

Muhammad IRSHAD

DEPARTMENT OF BOTANY, ABDUL WALI KHAN UNIVERSITY, MARDAN, KP, PAKISTAN
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MUHAMMAD IRSHAD

PROFESSIONAL EXPERIENCE

Current: Assistant Professor, Department of Botany, Abdul Wali Khan University, Mardan, Pakistan.

2008-2009: Lecturer in Botany, Government Post Graduate College, Mardan, Pakistan

2005-2008: Doctoral research: “Dynamics of cell wall proteins during cell elongation in etiolated hypocotyls of *Arabidopsis thaliana* as shown by proteomic and transcriptomic surveys”, at Laboratory “UMR 5546 CNRS-UPS” Team "Cell wall proteins and Development), Castanet-Tolosan, France.

2004-2005: Internship of Master by Research “Cell wall proteins involved in cellular elongation: comparative proteomics on 5 and 11 day-old etiolated hypocotyls of *Arabidopsis thaliana*”, at Laboratory “UMR 5546 CNRS-U.P.S.”, Team "Cell wall proteins and development), Castanet Tolosan, France.

2002-2004: Lecturer in Botany, Government College, Khairabad, Mardan, Pakistan.

2000-2002: Teaching as CT Teacher at Government Middle School Musafar Khan Killi, Mardan, Pakistan

1996-1997: Internship of Master in Botany “Biochemical Ecology of *Lepidium penatifidum*” at Department of Botany, Islamia College, University of Peshawar, Pakistan

1999: Internship of Bachelor of Education (B.Ed), as Trained Graduate Teacher at Peshawar College of Science, Peshawar, Pakistan

PUBLICATIONS

Irshad* M., Feiz* L., Pont-Lezica R. F., Canut H., Jamet E. (2006) Evaluation of cell wall preparations for proteomics: a new procedure for purifying cell walls from *Arabidopsis* hypocotyls, *Plant Methods* 2:10.

* First co-authors

(<http://www.plantmethods.com/content/pdf/1746-4811-2-10.pdf>)

Jamet E., Albenne C., Boudart G., **Irshad M.**, Canut H., Pont-Lezica R. (2008) Recent advances in plant cell wall proteomics, *Proteomics* 8: 893–908.

(<http://www3.interscience.wiley.com/journal/117891625/abstract?CRETRY=1&SRETRY=0>)

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Irshad M., Canut H., Borderies G., Pont-Lezica R., Jamet E. (2008) A new picture of cell wall protein dynamics in elongating cells of *Arabidopsis thaliana*: Confirmed actors and newcomers, *BMC Plant Biology* 8:94. (<http://www.biomedcentral.com/content/pdf/1471-2229-8-94.pdf>)

Jamet E., Roujol D., San-Clemente H., **Irshad M.**, Soubigou-Taconnat L., Renou J.P., Pont-lezica R. (2009) Cell wall biogenesis of *Arabidopsis thaliana* elongating cells: transcriptomics complements proteomics, *BMC Genomics* 10:505. (<http://www.biomedcentral.com/content/pdf/1471-2164-10-505.pdf>)

Tang D.S., Hamayun M., Khan A.L., Jan S., Nawaz Y., **Irshad M.**, Na Y.E., Lee I.J. (2012) Exposure to red light, temperature and exogenous gibberellins influenced germination of some winter weeds, *African Journal of Biotechnology* 11(2): 273-279. (<http://www.academicjournals.org/AJB/PDF/pdf2012/5Jan/Tang%20et%20al.pdf>)

ACADEMIC RECORD

PhD (Plant Development)

2005-2008

Université de Toulouse, Université Paul Sabatier-Toulouse III, France.

MS (Mastère 2 Recherche: M2R) (Functional analysis of Genome: Molecular Biology of Plants and associated Microorganisms)

2004-2005

Institut National Polytechnique de Toulouse, France.

Master of Botany (M.Sc. Botany)

1995-1997

Islamia College, University of Peshawar, Pakistan

Master of (Science) Education (M.Ed)

2009-2010

Allama Iqbal Open University, Islamabad, Pakistan

Bachelor of Education (B.Ed)

1998-1999

Institute of Education and Research, University of Peshawar, Pakistan

RESEARCH SUPERVISED

Allelopathic potential of *Coronopus didymus* (L.) Smith as revealed by the bioassay tests against *Triticum aestivum* L. cv. 'Sahar 2006'. MSc Thesis (2011) by Shabana Didar.

THESIS EVALUATED

Allelopathic potential of aqueous extracts biomass of *Melia azedarach* L. on *Triticum aestivum* L. cv. 'Sahar 2006'. MSc Thesis (2010) by Haseena Imdad, at Islamia College, Peshawar (*Chartered University*)

PARTICIPATION IN NATIONAL CONFERENCES

- *7^{me} Colloque National de la Société Française de Biologie Végétale* (7th National Symposium of French society of Plant Biology), 12-14 September 2007, Versailles, FRANCE (poster presentation)
- *Journées du Réseau Français des Parois* (Days of French Cell Wall Society, 26-28 mars 2008, Boussens, France (poster presentation)

ADVANCED COURSES ATTENDED

- *Analyse informatique des séquences* (Bioinformatic analysis of nucleic acids and protein sequences)
- *L'analyse protéomique* (Proteomic analysis)
- *Lecture rapide et efficace* (Fast and efficient reading)
- Workshop on microscopy (optical, confocal and FLIM-FRET)
- Confinement of genetically modified organisms
- Manipulation of extincteurs
- *Rencontre Toulousaine autour des protéines recombinantes* (Meeting around recombinant proteins)

RESEARCH INTERESTS

- Genetics, Molecular and Cell Biology specially Cell Wall Transcriptomic and Proteomic Analysis, Plant Physiology, Allelopathy, Plant Pathology

SKILLS & TECHNICAL KNOWLEDGE

- ***In vitro* culture techniques:** Plants and cells culture techniques
- **Molecular Biology:** PCR, cloning, gateway technology
- **Biochemistry:** Nucleic acids and protein extraction, liquid chromatography, electrophoresis, immunodetection
- **Bioinformatic analysis:** Analysis of MALDI-TOF Spectrometry data, analysis of nucleic acids and proteins sequences
- **Microscopy:** optical, confocal

MEMBERSHIP OF RESEARCH/SCIENTIFIC SOCIETIES

- *La Société Française de Biologie Végétale* (The French Society of Plant Biology) 2007-2008

MEMBERSHIP OF ACADEMIC AND STATUTIARY BODIES

- Board of Faculty of Life Sciences, Islamia College, Peshawar (*Chartered University*)
- The Academic Council, AWKUM
- The Advanced Studies and Research Board , AWKUM
- Board of Faculty of Science, AWKUM
- Review Committee for the Semester Rules, AWKUM
- Self Assessment Program Team member, Department of Botany, AWKUM.
- Member of Graduate Studies Committee, Research and Development Committee, Curriculum Development and Improvement Committee, Board of Studies and Admission Committee of the Department of Botany, AWKUM.

LANGUAGES

- English
- French
- Urdu
- Pashto

OTHER INTERESTS & INFORMATION

- **Hobbies:** Reading, Cricket, Music
- **Date of Birth:** December 27, 1973
- **Place of Birth and Domicile:** Mardan, Pakistan
- **Status:** Married, having two children

REFERENCES

- **Dr. Elisabeth JAMET*** (Directeur de recherche CNRS, France)
- **Dr. Hervé CANUT*** (Researcher CNRS, France)
- **Dr. Cécile ALBENNE*** (Assistant Professor UPS Toulouse III, France)

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Pôle de Biotechnologies Végétales
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31326 CASTANET-TOLOSAN, FRANCE.