PERSONAL

Kaukab Azim. MBBS, PhD, MS

Associate Professor of Pharmacology, Therapeutics and Pathophysiology

College of Pharmacy

AlMaarefa Colleges Address in USA:

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Research Interest: Medical education

EDUCATION

1. University of New England, Maine, USA

Degree: Masters in Medical Education Leadership (Jan 2011-Aug 2013)

2. Trinity College Dublin, Ireland

Degree: Doctor of Philosophy (PhD; 2001-2006)

Thesis: Study of Inflammation Related Gene Polymorphisms in Oesophageal Cancer

3. Trinity College Dublin, Ireland.

Degree: One-Year Diploma in Biostatistics. (Oct 2002 – Sep 2003).

Completed with distinction

4. The Aga Khan University, Pakistan

One-Year Coursework in Cell and Molecular Biology, Biostatistics and Protocol development (including lab work). (Oct 1999 – Sep 2000)

5. Khyber Medical College, Peshawar, Pakistan

Degree: MD. Bachelor of Medicine & Bachelor of Surgery (MBBS; 1978-1983)

[Equivalent to five years of study in a medicine program in the USA. Educational Credential Evaluators, Inc. Milwaukee, Wisconsin]

6. Cadet College, Hasanabdal, Pakistan High School. Pre-medical (1977)

PROFESSIONAL EXPERIENCE

TEACHING:

1. College of Pharmacy, AlMaa'refa Colleges. Kingdom of Saudi Arabia (December 2011-todate)

Associate Professor

Worked as interim Head of Department from Oct 2012 to Jan 2014:

<u>Responsibilities:</u> Chairing curriculum committee, coordinating pharmacotherapy and pathophysiology courses, and counseling students. Teaching responsibilities include leading instructional sessions in pharmacology, pharmacotherapy, pathophysiology and research methods for medical, pharmacy and nursing student.

2. Ross University School of Medicine, Department of Pharmacology. Commonwealth of Dominica (Jan 2009-July 2011)

Assistant Professor:

<u>Responsibilities:</u> Delivering participatory lectures in pharmacology, writing cases for and facilitating PBLs and TBLs, constructing USMLE-type clinical vignettes for examinations and participating in curriculum and module meetings.

3. The Aga Khan University College of Medicine, Department of Biological & Biomedical Sciences. Karachi, Pakistan (April 2007-December 2008)

Senior Instructor:

<u>Responsibilities:</u> Conducting all aspects of academic teaching programs for medical undergraduates including problem based learning, problem solving lectures in Physiology/Pharmacology, tutorials, and laboratories. Also involved in teaching molecular genetics course for Ph.D. students. Additional responsibilities included writing research proposals and mentoring teaching assistants.

- 4. Between 1998 and 2007, I obtained a PhD from Trinity College in Dublin, Ireland and completed numerous educational programs. Details are listed under "Education" (above) and "Training Workshops and Short Courses" (below).
- 5. Military Hospital. Landikotal, Pakistan (Military Service. Oct 1992-May 1995)

Chief Physician and Supervisor:

<u>Responsibilities:</u> Teaching and supervising 4 trainee doctors and 80 nursing staff through lectures, demonstrations, bedside-dialogue, and clinicopathological conferences.

6. Field Medical Units in Army Medical Corps (Nov 1984-Dec 1987)

Battalion Physician and Trainer:

Responsibilities: Training support medical staff in first aid and evacuation of casualties.

CLINICAL:

Fourteen and a half years experience in General Medicine endorsed by Pakistan Medical and Dental Council (Mar 1984-Aug 1998).

1. Service in Army Medical Corps, Pakistan Armed Forces (Mar 1984-Aug 1998)

Appointments in the rank of Major

Chief physician Field Medical Unit, Karachi, Pakistan. (Aug 1995-Aug 1998). <u>Responsibilities:</u> Managing administrative matters and providing primary health care for servicemen and their families.

Chief physician 30 bedded hospital, Landikotal, Pakistan. (Oct 1992-Jul 1995). *Responsibilities:* Providing medical care for hospitalized troops and their families, referring serious cases to tertiary care hospitals, and supervising junior doctors and nursing staff.

Physician Field Medical Hospital Sialkot, Pakistan. (Feb 1991-Oct 1992).

<u>Responsibilities:</u> Providing primary health care for troops, planning and coordinating first line medical support in simulated military operations, and periodically inspecting implementation of preventive health measures in the garrison.

Appointments in the rank of Captain

Emergency Room physician, Military Hospital Sharourah, Saudi Arabia. (Jan 1988-Feb 1991)

<u>Responsibilities:</u> Providing initial treatment for a number of medical emergencies, notably motor vehicle accidents, MIs, and obstetric cases and managing ambulatory patients.

Physician Field Medical Hospital. Kharian Cantonment, Pakistan. (Feb 1987-Dec 1987). *Responsibilities:* Providing primary health care for troops, implementing public health measures in the garrison and training medical staff in evacuation of casualties, triage, and initial wound care.

Battalion Physician. Rahimyarkhan, Pakistan. (Nov 1984–Feb 1987) <u>Responsibilities:</u> Training support medical staff, providing primary medical care for troops and implementing public health measures in battalion area.

2. Lady Reading Hospital, Peshawar, Pakistan (Dec 1983–Mar 1984). Radiology resident.

PROFESSIONAL AFFILIATIONS

- Pakistan Medical and Dental Council (Registered as Medical Practitioner.)
- International Association of Medical Science Educators.
- Pakistan Society of Physiologists.
- American Society of Human Genomics.

PUBLICATIONS AND PRESENTATIONS

- 1. Azim, K, McManus R, Brophy K, Ryan A, Kelleher D, Reynolds JV. (2007) Genetic polymorphisms and the risk of infection following oesophagectomy. Positive association with TNF-alpha gene -308 genotype. *Annals of Surgery*, 246 (1):122-128.
- 2. Pathways in Oncogenesis of Hepatocellular Carcinoma. State of the art lecture at the annual meeting of Pakistan Society for the Study of Liver Diseases, **Karachi**, **Pakistan** (Dec 2007).
- 3. Association of TNF alpha gene -308 GG genotype with post operative infections in oesophageal cancer patients. Poster presentation at annual conference of American Society of Human Genomics (ASHG), Salt Lake City, **Utah**, **USA** (Oct 2005).
- 4. Association of TNF alpha gene -308 GG genotype with post operative infections in oesophageal cancer patients. Oral presentation at Sylvester O' Halloran Surgical Scientific Meeting at University of **Limerick Ireland** (Mar 2005).
- 5. Association of interleukin 1 beta gene -511 single nucleotide polymorphism with oesophageal cancer. Poster presentation at annual conference of American Society of Human Genomics (ASHG), **Toronto, Canada** (Oct 2004).
- 6. Association of TNF alpha -308 GG genotype with post operative infections in oesophageal cancer patients. Oral presentations at annual meeting of Irish society of Gastroenterologists, **Kilkenny**, **Ireland** (Jun 2004).
- 7. Association of interleukin 1 beta gene -511 single nucleotide polymorphism with oesophageal cancer. Oral presentations at annual meeting of Irish society of Gastroenterologists, **Kilkenny**, **Ireland** (Jun 2004).
- 8. Cancer of oesophagus and gene polymorphisms. A significant association with IL-1B -511 single nucleotide polyphormisms. Poster Presentation at Digestive Disease Week, **New Orleans, LA, USA** (May 2004).

GRANTS

- 1. "Hypoxic-ischemic encephalopathy in zinc deficient rats: An experimental correlate to human"; funded by The Aga Khan University Research Council Grant: **US\$ 22,591** (Apr 23, 2001).
- 2. "Inflammation-related gene polymorphisms in esophageal cancers"; PhD project funded by Health Research Board of Ireland in excess of **Euros 100,000** (including stipend.)

TRAINING WORKSHOPS AND SHORT COURSES

1. *Courses in Medical Education* – (These were the required courses for the Masters in Medical Education program. The applied project was 9 months in duration. Each of the other 9 courses was 9 weeks in duration.)

Applied Project in Academic Medicine (Fall 2012-summer 2013)	A
Principles of Epidemiology (Spring 2013)	A-
Business and Finance in Academic Medicine (Summer 2012)	A
Research and Evaluation in Medical Education. (Spring 2012)	A-
Organizational Development: Fostering a Learning Environment. (Spring 2012)	A
Professional Development: A Culture of Life-Long Learning. (Fall 2011)	B+
Leadership Skills in Academic Medicine. (Fall 2011)	A
Learner Assessment and Program Evaluation. (Summer 2011)	B+
Improving Instructional Effectiveness. (Spring 2011)	A-
Curriculum Design and Program Development. (Spring 2011)	A
GPA	3.84

- Objective Structured Clinical Examination (OSCE) for Formative and Summative Assessment. SIMEC (The Saudi International Medical Education Conference). (Riyadh, April 24, 2012).
- 3. Integrating ACGME Core Competencies at the Undergraduate Medical Education Level. The Saudi International Medical Education Conference. (**Riyadh**, April 24, 2012).
- 4. Item Development (clinical vignettes) and item analysis workshop. Experimental Biology Conference. **Washington, DC, USA** (April 9 13, 2011)
- 5. Faculty Development Workshop: Developing and implementing curriculum evaluation effectively. Ross University School of Medicine, **Portsmouth, Dominica**. (Aug 13, 2010).

- 6. Faculty Development Workshop: The clinical competency skills blocks. Ross University School of Medicine, **Portsmouth, Dominica** (Aug 9, 2010).
- 7. Accreditation Training Workshop. Ross University School of Medicine. **Picard, Dominica**. (Jun 18, 2010)
- 8. Faculty Development Workshop: Using ACGME/SPIRIT competencies during basic science curriculum. Ross University School of Medicine. **Portsmouth, Dominica**. (May 21, 2010).
- 9. Developing high-quality multiple-choice tests to assess application of knowledge using patient vignettes. Ottawa Conference **Miami, USA** (May 15, 2010).
- 10. Assessment in the Basic Medical Sciences. Ottawa Conference **Miami, USA** (May 16, 2010).
- 11. Using Simulation to Measure Outcomes with Validity and Reliability. **University of Miami, Gordon Center**. (May 16, 2010).
- 12. Research Day Symposium certified by University of Cincinnati. Destruction, degradation and cell death control in cancer. **Portsmouth, Dominica**. (Sep 18, 2009).
- 13. Introductory course in Health Professions Education, The Aga Khan University, **Karachi**, **Pakistan** (July 9 13, 2007).
- 14. Population Genetics and SNP Analysis (short course), Dublin Molecular Medicine Centre, **Dublin, Ireland** (Jun 28-29, 2006).
- 15. Biological Safety Workshop, Trinity College **Dublin, Ireland** (Jun 23, 2006).
- 16. Cancer Biology to Cancer Medicine (short course), Institute of Molecular Medicine, Trinity College **Dublin, Ireland** (May 24-26, 2006).
- 17. Role of Epigenetics in Disease (short course), Conway Institute University College **Dublin, Ireland** (April 25-26, 2006).
- 18. Model Systems in Biomedical Research (short course), Conway Institute, University College **Dublin, Ireland** (Mar 23-May 18, 2006).
- 19. Bioinformatics Group workshop, Institute of Molecular Medicine, Trinity College **Dublin, Ireland** (Sep 4-8, 2005).
- 20. Bioinformatics workshop, Department of Genetics, Institute of Molecular Medicine, **Dublin, Ireland** (Sep 7-9, 2004).

- 21. Workshop Laser Capture Microscopy, Department of Histology, Institute of Molecular Medicine, **Dublin, Ireland** (Jan 2004).
- 22. Training workshop on Radiological Safety designed for laboratory radioisotope applications, Trinity College **Dublin, Ireland** (Dec 12-13, 2002).
- 23. Workshop on Ethical Issues of Health Research in Developing Countries, The Agha Khan University, **Karachi, Pakistan**. Course arranged in collaboration with Harvard School of Public Health and Indian Council for Medical Research (Jul 22-27, 2001).
- 24. Workshop on Salmonella Genotyping, The Agha Khan University, **Karachi, Pakistan** (Aug 27-Sep 1, 2001).
- 25. Molecular Biology and infectious diseases workshop, The Agha Khan University **Karachi Pakistan**. Arranged jointly by the Agha Khan University and Karolinska Institute, Sweden (Sep 21-25, 1999).
- 26. Ambulatory Medicine Workshop. Organized by the Pakistan Society of Physicians **Karachi Pakistan** (Jun 21-26, 1999).
- 27. **Basic Medical Science Refresher Course.** College of Physicians and Surgeons Karachi, Pakistan: (BMC–49. Apr 1999-Jun 1999).
- 28. **Basic Medical Science Refresher Course.** College of Physicians and Surgeons Karachi, Pakistan: (BMC–48. Aug 1998-Nov 1998).

MISCELLANEOUS

- 1. Parachute Jumping Course. Army Parachute training school, Peshawar, Pakistan (1985).
- 2. Mountain climbing and High Altitude Survival Course. Army school of Mountain Warfare and Physical Training Abbottabad, Pakistan (1987).
- 3. Participated in a Mountain Climbing Expedition to scale Gasherbrum I peak (8035 m). Treated two cases of Acute Mountain Sickness with pulmonary edema (1987).
- 4. Participated in Operation Desert Storm Gulf war (1991).

INSTRUCTIONAL STRATEGIES, SKILLS, AND ACHIEVEMENTS

Instructional methods

In a teaching and learning environment, students have different learning needs. Instructional sessions are most productive when tailored to the needs of relatively weaker learners. In my teaching/learning sessions, wherever possible, I use active-learning strategies that are combined with clinically aligned basic science content. Every session is fully planned and designed before delivery. For example, for reviewing drugs for a particular disesase, two or three volunteer students are asked to memorize short scripts portraying various levels of severity of symptoms and clinical signs of the disease. After introductory comments, the student with mildest form of disease acts as a patient and present his/her symptoms, followed by his clinical findings and discussion of pharmacological therapy for that stage of the disease. The discussion is confined to clinically relevant basic science content. The severest form of disease comes in the end. I use a variety of other active learning strategies including 5-minute student presentations, students' panel discussion on a learning outcome and solving USMLE type MCQs during the session.

Assessment

Instruction and assessment are tightly knitted together. Both require clear statement of learning outcomes to be achieved by students. In my view, in basic sciences, testing conceptual knowledge and cross discipline integration should take precedence over testing factual knowledge. I have a passion for writing clinical vignette-based MCQs, however, I advocate using a variety of test items on the tests. My research interest is in developing a table of specifications for pharmacology that would serve as a link between content and learning outcomes in various cognitive process categories.

Teaching awards

In the year 2011, after I left Ross University School of Medicine, the 4th semester Ross students chose me as the best professor. They invited me to send a video message for their farewell dinner and posted the same on you tube. [Available at the following link https://www.youtube.com/watch?v=kpDZVAk9YWk]

The student feedback rating has remained excellent during my four-year tenure at AlMaarefa College of Pharmacy.

NAMES AND ADDRESSES OF PROFESSIONAL REFEREES

India Broyles, EdD

Former Professor and Director, Master of Science in Medical Education Leadership University of New England College of Osteopathic Medicine

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Omar Atiq, MD, FACP

Clinical Professor of Medicine

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Medical Director

Arkansas Cancer Institute

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Mohammad Riaz, MBBS, FCPS (Radiology)

Assistant Professor

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Mario Babbini, MD PhD

Professor of Pharmacology

Ross University School of Medicine

Portsmouth Campus

Commonwealth of Dominica

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