Curriculum vitae

Dr. Israr Ahmad (TTS) (PhD Plant Genetics) Assistant Professor, Department of Botany, Hazara University Mansehra, Pakistan Phone: 03349525692, 03464953066, E-mail: <u>iabotany32@gmail.com</u> driabotany@wuajk.edu.pk



Father Name: Shah Wali Khan

NIC No: 15602-8012262-9 **Passport No:** NU1152662

Personal information:

Date of birth: March 03, 1979 Home address: Village, P.O. & Tehsil Charbagh, Moh; Chinargi District Swat Pakistan Nationality: Pakistani Religion: Islam Marital Status: Married

Academic Qualification:

PhD Genetics: Hazara University Mansehra, Pakistan Session: 2011- 2015

Research Project: Association mapping of root traits for drought tolerance in bread wheat.

Subjects studied in PhD: Cytogenetics, Genetic Engineering and Genomics Experimental Design & Data Analysis, Aerobiology, Biotechnology,

MPhil Botany: Hazara University Mansehra, Pakistan	Session: 2008-2010
Research Project : DNA based reassessment of Mentha species from Pakistan Professional Education: B. Ed University of Peshawar Pakistan	n river Kunhar Catchment Session: 2005-2006
M. Ed University of Azad and Jammu Kashmir (AJK)	Session: 2006-2007

International Visits:

• Invited as oral presenter in "International symposium on Biodiversity and edible wild species (BEWS, 2017)" from 3rd - 5th April, 2017 at Antalya, Turkey. Sponsored by TIKA Ankara

- Participated as a speaker in "International conference on advanced technologies and their applications in Agriculture" from 27th- 29th March, 2017 at Cairo, Egypt. Sponsored by HEC Islamabad
- Training program on Applications of Near-Infrared Technology on Cereal Quality from 25th April- 29th April, 2016 at Ankara, Turkey. Sponsored by TIKA Ankara
- 15th International Cereal and Bread Congress (ICBC 2016) from 18th April- 22nd April, 2016 at Istanbul Turkey. Sponsored by Ministry of Agriculture and Livestock Turkey.
- Invited by North West Institute of Plateau Biology (Xining) China as international expert, from 27th July 2015 to 24th August 2015. Sponsored by Chinese academy of Sciences (CAS)
- 2nd International wheat stripe rust Symposium (28th April- 1st May 2014) Izmir Turkey, Sponsored by Ministry of Agriculture and Livestock Turkey.
- Six months training on "Association mapping for root traits associated with drought tolerance in bread wheat" 15th June 2013-15th December 2013 at Leicester University UK. Sponsored by HEC Pakistan.

Research Projects:

- Research project titled "Morphogenetic elaboration of selected species of Berberidaceae and Lamiaceae collected from Azad Jammu and Kashmir" completed, funded by HEC since 2016.
- Research project titled "Conservation, diversity, medicinal uses and biological activities of some selected Pteridophytes of District Bagh AJK Pakistan" is ongoing funded by HEC since 2017.

Membership of Scientific Bodies:

- □ Member of society for Experimental Biology (SEB) London, UK
- □ Member of wheat Initiative society (INRA) Paris, France
- □ Member of International Association for Cereal Science and Technology (ICC) Vienna, Austria

Laboratory Experience

□ Worked as Research Associate since 2011 to 2014 in Functional Genomic Lab of Genetics Department. Well expert in Association mapping as well as gene pyramiding DNA isolation from medicinal and crop plants. Gel electrophoresis system operation, Marker dilution, Polymerase Chain Reaction (PCR), elution of DNA fragments from gel for sequencing, PCR trouble shooting, DNA finger printing and Protein analysis (SDS-PAGE) etc.

Research Supervisor ship:

- 1. Nabeela. K. DNA bar coding of Punica granatum from District Haveli, Azad Jammu and Kashmir. M.Phil Scholar. Department of Botany, 2021
- 2. Aqsa. A. Estimation of Genetic diversity in viola species of District Bagh Azad Jammu and Kashmir through DNA bar coding. M.Phil Scholar. Department of Botany, 2021

- 3. Anisa. I. taxonomic and phylogeneyic relationship of Pteridophytes collected from District Bagh, Azad Jammu and Kashmir. M.Phil Scholar. Department of Botany, 2021
- 4. Syeda S. N. Taxonomic and Phylogenetic study of Mushrooms from District Haveli, Azad Jammu and Kashmir, Pakistan. M.Phil Scholar. Department of Botany, 2020
- Samana A. Ecological Assessment of plant communities along environmental Gradients of District Haveli, Azad Jammu and Kashmir, Pakistan. M.Phil Scholar. Department of Botany, 2020
- 6. Mevish M. Phytoecological studies and Distribution pattern of plants communities in Dhirkot Bagh Azad Jammu and Kashmir. M.Phil Scholar. Department of Botany, 2020
- 7. Faiza S. Study of the diversity of Mushrooms from District Bagh, Azad Jammu and Kashmir, Pakistan. M.Phil Scholar. Department of Botany, 2020.
- 8. Rehana K. Taxonomic and phylogenetic study of some Lichens from Poonch Division Azad Jammu and Kashmir. M.Phil Scholar. Department of Botany, 2020.
- 9. Ashrit G. Evaluation of spring wheat genotypes for stripe rust using molecular techniques. M.Phil Scholar. Department of Botany, 2019.
- 10. Sana T. Morphophysiological and molecular characterization for drought stress in bread wheat. M.Phil Scholar. Department of Botany, 2019.
- 11. Zara Y. Morphogenetic elaboration of brown rust in bread wheat (*Triticum aestivum*). M.Phil Scholar. Department of Botany, 2019.
- 12. Nazish N. Agromorphological Characterization of selected wheat genotypes for yield in rainfed areas. M.Phil Scholar. Department of Botany, 2019.
- 13. Sahrish S.S. Taxonomic position and medicinal values of some Pteridophytes collected from District Bagh. M.Phil Scholar. Department of Botany, 2019.
- 14. Aakash A. Estimation of root traits associated with yield in bread wheat for rainfed areas. M.Phil Scholar. Department of Botany, 2019.
- 15. Sumayya S. Screening of Leaf Rust in bread Wheat using Morphological and Molecular Tools. M.Phil Scholar. Department of Botany, 2019.
- 16. Khansa B. Characterization of Bread Wheat Genotypes for Stripe Rust using Morphological and Molecular Tools. M.Phil Scholar. Department of Botany, 2019.
- 17. Rubab K. Taxonomic and Phylogenetic study of Mushrooms from District Bagh Azad Jummu & Kashmir, Pakistan. M.Phil Scholar. Department of Botany, 2019.
- 18. Sajida B. Ethnomedicinal survey of plants from Tehsil Palandri District Sudhnoti Azad Jammu & Kashmir. M.Phil Scholar. Department of Botany, 2018.
- 19. Tallat A. Ethnomedicinal survey of local flora from Tehsil Trarkhel District Sudhnoti Azad Jammu & Kashmir. M.Phil Scholar. Department of Botany, 2018.
- 20. Fozia A. Reassessment of Mentha Species collected from AJK using morphological and molecular markers. M.Phil Scholar. Department of Botany, 2018.
- 21. Sajjida Y. Screening of Wheat germplasm for drought stress using morphophysiological tools. M.Phil Scholar. Department of Botany, 2018.
- 22. Nazia K. Morphogenetic elaboration of Berberis species collected from Azad Jammu and Kashmir. M.Phil Scholar. Department of Botany, 2018.
- 23. Majida A. Ethnomedicinal survey of herbaceous Plants of Tehsil Dhirkot District Bagh. M.Phil Scholar. Department of Botany, 2018.

24. Asia A. K. Reassessment of local flora used in traditional therapies collected from tehsil Harighel District Bagh Azad Jammu and Kashmir. M.Phil Scholar. Department of Botany, 2018.

M.Phil Thesis Evaluated:

- 1. Syeda. I. 2021. Expression analysis of transcription factor activity during cold stress in sugarcane. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.
- 2. Adeela. M. 2021. Genetic analysis of Caralluma edulis (edgew.) benth. ex hook. f. from selecterd areas of malakand division. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.
- 3. Kamran Khan. 2021. Molecular screening of F7 population of rice for bacterial blight resistance gene Xa 21. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.
- 4. Nayab, S. 2021. DNA barcoding of Zanthoxylum armatum dc. from Balakot. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.
- 5. Sohail, A. 2020. Molecular Evaluation of Selected Pyrus Genotypes of Battagram. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.
- 6. Madiha, R. 2020. Characterization of disease-complex associated with begomoviruses in leguminous crops from Hazara Division, Pakistan. M. Phil Thesis, Department of Botany, Hazara University, Mansehra.
- 7. Sanila, W. 2018. Population genetic study of Woodfordia fruticosa: A threatened endemic species of Hindukush-Himalayas. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.
- 8. Brekhna, G. 2018. Ethnoecological Profile of Plant diversity of Tehsil Razar, District Swabi, Pakistan. 2018. Centre of Plant Biodiversity University of Peshawar.
- 9. Fawad, H. 2018. Analysis of mtDNA encoded tRNA glutamine in subjects with hypertension in Abbottabad. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.
- 10. Shakir, K. 2018. identification of bacteria causing diseases of rice (Oryza sativa) in District Battagram. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.
- 11. Bilal, A. M. 2018. Study of Mitochondrial DNA variation And Haplotypes of Yousafzai tribe. M. Phil Thesis, Centre for Human Genetics, Hazara University, Mansehra.
- 12. Wajiha, S. 2018. Reconstructing the Genetic history of inhabitants of Hazara region using ancient mitochondrial DNA. M. Phil Thesis, Centre for Human Genetics, Hazara University, Mansehra.
- 13. Shumaila, B. 2018. study of Lysine tRNA gene in patients with gestational diabetes from Haripur area. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.
- 14. Suleman, S. 2018. Genetic Analysis and Prenatal diagnosis of Beta-Thalassemia in Pakistani Families. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.
- 15. Ghani, U.R. 2018. Molecular Anthropological study of Ancient and modern population residing in Chitral District. M. Phil Thesis, Department of Human Genetics, Hazara University, Mansehra.
- 16. Sabahat, S. 2018. Markers Assisted screening of selected wheat lines against stripe rust under agronomic condition of Mansehra. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.

- 17. Sohail, M. 2017. Genetic diversity and population structure analysis of selected Pakistani Wheat varieties. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.
- 18. Aneela, D. 2017. Genetic analysis of some Quantitative traits in selected Brassica genotypes at Mansehra. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.
- 19. Asif, M. 2017. Screening of A1555G gene mutation among children of Mardan District. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.
- 20. Abubakar, M. 2017. Evaluation of Mitochnodrial DNA mutations associated with Diabetes mellitus in District Charsadda. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.
- 21. Irfan, M. 2017. Genetic polymorphism of apical membrane antigen1 (AMA1) in plasmodium falciparum field isolates from Hazara. M. Phil Thesis, Department of Human Genetics, Hazara University, Mansehra.
- 22. Abdullah, K. 2016. Molecular analysis of advance lines of Rice for Bacterial Blight resistance gene Xa-1. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.
- 23. Sibghat, U. K. 2016. Analysis of mutation in LEU tRNA gene in diabetic patients of Bannu. M. Phil Thesis, Department of Botany, Hazara University, Mansehra.
- 24. Dawood, K. 2016. Potential of wheat genotypes for yield associated traits and their correlation with vernalization genes. M. Phil Thesis, Department of Botany, Hazara University, Mansehra.
- 25. Aqsa, A. 2016. Analysis of mutation in LEU tRNA gene in gestational diabetic patients in Abbottabad. M. Phil Thesis, Department of Botany, Hazara University, Mansehra.
- 26. Murad, K. 2016. Analysis of Photoperiod genes and its association with yield traits in spring wheat. M. Phil Thesis, Department of Botany, Hazara University, Mansehra.
- 27. Shahzeb. 2016. Evaluation of selected wheat genotypes for grain yield and stripe rust resistance. M. Phil Thesis, Department of Botany, Hazara University, Mansehra.
- 28. Madiha, T. 2016. Molecular screening of stv-bi gene for brown plant hopper resistance in rice. M. Phil Thesis, Department of Botany, Hazara University, Mansehra.
- 29. Eiraj Rasheed. 2016. Correlation between yield and yield attributing traits of tomato hybrids. M. Phil Thesis, Department of Botany, Hazara University, Mansehra.

Computer Skills:

□ Can work efficiently in MS Word, Excel. Can prepare presentations in MS PowerPoint, Various statistical Software's installation and their operation. Internet etc.

Experience:

- Recently Joined Department of Botany, Hazara University Mansehra on 9 May, 2022 as Assistant Professor (TTS).
- Worked as Assistant Professor in the Department of Botany, Women University of AJ&K, Bagh since 10 February, 2016 to 9 May 2022.

- I have four years' experience as Research Associate in HEC funded project entitled "Genetic analysis of root traits associated with drought tolerance in bread wheat" in the Department of Genetics (June 01, 2011 to June 2015).
- I have three years' experience as a visiting lecturer in department of Biochemistry Hazara University Mansehra.
- > I have eight years teaching experience as a lecturer of Botany at SPS College Swat.

Languages:

- ✓ Pushto: Native speaker
- ✓ English: Fluent
- ✓ Urdu: Fluent
- ✓ Hindko: average

List of publications:

- Liu, H. Liu, W. Ahmad, I, Xiao, Q. Li, X. Zhang, D. Fang, J. Zhang, G. Xu, B. Gao, Q. et al. Complete Chloroplast Genome Sequence of *Triosteum sinuatum*, Insights into Comparative Chloroplast Genomics, Divergence Time Estimation and Phylogenetic Relationships among Dipsacales. Genes 2022, 13, 933. https://doi.org/10.3390/genes13050933
- 2. Rubab K, A. Naseer, I. Ahmad and A. Nasir. Khalid. Russula kashmiriana sp. nov. in subgenus Tenellula from Himalayan temperate forests of Pakistan. 2022. Nordic Journal of Botany. 1-10. doi: 10.1111/njb.03644
- 3. Mehvish M, **I. Ahmad**, Sami UK, Abdullah, Rehman K, Islam M, et al. 2021. Phytoecological studies and distribution pattern of plant species and communities of Dhirkot, Azad Jammu and Kashmir, Pakistan. PLoS ONE 16(10): e0257493. https://doi.org/10.1371/journal. pone.025749
- 4. Shah H, N. U. Sehar Afshan, J. Khan, **I. Ahmad**, H. Ahmad. 2021. Cantharocybe habibii: a new species in the genus Cantharocybe. Plant Systematics and Evolution. 307:49. 1-9
- 5. Saeed K, M. Hussain, I. Ahmad, M. Shah, J. Alam, S. Gul, M. Islam, N. Azhar, A. Bibi, S. Safeer. Conservation and management of lakes and Ponds in the perspective of Banjosa lake Rawalakot, Azad Kashmir, Pakistan. Sylwan. 165 (3): 25-38
- 6. Islam. M, Inamullah, **I. Ahmad** et al., Medicinal plants resources of Western Himalayan Palas Valley, Indus Kohistan, Pakistan: Their uses and degrees of risk of extinction, Saudi Journal of Biological Sciences, https://doi.org/10.1016/j.sjbs.2021.02.051
- Islam M, H. Ahmad , A. N. Khalid, Inamullah, K. Mohammad, R. Masood, N. Akhtar, S. G. Afradi, I. Ahmad. 2021. PEAR (PYRUS): Genetic diversity and their Conservation. Fresenius Environmental Bulletin. 30: 2333-2342
- Asia Bibi, S. A. Majid, A. Nosheen, M. S. Amjad, A. Saima, I.Ahmad, M. Sadia and S. Ijaz. 2020. Differential Changes in Growth and Enzyme Activities of Chilling Induced Wheat Seedlings by Nitric Oxide Priming. International Journal of Agriculture & Biology. 23(5)919– 926. DOI: 10.17957/IJAB/15.1369

- Zia Ullah, K. Rubab, K. B. Muhammad, A. Israr, J. Sana, F. Muhammad, A. Habib. F. Muhammad & A. N. khalid. 2020. Melanoleuca Kashmirensis sp. nov. in subg. Urticocystis from Pakistan. Phytotaxa 434 (1): 089–100.
- Israr A, K. Rubab, Ziaullah, B. Asia, A. Nosheen, M. Islam, A. Saima, S. Hussain, A. U. H. Faiz, A. N. Khalid, M. Kanwal. 2019. First report of Russula brunneopurpurea from State of Azad Jammu and Kashmir, Pakistan using internal transcribed spacer technique. SYLWAN. 113-133.
- 11. Israr A., U. K. Sami, K. Aziz, S. A. Muhammad, A. Fozia. 2018. Reassessment of Mentha Species from Kunhar River Catchment Using Morphological and Molecular Markers. ANADOLU, J. of AARI ISSN: 1300 0225 28 (1), 6 12
- Najeebullah, K., F. H. Watto, I. Ahmad, M. Ikram, A. G. Afridi, M. H. S. watto, M. K. S. Safi. 2017. Assessment of genetic diversity and phytochemical analysis of Nigella sativa genotypes from Pakistan. Asian Journal of Biological Sciences. 10 (2): 56-63
- Israr, A., A. Niaz, Inamullah & H. Ahmad. 2017. Book chapter "Association mapping of root traits for drought tolerance in bread wheat". Wheat. Publisher, Intech Open Science. ISBN 978953-51-5125-8. James Owuoche, Department of Crop Horticulture and Soil Science, Egerton University, Kenya
- Muhammad, S. A., F. Q. Mirza, I. Ahmad, U.K. Sami, K.C. Sunbal, Z.M. Nafeesa, S. Humaira, M. K. Arshad. 2017. Descriptive study of plant resources in the context of the ethnomedicinal relevance of indigenous flora: A case study from Toli Peer National Park, Azad Jammu and Kashmir, Pakistan. PLoS ONE 12(2): e0171896. doi:10.1371/journal. pone.0171896.
- 15.
- Khan, N. K., I. Ahmad, Inamullah, I. Muhammad, Ziaullah, A. Ahmad, D. Khan, M. Khan, A. Razzaq. 2016. Morphogenetic screening of Pakistani spring wheat germplasm for drought tolerance. International Journal of Biosciences. 8: 39-44. http://dx.doi.org/10.12692/ijb/8.5.39-44
- Muhammad, I., Inamullah, H. Ahmad, B. Alam, I. A. Khan, I. Ahmad, Ziaullah, A. Ahmad, N. Khan, S. G. Afridi. 2016. Marker assisted screening of wheat (*Triticum aestivum* L.) cultivars for drought tolerance and yield improvement. International Journal of Biosciences. 8: 44-52. <u>http://dx.doi.org/10.12692/ijb/8.3.44-52</u>
- Ahmad, H., A. M. Yousafzai, M. Siraj, R. Ahmad, I. Ahmad, M. S. Nadeem, W. Ahmad, N. Akbar and K. Muhammad. 2015. Pollution Problem in River Kabul: Accumulation Estimates of Heavy Metals in Native Fish Species. BioMed Res. Int. 2015: 1-7. http://dx.doi.org/10.1155/2015/537368
- 19. Ahmad, I., U. Ullah, Inamullah, H. Ahmad and I. Muhammad. 2015. Screening of Pakistani wheat landraces for stripe rust resistance using molecular markers. Basic Research Journal of Soil and Environmental Science. 3: 01-03. ISSN 2345-4090
- 20. Muhammad, I., Inamullah, H. Ahmad and I. Ahmad. 2015. Physiological screening of Pakistani wheat germplasms using Relative water content (RWC) water loss rate (WLR) and water use efficiency (WUE). International journal of scientific and engineering research. 6 (1): 1660-1668. ISSN 2229-5518.
- Ahmad, H, K. Ayaz, M. Khushi, M. S. Nadeem, A. Waqar, I. Sajjad, A. Nosheen, A. Nazia, I. Ahmad, Q. Youxiong. 2014. Morphogenetic Study of Pepino and Other Members of Solanaceae Family. American Journal of Plant Sciences. 5: 3761-3768.

- Ahmad. I., Inamullah, H. Ahmad and I.Muhammad. 2014. Evaluation of water use efficiency, biomass production and selected root traits of wheat (Triticum eastivum L.) Under drought conditions. International journal of scientific and engineering research. 5 (6): 1079-1085. ISSN 22295518.
- Iqbal, A., I. Ahmad, H. Ahmad, M. S. Nadeem, M. Nisar and R. Huma. 2013. An efficient DNA extraction protocol for medicinal plants. Inter. J. biosci. 3: 30-35. doi:http://dx.doi.org/10.12692/ijb/3..30-35
- 24. Iqbal, A., I. Ahmad, H. Ahmad, S. Ghafoor, A. Razzaq and I. Ahmad. 2013. Genetic characterization of Berberis species collected from Kunhar River catachment using morphological and molecular markers. Inter. J. biosci. 3: 35-42. http://dx.doi.org/10.12692/ijb/3.5.35-42.

Books Published:

- 1. Ahmad, I., H. Ahmad and S. Ghafoor. DNA based reassessment of Mentha species from River Kunhar Catchment. ISBN: 978-3-8465-3187-7,VDM Verlag, Germany
- Parveen. K., and I. Ahmad. Mapping of Randomly Amplified Polymorphic DNA primer of chromosome 2A of common Wheat. ISBN:978-3-8465-5019-9, VDM Verlag, GermanyDin,U.I., M.Nawaz and I. Ahmad. Self assemble behaviour of Tirblock copolymers in Solution. ISBN:987-8473-1992-4, VDM Verlag, Germany
- 3. Ali, H., F.M Abbasi and I. Ahmad. Cytomorphological characterization of wide cross derivatives in Rice.ISBN: 987-3-8465-1574-7,VDM Verlag, Germany
- 4. Parveen, K., and I. Ahmad. Morpho-physiological parameters to determine drought in wheat. ISBN: 978-3-659-57565-5, VDM Verlag, Germany

Seminar:

- □ Enhancement of Natural Beauty through Conservation of Animals and Birds by HEC held at Hazara University Mansehra Pakistan on June 4, 2009.
- Teacher development seminar by Faiez H. Seyal held at SPS College Swat on March 01 2004.
 Trainings:
- Hands- on Training on" Modern Techinques in Research on Abiotic Stress Tolerance in Plants" 21-24 Feb. 2012. Organized by NIAB Faisalabad.
- Quality Asssurance in Education by Kamran Musa, Head of Pakistan Institute of Quality Control (PIQC) held at SPS College Swat on May 01, 2005.
- Teaching Skills from Ali Institute of Education Lahore held at Ali Institute of Education Lahore Pakistan from 17 -19 June, 2004.
- Improving School Education from New Century Education (NCE) Peshawar held at SPS College Swat on November 13, 2005.

Conferences:

- Participated as oral presenter in "International Conference of Botany" (March 29th 2nd April, 2018) at University of Chitral.
- Participated as oral presenter in "7th International and 16th National Conference on Plant Resources: Current Trends, Challenges and Solutions" (March 23-26, 2018) at Islamia College University Peshawar.
- Participated as oral presenter in "1st international symposium on Himalayas of Pakistan Resources and conservation issues" (27th November to 30th November 2014) at Hazara University Pakistan
- 12th National and 3rd International Conference of Botany (1st September to 3rd September 2012).
- Applications of biotechnology for wheat improvement (19th March- 21st March 2014) at NIBGE Faisalabad.
- > Quality Education held at SPS College Swat on august 5, 2007.
- Ethics at work by Mr. Javaid Iqbal (Behavioral Scientist PARD Peshawar) held at SPS College Swat on April 29, 2006

References:

Prof. DR. INAM ULLAH

Dean, Faculty of Biological Sciences

Department of Genetics Hazara University Mansehra Mardan Cell No. +92- 03349537908 Email: drinamullah34@gmail.com

Dr. SAHIB GUL AFRIDI

Associate Professor

Department of Biochemistry Abdul Wali Khan University,

Cell No. +92- 03349102565 Email. sahibafridi@gmail.com