DR. NAVEEDA RIAZ:

Dr. Naveeda Riaz had done her Ph.D in 2001 from Center of Excellence in Molecular Biology, Lahore where she worked with Plant Transformation Group. She transformed Basmati Rice with two genes from a soil Bacterium called *Bacillus thrureingensis* for development of insect resistant. These transgenic lines were subjected to successful field trials. She joined the National Institute on Deafness and Other Communication Disorders (NIDCD) at the National Institutes of Health, in the same year for her Post Doc. studies. She worked for the five years on Human Genetics especially on Genetics of Stuttering and taste. She identified a major locus at chromosome 12q using Linkage and Association approach that has the gene causing Stuttering. Her Ph.D and Post Doc. Work has been published in International Journals. She joined International Islamic University in 2007 where she worked on Bioinformatics in collaboration with other institutes and Universities. Her area of Interest includes Genetic Engineering and Human Genetics.

PUBLICATIONS:

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DR. ASMA GUL:

Dr. Asma Gul is assistant professor of Biotechnology and Bioinformatics. She has done her PhD from Quaid-I-Azam University, Islamabad. On the basis of her excellent academic background and research work, she got indigenous PhD fellowship from HEC. Her Research expertise includes Human Molecular Genetics, Molecular Microbiology and Molecular Immunology. She is an HEC approved supervisor and her research has been published in International journals with good impact factor. She is going to the University of Cambridge, UK for Post doctorate research. Her Post doc is funded by

HEC. Recently she has been selected as one of the members of Board of Advance Studies in Quaid-I-Azam University, Islamabad.

PUBLICATIONS:

- **Gul A**, Hassan MJ, Mahmood S, Chen W, Rahmani S, Naseer MI, Dellefave L, Muhammad N, Rafiq MA, Ansar M, Chishti MS, Ali G, Siddique T and Ahmad W. Genetic studies of autosomal recessive primary microcephaly in 33 Pakistani families: novel sequence variants in *ASPM* gene. Neurogenetics. 2006; 7(2): 105-10.

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Dr. NYLA JABEEN is Assistant Professor of Biotechnology. She carried out her Ph.D research work at Quaid-i-Azam University in collaboration with Agriculture Biotechnology Institute, National Agricultural Research Council, Islamabad. Her research expertise includes molecular biology, gene transformation, crop diseases and Plant tissue culture. She has successfully established a protocol for *in vitro* propagation and *Agrobacterium* mediated gene transformation of tomato. She developed tomato transgenic lines resistant to many fungal pathogens. She has published her research in National and International journals. She worked for the promotion of Biological Sciences in Pakistan at Higher Education Commission, Islamabad. During her stay at HEC she has been involved in programs related to the university teacher's training, curriculum development, distant learning and researcher industry liaison. She has organized and participated in several National and International workshops/ conferences on teaching methodologies, advanced molecular techniques and researcher industry liaison for details please visit http://ncgls.hec.gov.pk, http://pakistantimes.net/2005/03/05/oped3.htm. She is HEC approved PhD supervisor. She is working on *in vitro* propagation and development of resistance against biotic and abiotic stresses in crops.

PUBLICATIONS:

- Nyla Jabeen, Bushra Mirza, Zubeda Chaudhary, Hamid Rashid and Muhammad Gulfraz. (2009). Study of the factors affecting *Agrobacterium* mediated gene transformation in tomato. Pakistan Journal of Botany. 41: 2605-2614.

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- **N.Jabeen** and B.Mrza (2002). Ethyl Methane Sulfonate enhances genetic variability in *Capsicum annuum*. Asian Journal of Plant Sciences 4(1): 425-428, 2002.

DR. SHAHEEN SHEHZAD:

Dr. Shaheen Shahzad is working as Assistant Professor in the department of Biotechnology and Bioinformatics, at International Islamic University Islamabad, Pakistan. Her Research expertise includes Molecular Biology, Biotechnology and Molecular and Population Genetics. She has done Ph.D. from Quaid-I-Azam University, Islamabad and has good experience of different Biotechnological Techniques like PCR, Linkage Analysis, Sequencing, Gene Mapping, Gel Electrophoresis, etc. Her work is published in reputed International journals. Her Master and M.Phil. was also from the Quaid-i-Azam University and she got distinction and bestowed with the Gold Medal in M.Sc. Her name has been included in the list of HEC approved supervisors.

PUBLICATIONS:

- Afzal, M., **Sikandar, S**., Shah, M. and Ibrar, M., 2001 "Ecological Zones of Pakistan". Natural History Research in Pakistan. pp 123-146.

- **Sikandar, S**. 2001. "Epidemiology, Family studies and Inheritance of Schizophrenia". Thesis published for M.Phil. degree at Quaid-e-Azam University.

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DR. SOBIA TABASSUM:

Dr. Sobia Tabassum is Assistant Professor of Bioinformatics & Biotechnology. She had carried out her Ph.D research work at Washington State University, USA which kindled her interest for biotechnology. Her research expertise includes molecular biology, gene manipulation / genetic engineering and pharmaceutical Chemistry. She has published in National and International impact factored journals. She has authored one scientific book which has been published in various countries including UK and USA. She has made excellent progress with her research and gained invaluable experience in molecular analyses where she had identified 21 resistance gene analog polymorphism markers which would be helpful in DNA fingerprinting techniques for rust resistance. She was awarded Gold Medal in M.Sc. and won various other awards including foreign scholarship from HEC. Besides, she has been selected as HEC approved supervisor and international thesis evaluator as well. Currently she is focusing on using efficient technologies that combine pharmaceutical agents and biotechnology.

SCIENTIFIC BOOK

Sobia Tabassum. (2010). Fingerprinting of Pakistan stripe rust resistant germplasms using molecular markers. Printed in USA & UK. ISBN 978-3-8383-3581-0.

PUBLICATIONS:

- **Sobia Tabassum**. (2011). Molecular evaluation of slow yellow rusting. JAS. Canadian Center of Science and Education. Vol 3, No1, pp 239-249.

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- **S. Tabassum**, M. Ashraf, and A. Majeed. 2006. Biochemical analysis of *Saussurea heteromalla (medicinal source)*, Jour. Chem.Soc. Vol. 28, No.5.

DR. SUMBUL KHALID:

Dr. Sumbul Khalid, Phd in Biochemistry, currently acting as Assistant Professor in the department. PhD Thesis title is "Cloning of somatotropin from indigenous buffalo breeds, over-expression, purification and characterization". Areas of interests are Biotechnology, Endocrinology, Molecular Biology, Biochemistry. During PhD won the HEC indigenous PhD scholarship and the PhD research has been selected and published by a German publishing group as a book, titled "Growth Hormone of Pakistani Buffalo".

PUBLICATIONS:

- **Khalid, S**., S.F. Mahmood., I. S Mirza., Q. Bashir., A. Fatima., S. Z. Saba, Z. Mustansar and A. Khanum. Cloning, Expression and Modeling Studies of Somatotropin cDNA of Local Buffalo Breed Nili- Ravi. Journal of the Chemical Society of Pakistan, Volume 30 No. 5: p. 712 – 726, August 2008.

Dr. Sumaira Farrakh

Dr. Sumaira Farrakh joined the department on 23th August 2010. She did her Ph.d from Quaid-e-Azam university in 2009 in cell biology and cytogenetic. She worked as Visiting Scientist for one and half year in Molecular biology Department of Wageningen university and Research center , The Netherlands. She worked for four years as Research

fellow in National Agricultural Research Center Islamabad. Her areas of interest are recombinant DNA (cloning, PCR, restriction mapping, GATEWAY technology); transformation of plants (A. tumefaciens), in vitro tissue culture , protein-GFP fusions Tissue embedding and Microtome, Wheat Wide Crosses / Pre-breeding.

PUBLICATIONS:

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S. Rizwan , I. Ahmad , M. Ashraf , S. Aziz , T. Yasmine , A.Sattar. 2005. Advance Effect of Pesticides on Reproduction Hormones of Women Cotton Pickers. Pakistan Journal of Biological Sciences. 8: 1588-1591

Dr. Bushra Uzair Zafar

Dr. Bushra Uzair Zafar is assistant professor in the department of Bioinformatics & biotechnology, International Islamic University Islamabad. Dr. Bushra has done Ph.D from Centre for Molecular Genetics, University of Karachi. The topic of her Ph.D thesis was 'Genetic diversity of marine bacteria" her thesis is a novel piece of work a combination of microbiology and biotechnology. During her Ph.D she was awarded merit scholarship by Higher Education Commission of Pakistan. She has learned and used the latest techniques of not only microbiology, biotechnology but also of analytical chemistry. She also got chance of spending six months at the University of Birmingham UK and University of Dundee, Scotland on two collaborative projects funded by DFID, U.K. During her Ph.D project she has isolated and studied the genetic characters of marine bacteria from Arabian Sea. She has discovered few novel characters as production of antibacterial compounds, Solubilization of phosphates and liberation of free phosphate etc. One antibiotic isolated and purified showed activity against MRSA (multiple drug resistant staphylococcus aureus) is being patented in U.S.A. she has also shown that couple of bacteria which were solubilizing phosphate were also promoting plant growth. Further during her visit at Birmingham University she had been involved in development of a model system for biologically mediated removal of heavy metals from aqueous solution. Most of her work has been published in national and international journals having impact factor. After completing her Ph.D she has joined as a Post doctorate fellow for a research project on "Screening of marine bacteria for the production of novel compounds"

PUBLICATIONS

Patent

Inventor(s): Ahmed N, Uzair B, Ahmad V U, Kousar F. New 7-(3-furyl)-3, 7-dimethyl-7, 8-dihydro-1-naphthalenol (bushrin) useful to treat warm-blooded animal affected by bacterial infections, in the preparation of antimicrobial compositions and as antiseptics or disinfectants. Patent Number(s): US2008090900-A1

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MS. MEHROSH KHALID:

Mehrosh has been a faculty member in the Department of Bioinformatics & Biotechnology since 2007. With my more than 2 years of progressively responsible experience, she offers a distinguished career earmarked by accomplishments in leading and directing information-technology operations across broad disciplines, including software development, software quality assurance, and project management and bear two international publications. Her research interests lay in the field of computer software engineering and database technologies in conjunction with the bioinformatics software development.

PUBLICATIONS:

- *Syed Nasir Mehmood Shah, Mehrosh Khalid, Saqiba Safdar, Dr. Muhammad Younus Javed, "CMMI Issues at Initial Levels in Pakistani IT Industry", CWRC08, 3 Nov 2008, Wah, Pakistan.*
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MS. ATIYA MAHMOOD AHMED:

Atiya Mahmood Ahmed is working as Research / Teaching associate in Department of Bioinformatics and Biotechnology since December 2009. Her area of research includes computational identification and characterization of unknown proteins and finding their structural and functional determinants. Current research is on computational prediction of micro RNA targets in different viruses. Her MS Bioinformatics is in progress in IIUI with 1st position in course work