

# CURRICULUM VITAE

Abida Shehzadi D/o Khalil Ahmad

**Research Officer/Lecturer:** Centre of Excellence in Molecular Biology, University of the Punjab, Lahore.

**Home:** St. # 24 Muhallah Hassan Park behind Shezan Factory near Darbar Moharah Sharif Bund Road Lahore, Pakistan.

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**Mobile:** 0333 4591456

**Email:** abida@cemb.edu.pk

## EDUCATION:

- **MPhil Zoology (Immunoinformatics)** from GC University Lahore Pakistan, 2010
  - **MPhil Final Research Project**
  - *In Silico* Study of Promiscuous MHC I and MHC II Biding Epitopes of H1N1 Viral Proteome of Asian Origin, their Visualization and Phylogenetic Analysis
  - **Subjects Studied in MPhil**
    - Advanced Molecular Biology, Immunology, Advanced Physiology, Advanced Laboratory Techniques in Zoology, Regulation of Body Functions, Biodiversity and Phylogenetic Relationship, Advanced Environmental Science, Limnology,
- **MSc Zoology** from GC University Lahore Pakistan (2007)
  - **MSc Final Research Project**
    - Elimination of excessive iron by *Terminalia chebula* in the Iron overloaded rabbits.

## PUBLICATIONS:

- Javed F, etal. 2018. "Male individualization using 12 rapidly mutating Y-STRs in Araein ethnic group and shared paternal lineage of Pakistani population". International Journal of Legal Medicine (2018) 132:1621–1624.
- **Shehzadi A**, etal. 2012. "RDNAlyzer: A tool for DNA secondary structure prediction and sequence analysis" Bioinformation 8 (14). (<http://www.bioinformation.net/008/97320630008687.htm>)
- **Shehzadi A**, etal. 2012. Selection of epitope-based vaccine targets of HCV genotype 1 of Asian origin- a comparative in silico approach (Accepted in Bioinformation).
- **Shehzadi A**, etal. 2011. "Promiscuous prediction and conservancy analysis of CTL binding epitopes of HCV3a viral proteome from Punjab Pakistan: an in silico approach". J of Virology, 2011, **8**: 55. <http://www.virologyj.com/content/8/1/55/abstract>
- **Shehzadi A**, Masood K.2010. "*In silico* study of human gap junction beta-2 protein by homology modeling" J Genomics & Informatics **8** (2):70-75, June 2010.
- **Shehzadi A**, etal. 2010. "*In silico* study of Promiscuous MHC I & MHC II binding Peptides of HCV glycoprotein". Proceedings of Bioinformatics Opening New Forentiers In Molecular Biology Research. P: 24-50, 15 May 2010.
- **Shehzadi A** and Azizullah .2009. Elimination of excessive iron by *Terminalia chebula* in the iron overloaded rabbits. BIOLOGIA (PAKISTAN), 55 (1 & 2), 13-19 PK ISSN 0006-3096.

- **Shehzadi A and Shakoori, F 2012.** “Promiscuous prediction of HLA binding antigenic nanomers of influenza A virus H1N1 surface glycoproteins of Asian origin and phylogenetic analysis (VIRMET-D-11-00505, submitted to Journal of Virological Methods).

#### **Abstract:**

- **Shehzadi A et al.** 2011. Analysis of gp41 antigenic epitopes of HIV 1a: an *in silico* approach. Bifx Africa-India, Joint Virtual Conference 10-11 2011, Organized by Bioinformatics Organization. <http://mat.edu.bioinformatics.org/BIFX11/Bifx11-Booklet.pdf>
- **Shehzadi A and Shakoori R F.** *In Silico* Study of Promiscuous MHC I and MHC II Biding Epitopes of H1N1 Viral Proteome of Asian Origin, their Visualization and Phylogenetic Analysis” published in proceedings of 31<sup>st</sup> Zoological Society of Pakistan (International) held in University of Azad Jamu & Kashmir **Muzafabad** 19-21 April 2011.

#### **JOB EXPERIENCE:**

Working as Research Officer/Lecturer in Centre of Excellence in Molecular Biology, University of the Punjab Lahore. I have Forensic and Bioinformatics Skills.

Important Bioinformatics Skills include

- Molecular Visualization Software: RasMol, Cn3d, SwissPDB Viewer, Pymol, PMV, Chimera.
- Protein Modeling: LOMETS, MUSTER, WHATIF, SwissModel, I-TASSER, SOPMA
- Sequence searching and alignment tools: BLAST, FASTA, CLUSTALW, T-Coffee and MUSCLE, EMBOSS, Dotlet,
- Epitope prediction: ProPred , ProPred 1, BIMAS, SYFPEITHI, CTLPred, PEPVAC, netMHCpan
- Protein 3D Validation Tools: NIH MBI
- Phylogenetic analysis tools - ClustaW, Clustal X, PHYLIP, MEGA5 and Phylogeny.fr.
- Online databases and tools NCBI-Entrez, GenBank, EMBL databases, EMBL SRS, JemBOSS, ExpASy PIR Tools.
- Molecular Docking: Auto Dock, Z dock, Hex

The following wet lab techniques can also be handled with ease i.e. cloning, Polymerase Chain Reaction (PCR), Western Blotting, Southern Blotting etc.

#### **COMPUTER SKILLS:**

**Operating systems:** Windows.

**Scripting Languages:** Perl

**Web Technologies:** HTML

**Tools:** SPSS, MS-Office - Word, Excel and Power Point, Corel, Adobe Photoshop, Flash Player, In page, EndNote.

#### **TEACHING SKILLS:**

Master of Education (Med) and Bachelor of Education (BEd), from Allama Iqbal Open University Lahore.

#### **TEACHING EXPERIENCE:**

Delivered lectures and conducted Bioinformatics labs to Post Graduate students in National Center of Excellence in Molecular biology.

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|-------------------------------|-------------------------|
| ○ Biological Databases        | ○ Phylogenetic Analysis |
| ○ Pairwise alignment          | ○ Protein Modeling      |
| ○ Multiple sequence alignment | ○ Epitope Prediction    |

- Vaccine designing

## PRESENTATION:

- Presented a paper titled “*In Silico* Study of Promiscuous MHC I and MHC II Biding Epitopes of H1N1 Viral Proteome of Asian Origin, their Visualization and Phylogenetic Analysis” published in proceedings of **31<sup>st</sup> Zoological Congress of Zoology** (International) held in University of Azad Jamu & Kashmir Muzafrabad 19-21 April 2011.
- Presented a poster titled “Promiscuous Prediction of Antigenic Epitopes of HCV Viral proteome of Pakistani origin: an Immunoinformatics Approach” at **1<sup>st</sup> Annual HCV Management Symposium, NUST** Centre of Virology and Immunology, 11 Feb 2011.
- *Presented a paper titled “In silico study of promiscuous MHC I and MHC II binding epitopes of HCV 3a viral proteome from Punjab Pakistan and their conservancy analysis”* published in Proceedings of **4<sup>th</sup> AYRCOB Matrix Biopolis Singapore**, p 77, 1 Dec 2010.
- Presentation on “*In silico* study of promiscuous MHC-I & MHC-II binding peptides of HCV glycoprotein” at **International Symposium 2009** (Future trends in Molecular Biological Research & It’s Applications in Agriculture and Health) **CEMB Lahore**.
- Presented paper titled “*In silico* study of human gap junction beta-2 protein by homology modeling”, in **Annual Presentations** of Bioinformatics wing CEMB.
- Presented a pape titled “A comparative *In silico* study of Promiscuous MHC I binding Peptides of HCV glycoprotein” at University of Veterinary & Animal Science, Lahore-Pakistan, published in Proceedings of **Bioinformatics Opening New Forentiers In Molecular Biology Research**. P: 132-136, 15 May 2010.

## PARTICIPATION:

- Participated in one international conference “**Recent Innovations in Molecular Sciences**” organized by University of the Punjab, Lahore, Pakistan from 6-8, 2019.
- Participated in one day **Web of Science Conference** organized by CEMB, University of the Punjab Lahore, at 11 March 2019.
- Participated in 3<sup>rd</sup> International Symposium on “**Advances in Molecular Biology of Plants and Health Sciences**” 19-21 December 2018 at National Centre of Excellence in Molecular Biology, Lahore, Pakistan.
- Participated and won best poster Award in “**7<sup>th</sup> Invention to Innovation Summit 7-8 March 2018**” organized by ORIC, University of the Punjab Lahore.
- Participated in 2<sup>nd</sup> international Symposium on “**Advances in Molecular Biology of Plants and Health Sciences**” held 21-23 Nov 2017, organized by CEMB, PU Lahore.
- Participated in “**6<sup>th</sup> Invention to Innovation Summit 7-8 March 2017**” held in University of the Punjab Lahore.
- Participated in one day National workshop “**Publishing Your Research**” held on 2<sup>nd</sup> April 2011 in Beacon House National University, Lahore, Pakistan.
- Participated in Symposium on “**1<sup>st</sup> annual HCV Management Symposium 2011 at NUST** Centre of Virology and Immunology” organized by NCVI and HEC 10-11 Feb 2011.
- Participated in workshop on “**The Conduct of Responsible Science**” organized by Forman Christan College in collaboration with International council for Life Sciences (ICLS) and COMSTAC from 31 Jan-01 Feb 2011.
- Participated in workshop on “**Citation and Referencing in Research**” hands on training using EndNote Software held organized by IRP and University of Lahore on 27<sup>th</sup> January 2011.

- Participated in training “**Research Methodologies using Statistical Techniques in Biological Sciences**” Organized by Department of Statistical & Computer Science, Faculty of life Sciences & Business management, university of Veterinary and Animal Sciences, Lahore, 2010.
- Participated in workshop on **CEMB Vision 2015 & Celebration IDB 2008 Award** of Excellence in Science and Technology Centre for Molecular biology, University of the Punjab, August 16, 2008. (Islamic development bank).
- Participated in International Symposium **Future trends in Molecular Biological Research & It’s Applications in Agriculture and Health** at CEMB University of Punjab Pakistan March 2009.
- Participated in workshop on “**Ethical Issues related to work on Stem Cells**” 2009 CEMB University of Punjab Pakistan.
- Participated in **3<sup>rd</sup> Virtual Training Workshop on Bioinformatics** by Asian Bioinformatics Research and Education Network (ABREN).
- Participated **DGV webinar** hosted by the Ontario Genomics Institute (OGI) & The Centre for Applied Genomics (TCAG) 2009. <http://projects.tcag.ca/variation/>
- Participated in **International Training Course on Microarray technology for Gene Discovery and Expression** 2009.

### Membership:

- **Editor of Biological Sciences** of National Academy of Young Scientists (**NAYS**) (<http://www.nays.com.pk/e-newsletter.htm>)
- **Supervisor Virtual Internship Program** titled “An Insilico Study of HLA binding peptides of gp120 HIV-1, subtype C” of **ISCB-RSG-Pakistan** (<http://www.iscb.org/>).

### AWARD AND ACHIEVEMENTS:

- **Best Poster Presentation Award 2018**  
Best poster presentation Award in “**7<sup>th</sup> Invention to Innovation Summit 7-8 March 2018**” organized by ORIC, University of the Punjab Lahore
- **Award of APBioNet Travel Fellowship 2010**  
Award of APBioNet Travel Fellowship for oral presentation “*In silico* study of promiscuous MHC I and MHC II binding epitopes of HCV 3a viral proteome from Punjab Pakistan and their conservancy analysis” at 4<sup>th</sup> AYRCOB Singapore Dec 2010.
- **Award of Winning Debate Team at 4<sup>th</sup> AYRCOB Singapore 2010**  
Scientific Award of winning debate team at 4<sup>th</sup> AYRCOB, Singapore 3 Dec 2010.
- **Invited presenter at 1<sup>st</sup> CBAS-SYMBio Conference 2010**  
“*In silico* study of promiscuous MHC I and MHC II binding epitopes of HCV 3a viral proteome from Punjab Pakistan and their conservancy analysis” published in proceedings of at 1<sup>th</sup> CBAS-SYMBio Conference 2 Dec 2010.
- **Poster Presentation at 4<sup>th</sup> AYRCOB Singapore 2010**  
Presented a poster titled “*In silico* study of promiscuous MHC I and MHC II binding epitopes of HCV 3a viral proteome from Punjab Pakistan and their conservancy analysis” at 4<sup>th</sup> AYRCOB Singapore 1 Dec 2010.
- **Certificate of Attendance 4<sup>th</sup> AYRCOB Singapore 2010**  
Actively participated for Oral presentation, poster presentation and debate team at 4<sup>th</sup> AYRCOB and CBAS-SYMBio Conference Singapore.
- **National Internship Programmed 2010**

Participated as internee and get training in different sections of Department of Fisheries, Lahore Pakistan.

- **ABREN Bioinformatics Workshop 2009**  
Participated 3<sup>rd</sup> virtual Training Workshop by Asian Bioinformatics Research & Education Network. Online Workshop (ABREN) by Asian Countries, [www.abren.net/](http://www.abren.net/).
- **HEC Scholarship Award (2007)**  
HEC Scholarship Award for Unemployed Graduates as Lecturer titled "Support to scientific talent" at Govt. College University Lahore (2007).
- **Poster Competition 2004**  
Participated in Innovative Poster competition of Zoology in  
Samanabad College for Women Lahore  
**Position** = Runner up
- **Quiz Competition 2004**  
Participated in Quiz Competition for Science in  
Samanabad College for Women Lahore  
**Position** = 1<sup>st</sup>
- **Science Exhibition Competition 2003**  
Participated in Innovative Models Science Exhibition (Zoology) in  
Samanabad College for Women Lahore  
**Position** = 2<sup>st</sup> position

## LANGUAGES

- English (Good in communication)
- Urdu (Used as our national language)
- Punjabi (My mother language)

## COUNTRIES VISITED

- Singapore
- Kingdom of Saudi Arabia

**Abida Shehzadi**