

Ahmed Yaqinuddin

Personal:

Name; Ahmed Yaqinuddin
Date of Birth; February 12th, 1972
Marital Status; Married
NIC #; 42201-3880568-7
Contact; Alfaisal University, Riyadh
+966-0535050381
ayaqinuddin@alfaisal.edu
farhat.bbs@gmail.com

EDUCATION:

<u>PhD (Anatomy and Cell biology) (2008)</u>	Aga Khan University, Karachi
<u>M. B., B .S., (Medicine) (1996)</u>	Baqai Medical College, Karachi

EDUCATIONAL EXPERIENCE:

- **Oct 2009- onwards** as an **Assistant Professor of Anatomy and Cell biology**, College of Medicine, Al Faisal University, Riyadh, KSA.

Main Responsibilities

- **Chair of Curriculum Committee**
 - **Chair of Students' Admission Committee**
 - **Director, Phase-1 Curriculum Sub-committee**
 - Participate in the development of a PBL based hybrid MBBS curriculum and its assessment methods
 - Teach all aspects of Anatomy in different blocks.
 - Course Director of Anatomy 111 course.
 - Facilitate PBL student's group sessions.
 - Organize and lead question review sessions
- **Jan 2009- Sep 2009. Assistant Professor (Anatomy) in the Department of Biological and Biomedical Sciences**, Aga Khan University, Karachi.

Academic Responsibilities

- Participate in the modification and delivery of the MBBS curriculum and its assessment methods
- Represent the discipline of Anatomy in different module committees
- Facilitate PBL student's group sessions.
- Organize and lead question review sessions
- Contribute to the making of integrated examination questions with all participating members

Administrative Responsibilities

- Maintain departmental records of Grants and Publications

Academic and Administrative Positions Held

- ***Point Person Anatomy (2008)*** with responsibility to manage overall teaching related activities of Anatomy discipline
 - ***Coordinator of AKU-MERCK Biomedical Training Course (2008)***
 - ***Co-Chair of Head and Neck and Special Senses Module Committee (2008)***
 - ***Co-Chair Year I Curriculum Committee (2009)***
 - ***Coordinator of Neuroscience Module (2007)***
 - ***Member of Departmental Search Committee (2008)***
 - ***Member of Year-II Curriculum Committee (2008)***
 - ***Alternate member of Academic Council of the Aga Khan University (2009)***
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- **September, 2006-to-2008**, working as **Instructor (Anatomy)** in the Department of Biological and Biomedical Sciences, Aga Khan University, Karachi.
 - **Oct, 2002 – Sep, 2006**, **Doctoral-Fellow** at the Department of Biological and Biomedical Sciences, Aga Khan University.
 - **April,2000- Sep, 2002** as **Instructor (Anatomy)** at Basic Medical Department, Shifa College of Medicine, Islamabad
Main Responsibilities
 - Participate in modification, delivery and assessment of integrated MBBS curriculum
 - Prosect cadavers and teach regional anatomy on cadavers
 - Train and assist junior colleagues to perform their academic activities
 - **September 1998-April 2002**, as **Demonstrator** in the Department of Anatomy, Islamabad Medical and Dental College, Islamabad.
Main Responsibilities
 - Participate in the delivery and assessment of MBBS and BDS curricula
 - Revamp the Learning Resource Center of Anatomy, with most emphasis on refurbishing of human prosection models
 - Lead students academic and recreational trips
 - **Feb 1998 - July 1998**, as **Senior House Officer** in Surgery, Pakistan Institute of Medical Sciences, Islamabad.
 - **Aug 1997 - Jan 1998**, as **House Officer** in Surgery, Pakistan institute of Medical Sciences, Islamabad.
 - **Feb 1997-July 1997**, as **House officer** in Medicine, Pakistan Institute of Medical Sciences, Islamabad.

RESEARCH INTEREST:

Epigenetic changes of the genome which leads into development and progression of cancer.

TECHNICAL EXPERTISE:

- Cell culture, propagation of cancer cell lines and to development of cancer cell lines from primary cultures.
- Performing functional studies using cancer cell lines as model systems to evaluate cellular proliferation, apoptosis, angiogenesis, invasion and migration using invitro-assays.
- Engineering changes in gene expression profile of cancer cells by transfecting cells with expression plasmids, siRNAs and retrovirus based vectors.
- Studying the expression profiles using semi-quantitative RT-PCR, Q-RTPCR, Microarrays, Western Blots Immunohistochemistry and Immunofluorescence microscopy.
- Performing methylation studies to analyze the methylation status of gene promoters by performing Methylation-Specific PCR, Methylation sensitive restriction and Methyl-Light PCR.

WORKSHOPS FACILITATED:

“Fundamentals of Tissue Engineering” Aug 28-30, 2008 at Juma Research Laboratory, Aga Khan University, Karachi, Pakistan

“Invivo and invitro assays for study of pain mechanisms” Sep 7-9, 2006 at Juma Research Laboratory, Aga Khan University, Karachi, Pakistan

“Genetic and biochemical aspects of inheritable metabolic disorders” 2005 at Juma Research Laboratory, Aga Khan University, Karachi, Pakistan

“Molecular and Analytical Techniques in research and diagnosis of reproductive disorders” 2004 at Juma Research Laboratory, Aga Khan University, Karachi, Pakistan

PUBLICATIONS:

Papers:

Yaqinuddin A, Abbas F, Naqvi Z, Bashir MU, Qazi R, Qureshi SA, "Silencing of MBD1 and MeCP2 in prostate cancer derived PC3 cells produces differential gene expression profiles and cellular phenotypes" **Bioscience Reports** 28 (6):319-326 2008.

Yaqinuddin A, Abbas F, Qazi R, Qureshi SA "Down regulation of DNMT3b in PC3 cells, effects locus specific DNA methylation and represses cellular growth and migration" **Cancer Cell International** 8:13 2008

Yaqinuddin A, Abbas F, farooq S, Qazi R, Qureshi SA "DNMT1 silencing effects locus specific DNA methylation and increases Invasiveness of Prostate Cancer Derived PC3 cells. **Journal of Urology** 182: 760-765 2009

Qureshi SA, Bashir MU **Yaqinuddin A**, " Utility of DNA Methylation markers in diagnosis of Cancer" **International Journal of Surgery** 8: 194-198 2010

Kakal F, **Yaqinuddin A**, Somani M, Mohammed N" Frequent hypermethylation of APC, RAR- β and RASSF1A in human term placentas" **Italian Journal of Anatomy and Embryology** Vol . 118, n 2 : 211-216 2013

Yaqinuddin A, Qureshi SA, Pervez S, Bashir MU, Nazir R, Abbas F "Frequent DNA hypermethylation at RASSF1A and APC gene loci in prostate cancer patients of Pakistani origin" **ISRN Urol.** 2013;2013:627249. doi: 10.1155/2013/627249

Yaqinuddin A, Kvietys P, Ganguly PK, Ikram F, Yaeesh S, Kattan W "PBL correlates with content acquisition assessment: a study at hybrid PBL program at Alfaisal University **Med Teach.** 2012; 34(1):83

Yaqinuddin Problem based learning as an instructional method" **Journal of College of Physician and Surgeon, Pakistan** Jan;23(1):83-5.doi: 01.2013/JCPSP.8385

Yaqinuddin A "An innovative approach to inculcate analytical and non-analytical clinical reasoning among medical students" **Med Teach** 2012; 34(6):511-2 (accepted)

Yaqinuddin A, Zafar M, Ihram F, Ganguly PK "What is an Objective Structured Practical Examination (OSPE) in Anatomy?" **Anat Sci Educ 2012 Epub** doi: 10.1002/ase.1305

Anindo M, **Yaqinuddin A** Insights into the potential use of microRNAs as biomarker in cancer **International Journal of Surgery** 2012; 10 (9):443-9

Awad A, AlAmodi AA, Shareef MA, Alsheikh AJ, Mahmoud AI, Daghistany AO, Hijazi M, Abu-Zaid A, Alsadoon M, Shablout M, Rasool A, **Yaqinuddin A** The Summer Pre-Med Program (SPP) for Matriculating Medical Students: A Student-Led Initiative. **Adv Phy Sci Edu (2013) Accepted**

Syed H, Ikram M, **Yaqinuddin A**, Ahmed T Comparative study of therapeutic effects of Cyclooxygenase I and II inhibitors in AlCl₃-induced mouse model of Alzheimer's disease **Brain Research (2013) Submitted**

Hashmi A, **Yaqinuddin A**, Ahmed T Pharmacological effects of Ibuprofen on learning and memory, Muscarinic receptors genes expression and APP isoforms levels in Pre-frontal cortex of AlCl₃-induced mice model **Journal of Neuroscience Research (2013) Submitted**

Al Amodi AA, Abu-Zaid A, Anwer LA, Khan TA, Shareef MA, Shamia AA, Nazmi S, AlShammari AM, Rahmatullah H, AlSheikh A J, Chamseddin RA, Dwek LM, **Yaqinuddin A** Undergraduate Research: An Innovative Student-Centered Committee from the Kingdom of Saudi Arabia **Medical Teacher (2013) Submitted**

PhD-Thesis:

"Influence of DNA methylation in determining cellular phenotype and its usefulness as a diagnostic biomarker for detecting prostate cancer" (AKU; 2008)

Published Abstracts:

Yaqinuddin A, Abbas F, Qureshi SA, "Distinct role of DNA methyltransferases and methyl-CpG binding proteins on apoptosis, invasion, proliferation and migration of Prostate cancer cell-an invitro study" **Urology** 2007;70 (Supplement 3A) 134

Mohammed N, **Yaqinuddin A**, Waheed M "RASSF1A, APC, RAR-Beta Tumor suppressor genes hypermethylation in normal term placentas: implications for pathophysiology of preeclampsia **J Perinat Med** 2007 Suppl II S 80

Posters, Presentations and Abstracts:

Mohammed N, **Yaqinuddin A**, Kakal F, Qureshi R, Sheikh L "Introduction of uterine artery doppler screening program in the second trimester for prediction of preeclampsia in Pakistan" invited for oral talk **at the 8th International Congress of IDSSG, (2008)**

Mohammed N, Kakal F, **Yaqinuddin A**, Somani M, Sheikh L, Qureshi R "Hypermethylation of APC and RASSF1A tumour suppressor genes in normal placentas at term using Real-Time PCR: potential predictive marker of

Preeclampsia?" abstract and poster presented at **The 16th World Congress of International Society for the Study of Hypertension in Pregnancy (ISSHP)** (2008)

Mohammed N, Kakal F, **Yaqinuddin A**, Somani M, Khan Y, Sheikh L, Qureshi, R "Quantification of cell-free fetal DNA from maternal plasma: Implications for non-invasive prenatal diagnosis of genetic disorders in Pakistan" abstract and poster presented at **International Congress of Fetal Medicine** (2008)

Siddiqui N, Naqvi Z, Mushtaq S, **Yaqinuddin A**, Siddiqui A "Proteomic Response of epithelial cells to mechanical abrasion" abstract and poster presented at **HUPO** (2007)

Yaqinuddin A, Abbas F, Qureshi SA "Effects of demethylation on Proliferation, migration, Invasion of metastatic Prostate Cancer" abstract and poster presented at **Faculty Research Assembly AKU** (2007)

Yaqinuddin A, Abbas F, Qureshi SA, Qazi R, "Effects of blocking DNA methylation on invasiveness of Prostate cancer cell lines" abstract and poster presented at **Faculty Research Assembly AKU** (2006)

Yaqinuddin A, Abbas F, Qureshi SA, "Prostate cancer: Role of molecular markers in diagnosis and prognosis" abstract and poster presented at **Faculty Research Assembly AKU** (2005)

GRANTS:

1. **Identification of novel diagnostic and prognostic markers for bladder cancer through whole genome methylation profiling** (Primary investigator) SR 1.36 million KACST (2013)
2. **Using Micro-RNAs as Biomarkers for Diagnosing Prostate Cancers (Primary Investigator** SR 1.63 million KACST Primary investigator (2013)
3. **Use of DNA methylation as a biomarker to predict graft rejection in kidney and liver organ transplants** SR 1.41 million Co-investigator (Submitted to KACST 2013)
4. **Determination of DNA methylation profile of breast cancer patients to develop diagnostic and prognostic biomarkers** SR 1.2 million Co-investigator (Submitted to KACST 2013)
5. **Expression different epigenetic factors in AIC13 induced mouse model of Alzheimer's disease** SR 80,312 Co-Investigator Alfaisal University (2012)
6. **T315I BCR-ABL Kinase Domain Mutation: Frequency and Clinical outcome in patients with Chronic Myeloid Leukemia** SR 37,000 Co-investigator, Alfaisal University (2012)

7. **Using Micro-RNAs as biomarker for Diagnosing Breast Cancer**
(Primary investigator) US\$ 136,000 Alfaisal University (2009)
8. **Prevalence of fragile X syndrome in mentally retarded population of Pakistan**
(Co-Investigator)(PMRC) RS. 200,000/- (2008)
9. **A novel approach to non-invasive prenatal diagnosis of foetal rhesus D status in Pakistan by isolating cell free foetal DNA from maternal plasma** (Collabrator)
US\$ 11,500 (Higher Education Commission) (2006)
10. **Prostate Cancer: Role of molecular markers in diagnosis and prognosis**
Principal Investigator) US\$ 23,500 (University Research Council, AKU) (2004)

MEDICAL EDUCATION COURSES:

COURSES ATTENDED THROUGH UNIVERSITY OF AMBROSIANA, ITALY
(INTERNATIONAL GRADUATE MEDICAL EDUCATION PROGRAM)

MEDICAL SCIENCES 701: Advanced Curriculum Development and Evaluation

COURSE DESCRIPTION: The focus is on the theoretical, pedagogical and philosophical issues of curriculum design and evaluation in medical education. Additionally, there is an emphasis on advanced methods of curriculum and program evaluation.

MEDICAL SCIENCES 703: Advanced Learning Theories and Cognition

COURSE DESCRIPTION: Advanced study of theories of learning and cognition in medical education. The focus is on cognitive and learning theories of medical decision making, reasoning and clinical diagnoses.

MEDICAL SCIENCES 705: Advanced Research Methods and Statistics in Medical Education

COURSE DESCRIPTION: Advanced study of research design such as experimental methods, repeated measures, surveys, naturalistic research, factor analysis, multiple regression and qualitative methods.

MEDICAL SCIENCES 707: Advanced Psychometric Theory and Practice

COURSE DESCRIPTION: Advanced study of psychometric theory and its applications including classical test theory, item response theory, latent trait theory and generalizability theory.

REFERENCES:

1. **Prof. Paul Ganguly,**
Professor of Anatomy
College of Medicine, Alfaisal University, Riyadh, KSA
Phone:+966-1-2157663
E-mail: pganguly@alfaisal.edu

2. **Prof. Peter Kvietys**
Professor of Physiology, College of Medicine, Alfaisal University
Riyadh, KSA
Phone: +966(1)2157673
E-mail:pkvietys@alfaisal.edu

3. **Prof. Ronald De-meersman**
Professor of Physiology, College of Medicine, Alfaisal University
Department of Biological and Biomedical Sciences,
Phone: +966-1-2157672, E-mail: rrmeersman@alfaisal.edu