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Citations of elected Fellows

Dr. Anwar Nasim (2007)

Dr. Anwar Nasim is a renowned name in the field of Science in Pakistan. Currently working as Adviser Science COMSTECH and Chairman National Commission on Biotechnology, Dr. Nasim has been actively involved in the socio-economic development of Pakistan and of other Islamic countries since 1957. His main areas of interest are Molecular Biology, Biotechnology and Genetic Engineering. He was awarded a Gold Medal for securing first position in the M.Sc. Botany Examination by the Punjab University, Pakistan, and later on got Ph.D. in Biochemical Genetics from the University of Edinburgh, UK. His brilliant academic achievements provided him with a very solid foundation on which he built his outstanding professional career.

Being a member of Academic Council of the Government College University; Member, Board of Governors, Foundation University; Research Advisory Committee of Pakistan Agricultural Research Council and Chairman of the Advisory Committee Urdu Science Board, Dr. Anwar Nasim is playing a crucial role for the improvement of quality education in Pakistan at the post graduate level.

Dr. Nasim has got over 100 scientific publications in prestigious international journals to his credit, and has a JIF (Journal Impact Factor) of over 244.485, a number that places him amongst the top scientists of the country in terms of highly acknowledged scientific research. Another feather in his cap is a very impressive number of citations i.e. 1330 overall, which puts him in the elite class of researchers. Dr. Nasim has also been an author of eight quality Books, Two Manuals of the International Workshops and is a member of the Editorial Boards of six Science Magazines.

In recognition of his educational, scientific and administrative achievements, Dr. Anwar Nasim has earned a number of awards. Starting from the Gold Medal in M.Sc. Botany, he has to his credit the Pride of Performance (Molecular Genetics, 1999). He was also awarded the Overseas Pakistani's Institute (OPI) award for outstanding services for promotion of Science in Pakistan (1995). He is among the elite scientists of Pakistan who are Elected Fellows of such esteemed organizations as Third World Academy of Sciences (TWAS), Islamic World Academy of Sciences (IAS), Pakistan Academy of Medical Sciences (PAMS) and foreign fellow of Pakistan Academy of Sciences (PAS).

Dr. Anwar Nasim has worked in close contact with academic institutions. During his stay in Canada, he worked as Adjunct Professor at the University of Ottawa, and at Carleton University, Ottawa. He had the honour of working (on a Sabbatical Leave) at the Max Planck Institute, Germany, and Stanford University, USA. He has rich experience of working at National Research Council of Canada and at Atomic Energy Commission of Canada from 1966 to 1989. He worked as Principal Scientist and Head of the Biology and Medical Research Department, King Faisal Hospital, Saudi Arabia, from 1989-1993.

Dr. Nasim is playing a key role in bringing about sustainable development in Pakistan through the use of modern technique in the fields of Biotechnology and its allied disciplines. In his capacity as the first Chairman of National Commission on Biotechnology of Pakistan, and Convener National Core Group in Life Sciences (NCGLS) of Higher Education Commission (HEC) of Pakistan, he is supporting and promoting nationally relevant biotechnology research and development in Pakistan for the

promotion of science and technology in Pakistan. He has also been elected Founding President of Federation of Asian Biotech Association (FABA). Through his rich experience and helping attitude, he is acting as a genuine mentor for an entire generation of young Pakistani scientists. His research efforts and achievements are highly acknowledged all around the world.

Prof. Dr. Sheikh Arshad Saeed (2007)

Professor Dr. Sheikh Arshad Saeed, senior Professor of Biochemical Pharmacoloy at Dr. Panjwani Center for Molecular Medicine and Drug Research (PCMD), International Center for Chemical and Biological Sciences (ICCBS), University of Karachi, Karachi- 75270, has not only been a faculty member at the Aga Khan University Hospital Karachi, and PCMD for more than two decades, but also a researcher and innovator in his field. Dr. Saeed has been involved in breakthrough discoveries for nearly three decades, contributing to a better understanding of inflammation and anti-inflammatory drugs, reproductive biology and molecular mechanisms of human platelet aggregation. He has published 260 research papers (total impact factor 350) and holds the unusual distinction of being awarded patents from Europe and North America. In 1980, he was the first Pakistani to be elected Fellow of the Royal Institute of Biology. Professor Saeed was recently awarded a millennium Gold Medal and a Medal by Pakistan Academy of Sciences in the field of Biochemistry for outstanding contribution in research. In 2001, he was awarded the nation's highest civil honour, the Hilal-e-lmtiaz for biological sciences- a first in Pakistan. He was also selected as a Higher Education Commission (HEC) of Pakistan's Distinguished National Professor in early 2004.

Prof. Dr. Fazal Ahmad Khalid (2007)

Prof. Dr. Fazal Ahmad Khalid earned his BS (Metallurgical engineering) from the University of Engineering and Technology Lahore in 1981. Since graduation he has gained rich experience of 25 years serving in industry, R&D and educational institutions, which include Pakistan Steel Karachi, PCSIR laboratories Lahore, Universities of Oxford and Leeds, UK, Swiss Federal Institute of Materials Science and Technology, Switzerland, and the GIK Institute. He earned his D. Phil from the University of Oxford in 1991. His major research contribution is in the field of materials processing and characterization, electron microscopy and nanotechnology. His work on the high strength low alloy (steels employed in automotive and engineering applications) has lead to a better understanding of the phenomena of interphase precipitation and micro- and nanostructures in these alloy steels and resulted in significant cost savings. In recognition of his D. Phil research he was awarded an International Vanadium Award by the Institute of Materials, London, for the best paper published in the Journal of Materials Science and Technology in 1994.

On the occasion of Independence Day, 14 August 2007, the President of the Islamic Republic of Pakistan conferred Sitara-i-lmtiaz on Professor Khalid, Pro-Rector (Academic) and Dean Faculty of Materials Science and Engineering of Ghulam Ishaq Khan Institute of Engineering Sciences and Technology in recognition of his valuable contributions in the field of engineering.

He was awarded a Gold Medal for his outstanding research contribution in the field of engineering in 1999 from the Pakistan Academy of Sciences (PAS); the Star Award by South Asia Publications in 2003; a Merit Certificate by the German Welding Society and a Merit Certificate by the Institute in 2004. He has been elected Fellow of The Institute of Materials, Minerals and Mining, London, and The Royal Microscopical society, Oxford, for his outstanding contribution in the field of Materials Engineering. He is mem-

ber of the editorial and study boards of various international journals and national universities. In view of his continuous research record he has been rated as third among the Productive Scientists of Pakistan in the field of engineering sciences in the recent study report published by the Pakistan Council for Science and Technology (POT), Islamabad, in 2004. He has achieved the highest impact factor (56.046) at the Institute in the field of engineering.

His recent research work is related to development and processing of advanced and nanomaterials for thermal management applications for electronic devices and his work has been received with great interest amongst the scientific community and has prospects for industrial applications. His joint research has contributed to the development of new diamond based composites for electronic industry. He has published 158 research papers in international journals and conference proceedings. He has been engaged in supervising BS, MS and PhD research projects on important aspects of materials engineering, advanced nanomaterials and nanotechnology. He has accomplished 42 technical reports as a Principal Investigator for industry and established strong industrial linkage programme from GIKI. The Institute has benefited from his academic collaboration with the Universities of Oxford and Leeds, UK, and EMPA Swiss Federal Institute for Materials Science and Technology, Switzerland, where he is also a visiting professor.

In view of his academic and research contributions he has been nominated as a member the Engineering Council, UK; the Board of Trustees of the Pakistan Science Foundation (PSE); the National Commission on Nanoscience and Technology; Engineering Accreditation and Quality Evaluation Committee of the Pakistan Engineering Council, and committees constituted by the Higher Education Commission and Pakistan Council for Science and Technology.

While working as Professor and Dean and Pro-Rector (Academic) at the GIK Institute he has made a major contribution to the Institute: in the academic (undergraduate and graduate), research and development programmes, curriculum development and review, study boards, planning of laboratories, administration and supervision of various activities of students. He has also organized six short courses and a number of seminars on various topics related to materials engineering for professional development and training of engineers and scientists working in the local industries and R&D organizations. His performance in teaching. research and community service has been evaluated by the Governing Council and it has been rated as 'Outstanding A*' for the last nine years.

Prof. Dr. Muhammad Luqman (2007)

Prof. Dr. Muhammad Luqman is among the first generation of medical doctors of the country who, besides academics, has also excelled in research. He has had a distinguished academic record. He passed matriculation from Quetta, standing first (1966) in Baluchistan Province. As a Ravian, he did FSc from Government College, Lahore. He graduated from Nishtar Medical College, Multan, in 1974. He did M.Phil in histopathology from Jinnah Postgraduate Medical Institute, Karachi in 1980 with distinction. He passed FCPS in histopathology with outstanding performance, winning the highest gold medals (Burki gold medal and lftikhar gold medal) topping the list of FCPS candidates in the year 1991. Later he trained in Armed Forces Institute of Pathology (AFIP), Washington, D.C and Walter Reed Army Institute of Research and Georgetown University Medical Centre, Washington, D.C, USA.

He has held the highest professorial appointments in Army Medical College and Armed Forces Institute of Pathology (AFIP), Rawalpindi, and is presently Professor of

Pathology and Chairman of the Department at Foundation University Medical College, Rawalpindi. He is currently the Dean of Faculty of Histopathology, College of Physicians and Surgeons Pakistan. He has been examiner at undergraduate and postgraduate levels in most of the universities of the country.

As a passionate and dedicated teacher he has taught a generation of medical students both at undergraduate and postgraduate level since 1975 from Peshawar to Karachi, most of whom are holding chairs and professorships in various medical colleges. He has been designated as leading histopathologist of the country with "an eye for cell" by some of the top medical scientists of the country such as the past Chairman of the Pakistan Medical Research Council (PMRC), Professors Emeriti and Distinguished National Professor of Pakistan. At postgraduate level he has conducted a series of workshops on different topics related to medical sciences and research. Besides, he has guided a large number of postgraduate students for M.Phil and FCPS degrees.

Prof. Luqman has been Research Director, Pakistan Medical Research Council (PMRC), Research Centre and Technical Director, Pakistan US Laboratory for Seroepidemiology (PULSE), Army Medical College, Rawalpindi. He won two gold medals as a young researcher in the field of medical science (Bukhari Gold Medal & Pakistan Academy of Medical Sciences Junior Gold Medal and Award). Only a few medical doctors of his generation can match his volume of publications which stands at 78 now, out of which 28 have been indexed by PubMed (Index Medicus) of National Library of Medicine, USA. He is the Founder Editor of Pakistan Journal of Pathology and has been on the editorial board of Pakistan Armed Forces Medical College. He has made more than 75 oral presentations in various national and international medical conferences and seminars.

Prof. Dr. Iqrar A. Khan (2007)

Dr. I. A. Khan passed all university examinations with distinctions. Starting as a lecturer in 1977, he became full professor in 1995. As a teacher, he taught at all levels (technician training to PhD), introduced new courses, supervised postgraduates, established a Plant Tissue Culture Cell and co-founded the Center of Agricultural Biochemistry and Biotechnology. About half of his publications are in biology, genetics and biotechnology and the rest are applications. A major goal of his research career has remained focused on two crops i.e. citrus and potato.

On different occasions, he spent more than 15 years abroad including 25 months as postdoctoral fellow/visiting scientist/visiting professor at the University of California and Florida in USA, the University of Cambridge-UK, Wageningen University and International Agriculture Center, the Netherlands and the University of Kassel, Germany. He has visited 21 countries and more than 50 universities and R&D organizations overseas.

He joined as Director, NIAB, in December 2005, and became Director General in September 2006. Initiatives taken at NIAB have included drip irrigation, mango sudden death, mango germ development, mango encyclopedia, and international collaborations (University of Kassel. Germany, University of Florida. Sultan Qaboos University). A peer review of NIAH/NIBGE was undertaken to prioritize research programs and for effective coordination between institutions.
He has also been engaged in solving a serious citrus disease problem called Witches Broom Disease of Lime (\VBDL), which is a global threat to citrus production. The goal of this research has been to develop resistant varieties using somatic hybridization. We now have several WBDL resistant hybrids available for field testing. In December 2000, he organized an international symposium on the management of

WBDL, which was hosted by the University of Florida. Its second session on the same subject was undertaken in Morocco during February 2004, and the third conference was organized under the co-sponsorship of USDA held in March 2005 in Oman.

A potato variety (PARS-70) was registered and released. Recently, the work on PARS-70 has been published in 'Potato Research', published by the *European Association for Potato Research*.

He has also pioneered research for breeding triploid seedless Kinnow mandarin. In collaboration with the University of Florida, it has been possible to develop (engineer) hybrids of Kinnow expressing cytoplasmic male sterility. He has worked for many years to develop an R&D base by perfecting tissue culture techniques required for citrus virus disease management leading to a project for establishing a model for citrus nursery certification at the University of Agriculture, Faisalabad.

Research collaborations between Pakistan and Oman have included supervision of Ph.D. theses projects. publications, joint conferences, exchange visits by 16 Pakistani researchers to Oman and one joint research project funded by COMSTECH. Both governments approved a University Linkage program between Pakistan and Oman. Omani students and staff (28 in 2004 and 26 in 2005, 24 in 2006, 30 in 2007) from SQ came to UAF for study tours under the said linkage, and one M.Sc. student from Oman has finished his studies at UAI under the linkage program.

Dr. Khan has organized and participated in numerous international conferences and meetings and has held active membership of several professional societies and associations including an Executive position on the Board of International Society of Citriculture based at the University of California, Riverside since 1992.

Prof. Dr. Ismat Beg (2008)

Prof. Ismat Beg, who is Scientific Director, Centre for Advanced Studies in Mathematics. LUMS, Lahore, has a distinguished scholastic career. He obtained his Ph.D. from yhe University of Bucharest under the supervision of Academician Professor Romulus Cristescu. He has held several research and teaching positions in Pakistan and abroad. His research work (128 published research papers) has a great diversity and is well cited by other researchers, He has made fundamental contributions to the study of fixed point theory and best approximations with pioneering achievements in proving existence of random fixed point of multi-valued maps. He has also made significant contributions to study of fuzzy multi-valued functions. Beg is also well known for his work on linear operators on ordered vector spaces. He has supervised eleven M.Phil dissertations and four Ph.D theses) (including the Salam Prize winner Naseer Shahzad and first pure Mathematics Ph.D. in Pakistan). He was awarded Pakistan Academy of Sciences Gold Medal 2008 in the field of Mathematics in recognition of outstanding research work. He has also declared Mathematician of the year-1986 by Government of Pakistan. He has completed as principal investigator eleven research projects. He is an elected Fellow of the Institute of Mathematics and its Applications, a Chartered Mathematician and a Chartered Scientist.

Professor Beg has played a key role in the development of Mathematics Department at LUMS as Head, which is now one of the best in Pakistan. He has been instrumental in contracting collaborative research programs with other institutions both at home and abroad. He is also member of Board of Studies of several universities. He is member of Editorial Board of seven international journals. He also acted as referee,

to several other leading journals. He is a reviewer of Zentralblatt Fur Mathematik and The Natural Sciences and Engineering Research Council of Canada. Dr. Beg is a member of eight international professional societies. His contribution in organizing conferences at LUMS at regular intervals in diverse fields is playing an important role for developing a culture of research and a platform for interaction and exchange of ideas across the country.

Prof. Dr. Mohammad Aslam Khan (2008)

Dr. M. Aslam Khan earned his PhD degree from the University of Hull (England) in 1974 with a thesis on High Density Laser Produced Plasmas. Since then, he has been associated with the Laser Group, PINSTECH (1974-78), CISE, Milano, Italy (1976), AI-Fateh University, Libya (1978-81), King Fahd University of Petroleum & Minerals (KFUPM), Saudi Arabia (1981-2008), GIK Institute (1998), and COMSATS Institute, Islamabad, from Sept. 2007. He is currently the Head of Physics Department at COMSATS.

At KFUPM, Dr. Khan played a key role in establishing a world-class Laser Research Center and served as the Head of Atomic Spectroscopy Laboratory. He also established an Infrared Laser Laboratory, a Glow-Discharge-based Materials Processing Program, Laser-Generated Ultrasound, and Laser-initiated Polymerization. He received specialized trainings in USA, Germany, England, and Canada. He held visiting positions and research collaborations at University of Hull, Australian National University, Max Planck Institute for Quantum Optics (Garching), University of Frieberg, Freie University, Berlin, and University of Virginia, USA.

Dr. Khan has published 115 research papers in international journals. His research on Laser-Pumped Calcium Vapor has led to many exciting findings including new laser action in Calcium atoms. Other significant works include a Non-Destructive Method for Mapping Formation Damage, and a Reactive Glow Discharge for Regenerating Coked Catalysts. He presented his research at International Conferences on Atomic Physics, Physics of Electronic and Atomic Collisions, CLEO-Europe, Laser Spectroscopy, Ultrasonics, Plasma Spectrochemistry, Plasma Physics, and Plasma Chemistry. Some of his papers were published in books such as Laser Techniques for Extreme Ultraviolet Spectroscopy (AlP 1982), Spectral Line Shapes (ALP 1995), Laser Spectroscopy XII (1996); Society for Core Analysis (2002) and Photoinitiated Polymerization (2O03).

Dr. Zabta Khan Shinwari (2008)

Hailing from an underdeveloped southern District, Kohat, and belonging to a working class village family, Zabta K. Shinwari had been a merit scholarship holder from junior high school till his Merit Cultural Overseas Training Award for Ph.D (Japan). This was followed by Merit Fellowship for Post Doc (1996-1998, JIRCAS. Japan), the STA Fellow (July 1999-Sept. 1999), Japan International Science & Technical Exchange Center and State Dept /Inst. Int. Edn (USA) Leadership programme (February 20-March 18, 2006). He received his Master, M. Phil and Ph. D. degrees from Peshawar, Quaid-i-Azam and Kyoto (Japan) Universities, respectively.

For the first time in Pakistan, Dr. Zabta Khan Shinwari reported more than 40 genera of plants, 35 of which were sequenced to elucidate taxonomic relationship of economically important plants, 5 of which were discovered to be drought, cold, and stress tolerant Dr. Shinwari's research interests span areas of Molecular Systematics, Biotechnology, and Medicinal Plant Ecology. He has made several studies of international significance on floristic and ecological aspects on temperate elements and has presented

data in international forums He has published more than 124 articles including books and has an impact factor close to 40. His work is widely cited globally.

Based on his scientific achievements, he was appointed as the youngest Vice Chancellor of a Unversity in Pakistan (Karakurum University of Science & Technology, KUST). He had been able to extend educational facilities to the marginalized and hitherto neglected communities of the remote areas of NWFP, besides providing massive relief to the deserving students in fees. Through the opening of 10 new Departments, he has been able to curtail the costs on education by proving education at the doorsteps of the local people. Today, because of his hard work, KUST can rightly boast of being a centre of excellence in higher education.

He is the founder of KUST Institute of Medical Sciences (KIMS) that has started both the classical MBBS along with the BEMS (Bachelor of Eastern Medicine & Surgery). He also established the University of Science & Technology, Bannu. These universities have been linked with internationally reputed institutes and got massive development and research grants both national & international.

While working in World Wide Fund for the Conservation of Nature (WWF-P), Dr. Shniwari developed ways and means to enhance the socioeconomic condition of the people living in the hilly areas of Pakistan (including Northern Areas and Azad Kashmir). This was possible because of the sustainable usage of under-utilized crops.

Dr. Shinwari was chosen as Chief Executive Qarshi Research International and was also given the assignment to be the Vice Chancellor/ Project Director, Qarshi University, Lahore, from Sept. 09, 2006 to date.