



## Citations of the PAS Fellows Elected in 2013

The following eminent scientists were elected Fellows of the Pakistan Academy of Sciences during 2013:

### **Prof. Dr. Amin Badshah**

*Prof. Dr. Amin Badshah* earned MSc in chemistry in 1984, joined as a lecturer in Gomal University and was promoted to Assistant Professor after earning PhD degree in 1994. In 2002, he joined Quaid-i-Azam University (QAU), Islamabad as Associate Professor and was promoted as Professor in 2005. Presently, he is a Tenured Professor and Chairman, Department of Chemistry, QAU, Islamabad.

Dr. Amin Badshah has more than 195 publications in international peer-reviewed journals. Total impact factor and citations of these papers are 219.6 and 1327, respectively. He has availed postdoctoral fellowships MS&T and DAAD.

After joining QAU, Dr. Amin Badshah has produced 13 PhD and 35 MPhil. One postdoctoral, 10 PhD and 5 MPhil students are currently working under his supervision. A couple of PhD students from Gomal University and three MPhil students from Hazara University have completed their research under his co-supervision. He has earned several research grants from Higher Education Commission (HEC) and the QAU Research Fund. In recognition of his scientific contributions, he has been awarded Research Productivity Award regularly by the Pakistan Council for Science & Technology. Dr. Amin Badshah is Fellow of Chemical Society and Associate Editor of Journal of the Chemical Society of Pakistan. He has served as member of QAU Syndicate and Chairman of the University Discipline Committee. He is also a member of the Board of Advanced Studies & Research for the last six years.

In recognition of his outstanding contributions in the field of chemistry, Government of Pakistan awarded him with *Tamgha-e-Imtiaz* and Pakistan

Academy of Sciences with Gold Medal.

### **Prof. Dr. Darakhshan Jabeen Haleem**

*Dr. Darakhshan Jabeen Haleem* is Meritorious Professor (Neuroscience) at Dr Panjwani Center for Molecular Medicine & Drug Research, ICCBS, University of Karachi, Karachi. Formerly, she has served as Dean, Faculty of Science and Chairperson, Department of Biochemistry, University of Karachi. Actively engaged in teaching and research for the last 35 years, Prof. Haleem has authored a number of research publications in high impact factor international journals of Neurochemistry, Neuropharmacology, Biochemistry and other life sciences. She has supervised 35 PhD and MPhil and 50 Master's theses. She introduced and developed Biochemical Neuropharmacology, Biochemistry of Drug Action and Behavioral Pharmacology Sections in Department of Biochemistry, University of Karachi. She was a pioneer faculty member and first Chairperson of Department of Biochemistry, Federal Urdu University. She has written text books on various topics of neuroscience, viz., Neurochemistry of Drug Action, Neurochemistry, and Neuropharmacology and Behavior.

Prof. Darakhshan Haleem is organizer of International Study Group for Biochemical and Biophysical Research in Pakistan (ISBBP), life member of Pakistan Society of Biochemists, Pakistan Pharmacological Society, and International Brain Research Organization. She is Guest Editor & Reviewer of Neuroscience Journals published by Elsevier and Hindawi. Prof. Haleem's research has focused on the molecular and neural basis of Stress, Depression, Anorexia, Addiction, Memory and Search for Receptors and Signaling Molecules involved in the Potential Use of Psychostimulants for Enhancing Memory Function, and Treatment of Obesity and Narcolepsy. She has introduced an innovative research idea of developing psychostimulants as non-addictive

cognitive enhancers. Her research has been funded by the Higher Education Commission, Pakistan Science Foundation, and University of Karachi.

Dr Darakhshan Haleem secured academic positions and distinctions in ISc, BSc and MSc. She was awarded Central Overseas Training Scholarship for PhD studies at British Postgraduate Medical Federation, Institute of Neurology, University of London on “Serotonergic functions in depression”. During her PhD she received Overseas Research Student (ORS) Award in London and the Young Scientist Award to attend 17<sup>th</sup> meeting of International Study Group for Tryptophan Research (ISTRY) held in Nagoya, Japan.

She was awarded DSc degree by The Open International University for Complementary Medicine, Colombo, Sri Lanka. Also, in recognition of her research contributions, she was awarded Gold Medal by the Pakistan Academy of Sciences, *Nishan-e-Zafar* and *Nishan-e-Azmat Danish* by University of Karachi, *Ezaz-e-Fazeelat* by the President of Pakistan, and *Star Woman Award 1996 and Life Time Achievement Award* by International Star Women Foundation. The Pakistan Council for Science and Technology (PCST) has ranked Dr Haleem as a Productive and one of the Top Scientists of Pakistan.

### **Dr. Abdul Rashid**

*Dr. Abdul Rashid* is a distinguished Soil Scientist with extensive R&D and science management experience. He earned his PhD (Agronomy & Soil Science) from *University of Hawaii, Honolulu, USA*, after winning an *East-West Center scholarship*. He initiated his research career in 1973 in the pioneer research group on micronutrients at Nuclear Institute for Agriculture & Biology (NIAB), Faisalabad. In 1979 he joined Pakistan Agricultural Research Council (PARC), and spent most of his career at National Agricultural Research Center (NARC), Islamabad—as a researcher and a research leader, where he finally rose to the position of Chief Scientist & Director General. Subsequently, he served as Member (Bio-Sciences), *Pakistan Atomic Energy Commission (PAEC)*.

Dr. Rashid’s problem-solving soil fertility and plant nutrition research, focusing predominantly on micronutrients and fertilizer use efficiency, identified and established deficiency of Boron, Zinc and Iron in many crops, and developed cost-effective fertilizer use technologies to manage the nutrient disorders. His farmer-friendly technologies, recommended by the agriculture departments and adapted by the farmers, are: (i) Boron fertilizer use in rice; (ii) Boron and Zinc fertilizer use in cotton; (iii) Zinc-enriched rice nursery; and (iv) 50% phosphate fertilizer saving band placement in wheat. Also, he has added substantially to the world literature on plant analysis interpretation criteria. His micronutrient research is recognized globally.

Dr. Rashid has authored/co-authored 280+ publications, including journal articles and reviews, encyclopedia & book chapters, the only textbook of *Soil Science* in Pakistan, and a *Soil-Plant Analysis Lab Manual* (in *English, Russian & Arabic*). He is Editorial Board Member of *European Journal of Agronomy* (Elsevier) and *Communications in Soil Science & Plant Analysis* (Taylor & Francis).

Dr. Rashid is a Past-President of *Soil Science Society of Pakistan*. He was invited as a Visiting Scientist to CSIRO Land & Water, Adelaide, Australia – as a *Crawford Fund Fellow* and to International Center for Research in the Dry Areas (ICARDA), Syria. Dr. Rashid has been invited to many major international conferences on crop nutrition and fertilizers, and has travelled widely. Also, he has organized many conferences and trainings.

Dr. Rashid’s innovative and problem solving research and effective writings have brought him many prestigious honors and recognitions, like *IFA (International Fertilizer Industry Association, Paris) Norman Borlaug Award, East West Center Distinguished Alumni Award, Government of Pakistan’s Dr. Norman Borlaug Award, PARC Silver Jubilee Award, and Fellowships of Indian Society of Society of Soil Science and Soil Science Society of Pakistan*.

Currently, Dr. Abdul Rashid is Editor-in-Chief at the *Pakistan Academy of Sciences*.