, record keeping, and communication & networking skills set. CSSS develops sympathy, empathy, emotional quotient and incorporate skills to manage CSR activities. Participation in Ration Drive 2023 will lead business students not only achieve SDG 2 Zero Hunger but also to develop empathy, emotional quotient & incorporate skills to manage CSR activities effectively. The ultimate goal of CSSS is to equip students with knowledge, emotional quotient & character building.

#### iv. DOW INTERNATIONAL DENTAL COLLEGE (DIDC)

DIDC: Society for the Rehabilitation of Special Children (SRSC) – (31st January, 2023)

On January 31, 2023, the Department of Community Dentistry (DIDC) at DUHS Karachi, in collaboration with The Society for the Rehabilitation of Special Children (SRSC), organized an oral health program for special children at Numaish, Karachi. Being able to participate in a free Dental Camp at a center for special children is a privilege for the Department of Community Dentistry (DIDC), DUHS, as it teaches to be concerned for those in need. The team from DUHS, comprising five members including the principal of DIDC, Prof. Dr. Amynah Charania, Vice Principal Dr. Qaiser Ali Baig, Assistant Professor Dr. Mustafa Naseem, and two house officers, Dr. Salik and Dr. Ayesha. Upon arrival at SRSC, the team discussed oral health awareness with the SRSC team and parents and care takers. A presentation on oral hygiene instructions was given to the special children, followed by a question and answer session with the parents. Free screening and consultations were conducted, and physical measurements were taken for all the special children. It was the first time the special children of SRSC were exposed to a dental screening program, so the team was enthusiastic about participating in this voluntary





work. In addition to the free checkups, faculty members also conducted brushing activities for the children, and each child was given a Colgate kit sample as a gift. SRSC expressed their appreciation to all the participants after the successful event.

# DIDC: Dental Camp at DIDC- Hospital Chanesar Campus (15<sup>th</sup> Feb, 2023 to 15<sup>th</sup> Mar, 2023)

Dow International Dental College organized a free Dental Camp at DIDC- Hospital Chanesar Campus from 15 Feb 2023 to 15 March 2023. In this camp the consultation and different procedures were performed for free of cost without any charges. There were few procedures that were performed on subsidized rates. This camp was placed for the people of Chanesar Goth and adjoining areas. The patients were informed about the activity through distribution of pamphlets and banner prior to the start of activity. People from nearby and adjoining areas actively visited the hospital for oro-dental services. The awareness session was also placed at the Diagnostic Department for each and every patient about oral health. In this camp a total of 3439 patients were catered and provided high quality services with dedication.



#### iv. SCHOOL OF PUBLIC HEALTH (SPH)

SPH: Metabolic Syndrome and Risk for Cardiovascular Disease in Apparently Healthy Pakistani Adults (May, 2023)

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

manifest the multiple components of the metabolic syndrome. Greater understanding of metabolic syndrome developments may provide insight into prevention targeted strategies for individuals at greatest risk. With a research grant of 1 million, medical camps various locations Karachi were set up to assess for metabolic syndrome

identify patients who









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.

A 3-day medical camp in May 2023, was organized by DUHS, outside its premises, in DOW diagnostic labs in various areas namely; Hussainabad, Samanabad, and Gulshan-e-Iqbal. SPH students took an active part in data collection and anthropometric measurements.

## SPH collaborated with Age Care Technologies (ACT) in Promoting Health Awareness in Older Adults

School of Public Health (SPH) partnered with Foundation of Age Care Technologies in promoting health awareness in older adults as part of a holistic assessment for preventive care. We are glad that our research group at SPH has joined hands with Age Care Technologies in this important public health issue. As part of this academic collaboration four of our MPH students currently are doing their research studies using ACT assessment tool in older population residing in Karachi, Pakistan.

- 1. Validation of Age Care Technology tool (ACT) among geriatric population residing in aged care homes in Karachi, Pakistan
- 2. An evaluation of the Age Care Technologies (ACT) Assess and Connect tool to deliver WHO Integrated Care for Older People (ICOPE) guidance in older people in Pakistan
- 3. Assessing the Health of Elderly Population using ACT Assessment Tool and Home Hazards in Karachi, Pakistan

#### SPH: Visit to Tagseem Ilm School (May, 2023)

In the month of May 2023, students of 4th and 3rd year BS Nutrition Program went to Taqseem Ilm School, in Collaboration with Pakistan Wellness, to educate the students of underprivileged areas about the importance of hand washing and its basic steps. The aim was to spread awareness about the importance of sanitation and good hygiene.



#### SPH: Nutrition Camp at Indus Hospital (March, 2023)

In the month of March (2023), a camp was organized at Indus Hospital Karachi in which the BS Nutrition students of DUHS participated and provided free counselling to men who were suffering from cardiovascular diseases.



## SPH: Health Promotion Initiative (Ongoing Project)

This project proposes to create awareness to sensitize both health professionals as well as general public of Pakistan through behavioral intervention, video messages, social media and media campaigns.

The aim of this project is to improve understanding of pre-diabetes both among healthcare professionals as well as general public and increase their awareness for early detection and behavioral modification. This









campaign aims to raise awareness of prediabetes, a serious health condition. help those with prediabetes know where they stand and prevent type 2 diabetes, the School of Public Health (SPH) and the Primary Care Diabetes Association Pakistan (PCDA) have partnered with the Martin Dow Pharmaceuticals (Pak) Ltd to launch the first awareness campaign "Rakho Khayal Apna Diabetes se Pehle" about prediabetes.

#### v. DOW INSTITUTE OF PHYSICAL MEDICINE & REHABILITATION

DIPM&R: World Physiotherapy Day at EDHI Village (8th September, 2022)

DIPM&R celebrated World Physiotherapy Day on 8th September 2022 with the faculty and students of DPT by visiting to EDHI VILLAGE. Teams were formed including the faculty Dr Atiq-ur-Rehman (PT), Dr Samreen Yasmeen (PT), Ms. Sumreen Zahid (Special Educator), Dr Areesha Anwar (PT). Charitable stuff collected by Faculty and DPT students for Donation as a purpose of sharing which included the First aid box, Clothing, Shoes, Plastic bottles, Books, Toys & games. Edhi Village sited at Super Highway near DHA City Karachi (DCK) is a home to more than 1300 abandoned and orphaned boys and girls, mentally retarded and

physically disabled person as well as shelter less and helpless male and female living in the exclusive village. Administration of Edhi Village Centre allowed us to visit two peads wards, one male geriatric ward and Edhi's school. Along with that students did the physical assessment of the geriatric teach the caregiver some basic and stretching exercises.

At School DPT Students worked with these children according to their levels through worksheets and activity

according to their levels through worksheets and activity boards and done other fun activities like face painting, musical chair, playing cricket, catching throwing ball and other fun activities. After that distributed gift items like goody bags, toys,



clothing, stationery items and First aid box among them. At Peads ward students assessed the physical handicapped, cerebral palsy and intellectually deficit children and teach their caregiver basic stretching exercises according to their needs.

#### vi. DOW DENTAL COLLEGE (DDC)

#### DDC-Dental Camp at Sirat ul Jannah Orphanage (11th Oct, 2022)

On 11<sup>th</sup> October 2022, Faculty of Community Dentistry, Assistant Professor Muhammad Taqi, Dr. Mona Shah, Dr. Babar Zia, and Dr. Amber Saeed directly with dental students and house officers arranged a dental camp at Sirat ul Jannah orphanage.

The purpose of the visit was to educate and promote oral health awareness among these enthusiastic learners. The students and faculty shared valuable information about

proper brushing techniques, the importance of regular dental checkups, and the benefits of a healthy diet

Each child was given a dental kit containing a toothbrush and toothpaste to encourage implementing oral hygiene skills. By engaging with the children and their teachers, we hope to have made a lasting impact on their oral health habits and contributed to building a stronger, healthier community.

Focus on Health promotion and risk factor reduction can help reduce dental diseases and the cost of treatment. Conducting regular school visits is a simple, free, and effective step in this direction.





# DDC-Dow Dental College promoted Oral Health at Government Boys Secondary School Kotwal Building (20<sup>th</sup> Oct, 2022)

Department of Community Dentistry at DOW dental college (DDC) prides life-saving public skills

among itself on its dedication to educating and engaging our youth on the importance of oral hygiene practices. The Faculty of Community Dentistry, Assistant Professor Muhammad Tagi, Dr Mona Shah, Dr Babar Zia, and Dr. Amber Saeed directly supervised Fifty-four third-year dental students from DDC to Government Boys Secondary school Kotwal building. In this visit, we successfully screened and spread oral hygiene awareness among children aged 10 - 14 years. A total of 100 school children received intra-oral examination, where their subsequent oral health profile was documented using a WHO form. Dental caries, staining, and calculus were documented, and tailored oral health advice was explained and documented on prescription pads for children to share with their parents. Children were educated on the importance



and correct technique of oral hygiene practices such as regular dental checkups, tooth brushing, and flossing. Each child was given a dental kit containing a toothbrush and toothpaste to encourage implementing oral hygiene skills.

#### DDC-Oral Health Awareness Campaign, Ayesha Academy (18th Oct, 2022)

In collaboration with the Community & Preventive Dentistry Department of Dow Dental College,

the Asia Pacific Dental Students Association **DUHS** organized (APDSA) of an oral health awareness campaign at Aisha Islamic Academy Orphanage. The trip was supervised and guided by Dr Muhammad Taqi with his team of lecturers, Dr Babar Zia and Dr Amber Saeed. The goal of this activity was to educate children regarding preventive oral healthcare. The program consisted of an oral presentation on dental caries, emphasizing its etiology and risk factors, focusing on preventive strategies conveyed through teeth models and posters. Our dental students highlighted the significance of maintaining oral hygiene by demonstrating brushing and flossing techniques. Every effort was made to provide the students with one-onone dental care.

Furthermore, eighty-five children aged 4-15 were diagnosed with oral health conditions. For this purpose, a portable dental unit was also set





up to examine the participants. A record was kept of their dental health condition. There were interactive activities for children, such as brushing on tooth models, coloring, and face painting, indulging them in taking more interest. At the end of this program, goody bags containing dental kits were distributed among children to motivate them to maintain their oral hygiene.

DDC: Online Oral Health Session for Zubaida Academy Junior Public School in Bhakkar District of Punjab (9<sup>th</sup> Apr, 2023)

The Community Dentistry Department of Dow Dental College (DDC) arranged an online oral health education session for the students of Zubaida Academy Junior Public School in Bhakkar District of Punjab to mark World Oral Health Day.

The online session was held in collaboration with Dr Muhammad Taqi and Dr Amber Saeed via Zoom,



focusing on educating the children about oral health, healthy and unhealthy diets, and brushing techniques.

The informative presentation included videos demonstrating proper brushing techniques to help students better understand oral health.

An interactive session was also held to answer the children's questions regarding their dental health problems.

The DCC initiative contributed to promoting oral health education and awareness in the community, especially to educate children

Amber Saved

Amber

about oral health from a young age as it would help them develop healthy oral habits.

#### **DDC: Oral Cancer Awareness**

Dow Dental College Students' Association (DDCSA) recently conducted an Oral

Cancer Awareness Campaign at Civil Hospital Karachi (CHK) and Dow University of Health Sciences (DUHS), Karachi.

Dr Saaduddin Siddiqui, Head of Oral Medicine and Diagnosis Department, Dow Dental College (DDC), DUHS, and Dr Chandar Kumar, Chairperson, Department of Periodontology, DUHS, supervised the campaign. This event's organizing and management team also include Dr Lovekesh Kumar, Dr Syed Kashif Abrar, and other team members of DDCSA.

Almost 100 dental students volunteered in this massive campaign and reached more than 600 people at CHK, DUHS, and surrounding areas. They referred the suspected patients to the Out Patient Department (OPD) of DDC for a free consultation.



Dr Muhammad Asad, President, DDCSA, said that the association aimed to continue the education of our society regarding oral cancer and oral hygiene through awareness campaigns and outreaches in the future.

#### vii. DOW INSTITUTE OF NURSING & MIDWIFERY (DION&M)

#### DION&M: Visit at Secrat Secondary School, Sachal Goth (29th Oct, 2022)

Faculty and Students of DIONAM paid a community visit at Secrat Secondary School, Sachal Goth, Karachi on 29/10/2022. The purpose of visit was to collect health related information from the school children and to guide them about health maintenance in general and with regard to current, COVID-19 pandemic. A community camp was also arranged to address the health related problems and to provide them with necessary guidance/ health teaching.

In accordance with the collected information from the school students and community members, awareness on Diarrhea, Covid 19 pandemic, Dengue, Malnutrition, and management of Type 2 Diabetes were provided. The activities mainly included demo-workshops and presentation, and were held for around 6 hours. The school management and faculty members were also actively involved. A nearby locally-organized health center was also included, so that future referrals could be made.

The school principal, teachers, students, and other community stakeholders treated the activities as very effective and suggested continuation of such programs by the DUHS team.

#### viii. DOW INSTITUTE OF MEDICAL TECHNOLOGY (DIMT)

#### **DIMT: World Optometry Day (Mar, 2023)**

World Optometry Day is celebrated each year on March 23rd to recognize the important role of optometrists and vision care providers in healthcare. This day also serves as a dedicated opportunity to raise awareness about the importance of eye care for all ages. We celebrate this on same date in institute of medical technology and we organized eye camp for all DUHS students in DIMT skills lab (OPHTHALMOLOGY) and give awareness about eye health. Dr Nisar Siyal discuss and encourage



students for the important of optometry. In last of event we distribute shields for certificates.

#### 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:

#### **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

#### NOTABLE ALUMNI OF DUHS, CONSTITUENT COLLEGES

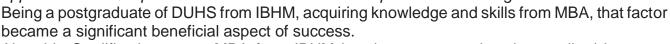
#### • Dr. Aquil Ahmed Khan, MBA, Institute of Business & Health Management (2012)

Management positions at Ministries in KSA are primarily reserved for Saudi nationals. However,

if a foreign medical practitioner possesses management training or experience, they may be hired for administrative positions. Only clinical specializations (doctors or nurses) are eligible for job visas. They are welcome to relocate and assume management responsibilities in the healthcare industry if they qualify for the requirements.

He participated in a delegation interview with the Saudi MOH in Pakistan in 2011 after graduating with MBA from IBHM. He was selected, went through the entire hiring process and arrived at KSA right after his MBA. He has been employed in the Quality and Patient Safety Departments for the past 10 years and had been playing a significant role in the management team at the regional directorate of Aseer Health Affairs in Saudi MOH.

He is now serving at Saudi Ministry of Defense and appointed as CQI Specialist in the Armed Forces Hospital Southern Region.



Also, his Qualification as an MBA from IBHM has been approved and accredited by many international organizations in different countries officially.

He is proud of being qualified from IBHM, Dow University of Health Sciences.



#### Dr. Mahnoor Hafeez, MBBS, Dow Medical College

Dr. Mahnoor is a Dow Graduate, a fellow of the College of Physicians and Surgeons, Pakistan,

and a European Radiology diplomat. She has published more than 25 research articles. Along with multidisciplinary team meetings, Dr. Mahnoor has been actively involved in CT, MRI, Radiographs, and Ultrasound procedures at Dow University of Health Sciences. Against all odds, Dr. Mahnoor Hafeez beat her physical disability to become a medical doctor and specialized in Radiology.

She cleared all her board exams on the first attempt. She is part of a team comprising more than 20 staff Radiologists, reporting patient scans simultaneously at multi-monitor workstations at dedicated cross-sectional suites, linked to central and peripheral CT and MRI scanners.

She wants to spread the message of positivity to all differently-abled people of the World: Don't let barriers stand in your way to becoming educated and employed.



#### • Dr. Summaiya Abdul Rehman, BDS, Dow Dental College (2020)

Dr. Summaiya Abdul Rehman graduated from Dow Dental College, Dow University of Health Sciences, and Karachi, Pakistan in the year 2020. She is currently enrolled in a two-year hospital based Orofacial Pain Residency (Certification) program at Shaukat Khanum Memorial Cancer Hospital and Research Center, Lahore, Pakistan. Dental graduates from all over Pakistan applied for this residency, however there was only one position for which Dr. Rehman was selected making her first Resident Doctor selected for this program from the entire Pakistan.



#### • Dr Muhammad Asad, BDS, Dow Dental College (2021)

Dr Muhammad Asad is a graduate of Dow Dental College class of 2021. He completed his house job from Dow Dental College in 2022. During Flood Relief operations by Dow University of Health Sciences he actively volunteered in ration bag collection and medical camps for flood victims by DUHS in flood affected areas. To recognize his efforts, he was nominated for Prime Minister Flood Hero's award by Dow university of Health Sciences. He represented DUHS at award ceremony at PM office and received award by Honorable Prime minister of Pakistan in 2022.

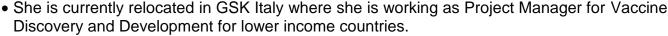


#### Umber Saeed, DCOP, Dow College of Pharmacy (2017)

#### **Career Journey**

- After graduating in Pharm-D from Dow College of Pharmacy, Pakistan in 2017, Umber worked in PharmEvo as Research Coordinator.
- In November 2017, she joined GlaxoSmithKline as part of Future Leaders Program at Korangi Facility.
- Later in 2019, she transitioned to the Regulatory Affairs and Medical Affairs departments based at GSK West Wharf.
- Following that year, Umber held the position of Senior Scientist in Oncology Cell Therapy at the GSK Stevenage Site in UK as part of her international assignment.
- In this role, she was contributed in Lyell Project (Alliance between GSK and Lyell) and worked on best molecule for two assets.
- In 2021, she took over the Project Management Officer role within the Site Remediation Program at GSK Site F-268 in Global Supply Chain, while in 2023 she took over the role Of Internal Control Framework Excellence Manager GlaxoSmithKline for Clinical Operations looking after Informed Consent Form.
  - ence oking

    working as Project Manager for Vaccine



#### **Achievements**

- Global Employee Recognition Performance Silver Award (2023) GSK
- Global Employee Recognition Performance Silver Award (2022) GSK
- Global Employee Recognition Performance Bronze Award (2020) GSK
- Global Employee Recognition Development Bronze Award (2019) GSK
- Global Employee Recognition Trust Bronze Award (2019) GSK
- Global Employee Recognition Development Bronze Award (2019) -- GSK
- Represented Pakistan as Let's Talk Champion in GSK Global Objective Setting (2018) in front of Emma Walmsly CEO GSK and senior leaders in GSK House, UK

- Youngest Oral Speaker in 14th World Cancer and Anti-Cancer Therapy Convention Dubai (2016)
- 1st Prize Research Competition First DUHS-DICE USA Health Innovation Exhibition (2016)
- 2nd Best Research Poster (Medical Category) International Conference on Transitional Medicine with European Society of Transitional Medicine (2016)



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI



2022-23

# **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.

#### **Dow Premier League 2**

Dow Premier League 2 started on 10<sup>th</sup> May, 2023 with 10 boys' team and 11 girls team from all over DUHS. The series had 20 cricket matches of boys' team and 25 cricket matches of girls' team. The league had a Finale on 31<sup>st</sup> May, 2023, where boys' team of Dr. Ishrat ul Ibad Khan Institute of Oral Health Sciences and Dow Institute of Physical Medicine & Rehabilitation girls' team were Champions.







#### 10.2. PARTICIPATION IN NATIONAL CHAMPIONSHIPS

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

- 1. HEC Volley Ball Match Boys 27th December, 2022
- 2. HEC Shooting Girls 4<sup>th</sup> December, 2022
- 3. HEC Badminton Boys 27<sup>th</sup> November, 2022
- 4. HEC Archery Girls and Boys 27th to 30th January, 2023



#### 10.3. ACHIEVEMENTS AT NATIONAL LEVEL

#### **Hosting of All Pakistan Archery and Chess Tournament**

In October, 2022, during the 56th meeting of the HEC-University Sports fraternity held at Bahawalpur, Women's Archery and Men's Chess was allocated to Dow University of Health Sciences (DUHS). The preparations for the 8<sup>th</sup> Women's Archery and 44<sup>th</sup> Men's Chess tournament was under way since the meeting till the decision was made to conduct these games as part of the sports gala planned in Karachi from the 27<sup>th</sup> of January to the 30<sup>th</sup> of January, 2023. The city was indulged in healthy sports under the patronage of HEC. DUHS sports fraternity under the directives of our honorable Vice Chancellor, Professor Dr. Muhammad Saeed Quraishy, arranged the ground for Archery and the sports court for chess.

An archery camp was set at DUHS to train the newcomers for the sport before the final selection by trials of all those willing to go through the process. The archery ground was tented with compartments allocated to different universities to keep their equipment safe in their own custody. The sports court at the sports complex was set for chess with black and white covered tables. Well trained technical officials for both archery and chess were in action for smooth conduction of the tournaments according to international rules. Fair play and the short listing of the best players was the top most priority of the organizers (DUHS) and the patrons (HEC). After intense competition in both the games, the following results were obtained:

		Winners		
	1 <sup>st</sup> Prize	2 <sup>nd</sup> Prize	3 <sup>rd</sup> Prize	
Archery Women	University of Karachi	University of Punjab	University of Lahore	
Tournament	Sobia Amin	Bisma Farooq	Huma Ali	
	Shahwar Nasir	Mahnoor	Seema Yaqoob	
	Maryam Tauseef	Nighat Nasir	Saleha	
	Quratulain	Khizra	Fatima Afzal	
	1 <sup>st</sup> Prize	2 <sup>nd</sup> Prize	3 <sup>rd</sup> Prize	
	University of Punjab	University of Sindh	University of Engineering and Technology	
Chess Men	Zaman Sohail	Abdul Moarji Hayat	Mohsin Abdullah	
Tournament	Ali Akbar	Muhammad Najmuddin	Muhammad Usman	
	Ahmed Mubarak	Syed Sarim Wasti	Junaid Sohail	
	Barkat Ali	Suresh	Hassnain Saleem	
			Hamza Asjad	

#### **Hosting of HEC Cricket Tournament**

The managers' meeting was held on the 23<sup>rd</sup> of February, 2023 and the matches started from the next day. Eight Universities namely, Sir Syed University of Engineering and Technology (SSUET), Aga Khan University (AKU), New Port Institute of Communication and Economics (NICE), Dow University of Health Sciences (DUHS), Institute of Business Administration (IBA), NED, Institute of Business Management (IoBM) and Indus University participated in the tournament, out of which SSUET, NICE, NED and IoBM reached the semifinals. The matches were all full of energy and surprises. The tournament reached the final match after 4 knockout matches and 2 thrilling semifinals. DUHS organized the tournament in the best possible manner, with a well maintained pitch and a welcoming ground. IoBM and NICE teams presented a spectacular game, engaged the audience completely focused on each and every ball. Victory was bagged by the NICE team after a well-played match.

## **Manager ship of National Archery tournament at Lahore**

As an extension of the All Pakistan Intervarsity Women's Archery Championship organized by DUHS, towards the National Archery Championship titled '10th DHA National Archery Women Championship- 16<sup>th</sup> to 19th March, 2023- Lahore', DUHS was offered the Manager ship of the HEC Women's Archery team, which was accepted and successfully fulfilled.

# Manager ship of National Archery tournament at 34th National Games, Quetta

The Camp started from 8th May to 21st May, 2023. Competition started from 22nd May – 29th May, 2023, where the players participated in all the offered categories to show their power.

# 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.



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI



# **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	Name of Org.
Prof. Mohammed Saeed Quraishy	Tamgha e Imtiaz	Government of Pakistan.

- Dr. Khurram Parvez-Associate Professor in the Department of Sciences of Dental Materials and Vice Principal DIKIOHS was awarded Best University Teacher Award 2022 on outstanding performance.
- Dr. Fakhsheena Anjum-Associate Professor of Dow College of Pharmacy won workshop, travel and accommodation grants for "POEM-St. Jude Research Workshop", by POEM (Pediatric Oncology East and Mediterranean) group and St. Jude, in Istanbul, Turkey, 27-29 Apr 2023.
- Ms. Samina Baig-Med Lab Technologist at Dow Institute of Medical Technology won Travel grant for workshop Advanced Bioinformatics

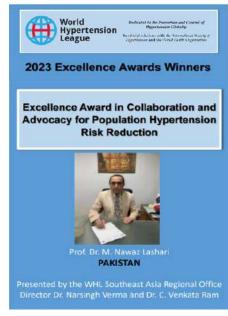
**GPS/JUNO Welcome Sanger Institute May 2023.** 

 Mr. Zeb-Med Lab Technologist at Dow Institute of Medical Technology won ravel grant for workshop Advanced Bioinformatics GPS/JUNO Welcome Sanger Institute May 2023.

- Prof. Dr. Muhammad Nawaz Lashari, Professor and HoD of Cardiology, won Excellence Award in Collaboration and Advocacy for Population Hypertension Risk Reduction by "World Hypertension League" on 19<sup>th</sup> May, 2023.
- Prof. Dr. Mushtaq Hussain received certificate of achievement by Universities and Boards Department in collaboration with Planning and Development Board & ERU finance department, Government of Sindh in recognition of his diligent efforts and achievements. Also awarded cash prize amounting Rs. 75,000 as a

performance incentive in education sector under World Bank's funded program on

April 3, 2023.



## Representation in Govt. Policy Making Committee (FY 2022-23)

Name of Faculty Member	Name of Committee / Representation	Name of Org.
Dr. Saifullah Baig	Strategic Treatment Advisory Group (STAG)	National TB Control Program, Ministry of Health, Pakistan.

## Membership in Various Associations/Councils (FY 2022-23)

Name of Faculty Member	Status	Name of Council/ Body
Prof. M. Saeed Quraishy	President, PSG & GIE	Pakistan Society of Gastroenterology & GI Endoscopy
	Member of Special Committee for Medicolegal Bill 2023	Government of Sindh
Prof. Dr. Saba Sohail	Chairperson for reimbursement, medical certification, age determination and Medicolegal cases	Sindh Government Special Board
Prof. Riffat Jalil	Life Member Member Member	Society of Obstetricians & Gynaecologists Pakistan; Pakistan Uro- Gynecology Association; International Uro- Gynecology Association
Prof. Atiq ur Rehman	Board of Directors	Pakistan Society Therapy Association (PPTA)
Prof. Muhammad Shuja Farrukh	President	Pakistan Society of Otorhinolaryngology, Sindh Chapter
Dr. Izhar Hussain	Member Chairman	Accreditation Awards Committee, NBEAC, Peer review committee of National Business Education Accreditation Council (NBEAC). Institute of financial markets of Pakistan(IFMP)
Prof. Dr. Arshad Hasan	Migration PMDC Syndicate, IRB, Committee	Pakistan Medical Commission
Prof. Dr. Ambrina Qureshi	Medical & Health Sciences Committee for Research Journal Accreditation	Higher Education Commission of Pakistan
Dr. Rabya Munawar	Ex. Executive member	Pharmacy Council of Sindh

Dr. Wajiha Gul	Editorial Board	ARC Journal of Pharmaceutical Sciences
	Member	
Prof. Naresh Kumar	Co-opted member	Pakistan Medical Commission (PMC)
	Standing Recognition	
	Committee (Dental)	
Prof. Noor Jahan	Secretary	Pakistan Pharmacist Association (PPA) Central
Dr. Meha Fatima Aftab	Member	Mediterranean Neuroscience Society
	Board Member	Pharmacology, Baqai Medical University
Prof. Asif Qureshi	Member	American Society of Microbiology American Association of Molecular Pathology. Karachi Cancer Registry Pakistan Biological Safety Association.
Dr. Ambreen Fatima	Member	Medical Microbiology & Infectious Diseases Society of Pakistan American Society of Microbiology Pakistan Biological Safety Association
Dr. Fouzia Zeeshan	Member	American Society of Microbiology. Pakistan Biological Safety Association. Pakistan Society of Microbiology
Prof. Dr. Uzma Bukhari	Member	Pakistan Association of Pathologist
Dr. Shaima Sultana	Member	Pakistan Association of Pathologists Health Professionals Council of SA Pakistan Medical Council
Dr. Fatima Fasih	Member	Medical Microbiology & Infectious Disease society of Pakistan
Prof. Fehmina Arif	Life Member Treasurer Vice President Trustee	Pakistan Pediatric Association KONPAL (Child Abuse Prevention Society) HELP (Health Education and Literacy Program) Child Life Foundation
Dr. Waseem Jamalvi Dr. Abid Hussain Dr. Faizia Nasim Dr. Anny Hanifa Prof. Dr. Muzamil Shabana Ejaz Dr. Ayesha Saleem Dr. Hafiza Sania	General Secretary	Pakistan Pediatric Association (Sindh Branch)
Prof. Dr. Uzma Bukhari	Member	Pakistan Association of Pathologist
Dr. Fakhsheena Anjum	Vice President	Pakistan Pharmacists Association, Sindh Chapter.
Prof. Sumbul Shamim	Member	Independent Ethics Committee (IEC) International Centre for Chemical and Biological Sciences (ICCBS) Dr. Panjwani Centre for Molecular and Drug

Prof. Ambrina Qureshi Prof. Muhammad Arif Mateen	Reviewer Honorary Editorial Board Member Overseas Member	Research (PCMD), University of Karachi. American Society of Gene and Cell Therapy (ASGCT) American Society of Experimental Pharmacology and Therapeutics (ASPET)  Scientific Manuscripts published by PLOS-One, Elsevier and JPDA; Journal of Pakistan Dental Association.  Association of Paediatrics Surgeons of Pakistan (APSP)  British Association of Paediatric Surgeons
		Pakistan Association of Paediatric Nephrologists
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. Faisal Yameen (PT)	Board of Directors Sindh Chapter	Pakistan Society Therapy Association (PPTA)
Dr. Atiq Ur Rehman (PT)	Board of Directors	Pakistan Society Therapy Association (PPTA)
Dr. Salik Rasool	President	Sindh Council, Pakistan Society of Maxillofacial Pathology
Dr Naureen Farhan Dr Binish Rasheed Dr Nauman Al Qamari Dr Ambreen Sair Dr Saira Yasmeen Dr Mahnoor Hafiz Dr Nida Rafiq	Member	European Board of Radiology
Dr Amjad Sattar Dr Marium Taufiq Dr Ummey Aymen Dr Naureen Farhan Dr Binish Rashid Dr Sohail Ahmed Khan Dr Nauman Al Qamari Dr Mahnoor Hafiz Dr Ambreen Sair Dr Sarah Yusuf Dr Qurat ul ain Hadi Dr Ayesha Walid Dr Rabia Salman Dr Sameera Salman Dr Saira Yasmeen Dr Ameena Begum Dr Hina Ali Dr Nida Rafiq	Member	Radiology Society of Pakistan

Dr. Umesh Kumar	Information Secretary	PPTA (Sindh Chapter)
Dr. Khurram Pervaiz	IPE (External Evaluator)	Higher Education Commission, Pakistan
Dr. Zareen Kiran	Member	Pakistan Endocrine Society
Ms. Sanam Soomro	IPE Evaluator & Postgraduate Program Reviewer	Higher Education Commission, Pakistan Sindh Higher Education (SHEC)
Dr. Zafar Hydrie	Member Life Member Member	Pakistan Medical and Dental Council, Pakistan Cancer Society, Pakistan Diabetic Association of Pakistan
Dr. Mansoor	Member	Pakistan Medical & Dental Council Higher Education Commission of Pakistan
Dr. Maria Atif	Member	Public Health Association of Australia
Dr. Sumaira Nasim	Life time member	Pakistan Nutrition & Dietetic society
Nida Jawed Tehreem Hussain Tooba Zaidi Mehreen Zaidi Sukaina Shabbir Sidra Mashkoor	Life Member	Pakistan Nutrition and Dietetic Society (PNDS)
Ms. Zubeda Bhutto	Member	Midwifery Association of Pakistan (MAP) Pakistan Nursing Federation (PNF)

## 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.	Rubab Jaffery	BDS- DIDC	18 <sup>th</sup> April, 2023	World Heritage Day- Photography	Literary & Debate Society-DUHS	1 <sup>st</sup> Position
2.	Aqsa Amin	BDS- DIDC	18 <sup>th</sup> April, 2023	World Heritage Day- Photography	Literary & Debate Society-DUHS	2 <sup>nd</sup> Position
3.	Aqsa Amin, Manahil Irfan, Maryam	BDS- DIDC	18 <sup>th</sup> & 19 <sup>th</sup> Nov, 2022	International Dental Conference-	LUMS, Jamshoro	1st Position

	Irfan, Sualeha Akhtar			Quiz Competition		
4.	Syed Awais Aftab	Pharm D	Clean and Green Karachi-Proposal Writing Competition	31-5-2023	Green Youth Movement-DUHS	1 <sup>st</sup> Position
5.	Dua Nadeem	Pharm D	Poster presentation(⁢'s workshop)	18 <sup>th</sup> March, 2023	DUHS International Symposium 2023	1 <sup>st</sup> Position
6.	Lahin Nadeem	Pharm D	Bridging the gap between foundational education and health science practice and future direction.	18 March 2023	International symposium 2023	1 st position
7.	Shehnila Usman	Pharm D	Clean and Green Karachi-Proposal Writing Competition	31 <sup>st</sup> May,2023	Green youth movement-DUHS	1 <sup>st</sup> position
8.	Atika Rehan	Pharm D	Breast Cancer Quiz competition among all universities of Karachi	9-October -2022	Team Abbasi Medicos- Youth empower ment program	Secured 100% Top position holder
9.	Bilal Arshad	Pharm D	Bridging the gap between foundational education and health science practice and future direction.	18 March 2023	DUHS International Symposium 2023	1 <sup>st</sup> position
10	Hiba Shamim	Pharm D	Bridging the gap between foundational education and health science practice and future direction.	18th March, 2023	DUHS International Symposium 2023	1 <sup>st</sup> Position
11	Barkha	Pharm D	(GYM) "Clean and Green Karachi, What Our Youth Can Do" on sustainable development goals	31st May 2023	Green Youth Movement (GYM) Dow University Of Health Sciences	3 <sup>rd</sup> Position
12	Munammad Taha Jaseem	Pharm D	Dow International Symposium 2023	17th and 18th March, 2023	Dow Institute of Health Professionals Education, DUHS	1st Position
13	Kashaf Khan	Pharm D	Talent award	28 Oct 2022	SUMEER MEGA FESTIVAL 2022(Art competition	1 <sup>st</sup> Position
14	Nazish Himayat	BS DCP Dental Technolog y	Azadi-e-Izhar (All Karachi Competition)	4 th August 2022	Dow University of Health Sciences	1st Position
15	Javeria Rao	DPT	1-Nov-22	Quiz Competition	Adbi Nashist	1st position
16	Munala Abid	DPT	1-Nov-22	Literature and Debating society- DUHS	Adbi Nashist	2nd position

17	Mahnoor Sami	DPT	25-Jun-22	Quiz Competition	Kashmir jannat nazeer quiz competition 2022 along with DIMC	1st position
18	Sobia Qaisar	DPT	27-Aug-22	Writing Competition	Karachi writing competition sadaye qalam organized by JSMU literary society	1st position
19	Sobia Qaisar	DPT	26-Jul-22	Writing Competition	All Pakistan writing competition rifat e khayal organized by Khyber medical college	2nd position
20	Abiha zaidi	DPT	2022	Speech Competition	Kashmir day event at DCOP by Literature and Debating society	1st position
21	Abiha zaidi	DPT	22-Dec-21	Speech Competition	Speech competition by toast masters in IBHM	3rd position
22	Haseeb Ahmed Soomro	DPT	29-Oct-22	Table Tennis Championshi p	HEC Intervarsity Table Tennis Championship Zone M	DUHS Team Player 3rd position
23	Huzaifa Fahim	DPT	29-Oct-22	Table Tennis Championshi p	HEC Intervarsity Table Tennis Championship Zone M	DUHS Team Player 3rd position
24	Huzaifa Fahim	DPT	2020	Badminton Match	Adamjee Sports Society	3rd position
25	Syeda Itrat zehra	DPT	1st November 2022	Quiz competition	Dow Urdu literature society	3rd position
26	Sarosh khan	DPT	6/6/2023	Urdu quiz competition- LDS	DUHS	Wining position
27	Ruqayya Mehmood	DPT	26-Nov-22	Intra DUHS declamation	DUHS	1st position in English category
28	Saba Sheikh	DPT	13-Aug-22	Canvas Competition	All Karachi competition	1st position
	lqra Mehmood	DPT	2022-2023	Declamation contest	DUHS	1st position
30	lqra Mehmood	DPT	2022-2023	English Declamation contest	DUHS	2nd position
31	lqra Mehmood	DPT	2022-2023	Debate live in Ajj Tv Channel	Aaj TV	1st position

### • Dr. Ishrat ul Ebad Khan Institute of Oral Health Sciences (DIKIOHS)

Dr. Sehrish Rahman, MDS Trainee under the supervision of Prof. Naresh Kumar presented her research work in the Sindh Research Icon 2023 at the Liaquat College of Medicine and Dentistry and secured 3<sup>rd</sup> position.





### Institute of Business & Health Management (IBHM) Dow's IBHM Toastmasters Club

Member of Dow's IBHM Toastmasters Club Syeda Laiba Ghayas secured 3rd position in

Evaluation Speech contest at Division level (competition between 1st place winners of all the Karachi based Clubs), held in ICAP House Clifton on Sunday 14th May 2023 which is indeed a moment of pride for IBHM, Dow University of Health Sciences.



It's mandatory for all paid clubs to take part in Annual contests. They were held during the December-May time period. Club Contest winners (first & 2nd place) proceed to Area level contest (competition between winners of three or more clubs. There are competitions amongst four categories i.e. Table Topics, evaluation, international & Urdu Speech contest.

Syeda Laiba & Syeda Hooriya made their way to Area level contest & secured 1st, 2nd & 3rd positions in two categories i.e. Evaluation, international & Table topics. At third level the winners (1st place holder) had to proceed in the Division level Contest which is the competition held between winners of all the 12 clubs located in Karachi in which our member secured 3rd position.



Dow International Medical College (DIMC)

### Med Angle named to GSV Elite 200 EdTech Company

Dr. Mohammad Azib A DIMC graduate of 2020 and the Med Angle Team on being named a Global Silicon Valley Elite 200 EdTech Company. Med Angle, the first-of-its-kind platform for future doctors in the world, has been named to the 2023 Global Silicon Valley Elite 200 list and is the only Pakistani company represented on the list. With over 61,000 medical students and future doctors on the platform who have answered questions more than 45 million times, Med Angle is a leader and pioneer in revolutionizing digital medical education in Pakistan and beyond.

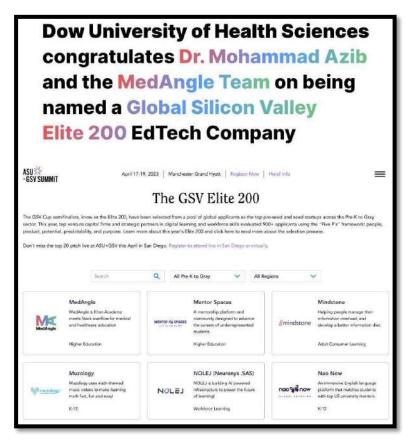
Boasting over 40,000 questions, clinical cases, and pieces of content, it is the first of its kind and the biggest in the history of Pakistan and the Middle East region. Med Angle's team



is comprised of more than 150 doctors, healthcare professionals, and elite medical students in both Pakistan and the Middle East, and Med Angle has scaled their technology from 1 school to more than 140 in two countries, with recent expansion into the United Arab Emirates.

Bill Gates is the keynote speaker of this year's ASU+GSV Summit 2023, additionally featuring other speakers including Sal Khan (Founder & CEO, Khan Academy) and Sam Altman (Founder and CEO of OpenAI and ChatGPT).

Dr. Mohammad Azib is an alumnus of the Dow International Medical College, Dow University of Health Sciences (Class of 2020). Dr. Azib is Pakistan's first-ever full-stack technologist and medical doctor. Dr. Azib was also the first Pakistani ever accepted the Transcend to Fellowship in Silicon Valley, and he was also accepted to the MIT-Harvard Medical School Global Healthcare innovation program and was inducted into the Stanford Graduate School of Business Seed Spark Program.



### Dow College of Biotechnology (DCOB)

BioRaff won 1st Prize Poster Competition at 3rd International Conference on Applied Biosciences (ICAB-2022) held at Muhammad Ali Jinnah University (MAJU) on 28-29th December, 2022.





DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI



# **CHAPTER 12**

**Finance** 

### **FINANCIAL YEAR AT GLANCE (2022-2023)**

DUHS believe that the important parameters for obtaining the prime objective of sustainability are good governance and strong financial management systems.

DUHS has transformed the accounting system from cash basis to accrual basis and from manual accounting systems to an integrated ERP solution. In fact, DUHS is the first Public Sector University which has implemented the MD-365 ERP system.

This includes the integration of not only the Financials, Procurement, Inventory and Payroll Modules of ERP (MD365), but also includes in-house developed Hospital Management & Information Systems. The Laboratory Management System, Radiology Management System was implemented & integrated at all level. Currently the academic & ICT team is working to ensure maximum utilization of ERP System, including Campus Management System. They are also working on a postgraduate student portal.

The Learning Management System (LMS) is the main module of the Dow Online Education System and covers Online Classes, assignments, student registration, results and Student, Parent & Alumni Portal etc. As large student databases are being established, their maintenance is heavily dependent on a highly robust storage medium, together with sufficient measures taken for network and data security and data loss prevention. Encryption suites that protected against external threats have been installed.

### 12.1. APPROVED BUDGET

### **Rs. in Million**

Particular	Approved Budget 2022-23	Revised 2022-23
Annual Statement of Accounts	Annual Statement of Accounts for F.Y. 2022-23 is in progress.	
Recurring Budget	4,950.87 (m)	4,884.252 (m) (Annex: I)
Self-Generated Income	3,534.10 (m)	3,786.566 (m) (Annex: II)
ERP related activities	Implemented (Financials, Procurement, Invento Management, HRMS, HMFS)	
	Revised Expense	2022-23
Trend per Student Spending (Rs. 4,884.252 million / 7221 Students) =		0.68 million per student
Development Budget HEC	UDWP Rs. 78.11 (million)	

### **12.2. FINANCIAL YEAR AT GLANCE (2022-2023)**

#### A- RECEIPTS:

As per Revised, total receipts for the FY 2022-23 increased by 5.38% as compared to Budget Estimates 2022-23, mainly due to the following factors:

Rs. in Million

Particulars	BUDGET 2022-23	REVISED 2022-23	Increase/ (Decrease)
HEC	604.418	604.418	0.000
Provincial Govt. Grant	551.000	551.000	0.000
Self-generated Income	3,534.10	3,786.57	252.47
Total	4,689.52	4,941.98	252.47

#### **B-EXPENDITURES:**

The Revised Expenditure for 2022-23 have seen a decrease of 1.35 % as compared to Budgeted Estimates 2022-23. A summarized comparison of different expenditure heads is as follows:

(Rs. In Million)

Description	BUDGET 2022-23	REVISED 2022-23	Difference
Pay & Allowances	2,992.363	2,981.942	10.42
Communication	23.242	22.771	0.47
Utilities	377.419	375.810	1.61
Occupancy Cost	99.934	99.740	0.19
Travel & Transportation	221.045	214.580	6.46
Operating Expenses	379.354	354.853	24.50
Employees Retirement Benefits	230.000	204.410	25.59
Repair & Maintenance	267.555	247.010	20.55
Research & Feasibility Studies	56.318	55.670	0.65
Financial Assistance / Scholarship	83.997	150.986	(66.99)
Entertainments & Gifts	5.000	4.460	0.54
Physical Assets	114.531	74.820	39.71
Civil Work	80.000	78.110	1.89
Others	20.110	19.090	1.02
Total	4,950.868	4,884.252	66.62

11/19/21, 10:06 AM

2020 ・ つイ、 dc.duhs.edu.pk/dispatch/admin-paneVpages/showfile.php?fileid=16834&refid=14872



### DUHS DOCUMENT DISPATCH MANAGEMENT SYSTEM



ISENDER NAME :

ho,registrar - D.U.H,S HEAD OFFICE -Registrar Secretariat

PRIORITY:



DEPARTMENT OF THE AUDITOR GENERAL OF PAKISTAN

OFFICE OF THE

### DIRECTOR GENERAL AUDIT SINDH

1" Floor, Pakistan Audit & Accounts Complex, Gulshan-e-Iqbal, Block-I i, Main University Road, Karaelsi. Ph: 021-99244751, Fax: 021-99244855

No DGAS/CS-V/AIR/32-4/2020-21/ 1/14

Dated: /2 / // /2021

The Vice Chanceller, Dow University of Health Sciences. Karachi

Subject:

ANNUAL AUDIT INSPECTION REPORT ON THE ACCOUNTS MAINTAINED BY VICE CHANCELLOR, DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI FOR THE FINANCIAL YEAR 2020-21.

A copy of the Audit Inspection Report on the accounts of your office for the year 2020-21 is enclosed as Annexe-A. The annotated reply to the report may please be furnished to this office within two weeks of receipt of this letter.

Receipt of this letter may please be acknowledged.

Enclosure: Annexe-A

Copy to the Secretary. Universities & Boards, Government of Sindh, Karachi along with the Audit Inspection Report, for information and necessary action.

DIRECTOR

Barnery experience in the section of the second

### AUDÍT & INSPECTION REPORT ON THE ACCOUNTS RECORD OF VICE CHANCELLOR, DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI FOR THE FINANCIAL YEAR 2020-21

### INTRODUCTION

Audit on the accounts record of the office of the Vice Chancellor, Dow University of Health Sciences, Karachi for the Financial Year 2020-21 was conducted by the Audit Party of the office of the Director General Audit Sindh, Karachi, headed by Mr. Hasnain Vistro, Assistant Director, assisted by Mr. Masood Ahmed, Assistant Audit Officer and Mr. Wali Mohammed, Senior Auditor during the period from 25:08:2021 to 31:08:2021

The audit was conducted on test check basis. The result of the audit is as under.

### INCUMBENCY

The following officers held the charge of head of the office as well as Drawing & Disbursing Officer of the local office during the period mentioned against their names:

Name	Designation	Period
Pro. Mohammad Saced Qureshi	Vice Chancellor	02.05.2017 to date
Dr. Ashar Afaq	Register	16.03.2020 to date
Mr. Mujahid Ali Shaikh	Director Finance	30.12.2019 to date

### SECTION - I (PREVIOUS AUDIT)

Previous audit for the year 2019-20 was conducted by Audit Party of the office of the Director General Audit Sindh, Karachi headed by Rahim Bux, Audit Officer, report issued to local office but no further progress was reported.

### SECTION - 11 (CURRENT AUDIT). From next prove.......

### **12.4. RECURRING BUDGET (2022-2023)**

#### **Rs. IN MILLION**

Code No.	Budget Heads	2022-23 (Budget)	2022-23 (Revised)
A012	Pay & Allowances	2,992.363	2,981.942
A031	Fees	11.608	11.300
A03101	Bank Fees	3.000	2.710
A03102	Legal Fees	8.608	8.590
A032	Communication	23.242	22.771
A03201	Postage and Telegraph	1.815	1.801
A03202	Telephone & Trunk Calls	3.427	3.390
A0320402	PERN	12.000	11.910
A0320403	Internet Charges	5.000	4.780
A03205	Courier and Pilot Services	1.000	0.890
A033	Utilities	377.419	375.810
A03301	Gas	69.629	68.610
A03302	Water	17.111	17.090
A03303	Electricity	290.680	290.110
A034	Occupancy Costs	99.934	99.465
A03407	Rates and Taxes	1.010	0.985
A03410	Security Charges	35.076	34.690
A03470	Other Occupancy Cost-Janitorial Services	63.848	63.790
A036	Motor Vehicles	6.500	6.040
A03602	Insurance	3.500	3.480
A03603	Registration	3.000	2.560
A037	Consultancy & Contractual Work	2.000	1.750
A03770	Others	2.000	1.750
	Tax Consultancy	1.000	0.990
	Other Consultancy	1.000	0.760
A038	Travel & Transportation	221.045	214.580
A03801	Training – Domestic	20.300	19.180
A03802	Training – International	20.500	15.210
A03805	Traveling Allowance - TA/DA	1.575	1.560
A03807	P.O.L. Charges	16.045	16.020
A03820	Others/Transportation Expense	162.624	162.610
A039	General Operating Expenses	379.354	354.853
A03901	Stationery	6.500	6.350
A03902	Printing and publications	4.600	4.580

A03903	Conferences / Seminars / Workshops / Symposia	5.700	3.890
A0397006	Convocation Expenses	11.903	11.150
A03905	Newspapers Periodicals and Books	23.826	22.810
A03906	Uniforms and Protective Clothing	31.845	30.410
A03907	Advertising & Publicity	34.924	34.580
A03913	Contributions & Subscriptions		
A03919	Payments to Other services rendered - Audit Fee etc.	10.000	2.100
A0394204	Specific Consumable	12.500	12.150
A03959	Stipends Incentives etc.	60.000	59.180
A03970	Others		
A0397002	i. Operational Cost-Office of Research Innovation & Commercialization (ORIC)	54.975	45.708
A0397003	ii. Operational Cost of Quality Enhancement Cell (QEC)	5.217	4.795
A0397005	iv. Conduct of Examinations	36.000	35.210
A0397006	v. Sports Activities	0.100	0.920
A0397008	vii. Remuneration to Part- time Teachers / Visiting Faculty	13.264	13.110
	Medical Charges	68.000	67.910
A03	Total Operating Expenses	1121.102	1086.844
A04	Employees Retirement Benefits	230.000	204.410
A04102	Commuted Value of Pension	160.000	158.650
A04114	Superannuation Encashment of LPR	50.000	36.240
A04170	Others-Assistance Package for Families of Employees	20.000	9.520
A13	Repair and Maintenance	267.555	247.010
A13001	Transport	8.118	8.020
A13101	Machinery & Equipment	25.115	24.910
A13201	Furniture & Fixture	14.568	13.220
A13301	Office Buildings	120.000	113.900
A13302	Residential Buildings	1.700	1.580
A13701	Hardware	60.000	55.340
A13702	Software	30.000	23.470
A13703			
A13920	I.T. Equipment	3.264	3.180
	I.T. Equipment Others – Repair	3.264 4.790	3.180 3.390
A022	• •		
	Others – Repair	4.790	3.390
A022	Others – Repair Research Survey & Exploratory Operations	4.790 <b>56.318</b>	3.390 <b>55.670</b>
A022 A02201	Others – Repair  Research Survey & Exploratory Operations  Research and Survey	4.790 <b>56.318</b> 56.318	3.390 <b>55.670</b> 55.670
A022 A02201 A061	Others – Repair  Research Survey & Exploratory Operations  Research and Survey  Financial Assistance/ Scholarships	4.790 <b>56.318</b> 56.318	3.390 <b>55.670</b> 55.670
A022 A02201 A061 A06101	Others – Repair  Research Survey & Exploratory Operations  Research and Survey  Financial Assistance/ Scholarships  Merit Scholarships	4.790 <b>56.318</b> 56.318 <b>83.997</b>	3.390 <b>55.670</b> 55.670 <b>150.986</b>

A06103	Cash Awards - for Meritorious Services		
A063	Entertainments and Gifts	5.000	4.460
A06301	Entertainments	5.000	4.460
A09	Expenditure on Acquiring of Physical Assets	114.531	74.820
A09201	Hardware	45.000	30.820
A09202	Software		
A09203	Purchase of I.T. Equipment	25.000	20.180
A09501	Purchase of Transport	20.000	3.300
A09601	Purchase of Plant & Machinery	6.800	4.900
A09701	Purchase of Furniture & Fixture	8.100	6.100
A09470	Others		
	Library Items	9.631	9.520
A124	Civil Works - Buildings & Structures	80.000	78.110
A12405	Electrification Plumbing and Other Infrastructure	80.000	78.110
	Total Expenses	4950.866	4884.252

### 12.5. SELF-GENERATED INCOME (2022-23)

**Rs.** IN MILLION

Code No.	Budget Heads	2022-23 (Budget)	2022-23 (Revised)
C02813	Education General Fees	3,344.846	3403.250
C0281301	Admission Fees	50.610	52.300
C0281306	Tuition Fees - Regular Fee Structure	475.198	480.300
C0281311	Tuition Fees - Self-Support Scheme	469.198	475.210
C0281316	Tuition Fees - Self-Financing Scheme	2308.800	2351.800
C0281332	Examination Fees - University On Campus Students	10.100	10.380
C0281346	Degree / Transcript Fee etc.	2.900	2.710
C0281361	Income from Continuing Professional Development Course s for Business & Community	6.078	7.280
C0281380	Course Fees - 'Postgraduate Diploma'	6.408	7.510
C0281382	Course Fees - 'Special / Short Courses'	1.020	1.910
C0281390	Other Misc. Fees from Students	14.520	13.850
C02812	Hostel Fees / User Charges	31.800	32.260
C0281206	Hostel Room Rent	13.500	13.910
C0281221	Income from Transport / Buses	18.300	18.350
C02810	Income from Endowments	25.000	
C02815	Income from Services Rendered	27.500	26.210
C0281501	Income from Collaborative Research - Domestic	27.500	26.210
C0281521	Income from Contract Research - Commercial Businesses [non-SMEs]		
C02815	Income from Consultancy & Testing		153.983
C0281561	Income from Testing Services-MD-CAT Examination		153.983
C02818	Others	104.952	170.863
C0281809	Affiliation Fees Received from Other Institutions	19.543	15.900
C0281840	Rent / Lease of University Buildings / Shops etc.	2.021	2.110
C0281860	Interest on Investments / Cash Balances etc.	16.275	19.250
C0281870	Scholarship Income – HEC Ehsaas Program	49.190	82.440
	Scholarship Grant-Other Donors	7.923	41.663
C0281870	Other Misc. Receipts	10.000	9.500

### 12.6. STUDENT FINANCIAL AID:

Dow University of Health Sciences, Karachi, had established the 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 2022-2023:

S#	Institution/Organization Offerings Financial Aid/ Scholarships To DUHS Students	No of Students provided Scholarship	Type of Assistance
1.	Ehsaas Scholarship	427	Scholarship
2.	HEC Need Based Scholarship	189	Scholarship
3.	NEST Scholarship	22	Scholarship
4.	British Consulate (Scotland) Scholarship	3	Scholarship
5.	Abdullah T. Wehwaria and Farhat Aleem Trust Scholarship	10	Scholarship
6.	HEC Scholarship for Afghan National Students	37	Scholarship
7.	Professional Education Foundation (PEF)	13	Scholarship/Interest Free Loan/Zakat
8.	Sindh Endowment Education Scholarship	18	Scholarship
9.	University of Karachi Alumni Association (UKAA)	51	Scholarship
10.	Pakistan Bait ul Maal	1	Stipend/Zakat
11.	Ihsan Trust	20	Interest Free Loan
12.	Patient Aid Zahid Bashir Scholarship	14	Scholarship
13.	Sindh Indigenous HEC	1	Scholarship
14.	Al Seha Foundation	3	Scholarship
15.	Dr. Abdul & Zarina Hafeez Sheikh	16	Scholarship
16.	Pak Sri lanka HEC Scholarship	25	Scholarship



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI



# **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. 96th meeting of Syndicate held on Saturday, 24th June, 2023
- 2. 95th meeting of Syndicate held on Saturday, 6th May, 2023
- 3. 94th meeting of Syndicate held on Wednesday, 18th January, 2023
- **4.** 93rd meeting of Syndicate held on Saturday, 22nd October, 2022
- 5. 92nd meeting of Syndicate held on Saturday, 3rd September, 2022

### 13.2. ACADEMIC COUNCIL MEETINGS:

- 1. 26th meeting of Academic Council held on Tuesday, 21st March, 2023
- 2. 25th meeting of Academic Council held on Wednesday, 28th September, 2022

# 13.3. BOARD OF ADVANCED STUDIES AND RESEARCH MEETINGS:

- **1.** 70<sup>th</sup> meeting of the Board of Advanced Studies and Research held on 16<sup>th</sup> March, 2023.
- **2.** 69<sup>th</sup> meeting of the Board of Advanced Studies and Research held on 28<sup>th</sup> November, 2022.
- **3.** 68<sup>th</sup> meeting of the Board of Advanced Studies and Research held on 12<sup>th</sup> September, 2022.



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI



## **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 Dow University Alumni & Fundraising Plan aims to raise awareness and funds to support the Dow University of Health Sciences (DUHS) and help a huge number of influxes of needy patients that requires healthcare.

### **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.

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.

### **Promotions through Social Media**

- The Marketing Department of the university maintains active profiles on major social media platforms such as Facebook, Twitter, Instagram, and LinkedIn.
- The social media postings aim to provide informative and engaging content related to health sciences, medical education, research, and community health.
- The Marketing department of the university promotes its various events, conferences, workshops, seminars, highlighting the achievements and success stories of students, research projects, community service initiatives, and academic accomplishments on social media platforms, showcasing the participation of students, faculty, renowned speakers and stakeholders.
- These events provide opportunities for learning, collaboration, and networking within the medical community.

### 14.2. ACTIVITIES OF ZAKAT AND DONATIONS 2022-2023

The following fundraising initiatives were implemented to generate funds for DUHS:

- 1. Zakat & Donation artwork design.
- Zakat & Donation Social Media post boosting.
- 3. SMS to Corporates and individual for Zakat & Donation.
- 4. Facebook and Instagram Ads for Zakat and Donation.
- 5. Zakat and Donation Standee and Banner placement in DUHS campuses.
- 6. 600 Targeted appeal letters to Donor, Corporate and Individuals.
- 7. Zakat and Donation Radio Ad aired on multiple radio channels on Prime time.
- 8. Visits to Corporate and Individual donors.
- 9. Zakat and Donation Newspaper Ad.
- 10. Telemarketing

#### 14.3. 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:

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

### 14.4. PLAN OF DEVELOPMENT

S. #	Description	Time Line
1.	Alumni Reunion/Dinner Batch 2013 ( DMC)	February 2023
2.	Monthly SMS and Visits to Corporates and individuals	Every month
3.	Zakat/ Donation appeal letter, New post Design of Zakat and Donation with verification of account Numbers, QR and other imperative things.	May, 2023
4.	Alumni Dinner	June, 2023

5.	Branding of DUHS Busses with Zakat and Donation Banner	June-July 2023
6.	Standee and brochure at every counter of Dow and collection centers	July 2023
7.	Standee and distribution of flyers at all clubs	August- September 2023
8.	Place Standee and brochure at all banks	October- November 2023
9.	Telemarketing, Direct Mail to Donors and Alumni for internal and external funding. Boosting of zakat donation post on all social media and Ads Campaign,	November- December 2023
10.	Banner and Standees to be placed all over DUHS campuses	November- December 2023
11.	Donor Dinner, TVC campaign, Radio Campaign	Janruary- February2024
12.	Telemarketing, Email reminders, Flyer insertions to clubs and banks, Appeal Letter distributions, Corporate visits (Ramzan)	March 2024

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.

### 14.5. ALUMNI ENGAGEMENT AND REUNION ACTIVITIES

Back to Dow. Celebrating the Class of 2008 MBBS

The Department of Alumni, Dow University of Health Sciences on 24th June 2023 supports organizing an extraordinary Alumni Reunion/Dinner exclusively

for the exceptional individuals who graduated with an MBBS degree. It was a day filled with joy and nostalgia.

The Class of 2008 MBBS had a remarkable time reconnecting with one another. Laughter filled the DUHS courtyard as stories from medical school days were shared, and bonds were rekindled.

The reunion featured an impressive Alumni Achievement Showcase, highlighting the remarkable accomplishments of our fellow graduates. The Class of 2008 MBBS has truly made its mark, pushing boundaries and improving lives through their dedication and expertise.





Department of Alumni and Marketing Communication, DUHS appreciated the efforts and contribution made by alumnus Dr. Muhammad Atif Mansha Batch 2008 MBBS DUHS in making this event truly successful.

#### MBBS DMC Batch of 2013 Celebrated 10 Years

Heartwarming experience to see old friends come together. MBBS DMC Batch of 2013 celebrated 10 years of graduation on 4th March 2023 at Dow Medical College, DUHS in collaboration with the Department of Alumni & Marketing Communication DUHS.



The event acted as a catalyst for more gatherings in the future.

### • Alumni Meet-Up of Institute of Business & Health Management

Alumni Meet-2022 had been conducted on Friday, December 23, 2022. Many of the IBHM Alumni Association members participated in it. Dr. Wajiha Saghir, Lecturer/Placement Coordinator, along with Mr. Shujaat Khan, hosted the event. And, she also presented an overview of the IBHM Alumni Association and the pathway to achieve objectives of the same.

Director IBHM addressed to the audience, and Program Director IBHM gave vote of thanks to them. The Master of Ceremony was an IBHM Student, Faiza Raheem. Further. the **IBHM** Alumni/Students, Ms. Mehwish Fatima. Mr.



Saifullah Minhas and Mr. Karan Kanwer, demonstrated their business ideas, and Prof. Dr. Seema Mumtaz, Ms. Hina Tanzeem and Syed Fahad Ali gave testimonial speeches. The event ended with the Qawali and the Dinner that were hosted by the IBHM Drama and Entertainment Society.

### • Engaging Alumni for Orientation Session at IBHM

An orientation session for Fall 2022 BBA/MBA was held on 12th September 2022. New students had been informed about program & policies of IBHM. A video about activities & life at IBHM has also been displayed. Our Alumni member Ms Neha Shamrez Khan shared her pleasant experience being student of IBHM and job opportunities she got after graduation. Students were also briefed in Library about societies & clubs by patrons & office bearers.





DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI



# **CHAPTER 15**

Health Center / 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 Program 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, Ultrasoun & 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.
- Build a stable blood donor pool by motivating and recruiting new donors from lowrisk populations, and encouraging existing or lapsed donors to become regular donors and to recognize the contribution to society made by blood donors.
- Provide quality donor care, so that blood donation is not onerous
- Provide quality assured blood products to all the needy patients
- 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

Financial responsibilities are considered as the main source of stress. To reduce the financial burden of its employees; DUHS provides medical insurance coverage to all employees appointed on a Regular basis and to /Contractual basis with at least one year service.

The insurance coverage is currently provided by Adamjee Insurance. The details of this health insurance scheme are discussed here as under:

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

### **Benefit Structure for Employees and Staff of DUHS**

	Categories an	egories and Annual Entitlements in Rs.		
Benefits/ Coverage				
Deficition Governage	Category - A BPS - 19 & 22	Category - B BPS - 16 & 18	Category - C BPS - 1 to 15	
HOSPITALIZAT	ION BENEFITS			
Per Annum Per Participant/Covered Person For Employees & Spouses (each)	1,200,000/-	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/-	
Complimentary Accidental Cover: Enhancement of Hospitalization limit in case of Accidental Injuries, Cancer, Hepatitis B & C treatments & Kidney Dialysis.	50% of the available Hospitalization Limit			
Accidental Emergency Treatment:  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)				
Day Care Surgeries/Specialized Investigation: Dialysis, MRI, CT-Scan, Thallium Scan, Angiography, Cataract & Endoscopy in Out Patient Setting	on: COVERED			
Pre-Post Hospitalization: Including OPD, Diagnostic Tests, and Consultation Charges & prescribed Medicines within 30 days prior to or after Hospitalization.				

MATERNITY BENEFITS					
Normal Delivery & Miscarriage 150,000/- 100,000/- 75,000/-					
Cesarean Section/Multiple Births/Forceps	250,000/-	150,000/-	100,000/-		
Out-Patient Reimbursement	70,000/-	30,000/-	20,000/-		

Eligible Medical Expenses (including but not limited) to be covered from ANNUAL HOSPITALIZATION LIMITS shall include Hospitalization & Day Care Treatment as Follows (For Premium & Dow ASO Pool Policies).

### **Benefits of Employees Covered under IPD/ Hospitalization**

1.	Burns
2.	Stroke/CVA
3.	Surgical fee
4.	Thyroid Dichotomy
5.	Psychiatric Treatments
7.	Diagnostic Investigations
8.	Local Ambulance Charges.
9.	Congenital Birth Defects.
10.	Organ Transplant Implants
11.	Operation Theater Charges
12.	Blood and Oxygen supplies
13.	Daily Room & Board Charges.
14.	ICU/CCU/SCU/HDU charges
15.	Angioplasty/By-Pass Surgery
16.	Maternity related complications.
17.	In-Hospital Consultation Charges
18.	Declared/Undeclared pre-existing conditions
19.	Emergency Room treatment leading to hospitalization
20.	Enhancement of Hospitalization limit in case of Accidental injuries (50% of available limit)
22.	Miscellaneous Hospital Services and Supplies (Drugs, Dressings, Prescribed Medicines, Laboratory Examinations, Physiotherapy, intravenous injections & solutions, administration of blood and blood plasma including cost and any other fluids administered during surgery)
23.	Other Operative procedures

### **Benefits of Employees Covered Under Maternity**

1.	Anesthesia Charges.
2.	Pre & Post Natal Expenses.
3.	Coverage of Congenital Birth Defects.
4.	Circumcision Charges of Newborn Baby Boys.
5.	Midwife Charges if delivery takes place at home.
6.	Operation Theater/Physician's/Surgeon's charges.
7.	Normal/Caesarea/Multiple Births/Force Delivery.
8.	Midwife Charges if delivery takes place at home.
9.	Follow-up visits of patients during or after pregnancy.
10.	Prescribed Medical Supplies & Services during Hospitalization.
11.	Declare/Undeclared Pre-Existing Conditions will be fully covered.
12.	New Born Babies Nursery Care Charges including incubator facility.
13.	Obstetricians Fee for Delivery & Consultation during Hospitalization.
14.	New Born Babies are to be covered from the very 1 <sup>st</sup> day of Birth with Separate IP limit.

### **Benefits Covered Under OPD**

1.	Vaccinations.
2.	Prescribed Medicine
3.	Psychiatric Treatment
4.	Homeopathic Treatment.
5.	Prescribed Diagnostics Tests
6.	Accident Related Dental Treatment.
7.	Declared / Undeclared Pre-Existing Conditions.
8.	Physician / Consultant's fees for consultations.
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.

### **Day Care Facilities**

MRI	CT Scan	Lithotripsy
Angiography	Gastroscopy	Herniorrhaphy
Appendectomy	Cataract Surgery	Thallium Scan
Cholecystectomy	Excision Biopsy	Kidney Dialysis
Partial Mastectomy	Veins/Varicose	Tonsillectomy/Adenoidectomy

#### Non-Malignant Tumors/Abscess

Endoscopy/Cystoscopy/Colonoscopy

Treatment of Cancer (including chemotherapy & Hormonal therapy with pre and post cover)

Treatment of Hepatitis A B & C such as Inj. Interferon Therapy/Tab. Sovaldi or equivalent along with all combination therapy, consultation & Lab Tests such as PCR/LFT up to Hospitalization Limits.

Treatment of all injuries/fractures & lacerated wounds (out-patient within 24 hours). Accidental Dental Treatment (Out-Patient within 48 Hours for Pain relief only).

Other day care procedures that are needed on an emergency basis.

Other Operative Procedures.

### 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,
OJHA Campus
Email: areeba.rehman@duhs.edu.pk



DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI



# **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

Sharing a Culture of Intellectual Social Responsibility



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 its 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 2022-2023:

Community Medicine Department, Dow Medical College Community Outreach 2022-2023						
S. No	S. No Event/ Course Date Venue Facilitator/s					
1.	Green Youth Movement with captain	August 2022	Arag Auditorium	Dr. Ashraf Jahangeer		
2.	Flood Relief camp Pakistan Peads Association	28th Aug 2022	At District Dadu	Dr. Khalid Shafi		

3.	Medical Camp for Rain affected area of District Dadu DUHS team	Sunday 28,Aug 2022	At District Dadu	Dr. Khalid Shafi
4.	National Oxygen Therapy Guidelines for Children	30th Aug 2022	Interview at Jung new paper	Dr. Khalid Shafi
5.	Pediatrics covid-19 vaccination campaign Awareness session	31 Aug 2022	Pediatric unit-l Civil Hospital, Karachi	Dr. Khalid Shafi , Dr. Hasina Maham, Dr.Gati Ara
6.	WHO Technical Advisory Group Meeting on polio Education in Pakistan	5 Oct 2022	At Muscat	Dr. Khalid Shafi
7.	26th Biennial International Pediatric Conference Organizer 2 papers presented Chaired 3 sessions	28 Oct 2022	PC Hotel Islamabad	Dr. Khalid Shafi
8.	World Polio Day	26 <sup>th</sup> Oct 2022	On Freedom News Social Media	Dr. Khalid Shafi
9.	Meeting with Health Minister of Afghanistan Mulla Ishaq regarding collaboration efforts for polio education.	30 <sup>th</sup> Oct 2022	At Muscat Oman	Dr. Khalid Shafi
10.	National Oxygen Therapy Guidelines for Children Master Trainer workshop for Sindh	19 <sup>th</sup> & 20 <sup>th</sup> Dec, 2022	Academic block PDC 4 <sup>th</sup> floor DMC.	Prof. Nighat Nisar, Dr. Khalid Shafi, Dr. Hasina Maham
11.	2 <sup>nd</sup> Master Oxygen Therapy Training	26 <sup>th</sup> Feb 2023	At Karachi School of Business	Dr. Khalid Shafi
12.	3 <sup>rd</sup> Master training oxygen Therapy	27 <sup>th</sup> Feb 2023	Academic block PDC 4 <sup>th</sup> floor DMC.	Dr. Khalid Shafi Dr S.M. Ashraf Jahangeer
13.	Training Workshop Oxygen Therapy	1 to 2 March 2023	Academic block PDC 4 <sup>th</sup> floor DMC.	Dr. Khalid Shafi
14.	Field Visit with first year MBBS student	21 <sup>st</sup> March,2023	Rabies Vaccine Center, Public Health School, EPI Center, Family Planning Center Dr. Ruth K Pfau Civil Hospital, Karachi.	Dr Khalid Shafi, Dr. S.M Ashraf Jahangeer Shafi, Dr.Gati Ara, Dr. Hasina Maham

15.	World Immunization week Awareness session	2 April 2023	Sindh Govt Infectious disease hospital	Dr. Khalid Shafi
16.	The leading Role of DUHS for promotion of Health status of people Pakistan Session with WHO Country Chief	7 <sup>th</sup> April,2023	Academic block PDC 4 <sup>th</sup> floor DMC.	Prof. Nighat Nisar, Dr. Khalid Shafi, Dr. Ashraf Jahangeer, Dr. Hasina Maham, Dr.Gati Ara
17.	Launching of LHW strategic plan 2028 ,Meeting With Abdulla A Fadil UNICEF Country Head for Pakistan and Prem Bahudur Chand CFO UNICEF,	10 <sup>th</sup> April, 2023	PC Hotel Karachi	Dr. Khalid Shafi
18.	Field Visit with 4 <sup>th</sup> year MBBS Students. Waste Disposal (safety measures for solid and liquid domestic industrial and Hospital waste	11 <sup>th</sup> April,2023	At Ruth K PFAU Civil Hospital Karachi.	Dr. Khalid Shafi, Dr. S.M Ashraf Jahangeer Shafi, Dr.Gati Ara, Dr. Hasina Maham
19.	Meeting with WHO for supporting vaccination program and Surveillance	4 May 2023	At Department of CHS, DMC	Dr. Khalid Shafi
20.	Oxygen Therapy Training workshop	24 May 2023	Kharadar General Hospital	Dr. Khalid Shafi
21.	Meeting Of Technical Working Group for Newborn Survival Strategy dated	16th May 2023	At Ministry of National Health Islamabad	Dr. Khalid Shafi
22.	WHO Technical Advisory Group for Polio Eradication meeting	31st May to 4 <sup>th</sup> June 2023	At Doha Qatar	Dr. Khalid Shafi

	Peads Unit III-DMC & Civil Hospital Karachi						
	Community Outreach Activities 2022-2023						
S. No	Faculty Members	<b>Building Communities</b>	Date				
	Prof. Muzamil Shabana Ejaz	Oncology awareness walk at Arag	14 <sup>th</sup> February, 2023				
01	Professor	World Health Day Activity Walk at Arag DMC	7 <sup>th</sup> April, 2023				
		World Immunization week 24-30 April, 2023 A Big Catch up walk	3 <sup>rd</sup> May, 2023				
02	Dr. Waseem Jamalvi Assistant Professor	Counseling of Mother Breast Feeding at OPD Dr. Ruth K. M Pfau Civil Hospital Karachi	2 <sup>nd</sup> August, 2022				
	Addictant 1 Torogodi	World Breastfeeding week at Paeds Unit II CHK	2 <sup>nd</sup> August, 2022				
		Importance of Mother Milk at Paeds Unit I CHK	4 <sup>th</sup> August, 2022				
		World Breast Feeding Walk at CHK	5 <sup>th</sup> August, 2022				
		Flood Relief Activities	26 <sup>th</sup> August, 2022				
		Flood Relief Activities	27 <sup>th</sup> August, 2022				
		Flood Relief Medical Camp at Dadu	28 <sup>th</sup> August, 2022				
		Flood Relief Field Visit at Dadu	28 <sup>th</sup> August, 2022				
		Flood Relief Medical Camp at Dadu	28 <sup>th</sup> August, 2022				
		Inaugural Ceremony of Oxygen Therapy with UNICEF	30 <sup>th</sup> August, 2022				
		World Children Day celebration	20 <sup>th</sup> November, 2022				
		Awareness of Childhood Asthma and Management at Arena	21st December, 2022				
		TV Show at ARY NEWS on Update and Management of XDR Typhoid	5 <sup>th</sup> May, 2023				
		TV Show at DOWN NEWS on Update and Management of XDR Typhoid					
		Oncology awareness walk at Arag	14 <sup>th</sup> February, 2023				
		World Health Day Activity Walk at Arag DMC	7 <sup>th</sup> April, 2023				
		World Immunization week 24-30 April, 2023 A Big Catch up walk	3 <sup>rd</sup> May, 2023				
03	Dr. Ayesha Saleem	Oncology awareness walk at Arag	14 <sup>th</sup> February, 2023				
	Assistant Professor	World Health Day Activity Walk at Arag DMC	7 <sup>th</sup> April, 2023				
		World Immunization week 24-30 April, 2023 A Big Catch up walk	3 <sup>rd</sup> May, 2023				
04	Dr. Hafiza Sania	Oncology awareness walk at Arag	14 <sup>th</sup> February, 2023				
	Senior Registrar	World Health Day Activity Walk at Arag DMC	7 <sup>th</sup> April, 2023				
	J	World Immunization week 24-30 April, 2023 A Big Catch up walk	3 <sup>rd</sup> May, 2023				









## **World Heart Day**

Department of Cardiology-DMC celebrated World Heart Day 2023 on 29<sup>th</sup> September, 2022 at SEHWAN Sharif with flood victims. The team set a medical Camp, provide goods and

services, and conduct a seminar for public awareness about Cardiovascular Diseases.











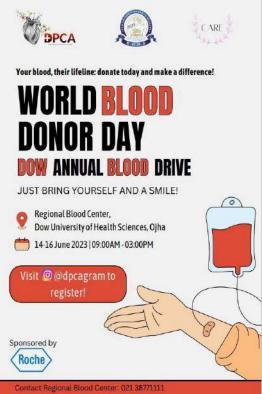
## Department of Community Dentistry, Dow International Medical College (DIMC)

The department of Community Medicine has been involved in various community based activities along with DIMC students in coordination with several local NGOs.

S #	Activity	Date
1.	Blood Donation Day Drive	14-16 June, 2023
2.	Awareness Seminar at Beaconhouse Systems College in Gulshan, Karachi	22 <sup>nd</sup> October, 2022
3.	Visit of DIMC by Matric students from Habib Boys Public School, Karachi	December, 2022
4.	Breast Cancer Awareness Campaign	12 <sup>th</sup> October, 2022







## • Department of Community Dentistry, Dow International Dental College (DIDC)

The Department of Community Dentistry, DIDC arranged free dental screening and oral hygiene awareness camps to provide quality health services for the benefit of General public. The details of community based projects done by the Department of Community Dentistry, DIDC are provided below.

S #	Project Name	Date	Project Area / Location
1.	Society for the Rehabilitation of Special Children (SRSC)	31 <sup>st</sup> January, 2023	Numaish, Karachi
2.	Dental Camp at DIDC- Hospital Chanesar Campus	15 Feb – 15 Mar, 2023	Chanesar Goth, Karachi





	Community Outreach Activities at DUHS					
S. #	Event/ Course	Date	Venue	Organized by/Facilitator/s		
1.	CME Session on 'Basic Ilizarov Technique'	26 <sup>th</sup> Jun, 2023	PDC, DMC	Department of Orthopedic Surgery, DMC in collaboration with Pakistan Orthopedic Association		
2.	CME Session on 'Hypertension- A Silently Growing Epidemic, How to Kill the Silent Killer	14 <sup>th</sup> Jun, 2023	PDC, DMC	Dow Institute of Cardiology, OJHA		
3.	1st Endoscopic Ear Surgery Symposium 'Pearls and Tips of Endoscopic Ear Surgery'	29 <sup>th</sup> May, 2023	Arag Auditorium, DMC	Department of ENT- Head & Neck Surgery, DMC		
4.	Seminar on Rabies Awareness "Newer Developments in Rabies Control & Management in Pakistan	27 <sup>th</sup> May, 2023	DCOP, OJHA Campus	Dr. Talat Roome Director Dow Institute for Advanced Biological & Animal Research		

5.	Live Session on 'World Family Doctor Day'	19 <sup>th</sup> May, 2023	Atta ur Rehman Hall, DMC	Department of Family Medicine
6.	Live Webinar on 'Drug safety in clinical trials - Pharmacovigilance	15 <sup>th</sup> Mar, 2023		Institute of Biological, Biochemical & Pharmaceutical Sciences
7.	CME Session On "Current Management of Hepatitis B & C"	14 <sup>th</sup> Mar, 2023	Muin Auditorium DMC Campus	Professional Development Centre, DMC
8.	Cadaver Dissection Workshop on Rhinoplasty	13 <sup>th</sup> Mar, 2023	ARAG Auditorium DMC Campus Bilquis Edhi Hospital	Department of ENT- Head & Neck Surgery, DMC
9.	Health Informatics Workshop	13 <sup>th</sup> Mar, 2023	DCOP, OJHA Campus	Dr. Izhar Hasan Rutgers University Prof. Mushtaq Hussain DUHS
10.	Cadaver Dissection Workshop on Basic Fess (Hands-On)	8 <sup>th</sup> Mar, 2023	AQ Khan Auditorium OJHA Campus	Department of ENT- Head & Neck Surgery, DIMC
11.	Symposium on World COPD Day	23 <sup>rd</sup> Nov, 2022	DUH, OJHA Campus	Dept. of Pulmonology, DUH, DUHS
12.	Interactive Seminar on Hormonal Health Concerns	5 <sup>th</sup> Nov, 2022	DCOP, OJHA Campus	Dept. of Pharmacy Practice Dow College of Pharmacy
13.	Mental Health Capacity Building	26 <sup>th</sup> Oct, 2022	Arena Karsaz	Office of Research Innovation and Commercialization
14.	World Contraception Day	28 <sup>th</sup> -29 <sup>th</sup> Sep, 2022	NIDE, OJHA Campus	Chief Organizer Prof. Dr. Jahan Ara Hasan Green star Social marketing Pakistan & SOGP

## 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 16<sup>th</sup> June, 2022, in which DUHS was declared as Pakistan First Smoke-Free University.



# 16.2. QUALITY EDUCATION - SDG 04

## **Educational Outreach Activities**

	Educational Outreach Activities at DUHS				
S #	Event/Course	Date	Hosted By		
1.	Lecture on Zoonosis-Evolution and Transmission by Director General of Sindh Institute of Animal Health	14 <sup>th</sup> June, 2023	Dow College of Biotechnology		
2.	Symposium on 'Simulation in Healthcare Education'	24 <sup>th</sup> May, 2023	Professional Development Centre, DIMC		
3.	Live Webinar on 'Analytical part of Bioequivalence Study'	22 <sup>nd</sup> May, 2023	Institute of Biological, Biochemical & Pharmaceutical Sciences		
4.	Workshop on 'How to care & maintain surgical instruments, power system and containers	20 <sup>th</sup> May, 2023	Department of Neurosurgery in collaboration with Operation Theatre Management		
5.	Session on 'Quality in Healthcare'	17 <sup>th</sup> May, 2023	Surgical Unit 1, DUH		
6.	Live Webinar on 'Analytical Method Validation'	19 <sup>th</sup> Apr, 2023	Institute of Biological, Biochemical & Pharmaceutical Sciences		
7.	Session on Islamic Banking by Meezan Bank	21 <sup>st</sup> Mar, 2023	The Prime Minister's Youth Development Centre-DUHS		

8.	Awareness Session on Intellectual Property Rights	15 <sup>th</sup> Mar, 2023	Business Incubation Centre, DUHS
9.	Critical Care Course	March, 2023	Nursing Service Department, DUH
10.	Workshop on 'Trends and Issues In Nursing Education'	17 <sup>th</sup> & 18 <sup>th</sup> Feb, 2023	Dow Institute of Nursing & Midwifery
11.	Impact of Communication on Employee Engagement	11 <sup>th</sup> Feb, 2023	Dow Skill Development Centre (DSDC) in collaboration with Marketing Department DUHS
12.	International Symposium 2023 on Bridging the Gap Between Foundational Education & Health Sciences	17 <sup>th</sup> & 18 <sup>th</sup> Mar, 2023	Dow Institute of Health Professionals Education
13.	The Secrets of Radiology for the Head and Neck	21 <sup>st</sup> Jan, 2023	ENT Head & Neck Surgery Department, CHK, DMC
14.	RescuED, Resuscitation of Critical & Unstable Patients in Emergency Department	14 <sup>th</sup> Jan, 2023	Department of Emergency Medicine
15.	Webinar on 'The Health Informatics Landscape of Pakistan'	9 <sup>th</sup> Jan, 2023	Institute of Business & Health Management
16.	Soft Skills Training on 'Effective Communication for Patient/Customer Service Excellence'	10 <sup>th</sup> Dec, 17 <sup>th</sup> Dec, 24 <sup>th</sup> Dec, 2022	Dow University Hospital in collaboration with Pakistan Institute of Management
17.	Soft Skills Training on 'Patient/Customer Services Excellence'	19 <sup>th</sup> Nov, 26 <sup>th</sup> Nov, 3 <sup>rd</sup> Dec, 2022	Dow University Hospital in collaboration with Pakistan Institute of Management
18.	CME Lecture on 'Proposal Writing & Publication Opportunities'	8 <sup>th</sup> Nov, 2022	Dow Institute of Nursing & Midwifery
19.	Pre conference Workshop on Aligning Learning Objectives with Instructions and Assessment.	2 <sup>nd</sup> Nov, 2022	DIHPE International Conference on Health Professionals Education
20.	Guest Speaker Session on 'Effective Advertising'	1 <sup>st</sup> Oct, 2023	Institute of Business & Health Management
21.	An Interactive Talk by Pharmacy Practitioners on Advanced Pharmacy Practices in US by Syed Naeem ur Rehman	19 <sup>th</sup> Sep, 2022	Faculty of Pharmaceutical Sciences, DCOP

# **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 (NAVTTC), 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 2022-2023			
1.	Name of Training/Course	Date	No. of Participants	
2.	Certificate Information System Morning	4 June, 2022 to 2 July 2022	64	
3.	Microsoft Office	18 June 2022 to 30 Sep 2022	23	
4.	Certificate Information System Morning	5 Sep 2022 to 4 Jan 2023	83	
5.	Digital and Social Media Marketing	3 Jan 2023 to 26 Jan 2023	08	
6.	Diploma in Information System	11 Jan 2023 to 10 March 23	56	
7.	Graphic Design with School Of Animations	7 Feb 2023 to 20 Feb 2023	08	
8.	Certificate Information System Morning	1 March 2023 to 15 May 2023	35	
9.	Stitching and Cutting	16 March 2023 to 15 May 2023	15	
10.	IELTS Preparatory Classes	8 April 2023 to 8 May 2023	14	
11.	Graphic Design with School of Animations	22 March 2023 to 21 June 2023	04	
12.	Certificate Information System	1 June 2023 to 21 June 2023	60	
13.	Infection Control	21 June 2022 to 28 June 2022	23	
14.	Digital Literacy	16 May 2022 to 28 July 2022	32	
15.	Digital Literacy	24 May 2023 to 27 July 2022	33	
16.	Patient Care/Service Excellence By PIMS	19 Nov 2023 to 24 Dec 22	179	
17.	Service Excellence By PSTD Part 1	25 Feb 2023 to 18 March 2023	173	
18.	Service Excellence By PSTD Part 2	6 May 2023 to 10 June 2023	155	
Tota	I		965	



#### 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.

#### • 1st Women Self-Defense Workshop

Institute of Business and Health Management, DUHS organized a "Women's Self-Defense Workshop" on 28th October, 2023 in collaboration with the Pakistan Martial Arts Association (PMAA). It is the combined effort of the Community Service and Sustainability Society (CSSS) IBHM, Green Youth Movement (GYM) Club, and Sports Directorate DUHS.

As part of the awareness campaign "Pinktober-2022", this selfdefense workshop also symbolizes the mental fight that every female patient goes through.

As part of the Green Youth Movement Club of Dow University Health Sciences drive, the plantation activity was also held outside the gymnasium.



#### **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, and 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 2022-23 are as follows:

	Community Outreach Activities of Patient Welfare Association				
S. No	Event/Activity	Date	Venue	Collaboration	
1.	Blood Donation Camp at Haseen Habib Trading Pvt Ltd	17 <sup>th</sup> June, 2023	Haseen Habib Trading Pvt. Ltd.		
2.	Blood Donation Camp at Dow Medical College	20th -21st June, 2023	DMC	Med Angle	
3.	Session on Beyond the Needle	19 <sup>th</sup> June, 2023	DMC	Volunteer Force Against Hepatitis Transmission	
4.	Session on Thalassemia Unveiled	7th June, 2023	DMC		
5.	Thalassemia Walk	7 <sup>th</sup> May, 2023	Karachi City	Help International Welfare Trust	
6.	Awareness Campaign for Common People at Civil Hospital		Dr. Ruth K.M. Pfau Civil Hospital Karachi		
7.	Awareness Campaign and Blood Donation Camp at Jinnah Sindh Medical University	18 <sup>th</sup> March, 2023	Jinnah Sindh Medical University	Patients Helping Hands	
8.	Thalassemia and Voluntary Blood donation at The Lyceum School	6th March, 2023	The Lyceum School		
9.	Voluntary Blood Donation Awareness Session at NJV Government High School	26 <sup>th</sup> February, 2023	NJV Government High School		
10.	Voluntary Blood Donation Camp	24th February, 2023	Visiontech Export International (Pvt)		
11.	Awareness & Blood Donation Camp at Emerald Towers	6 <sup>th</sup> February, 2023	Emerald Towers		
12.	Training Session on Biosafety	29th November, 2022	Dr. Ruth K.M. Pfau Civil Hospital Karachi		
13.	BAKE SALE 2022	27 <sup>th</sup> October, 2022	DMC		
14.	World Mental Health Day	10th October, 2022	DMC		
15.	World Aids Day	10 <sup>th</sup> September, 2022	Dr. Ruth K.M. Pfau Civil Hospital Karachi	First Response Initiative of Pakistan	
16.	Blood Donation Camps	27th August, 2022	City Court Habib School (Hussainabad) Jamaa Masjid- e-Mustafa Abbas Town		

17.	Awareness Session on Thalassemia and Blood Donation at Sahar Schooling System, Nazimabad	26 <sup>th</sup> August, 2022	Sahar Schooling System, Nazimabad	Takhtee
18.	Awareness Session at UIT	2nd July, 2022	Usman Institute of Technology	





**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.



A collaboration of DPCA with the Diabetes and Endocrinology department (Dr. Akhtar Ali Baloch) on OJHA Campus, where a large event was hosted to educate the public of the dangers of untreated diabetes and a march was conducted in support of early diagnosis and management.

DPCA Blood Drive (June 14<sup>th</sup>-16, 2023)
 Over 130 blood donors were received for blood donation.



**Serve Our Community Health (SOCH)** is a non-profit, non-governmental welfare organization run by the students of Dow Medical College, and it's working for the betterment of Dr. Ruth Pfau Civil Hospital, Karachi and the promotion of community health. Their aim is to upgrade the infrastructure and maintenance of proper hygiene conditions of Civil Hospital Karachi.

In March 2021, SOCH had the honor of forming a partnership with Koohi Goth Women's Hospital. A 2-day Surgical Camp conducted by Koohi Goth Hospital on the 23rd and 24th of March, 2021. This surgical camp enabled their members to not only observe and learn valuable clinical skills but also allowed them to practice these skills hands-on.



Activities by **SOCH** for the year 2022-2023

- Summer Drive (August, 2022)
- Ab Mazboot Banega Pakistan (August, 2022)
- Child health awareness at CHK (September 2022)

- Dengue and Malaria awareness campaign at CHK (September 2022)
- Breast Cancer Awareness Campaign at CHK (October 2022)
- Diabetes Awareness Campaign at CHK (November, 2022)
- Winter Drive at CHK (November, 2022)
- Mental Health Awareness (February, 2023)



## List of DUHS Events Collaborations with NGOs and other Organizations

S. #	Event/Course	Date	Collaborations with
1.	Session on 'Basic Ilizarov Technique'	26 <sup>th</sup> Jun, 2023	Pakistan Orthopedic Association
2.	Blood Donation Camp at Dow Medical College	20th -21st June, 2023	Med Angle
3.	Session on Beyond the Needle	19th June, 2023	Volunteer Force Against Hepatitis Transmission
4.	Orientation Session on 'EPI, Immunization Safety, VPDs Surveillance and Awareness on Cholera'	17th Jun, 2023	WHO EPI Sindh PPA Sindh
5.	Workshop on 'Role of Health Informatics in AMR: Challenges and Future Perspective'	20th May, 2023	Muhammad Ali Jinnah University
6.	Thalassemia Walk	7th May, 2023	Help International Welfare Trust
7.	Basic Vascular Surgery Workshop	5th May, 2023	Civil Hospital Karachi (SMBBIT)
8.	Awareness Campaign and Blood Donation Camp at Jinnah Sindh Medical University	18th March, 2023	Patients Helping Hands
9.	Workshop on PPH Bundle Approach Management	25th Feb, 2022	(Association of Mother & Newborn AMAN National Committee for Maternal and Neonatal Health New Beginnings Healthcare Mehfooz Maan SOFG Maternal & Perinatal Healthcare Committee Massachusetts General Hospital SOGP
10.	3rd Summit for Young ENT Residents	31st Dec, 2022	Pakistan Society of Otolaryngology Conference Sindh Chapter

11.	Soft Skills Training on 'Patient/Customer Services Excellence'	19 <sup>th</sup> Nov, 26 <sup>th</sup> Nov, 3 <sup>rd</sup> Dec, 2022	Pakistan Institute of Management
12.	World Contraception Day	28 <sup>th</sup> -29 <sup>th</sup> Sep, 2022	Green star Social marketing Pakistan & SOGP
13.	World Aids Day	10th September, 2022	First Response Initiative of Pakistan
14.	Awareness Session on Thalassemia and Blood Donation at Sahar Schooling System, Nazimabad	26th August, 2022	Takhtee

# 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 2022-2023

Prepared by:

Sanam Soomro

Ms. Sanam Soomro Director, Quality Enhancement Cell Dow University of Health Sciences Approved by:

Prof. Dr. Mohammed Saeed Quraishy

Vice Chancellor,

Dow University of Health Sciences