

**PROF. HASEEB AHMAD KHAN****PhD, FRCPath, FRSC (UK)**

Distinguished Professor &amp; Group Leader

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**Researcher-ID:** [E-3872-2014](#)**ORC-ID:** [0000-0001-6084-8589](#)**Scopus ID:** [55663603400](#)**Google Scholar ID:** [gyXpHtEAAAAJ](#)**Educational Qualifications**

- \* Ph. D. (1989), Chemistry, Aligarh Muslim University, Aligarh, India.
- \* M. Phil. (1986), Chemistry, Aligarh Muslim University, Aligarh, India.
- \* M. Sc. (1983), Chemistry, Rohilkhand University, Bareilly, India.
- \* B. Sc. (1978), Chemistry, Zoology, Botany, Rohilkhand University, Bareilly, India.

**Professional Certifications**

- \* FRCPath (2014 -) Fellow, Royal College of Pathologists, London, UK.
- \* C.Chem, FRSC (1998 -) Fellow and Chartered Chemist, Royal Society of Chemistry, London, UK.
- \* MRACI, CChem (2008 -) Member, Royal Australian Chemical Institute, Melbourne, Australia

**Scientific Trainings**

- \* Ohio State University, Aronoff Lab, USA. Cytotoxicity and Lipid Analysis Training. 4-8 June, 2013.
- \* National Institute of Health, Bethesda, USA. Animal and Human Cell Culture: Method and Applications, 29 April – 3 May, 2013.
- \* University of York, UK. Flow Cytometry Course, 22-25 January, 2013.
- \* University of Jyvaskyla, Finland. DNA microarray and Data Analysis, 17-19 October, 2012.
- \* Seahorse Bioscience, Copenhagen, Denmark. Introductory XF Training Course, 25-27 October, 2011.
- \* White Oak Conservation Center, Florida, USA - Recent Advances in Conservation Genetics Course, Feb 7-20, 2010.
- \* Genomics and Proteomics Short Course, New Delhi. June-July, 2006.
- \* Applied Biosystems, Warrington, Cheshire, UK - ABI 310 Genetic Analyzer and ABI 394 Basic DNA Synthesis Training Course, 5-7 September, 2001.
- \* University of California, Davis, USA - Proteomics Short Course: Fundamentals and Lab Techniques, 20-24 August, 2001.
- \* Washington University School of Medicine, St. Louis, USA - Real-time PCR, RFLP analysis, TDI-FP for SNP detection, Primer Express and Primer 3 software, 27-31 August, 2001.

**Present & Previous Posts**

- \* Professor (Distinguished), Department of Biochemistry, King Saud University, Riyadh, Saudi Arabia (12 May 2014 till date).
- \* Chair Professor, Prince Sultan Research Chair for Environment and Wildlife, King Saud University, Riyadh, Saudi Arabia (24 Nov 2008 to 11 May 2014).
- \* Associate Professor, Department of Biochemistry, KSU, Riyadh (23 Feb 2008 to 23 Nov 2008).
- \* Assistant Professor, Department of Biochemistry, KSU, Riyadh (1 Sept 2004 to 22 Feb 2008).
- \* Senior Scientist, Research Center, Armed Forces Hospital, Riyadh (21 May 2001 to 31 Aug 2004).
- \* Scientific Officer, Armed Forces Hospital, Riyadh, Saudi Arabia (30 Oct 1993 to 20 May 2001).

## Administrative Positions

- \* Group Leader, Analytical and Molecular Bioscience Research Group, Department of Biochemistry, College of Science, King Saud University, Riyadh, Saudi Arabia (March 2011 onwards).
- \* Chair Professor, Prince Sultan Research Chair for Environment and Wildlife, King Saud University, Riyadh, Saudi Arabia (24 Nov 2008 to 11 May 2014).
- \* CEO (Honorary), BiomedSilico, A joint venture between Intellectual Property and Technology Licensing, KSU and Prince Sultan Research Chair, Riyadh, Saudi Arabia (July 2010 to May 2012).

## Awards/Scholarships

- \* Smart Clients for eScience Award from Microsoft Corporation, USA (2006).
- \* Achievement Award from College of Science, King Saud University, Riyadh, Saudi Arabia (2013)
- \* Achievement Award from the Department of Microbiology, College of Science, King Saud University, Riyadh, Saudi Arabia (2012)
- \* Achievement Award from Saudi Biological Society, Riyadh, Saudi Arabia (2012).
- \* Achievement Award from Saudi Biological Society, Riyadh, Saudi Arabia (2011).
- \* Certificate of Appreciation from the Research Center, Armed Forces Hospital, Riyadh (2004).
- \* Scientific Achievement Award from Department of Postgraduate and Academic Affairs, Armed Forces Hospital, Riyadh, Saudi Arabia (2000).
- \* Foreign Travel Grant from CSIR, New Delhi to participate in IAWPRC/IWSA conference on Nitrogen Pollution of Water, held at Brussels, Belgium, 12-19 November, 1987.
- \* Senior Research Fellowship by the Council of Scientific and Industrial Research (CSIR), New Delhi, India from 1 March 1988 to 28 February 1990.
- \* Junior and Senior Research Fellowships by the University Grants Commission (UGC), New Delhi, India from 16 August 1985 to 29 February 1988.

## Honors / Recognitions

- \* On the Panel of Judges for the Arab Technology Business Plan Competition, Sharjah, UAE.
- \* On the Panel of Referees for TWAS Prize in Medical Sciences, The Academy of Sciences for the Developing World (TWAS), Trieste, Italy.
- \* On the Panel of Experts for the Distinguished Scientists Fellowship Program, King Saud University, Riyadh, Saudi Arabia.
- \* On the Panel of Examiners to evaluate research thesis for the award of PhD Degree in Applied Chemistry from Aligarh Muslim University, Aligarh, India.
- \* Member, Nanobiotechnology Research Group, Department of Biochemistry, College of Science, King Saud University, Riyadh, Saudi Arabia.
- \* Member, Research Chair of Biomedical Applications of Nanoparticles, Department of Biochemistry, College of Science, King Saud University, Riyadh, Saudi Arabia.
- \* Consultant, Saudi National Biotechnology Incubator, Riyadh (managed by Oxford Innovation, UK).
- \* Consultant for research project "A comprehensive study on Saudi scorpions with special reference to development of immunodiagnostic assay and therapeutic modalities" granted by KACST, Riyadh.
- \* Appointed as Expert (responsible for U.P. State of India) to recommend best e-content (including e-health and e-science) for nomination to Manthan Award (Commonwealth Award).
- \* Appointed to conduct the final exam in Biochemistry for BSc student from the Department of Biological and Physical Sciences, Baltimore City Community College, Baltimore, Maryland, USA.
- \* Appointed to conduct the final exam in Computational Science for BSc student from the Anne Arundel Community College, Arnold, Maryland, USA.

- \* Session Co-Chair, Environmental Biotechnology Session, International Conference on Modern Technologies in the Field of Biotechnology and Genetic Engineering, Amman, Jordan, 5-8 Oct, 2013.
- \* Member, International Advisory Committee, World Biodiversity Congress, Colombo, Sri Lanka, 24-27 November, 2014.
- \* Member, International Advisory Board, International Conference on Impact of Nanoparticles and Nanomaterials on Health and Environment, Hyderabad, India, 23-24 June, 2014.
- \* My research data on diagnostic pathology has been included in a product brochure of a Japanese pharmaceutical company, Kissei Pharmaceuticals.
- \* Listed on the Website of Aligarh Muslim University, Aligarh, India as an Illustrious Alumni in the field of Medical Sciences (Toxicology).
- \* Listed on the Website of Department of Applied Chemistry, Aligarh Muslim University, Aligarh, India, among the ten Notable Alumni.
- \* Promoted to Full Professor with 'Distinction' (all the three foreign Referees awarded >90% points).

### Research & Teaching Interests

- \* **Biomedical Sciences** (disease biomarkers, clinical biochemistry, enzymology, metabolomics, free radical biology, pharmacology, toxicology, molecular genetics)
- \* **Nanomedicine** (immunological response of nanomaterials, safety and biocompatibility, biochemical interactions, targeted drug delivery, diagnostic potential of nanomaterials)
- \* **Animal Biotechnology** (cytotoxicity assays, cellular responses to environmental stressors, oxygen consumption rate, DNA barcoding, molecular conservation)
- \* **Bioinformatics** (biomedical software development, evolutionary bioinformatics, microarray data analysis, phylogenetic analysis)

### Research Collaborations

- \* Ohio State University, Columbus, USA
- \* University of Saskatchewan, Canada
- \* Brunel University, London, UK
- \* Korea National University of Transportation, Chungju, South Korea
- \* University of Technology, Shah Alam, Selangor, Malaysia
- \* Prince Sultan Military Medical City, Riyadh, Saudi Arabia
- \* King Khalid University Hospital, Riyadh, Saudi Arabia
- \* Jawaharlal Nehru Institute of Advanced Studies, Hyderabad, India
- \* Indian Institute of Chemical Technology, Hyderabad, India

### Research Grants

- \* Interaction of innate immune soluble factors with nanoparticles and related biomedical applications (National Plan for Science and Technology (NPST), Riyadh, Saudi Arabia).
- \* Molecular docking of novel ligand molecules and their evaluation for breast cancer therapeutics (NPST, Riyadh, Saudi Arabia).
- \* Surface-modified graphene quantum dot nanoparticles for enhanced sensitivity and safety in magnetic resonance imaging technology (NPST, Riyadh, Saudi Arabia).
- \* Polymeric nanofibers as new class of 3D scaffold and their application in stem cell research and tissue engineering (NPST, Riyadh, Saudi Arabia).
- \* Analytical and Molecular Bioscience Research Group Grant; Batch 1 to 5 (Deanship of Scientific Research, King Saud University, Riyadh, Saudi Arabia)

- \* Biophysical and biochemical characterization of experimental disease models using nanoparticles (NPST, Riyadh, Saudi Arabia).
- \* Characterization of plasma membranes of fibroblasts of desert birds and its association with their longevity (NPST, Riyadh, Saudi Arabia).
- \* Microsoft Excel Add-In for creation of survival curves (Microsoft Corporation, USA).
- \* Biochemical and molecular determinants in myocardial infarction with special reference to carnitine homeostasis (NPST, Riyadh, Saudi Arabia).
- \* Markers of DNA fingerprinting and assessment of genetic diversity in Arabian Oryx (Prince Sultan Research Chair for Environment and Wildlife, Riyadh, Saudi Arabia).
- \* OGG1 gene polymorphism and cancer susceptibility in Saudi cancer patients: A GeneChip approach (Saudi Arabian Basic Industries Corporation, Saudi Arabia).
- \* Determination of polyamines in human plasma and urine by high-performance liquid chromatography (Research Center, College of Science, King Saud University, Riyadh, Saudi Arabia).
- \* A visual basic software for computation of normal tissue complication probability associated with cancer radiotherapy (Research Center, College of Science, KSU, Riyadh).
- \* Thin-layer chromatographic analysis of biogenic polyamines in biological fluids (Research Center, College of Science, King Saud University, Riyadh, Saudi Arabia).
- \* Studies on acrylonitrile-induced behavioral, neurochemical and vestibular toxicities in rats (Research Center, College of Science, King Saud University, Riyadh, Saudi Arabia).

### Courses Taught

- \* General Biochemistry (BCH-101)
- \* Cellular Biochemistry (BCH-102)
- \* Biochemical Calculations (BCH-231)
- \* Biochemistry of Nutrition (BCH-282)
- \* Plant Biochemistry (BCH-350)
- \* Metabolic Disorders (BCH-451)
- \* Biotechnology and Genetic Engineering (BCH-462)
- \* Biochemistry of Carcinogens (BCH-475)
- \* Research Methods I (BCH-498) and Research Methods II (BCH-499)
- \* Advanced Metabolism (BCH-540)
- \* Special Topics in Biochemistry (BCH-590)
- \* Gene Regulation and Development (BOT-651)
- \* Introduction to Genetic Engineering (BOT-652)
- \* Dental Biochemistry (BCH-261): College of Dentistry, KSU.
- \* Clinical Chemistry (CLN-101): College of Applied Medical Sciences, KSU.

### Thesis Supervision

- \* Khalid Elfakki Ibrahim (PhD in Biochemistry), Evaluation of biocompatibility and toxicity of gold nanoparticles in mice.
- \* Abdullah Al Aklabi (PhD in Molecular Biology), Molecular characterization of some endangered flora of Saudi Arabia.
- \* Ibrahim Abdal Hadi Saleh (PhD in Microbiology), Molecular evaluation of cyanobacterial toxins in waters of Saudi Arabia.
- \* Khalid Elfakki Ibrahim (MSc in Biochemistry), Histopathological and immunohistochemical evaluation of the target sites of iminodipropionitrile-induced behavioural syndrome in rats and mice.

- \* Shafiqul Islam (MSc in Biochemistry), Appraisal of cardiac markers of acute myocardial infarction as presymptomatic predictors.
- \* Manar Al Walaee (MSc in Biochemistry), Role of proinflammatory cytokines in imminodipionitrile induced toxicity in rats.
- \* Najla Al Harbi (MSc in Biochemistry), Proinflammatory cytokines gene expression in different organs of rats treated with naked and polyethylene glycol coated gold nanoparticles.
- \* Alaa Al Nakhli (MSc in Microbiology), Identification and diversity analysis of microflora using polymerase chain reaction.
- \* Mona Ahmed Ali AlMusawi (MPH in Clinical Epidemiology), Correlation between salivary and blood glucose and their impact on oral hygiene.

### Committee Member

- \* Committee for Reviewing Laboratory Studies at Department of Biochemistry, College of Science, King Saud University, Riyadh, Saudi Arabia.
- \* Committee for Website Development at Department of Biochemistry, College of Science, King Saud University, Riyadh, Saudi Arabia.
- \* Committee for Reviewing Best Presentations in Saudi Biological Society Meeting, 2011.
- \* Committee for Reviewing Best Presentations during Saudi Biological Society Meeting, 2012.
- \* Committee for the Evaluation of Faculty Appointment, College of Science, King Saud University, Riyadh, Saudi Arabia, 3 April, 2012.
- \* Committee for Designing New Training Courses in Analytical and Molecular Techniques, College of Science, King Saud University, Riyadh, Saudi Arabia, 2011-2012.
- \* Committee for Course Accreditation, King Saud University, Riyadh, Saudi Arabia, 2015-2016.

### Memberships of Scientific Societies

- \* Fellow, Royal College of Pathologists, London, UK.
- \* Fellow, Royal Society of Chemistry, London, UK.
- \* Member, American Chemical Society, Washington, USA.
- \* Member, American Genetic Association, USA
- \* Member, Genetics Society of Canada, Ontario, Canada.
- \* Member, International Association of Advanced Materials, Stockholm, Sweden.
- \* Member, Science Advisory Board, Arlington, USA.
- \* Member, International Society for Neurochemistry (ISN).
- \* Member, Society of Environmental Toxicology and Chemistry, Pensacola, USA.
- \* Life Member, Bioinformatics Institute of India.
- \* Life Member, Nature Conservators Society, India.

### Member Editorial Board

- \* Frontiers in Bioscience, FIB Publications, USA.
- \* International Journal of Clinical and Experimental Medicine, eCentury Publishing, USA.
- \* Peer J, PeerJ Inc., Corte Madera, CA, USA.
- \* World Journal of Experimental Medicine, Baishideng Publishing Group, China.
- \* Saudi Journal of Biological Sciences, Saudi Biological Society, Saudi Arabia.
- \* International Journal of Pathology and Clinical Research, ClinMed International Library, USA.
- \* Biomedical Research, Allied Academies, USA.
- \* Scientific Pages of Translational Neuroscience, The Scientific Pages, USA.
- \* Biomed Research International, Lead Guest Editor, Hindawi Publishing Corp., USA.

- \* Evolutionary Bioinformatics, Lead Guest Editor, Liberta Academia Press, New Zealand.
- \* Journal of Bioanalytical Techniques, Sciforschen, USA.
- \* Annals of Clinical and Experimental Metabolism, JSciMed Central, USA.
- \* Gene and Translational Bioinformatics, Smart Science & Technology LLC, USA.
- \* Chronic Obstructive Pulmonary Disease, Insight Medical Publishing, USA.
- \* Journal of Poultry, Fisheries and Wildlife Sciences, Omics Publishing Group, USA.
- \* Journal of Neurological Disorders and Stroke, SM Online Scientific Resources, USA.
- \* Journal of Veterinary Science and Research, Jacobs Publishers, USA.
- \* Biometrics and Biostatistics, Austin Publishing Group, USA.
- \* Animal Biology Journal, Nova Science Publishers, USA.
- \* Journal Remedy Open Access-Internal Medicine, Remedy Publications, USA.
- \* Journal of Advanced Pharmaceutical Science and Technology, Open Access Pub, USA.
- \* Journal of Bioinformatics, Computational and Systems Biology, Elyns Group, USA.
- \* Journal of Functional Foods in Health and Disease (2010-11), Richardson, TX, USA.
- \* Journal of Liver and Pancreatic Diseases, Aperito Publishing, Campbell, CA, USA.
- \* Journal of Cardiology and Cardiovascular Medicine, Heighten Science Publications, USA.
- \* International Journal of Neurology Research, Sheung Wan, Hong Kong.
- \* Journal of Engineering & Applied Sciences, Majmah University, Saudi Arabia.
- \* Biosciences, Biotechnology Research Asia, Oriental Science Publishers, India.
- \* Journal of Biology and Medicine, Peertechz, India.

### Journal Reviewer

- \* African Journal of Ecology, Wiley-Blackwell, UK.
- \* American Journal of Transplantation, Blackwell Publishing, USA.
- \* Analytical Letters, Taylor & Francis, USA.
- \* Anatolian Journal of Cardiology, Kare Publishing, Turkey.
- \* Animal, Cambridge University Press, USA.
- \* Archives of Gynecology and Obstetrics, Springer Verlag, Germany.
- \* Archives of Medical Science, Termedia Publishing House, Poland.
- \* Basic and Clinical Pharmacology & Toxicology, Nordic Pharmacological Society, Denmark.
- \* Biomarkers in Medicine, Future Medicine, UK.
- \* Biomedical Research, Allied Academies, USA.
- \* 3Biotech, Springer, Germany.
- \* Biotechniques, Eaton Publishing, USA.
- \* Biotechnology Progress, Wiley-Blackwell, USA.
- \* Bird Study, Oxford Publications, UK.
- \* BMC Bioinformatics, Biomed Central, UK.
- \* Cardiovascular Diabetology, Biomed Central, UK.
- \* Clinical Biochemistry, Elsevier, USA.
- \* Clinical and Experimental Medicine, Springer, Italy.
- \* Computer Methods and Programs in Biomedicine, Elsevier Science Publishers, Ireland.
- \* Diabetes Research and Clinical Practice, Elsevier, Ireland.
- \* Environment International, Elsevier, Netherlands.
- \* Environmental Monitoring and Assessment, Springer, Netherlands.
- \* Environmental Pollution, Elsevier, UK.
- \* Environmental Toxicology, John Wiley, USA.

- \* EurAsian Journal of Biosciences, Turkey.
- \* Gastroenterology Research and Practice, Hindawi Publishing Corp., Egypt.
- \* Gene, Elsevier, Netherlands.
- \* Genetics, Kluwer Academic, Netherlands.
- \* Immunological Investigations, Taylor & Francis, USA.
- \* Intensive Care Medicine, Springer Verlag, USA.
- \* International Journal of Food Properties, Taylor & Francis, UK.
- \* International Journal of Molecular Sciences, MDPI Publishers, Switzerland.
- \* International Journal of Neurology Research, Sheung Wan, Hong Kong.
- \* International Journal of Radiation Biology, Informa Healthcare, UK.
- \* Issues in Biological Sciences and Pharmaceutical Research, Journal Issues, Brazil.
- \* Journal of Applied Animal Research, Taylor and Francis, India.
- \* Journal of Biological Methods, USA.
- \* Journal of Chromatography, Elsevier Science, Netherlands.
- \* Journal of Forensic, Legal and Investigative Sciences, Herald Scholarly, USA.
- \* Journal of Nanoparticle Research, Springer, Netherlands
- \* Journal of Neurosurgical Anesthesiology, Lippincott Williams & Wilkins, USA.
- \* Journal of Poultry, Fisheries & Wildlife Sciences, Omics Publishing, USA.
- \* Kuwait Journal of Science, Kuwait University, Kuwait.
- \* Medical Science Monitor, International Scientific Literature Inc., USA.
- \* Medical Science Reviews, International Scientific Literature Inc., USA.
- \* Molecular Biology International, Sage-Hindawi, USA.
- \* Molecular Biology Reports, Springer, Netherlands.
- \* Molecular Ecology Resources, Blackwell, UK.
- \* Molecular Phylogenetics and Evolution, Academic Press, USA.
- \* Parkinson's Disease, Hindawi Publishing Corp., USA.
- \* Peer J, USA.
- \* PLOS One, Public Library of Science, USA.
- \* Polish Journal of Environmental Studies, Hard Publishers, Poland.
- \* Primary Care Diabetes, Elsevier, UK.
- \* Scandinavian Cardiovascular Journal, Taylor & Francis, UK.
- \* Spinal Cord, Nature Publishing Group, UK.
- \* Toxicology Mechanisms and Methods, Informa Healthcare, USA.
- \* World Journal of Gastroenterology, Baishideng Publishing Group, China.

### Grants / Books Reviewer

- \* Evaluated grant proposal for United Nations University's Biotechnology Program for Latin America and the Caribbean (UNU-BIOLAC).
- \* Evaluated grant proposal for Science and Technology Program, Emirates Foundation, UAE.
- \* Evaluated grant proposal for King Abdulaziz City for Science & Technology, Saudi Arabia.
- \* Evaluated grant proposal for Deanship of Scientific Research, Majmah University, Saudi Arabia.
- \* Evaluated Book Proposal, "Process Plant Safety Systems Environment and Toxic Effects" John Wiley, USA.
- \* Evaluated Book Proposal, "Simulation and Modelling in Chemical and Materials Engineering" for Bentham Science Publishers, USA.

## Conferences

- \* 21<sup>st</sup> International "Stress and Behaviour" Conference, St-Petersburg, Russia, 16-19 May, 2014.
- \* World Biodiversity Congress, Chiang Mai, Thailand, 26-30 November, 2013.
- \* International Conference on Modern Technologies in the Field of Biotechnology and Genetic Engineering, Amman, Jordan, 5-8 October, 2013.
- \* Drug Discovery and Therapy World Congress, Boston, USA, 3-6 June, 2013.
- \* 9<sup>th</sup> Annual Biomarkers and Diagnostics World Congress, Philadelphia, USA, 6-8 May, 2013.
- \* 2<sup>nd</sup> International Conference on Molecular Recognition, Rhodes, Greece, 5-10 June, 2012.
- \* 24th International Conference of Saudi Biological Society, Biotechnology: Reality and Applications, Taibah University, Medina, Saudi Arabia, 9-11 April, 2009.
- \* 7th Pan-Arab Union of Neurological Scientists, Armed Forces Hospital, Riyadh, March 1-5, 1997.
- \* Int. Conference on Heavy Metal Pollution, Aligarh Muslim University, India, January 8-10, 1990.
- \* International Conference on Air/Water Environmental Pollution and Hazardous Wastes, held at New Delhi, India, November 16-18, 1989.
- \* IAWPRC Conference on Nitrogen Pollution of Water, Brussels, Belgium, Nov.24-28, 1987.
- \* 26th Annual Convention of Chemists, Indian Chemical Society, Devi Ahilya University, Indore, India, December 26-29, 1989.
- \* 6th Annual Conference, Indian Council of Chemists, Madurai Kamraj University, India, Dec. 27-29, 1986.
- \* 23rd Annual Convention of Chemists, Indian Chemical Society, Annamalai University, Allamalainagar, India, December 20-24, 1986.

## Symposia / Workshops

- \* National Bioinformatics Workshop on Application of Computational Biology, System Biology and RNAi technology in Agriculture and Health Care, Biotech Park, Lucknow, India. July 22-24, 2014.
- \* Deanship of Skills Development, King Saud University, Riyadh, Saudi Arabia - Effective Teaching and Assessment of Learning Outcomes. 1-4 December, 2012.
- \* King Abdulaziz City for Science and Technology, Riyadh, Saudi Arabia - Modern sample preparation techniques for inorganic and organic analysis. 21 April, 2008.
- \* Inaugural Workshop of Prince Sultan Research Chair for Environment and Wildlife, King Saud University, Riyadh, Saudi Arabia. May, 2009.
- \* King Abdulaziz City for Science and Technology, Riyadh, Saudi Arabia - 1st Saudi Arabian Bioinformatics Symposium and Workshop, 18-22 February, 2006.
- \* King Faisal Specialist Hospital and Research Center, Riyadh, Saudi Arabia – Gas Chromatography: Basic Principles and Applications Course, 5-6 April, 2005.
- \* National Scientific Corporation, Riyadh – Application training in HPLC (Waters) with diode-array, UV, and EC detectors and Breeze and Empower software, 1-4 Feb., 2004.
- \* King Faisal Specialist Hospital and Research Center, Riyadh, K.S.A.- Fundamentals of conducting research, 6 April, 2002.
- \* Symposium on Development without Destruction, Kashmir University, Srinagar, India, 17-20 October, 1989.
- \* Symposium on Analytical Applications in Biological Sciences, North Eastern Hill University, Shillong India, 15-17 November, 1988.



## Patents

1. **Khan HA**, Arif IA. Indexing gene expression data to compare gene signatures (US Patent App. 14/202487).
2. Arif IA, **Khan HA**, Al Homiadan AA, Al Farhan AH, Al Sadoon M, Shobrak M. Molecular fingerprinting to identify inbreeding and out-breeding depressions (US Patent App. 13/878423).

## Copyrights (Software Developed)

1. **Khan HA**. CalcFisher for computing Fisher's exact test (Copyright: ISBN, 978-9960-55-954-4)
2. **Khan HA**. CalcDose for drug dosage conversion (Copyright: ISBN, 978-9960-55-949-0)
3. **Khan HA**. ArrayVigil for comparison of molecular gene signatures (ISBN, 978-9960-55-953-7)
4. **Khan HA**. ArraySolver for display and analysis of gene expression data (ISBN, 978-9960-55-950-6)
5. **Khan HA**. SCEW for creation of survival curves (Copyright: ISBN, 978-9960-55-951-3)
6. **Khan HA**. CalcNTCP for selecting safe radiation dose for radiotherapy (ISBN, 978-9960-55-952-0)

## Books

1. **Khan HA** (2017) Immune responses of nanomaterials. Advanced Nanomaterials Series. Elsevier, USA. (under preparation)
2. **Khan HA** (2012) A simple guide to metabolic disorders; Nova Publishers, USA (ISBN: 978-1-62100-278-9).
3. **Khan HA**, Arif IA (2012) Toxic effects of nanomaterials; Bentham Science Publishers, USA (ISBN: 978-1-60805-283-7).

## Book Chapters

1. **Khan HA** (2017) Nanoparticles for biomedical applications. *Nanobiomaterials: Nanostructured materials for biomedical applications*. Elsevier, USA. (Invited chapter, under preparation).
2. **Khan HA** (2017) Role of immune factors on bioavailability of carbon nanomaterials. *Pharmaceutical Nanotechnology (Multivolume)*, Elsevier, USA. (Invited chapter, under preparation).
3. **Khan HA**, Ullah Q, Ahmad A, Alhomida AS, Alrokayan S (2016) Methods of trace amines analysis in mammalian brain. *Trace Amines and Neurological Disorders: Potential Mechanisms and Risk Factors*. Elsevier, USA. pp. 11-26. (ISBN: 978-012-803-603-7)
4. Sherwani SI, **Khan HA** (2016) Trace amines in neuropsychiatric disorders. *Trace Amines and Neurological Disorders: Potential Mechanisms and Risk Factors*, Elsevier, USA. pp. 269-284. (ISBN: 978-012-803-603-7)
5. Sherwani SI, Arif IA, **Khan HA** (2015) Modes of action of different classes of herbicides (Chapter 8). *Herbicide Chemistry, Fate, Physiology of Action, and Safety*. InTech Europe, Croatia; pp. 165-186. (ISBN: 978-953-51-4413-7).
6. **Khan HA**, Alhomida AS, Alrokayan S, Ola MS, Rusop M (2015) Plant DNA barcoding: brief methodology: DNA extraction – sequencing. *Plant DNA Barcoding and phylogenetics*; Lambert Academic Publishing, Germany; pp. 191-206. (ISBN: 978-365-928-095-5)
7. Sherwani SI, **Khan HA** (2015) Modes of action of biopesticides. *Biopesticides Handbook*. CRC Press, USA. (ISBN: 978-146-659-652-8)
8. Ola MS, **Khan HA**, Alhomida AS (2014) Role of diet and exercise in diabetic retinopathy. *Diet and Exercise in Cognitive Function and Neurological Diseases*. Wiley Blackwell, USA.
9. Malek MF, Mamat MH, Alrokayan SAH, **Khan HA**, Rusop M. Crystallographic orientation of ZnO nanorod array thin films (Chapter 2), *Renewable Energy and Sustainable Developments*. Scientific & Academic Publishing, USA. 2014, pp. 72-125 (ISBN: 978-1-938681-70-7).

10. Saad PSM, Alrokayan SAH, **Khan HA**, Rusop M. Multiwall carbon nanotubes in semiconducting conjugated polymer based organic solar cells (Chapter 5), *Renewable Energy and Sustainable Developments*. Scientific & Academic Publishing, USA. 2014; pp. 176-196.
11. Mamat MH, Malek MF, Md Sin ND, Hafizah NN, Suriani AB, Rouhi J, Alrokayan SAH, **Khan HA**, Rusop M. Aluminium doped zinc oxide nanorod array ultraviolet photoconductive sensors (Chapter 9), *Renewable Energy and Sustainable Developments*. Scientific & Academic Publishing, USA. 2014; pp. 314-357 (ISBN: 978-1-938681-70-7).
12. Rouhi J, Mahmud S, Alrokayan SAH, **Khan HA**, Rusop M. Nanogap electrodes: fabrication techniques and applications (Chapter 10). *Renewable Energy and Sustainable Developments*. Scientific & Academic Publishing, USA. 2014; pp. 358-393 (ISBN: 978-1-938681-70-7).
13. Yousefi AT, Bagheri S, Shinji K, Alrokayan SAH, **Khan HA**, Ikeda S, Rusop M. Functionalized carbon nanotubes: enhanced direct electron transfer in electrochemical sensors (Chapter 12), *Renewable Energy and Sustainable Developments*. Scientific & Academic Publishing, USA. 2014; pp. 436-466 (ISBN: 978-1-938681-70-7).
14. Arif IA, **Khan HA**, Al Rokayan S, Alhomida AS, Bakir MA, Khanam F (2012) Toxicologic and environmental issues related to nanotechnology development. *Toxic Effects of Nanomaterials*. Bentham Science Publishers, USA, pp. 137-147. (ISBN: 978-1-60805-421-3).
15. Arif IA, Bakir MA, **Khan HA** (2011) Microbial remediation of pesticides. *Pesticides: Evaluation of Environmental Pollution*. CRC Press, USA, pp. 131-144. (ISBN: 978-1-4398-3624-8).
16. **Khan HA** (2011) Impaired mitochondrial respiration as a causative factor in Parkinson's disease. *Cell Respiration and Cell Survival: Process, Types and Effects*. Nova Science Publishers, New York, USA, pp. 211-224. (ISBN: 978-1-60876-462-4).
17. **Khan HA** (2009) Determination of pesticides in human blood and urine by high-performance liquid chromatography. *Handbook of Pesticides: Methods of Pesticide Residues Analysis*, CRC Press, USA, pp. 541-570. (ISBN: 978-1-42008-245-6).
18. El-Saeid MH, **Khan HA** (2009) Analysis of pesticides in food samples by supercritical fluid chromatography. *Handbook of Pesticides: Methods of Pesticide Residues Analysis*, CRC Press, USA, pp. 93-114. (ISBN: 978-1-42008-245-6).
19. Rathore HS, **Khan HA** (1990) Environmental impact and significance of pesticides. *Environmental Protection-A Movement*, Natcon Press, India, pp. 191-202.

## Publications

1. **Khan HA**, Ibrahim KE, Khan A, Alrokayan SH, Alhomida AS (2017) Immunostaining of proinflammatory cytokines in renal cortex and medulla of rats exposed to gold nanoparticles. *Histol. Histopathol.* 32, 597-607.
2. Nafiujjaman M, **Khan HA**, Lee Y (2017) Peptide-influenced graphene quantum dots on iron oxide nanoparticles for dual imaging of lung cancer cells. *J. Nanosci. Nanotechnol.* 17 (3), 1704-1711.
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**GenBank Submissions (Total submissions = 210)**

- \* Arabian Oryx; mtDNA 12S rRNA gene sequences: 24 (Accession Nos. FJ914291-FJ914314)
- \* Arabian Oryx; mtDNA 16S rRNA gene sequences: 24 (Accession Nos. FJ914267-FJ914290)
- \* Arabian Oryx; mtDNA cytochrome b gene sequences: 24 (Accession Nos. FJ937660-FJ937683)
- \* Arabian Oryx; mtDNA control region: 24 (FJ797434, FJ821297-313, FJ860220-FJ860225)
- \* Arabian Sand Gazelle; 16S rRNA gene sequences: 20 (Accession Nos. JN376025-JN376044)
- \* Arabian Sand Gazelle; cytochrome b gene sequences: 20 (Accession Nos. JN376045-JN376064)
- \* Arabian Sand Gazelle; control region gene sequences: 20 (Accession Nos. JN376006-JN376024)
- \* Arabian partridge; COI sequences: 3 (Accession Nos. HQ168027-HQ168029)
- \* Philby's rock partridge; COI sequences: 2 (Accession Nos. HQ168030-HQ168031)
- \* Asian houbara bustard; COI sequences: 4 (Accession Nos. HQ168032-HQ168035)
- \* Spotted crane; COI sequence: 1 (Accession No. HQ168036)
- \* Palm dove; COI sequences: 3 (Accession Nos. HQ168037-HQ168039)
- \* Collared dove; COI sequences: 2 (Accession Nos. HQ168040-HQ168041)
- \* Namaqua dove; COI sequences: 3 (Accession Nos. HQ168042-HQ168044)
- \* White cheeked bulbul; COI sequences: 5 (Accession Nos. HQ168045-HQ168049)
- \* Black scrub robin; COI sequences: 4 (Accession Nos. HQ168050-HQ168053)
- \* House sparrow; COI sequences: 4 (Accession Nos. HQ168054-HQ168057)
- \* Spanish sparrow; COI sequence: 1 (Accession No. HQ168058)
- \* Isabelline shrike; COI sequence: 1 (Accession No. HQ168059)
- \* Crested lark; COI sequences: 2 (Accession Nos. HQ168060-HQ168061)
- \* Spotted flycatcher; COI sequence: 1 (Accession No. HQ168062)
- \* Green bee-eater; COI sequences: 4 (Accession Nos. HQ168063-HQ168066)
- \* Lappet-faced vulture; COI sequences: 2 (Accession Nos. HQ168067-HQ168068)
- \* *Rhazya stricta*; rbcL gene sequence (Accession No. JN375994)
- \* *Lycium shawii*; rbcL gene sequence (Accession No. JN375995)
- \* *Moricandia sinaica*; rbcL gene sequence (Accession No. JN375996)
- \* *Bassia eriophora*; rbcL gene sequence (Accession No. JN375997)
- \* *Withania somnifera*; rbcL gene sequence (Accession No. JN375998)
- \* *Chenopodium murale*; rbcL gene sequence (Accession No. JN375999)
- \* *Salsola imbricata*; rbcL gene sequence (Accession No. JN376000)
- \* *Scorzonera intricate*; rbcL gene sequence (Accession No. JN376001)
- \* *Panicum antidotale*; rbcL gene sequence (Accession No. JN376002)
- \* *Erodium laciniatum*; rbcL gene sequence (Accession No. JN376003)
- \* *Erodium glaucophyllum*; rbcL gene sequence (Accession No. JN376004)
- \* *Melilotus indicus*; rbcL gene sequence (Accession No. JN376005)

**dbSNP Submissions**

1. CPT1B Gene: SNP id, KSU-CPT1B-01; Accession, ss715578388; Feature, I66V
2. CPT1B Gene: SNP id, KSU-CPT1B-02; Accession, ss715578389; Feature, G320D
3. CPT1B Gene: SNP id, KSU-CPT1B-03; Accession, ss715578390; Feature, S427C
4. CPT1B Gene: SNP id, KSU-CPT1B-04; Accession, ss715578391; Feature, L436L
5. CPT1B Gene: SNP id, KSU-CPT1B-05; Accession, ss715578392; Feature, E531K
6. CPT1B Gene: SNP id, KSU-CPT1B-06; Accession, ss715578393; Feature, A627E
7. CPT1B Gene: SNP id, KSU-CPT1B-07; Accession, ss715578394; Feature, Non-coding
8. CPT2 Gene: SNP id, KSU-CPT2-01; Accession, ss715578395; Feature, S292G
9. CPT2 Gene: SNP id, KSU-CPT2-02; Accession, ss715578396; Feature, V368I



10. CPT2 Gene: SNP id, KSU-CPT2-03; Accession, ss715578397; Feature, F602F
11. CPT2 Gene: SNP id, KSU-CPT2-04; Accession, ss715578398; Feature, M647V
12. CPT2 Gene: SNP id, KSU-CPT2-05; Accession, ss715578399; Feature, Non-coding
13. CPT2 Gene: SNP id, KSU-CPT2-06; Accession, ss715578400; Feature, Non-coding

### Personal Details

- \* Nationality: Indian
- \* US Green Card Status: I-140, EB-1A (Alien of Extraordinary Ability) Approved
- \* Date of Birth: 29 May 1959
- \* Marital Status: Married
- \* Passport Details: No. Z2243833, Expiry date 25/09/2023
- \* Permanent Address: C-6, Allama Iqbal Apartments, Sir Syed Nagar, Aligarh-202001, UP, India
- \* Current Mailing Address: King Saud University Housing, Bldg. 2, Apt. 4, Riyadh-12372, Saudi Arabia