## **NADIA ASHRAF**

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<u>Skilled in</u>: Fluid high Pressure Chromatography ◆Bio-Chemistry Laboratory Equipment ◆Dissection ◆Computer-based analytical software ◆Clustal X , Clustal W , ApE , BLAST, ExPASy- SIB Bioinformatics Resource Portal ◆Enzyme Inhibition Assay Protocol Optimization ◆ High Throughput Screening Protocol Development ◆Cytotoxicity analysis against normal cell lines 3T3-NIH and Anti-cancer activity against U87MG (BSC Handling) ◆SDS-PAGE ◆Cloning ◆Expression in prokaryotes and eukaryotes(Insect Cells sf21) ◆ Purification using FPLC and structural characterization of Proteins by AUC ◆ Lab Organization and Maintenance ◆ ISO 9001 ◆ Microsoft Office

### **PROFILE SUMMARY**

- → Demonstrated ability to develop a research program and strong plans for impactful service with excellence in undergraduate education, research potential, and commitment to quality service.
- Adept at handling experiment samples, chemicals and other physical agents according to safety standards. Analyzes and resolves research problems in a timely and accurate manner.
- → Highly collaborative coupled with the ability to work within a diverse team. Actively involved in experimental aspects of innovation, product development, and validation. Well-versed with Clustal X, Clustal W, ApE, BLAST, ExPASy- SIB Bioinformatics Resource Portal.
- → Sound knowledge of and ability to apply the standard scientific methodology of the lab in performing research and experimental procedures along with maintaining deftness in regulatory, safety, and administrative requirements according to compliance.
- → Strong communication and presentation skills with a passion for problem solving and outside-the-box thinking and a willingness to be flexible and adaptable in a complex, matrix environment.

#### **CAREER CONTOUR**

# October '09 − Aug '10 with European Molecular Biology Labs, EMBL, Grenoble, France Designation ► RESEARCH SCHOLAR, Trainee

### **Key Responsibilities**

- → Evaluated existing research techniques and recommended improvements to ensure quality and productivity. Provided scientific and technical expertise for conducting research experiments.
- → Involved in Pre-Initiation Complex (Single chain) construction of DNA for expression of mega Proteins and their Complex (scTA-TBP-scTB) targeting diseases using cloning method and at expression level. Prepared complete documentations of research activities for reference purposes.
- Performed laboratory activities and operated laboratory equipment effectively and safely. Handled experiment samples, chemicals and other physical agents according to safety standards. Scheduled regular maintenance of laboratory equipment
- → Analyzed, interpreted and documented research findings for management review. Presented research results in meetings, conferences, and seminars.
- → Assisted the Principal Investigator (PI) in designing and conducting experimental investigations using a variety of cell-based (Prokaryotic and Eukaryotic expression systems), and molecular experimental systems (Enzyme Inhibition). Assisted in the training and support of students and fellows in the laboratory.
- → Prepared and maintained stock reagents; manage the purchasing of all orders for chemicals, supplies, equipment related to Molecular biology and Enzyme Inhibition experiments.
- → Learnt and mastered new experimental techniques as needed to attain research goals; generated and modified experimental laboratory protocols and maintained a protocol database and detailed laboratory notebook; and other duties as assigned.

### **Projects Handled:**

# Client: Sindh Government, Interior Sindh, Ghotki, Jacobabad &border area of Baluchistan & Punjab (Sadiqabad) Role: Team Lead & Sr. Scholar

- Project aimed at focusing on Women related diseases Project, Skin Disease Project, and extracting information from natives regarding health issues using folk medicines.

### **CONFERENCES/ SYMPOSIUMS ATTENDED**

- 2009 2<sup>nd</sup> International Symposium-Cum-Training Course on Molecular Medicine and Drug Research, January 12-15, 2009, Organized by Dr. Panjwani center for Molecular Medicine and Drug Research (International center for chemical and biological sciences) University of Karachi, Karachi-75270.
- 2008 11<sup>th</sup> International Symposium on Natural Product Chemistry, 29<sup>th</sup>October to 1<sup>st</sup> November, 2008, International Center for Chemical and Biological Sciences (H.E.J Research Institute of Chemistry, Dr. Panjwani Center for Molecular Medicine and Drug Research, University of Karachi, Karachi-75270.

- **2007** First IBRO School of Neuroscience-Pakistan, March 26-30, 2007, Karachi. Jointly organized by Dr. Panjwani center for Molecular Medicine and Drug Research (International center for chemical and biological sciences) University of Karachi and The Aga Khan University, Karachi.
- 2007 1<sup>st</sup> International Symposium Workshop-cum-Training Course on Molecular Medicine and Drug Research. January 16-30, 2007, Karachi, Islamabad). Organized by Dr. Panjwani Center for Molecular Medicine and Drug Research, University of Karachi, Pakistan and organization of Islamic Conference Standing Committee on Scientific and Technological Cooperation (COMSTECH), Islamabad, Pakistan.
- 2006 10<sup>th</sup> International Symposium on Natural Product Chemistry, January 6-9, 2006, Organized by the International Center for Chemical Sciences, University of Karachi, Karachi-75270, Pakistan.

### **Poster Presentations**

- ASHRAF, N. and SURIA, A: A study of Neuronal-Glial interaction. 1<sup>st</sup>International Symposium and Workshop-Cum-Training Course on Molecular Medicine and Drug Research University of Karachi, January 16 - 30, 2007.
- ASHRAF N. Chaudhry & M. Iqbal Choudhary: A Study of Inhibitory Potential of Natural and Synthetic Compounds against Angiogenesis in Brain Cancer Cell Lines and the Role of Transcription Factors in Cancer Development. 4<sup>th</sup> International Symposium and Workshop-Cum-Training on Molecular Medicine and Drug Research University of Karachi.

#### **Publications**

Polyunsaturated Fatty acids from Leaves of *Clerodendrum volubile* induces Cell Cycle Arrest, inhibits Matrix Metalloproteinase (MMP)-9 Expression, and modulates Redox Status in Human Breast Cancer Cell lines. (Submitted getting reviewer's comments).

- -Currently doing Thesis correction for Ph. D.
- -Also involved in Field surveys of Internal Sindh Related to under kind Supervision of Prof. Dr. M. Iqbal Choudhary, Sindh Government Project. A) Women Related Diseases and B) Skin Disease Project.

ACADEMIC CREDENTIALS	
Pursuing	Ph.D. in Molecular Medicine from Dr. Panjwani Center for Molecular Medicine and Drug research,
	International Center for Chemical and Biological Sciences, University of Karachi, Karachi-75270.
2005	<b>B-Pharmacy</b> from Islamia University Bahawalpur. <b>Secured 1</b> <sup>st</sup> <b>Division.</b>
2004	B.Sc. from Islamia University Bahawalpur. Secured 1 <sup>st</sup> Division.
2001	F.Sc. from Board of Intermediate & Secondary Education Bahawalpur. Secured 1st Division.
1998	Matriculation from Board of Intermediate & Secondary Education Bahawalpur. Secured 1 <sup>st</sup> Division.

**Earned Scholarship**: French Embassy Sandwich PhD scholarship in 2009, October and got Structural Biology Training for ~ a year at European Molecular Biology Labs, EMBL; Grenoble, France in Dr. Imre Berger's Lab and worked on the following project Singlechain Construction of the basal transcription machinery: scTA-TBP-scTB and its mega protein complex with His tag.

**Received 1<sup>st</sup> prize poster presentation**: ASHRAF N. Rafat Siddique & M. Iqbal Choudhary: A Study of Angiogenesis in Inhibitory Potential of Natural and Synthetic Compounds against Angiogenesis in Brain Cancer Cell Lines and the Role of Transcription Factors in Cancer Development. 4<sup>th</sup>International Symposium and Workshop-Cum-Training on Molecular Medicine and Drug Research University of Karachi, 2012.

**IELTS SCORE: 7.0** 

<u>Technical Skills</u> Protein estimation by Lowry's method, Biogenic amine's determination by HPLC, Superior Cervical Ganglion isolation from Rat Basic Cell Culture Techniques, Enzyme Inhibition Assay protocol optimization, High throughput screening protocol development, SDS-PAGE, Cloning, Expression in prokaryotes and eukaryotes (Insect Cells sf21), Purification using FPLC and structural characterization of Proteins by AUC, Lab Organization and Maintenance following ISO 9001 requirements.

<u>M.Phil. Courses In Molecular Medicine</u>, Biochemistry, Cellular and Molecular Biology, Microbiology and Immunology, Molecular Genetics and Biotechnology, Basic Pharmacology, Techniques in Molecular Medicine I & II, Biostatistics, Mathematics, Basic Computer Learning Course, English.

### Ph.D. Credit Hours In Molecular Medicine

- Completed 18 Credit hours (Transcript can be provided on demand).

### **PERSONAL DOSSIER**

Date of Birth: 17<sup>th</sup> October, 1981 || Linguistic Abilities: English (Fluent), Urdu (Fluent) & French (Basic)

Original Documents will be provided on demand

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