CURRICULUM VITAE

Name: Dr. RAHMAT ALI KHAN

(HEC Approved Supervisor)

Chairman (A/Professor)

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Domicile: Bannu, KPK

A. Essential Qualifications

Degree	Institution	Subject	Year
PhD	QAU Islamabad	Biochemistry and	2010
	_^ >	Molecular Biology	
MSc	Hazara University, Mansehra	Biochemistry	2005
Bed	Gomal University, DI Khan	Education	2002
BSC	Gomal University, DI Khan	Pre-Medical	2001
FSC	BISE Bannu	Pre-Medical	1999
SSC	BISE Bannu	Science	1997

B. Experience

S.No.	Institution	Position	From	То
1	Department of Biotechnology	Chairman	Sep 7, 2018	Till date
	UST-Bannu			
2	Department of Biotechnology	Assistant Professor	Dec 10, 2010	Sep 6, 2018
	UST Bannu			
3	Department of Biochemistry,	Senior Research	Sep 9, 2006	Dec 09, 2010
	QAU Islamabad	Associate		

C. Research Publications Record

Research Papers in of Impact Factor Journals = 160 (Annex-1)

Total Impact Factor = 300

D. Research Publication Citations = 12528

H index = 33 i10 index = 373

E. Books Published = 2 (Annex-2)

F. Execution of Research Projects

- 1. Phytochemical screening and pharmacological evaluation of two selected medicinal plants of District Bannu. Funded by HEC Islamabad (0.5 Million)
- Bioethanol production from starchy agriculture wastes. Funded by DOST Peshawar (0.25 Million)
- Drug design from plant sources for Krait Snake Bite. Funded by DOST Peshawar (0.5 Million)
- 4. Production and commercialization of Anti-diabetic capsule from medicinal plants. Funded by DOST Peshawar (0.6 Million)
- 5. Effects of selected medicinal plants against ischemia in rat hippocampal and cortex slices subjected to oxygen and glucose deprivation (6.97 Million)
- 6. Pharmacological screening and protective role of medicinal plants against krait snake venom acetyl cholinesterase (2.577 Million)

G. Research Supervision

PhD student supervision = (Annex-3)

MPhil/MS student supervision = (Annex-4)

H. Demonstrated Experience In Leadership:

S.No.	Institution	Position
1.	Board of Studies Department of Biotechnology UST Bannu, KPK, Pakistan	Convener
2.	Board of Faculty Faculty of Sciences, UST Bannu, KPK, Pakistan	Member
3.	Selection Board, KUST, Kohat	Subject Expert
4.	Board of Studies KKUK, Karak	Member
5.	Board of Studies Gomal University D.I. Khan, KPK Pakistan	Member
6.	Plagiarism Committee University of Science and Technology Bannu, KPK, Pakistan	Member
7.	National Curriculum Committee of Higher Education Commission Islamabad of Biotechnology	Member
8.	Assessment team Quality Enhancement Cell University of Malakand, KPK	Member
9.	University of Peshawar, Islamia College University Peshawar, University of Hazara, Abasyn University Peshawar, KKUK, KUST, Gomal University DI Khan and Karakoram International University Gilgit	M.Phil and PhD Thesis Examiner
10.	University of Science and Technology Bannu, KPK, Pakistan purchase, study leave, inspection, scrutiny, Demo, selection board committee	Member

I. Desirable Experience, Expected Skills and Competencies:

- 1. During my current tenure as a Chairman Department of Biotechnology, I have established five labs of advanced set up in the field of Biotechnology. During my tenure first National seminar and workshop is arranged.
- 2. I am aware of the importance of education and have won numerous awards for the promotion and uplift of University Education.
- 3. I have completed various research projects of National and International donor agencies and am able to execute any job assigned to me.
- 4. Being associated with student's affairs since long, I am able to solve student's problems.
- 5. With my working on various positions, I have a vast experience in official matters.

L. Memberships of Professional Bodies:

International:

- International Society for Development and Sustainability
- Italian Latinamerican Society of Ethno-medicine
- International Society of Zoological Sciences
- International Society of Enzymologist
- International Society of Infectious Diseases
- British Science Association
- World Environmental Organization
- Pakistan Botanical Society
- Pakistan Weed Science Society
- Pakistan Biochemistry and Molecular Biology Society

M. Professional Awards

- HEC Merit Scholarship Award (2002)
- HEC Indigenous Scholarship Award (2006)
- Research Productivity Award by Pakistan Council of Science and Technology, Ministry of Science and Technology Islamabad (2011-2015)
- University Best Teacher Award (2017)
- University Best Research Award (2018)

 Pas Gold Medal Award by Pakistan Academy of Sciences in the subject of Biological Sciences (2020)

N. Contribution at Bannu University of Science & Technology KPK, Pakistan

- Establishment of Enzymology Lab
- Establishment of Pharmaceutical Biotechnology Lab
- Establishment of Applied Biochemistry and Biotechnology Lab
- Establishment of herbarium
- Establishment of gene bank
- Green House

O. Collaboration/linkages established at National/ International level

- 1. Department of Biochemistry QAU Islamabad, Pakistan
- 2. National Institute of Health Islamabad
- 3. Qurshi Herbal Industries Hatar, Haripur
- 4. PCSIR Peshawar
- 5. NIBGE Faisalabad
- 6. CRL Peshawar
- 7. Department of Biomedical Sciences, Charles Strut University Australia
- 8. Department of Pharmacy, King Abdul Aziz University, Saudi Arab
- 9. Department of Molecular Biology and Genetics, Ordu University, Turkey
- 10. Department of Food Engineering Istanbul Okan Universitesi, Faculty of Engineering, Department of Food Engineering, Akfırat/ Tuzla/ Istanbul

P. Research Contribution as a Reviewer of National and International Journals

- Journal of Ethanopharmacology
- Food Chemistry
- Drug and Chemical Toxicology
- Applied Biological Chemistry
- Clinical experimental Pharmacology and Physiology
- CyTA-Journal of Food
- Drug Development and Industrial Pharmacy

- Immunopharmacology and Immunotoxicology
- Journal of Bimolecular Structure and Dynamics
- Biocatalysis and Agricultural Biotechnology
- Pakistan Journal of Botany
- Pakistan Journal of Pharmaceutical Sciences
- Pakistan Journal of Chemical Society

Q. Research Contribution as an Editorial Board member of International Journals

- Journal of Molecular Biology and Biochemistry
- Journal of Biotechnology and Phytochemistry

R. Computer Skills

MS Office, Excel, Power Point, Internet, Computer software (SPPS, Minitab, Statistica)

S. References

1. Dr.M.Rashid Khan

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QAU Islamabad Pakistan

Email: mrkhanqau@yahoo.com

2. Dr. Mushtaq Ahmed

Department of Biotechnology,

UST Bannu, Pakistan

Email: mushtaq213@yahoo.com

3. Dr. Sami Ullah Khan

Department of Microbiology

QAU Islamabad Pakistan

E-mail: sami_phr@yahoo.com

4. Dr. Hassan Khan Obied

Department of Biomedical Sciences

Charlus Strut University Australia

E-mail: Email: hobied@csu.edu.au

Research Publications (List of most significant papers) (Annex-1)

- **Khan RA**, Khan MR, Sahreen S. Evaluation of *Launaea procumbens* use in renal disorders: a rat model. Journal of Ethnopharmacology 128 (2010) 452–461.
- **Khan RA**, Khan MR, Sahreen S, Bukhari J. Prevention of CCl₄-induced nephrotoxicity with *Sonchus asper* in rat. Food and Chemical Toxicology 23 (2010) 1304–1321.
- Khan MR, Rizvi W, Khan GN, **Khan RA**, Sheen S. Carbon tetrachloride-induced nephrotoxicity in rats: Protective role of *Digera muricata*. Journal of Ethnopharmacology 122 (2009) 91–99.
- Sahreen S, Khan MR, **Khan RA.** Evaluation of antioxidant activities of various solvent extracts of *Carissa opaca* fruits. Food Chemistry 122 (2010) 1205–1211
- Sahreen S, Khan MR, **Khan RA.** Hepatoprotective effects of methanol extract of *Carissa opaca* leaves on CCl₄-induced damage in rat. BMC Complementary and Alternative Medicine 2011, **11**:48 doi: 10.1186/1472-6882-11-48.
- Ahmed M, Latif N, Khan RA, Ahmed A, Schetinger MRC. Inhibitory effect of arachidonic acid on venom acetyl cholinesterase. Toxicology and Environmental Chemistry 1080/02772248.2011.593292.
- **Khan RA**, Khan MR, Sahreen S. 2011. Attenuation of CCl₄-induced hepatic oxidative stress in rat by *Launaea procumbens*. Experimental Toxicological and Pathology. Volume 65, Issue 3, March 2013, Pages 319–326.
- **Khan RA**, Khan MR, Sahreen S. Hepatoprotection with chloroform extract of *Launaea procumbens* against CCl₄ induced injuries in rat. *BMC Complementary and Alternative Medicine* 2012, **12**:114 doi: 10.1186/1472-6882-12-114.
- **Khan RA**, Khan MR, Sahreen S and Ahmed M. Evaluation of phenolic contents and antioxidant activity of various solvent extracts of *Sonchus asper* (L.) Hill. Chemistry Central Journal 2012, 6:12 doi: 10.1186/1752-153X-6-12.
- **Khan RA**, Khan MR, Sahreen S, 2012. Brain antioxidant markers, cognitive performance and acetyl cholinesterase activity of rat: Efficiency of *Sonchus asper Behavioral and Brain Functions* 2012, **8**:21 doi: 10.1186/1744-9081-8-21.

- Khan RA, Khan MR, Sahreen S, 2012. Assessment of flavonoids contents and in vitro antioxidant activity of *Launaea procumbens Chemistry Central Journal* 2012, 6:43 doi: 10.1186/1752-153X-6-43.
- Ahmed M, Latif N, Khan RA, Ahmad A, Rocha JBT, Mazzanti CM, Bagatini MD, Morsch VM, Schetinger MRC. 2012. Enzymatic and biochemical characterization of *Bungarus sindanus* snake venom acetylcholinesterase. The Journal of Venomous Animals and Toxins including Tropical Diseases 18 (2):236-243.
- Ahmed M, Latif N, Khan RA, Ahmad A 2012. Toxicological Effect of Herbicides (Diuron and Bentazon) on Snake Venom and Electric Eel Acetylcholinesterase. Bull Environ Contam Toxicol DOI 10.1007/s00128-012-0684-x.
- **Khan RA**, Khan MR, Sahreen S, Naseer AS. 2012. Hepatoprotective activity of *Sonchus asper* against carbon tetrachloride-induced injuries in male rats: a randomized controlled trial. BMC Complementary and Alternative Medicine 2012, **12**:90 doi: 10.1186/1472-6882-12-90.
- **Khan RA:** Protective effects of *Launaea procumbens* on rat testis damage by CCl₄. Lipids in Health and Disease 2012, **11**:103 doi: 10.1186/1476-511X-11-103.
- **Khan RA:** Protective effect of *Launaea procumbens* (L.) on lungs against CCl₄ induced toxicity in rat. BMC Complementary and Alternative Medicine 2012, 12:133 doi: 10.1186/1472-6882-12-133.
- Khan WA, Jan S, Parveen S, **Khan RA**, Saeed A, Tanveer AJ, Ali Shad A. Phytochemical analysis and enzyme inhibition assay of *Aerva javanica* for ulcer. Chem Cent J. 2012, 31; 6(1):76.
- **Khan RA**, Khan MR, Sahreen S. CCl₄-induced hepatotoxicity: protective effect of rutin on p53, CYP2E1 and the antioxidative status in rat. BMC Complementary and Alternative Medicine 2012, 12:178.
- **Khan RA:** Protective effects of *Sonchus asper* (L.) Hill, (Asteraceae) against CCl₄-induced oxidative stress in the thyroid tissue of rats. *BMC Complementary and Alternative Medicine* 2012, **12**:181 doi:10.1186/1472-6882-12-181.
- **Khan RA**: Effects of *Launaea procumbens* on brain antioxidant enzymes and cognitive performance of rat. BMC Complementary and Alternative Medicine 2012, 12:219 doi:10.1186/1472-6882-12-21

- **Khan RA**: Protective effects of rutin metabolism against potassium bromate induced nephrotoxicity in rats. BMC Complementary and Alternative Medicine 2012, 12:204 doi:10.1186/1472-6882-12-204.
- **Khan RA** 2012. *In vitro* antioxidant activity and assessment of flavonoids contents of *Sonchus arvensis. Chemistry Central Journal* 2012, **7**:54.
- **Khan RA, Khan MR, Sahreen S**. Protective effects of Sonchus asper against KBrO3 induced lipid peroxidation in rats. Lipids Health Dis. 2012 Nov 27; 11(1):164. Epub 2012 Nov 27.
- **Khan RA**, Khan MR, Sahreen S. Protective effect of *Sonchus asper* extracts against experimentally-induced lung injuries in rats: A novel study. Experimental and Toxicologic Pathology 2012 Nov; 64(7-8):725-31 doi:10.1016/j.etp.2011.01.007.
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 Oxidative Medicine and Cellular Longevity http://dx.doi.org/10.1155/2013/325406
- Sahreen S, Khan MR, Khan RA. 2013. Effect of *Carissa opaca* fruit extract on lipid peroxidation, antioxidant activity and reproductive hormones in male rats. Lipids Health Dis. 2013 27; 11(1):164.
- Shah A, **Khan RA**. Ahmed M, Muhammad N. 2013. Hepatoprotective role of *Nicotiana plumbaginifolia* Linn against carbon tetrachloride-induced injuries. Toxicology and Industrial Health. DOI: 10.1177/0748233713498448.
- **Khan RA**, Khan MR, Sahreen S. 2013. Antitumor characterization of various fractions of *Launaea procumbens* Toxicology and Industrial Health, (DOI:10.1177/0748233713).

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- Khan RA, Khan MR Khan A. Comparative antioxidant scavenging and lipid peroxidation activity of rutin and gallic acid. Bangladesh J Pharmacol. 2015; 10: 637-38.

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 Calligonum polygonoides, and Sueda fruticosa extract using brine shrimp. Pak J
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- Sher N, Khan RA, Ahmed M. Calligonum polygonoides reduced nanosilver: A new generation of nanoproduct for medical applications. European j of tropical medicine 2020; 16:2-5.
- Rehman A, Khan RA, Ahmed M. Phytochemical assessment of iphiona aucheri (bioss.) anderb. and its cytotoxic, antioxidant and antidiabetic activities. 2020; 913-918.

Book Published (Annex-2)

- 1. **Khan RA** (01-06-2015). Biological activates: Role of *Butea Frondosa*. 945 McKinney St, Suite 621, Houston, TX 77002. http://kbuuk.com/faq
- 2. **Khan RA** (09-06-2015). Pharmacological evaluation of *Prunus amygdalus*, and *Prunus armeniaca*. LAP LAMBERT Publishers, Germany. www.lap-publishing.com

PhD Students supervision (Annex-3)

- 1. Aziz Khan (2016): Pharmacognostic and anatomical studies of Rosa brunonii, Calligonum polygonoides, Pegnum harmala L., and Sueda fruticosa Extract on Brine shrimp
- **2. Muhammad Nisar** (2017): Phytochemical and pharmacological evaluation of *Chenopodium murale* (Linn) and *Acacia modesta* (Wall) Amin
- **3. Yar Muhammad Khan (2019):** Pharmacological evaluation and phytochemical screening of *Taverniera nummularia*
- **4. Mussarat Shaheen** (2020): Antioxidant and anti-diabetic activities of Euphorbia helioscopia L. and Quercus dilatata L.
- **5. Muhammad Wasim (2020):** Neuroprotective effects of *Stellaria media* and *Melissa officinalis* against cerebral ischemia reperfusion using in-vitro and in-vivo models and pharmacological assessment of *Stellaria media*
- **6. Muhammad Abdur Rehman Shah** (2020): harmacological evaluation of Sorghum halepense (L.) Pers, Hyoscyamus insanus Stocks and Iphiona aucheri (Boiss.) Anderb
- 7. Abdur Rahim (2021): Mycochemical investigations, antioxidant and hypoglycemic potential of some non gilled mushrooms in alloxan induced diabetic rats, from KP.Pakistan
- **8. Janbaz Khan (2021):** Mycochemical screening, antioxidant and antidiabetic activities of some gilled mushrooms collected from Bannu
- **9. Adil Shah** (2021): Pharmacological Evaluation of Methanolic Extract of Psammogeton Biternatum [Edgeworth] and Silene Arenosa [Koch] Plants
- **10. Fazli Dian (2021):** Pharmacological and phytochemical assessment of *Solanum villosum* and *Alternanthera pungens*

MPhil/MS students supervision (Annex-4)

- **1. Abdus Saboorshah** (**2012**): Phytochemical screening and pharmacological evaluation of Euphoria prostrate
- 2. Mr. Farid Khan (2012): Phytochemical screening and pharmacological evaluation of Mentha logifolia
- **3. Noor Aslam Khan (2012):** Phytochemical screening and pharmacological evaluation of Periphloca aphyla
- **4. Mr. Rashid Khan** (2013): Antioxidant, cytotoxic and antimicrobial activities of Parthenium hysterophorus
- **5.** Waqar Gul (2013): Nutritional investigation and phytotoxic activities of Parthenium hysterophorus plant extract
- **6. Mr. Abdur Rahim Khan (2014):** Phytotoxic and antimicrobial efficacy of some selected medicinal plants of District Bannu
- 7. Adil Shah (2014): Phytochemical screening and pharmacological evaluation of Trigonila monosplica plant extract
- 8. Mr. Zahid Khan (2014): Pharmacological evaluation of Caralluma tubercullta
- **9. Mr. Jan Baz Khan (2014):** Phytotoxic and antimicrobial efficacy of some selected medicinal plants of Lakki Marwat
- **10. Mr. Arif Khan (2014):** Phytochemical screening and pharmacological evaluation of Calligonum Polygonides
- 11. Mr. Ghani Khan (2014): Phytochemical screening and pharmacological evaluation of selected medicinal plants
- **12. Mr. Afsar Khan (2015):** Protective effects of Conyza bonariensis against lead nitrate induced dysfunction in labeo rohita (roho)
- 13. Mr. Fazal Dian (2015): Pharmacological evaluation of Veronica agrestis
- **14. Mr. Irfan Ullah Khan (2015):** Protective effects of Typha latifolia against lead nitrate induced dysfunction in common carp
- **15. Mr. Hanif Ullah Khan (2016):** Phytochemical screening and pharmacological evaluation of Cordia oblica (Linn.)
- **16. Mr. Sadiq Khan (2016):** Prevalence of major beta thalasemia in District Bannu and North Waziristan

- 17. Mr. Najeeb Ullah (2016): Phytochemical screening and antidiabetic activity of Hedera nephlensis
- **18. Mr. Ghani Rehman (2016).** Phytochemical screening and pharmacological activities of Erythreae remosesima
- 19. Mr. Younas Khan (2016): Effect of gamma radiation on growth of okra
- 20. Mr. Sadiq Ullah Khan (2016): Genetic diversity of Bemeisa tabaci in Pakistan
- 21. Mr. Muhammad Waqas Khan (2016): Phytochemical screening and pharmacological evaluation of Smilex medica
- **22. Mr. Wasi Ullah Khan (2016):** Phytochemical screening and pharmacological evaluation of Cyperus scariosus and Centuarea pullata roots
- **23.** Mr. Wasim Ahmed (2017): Pharmacological assessment, synthesis of silver nano particles and inhibition of krait snake venom acetyl cholinesterase by Salix nigra
- **24. Mr. Riffat Ullah** (**2017**): Assessment of antibacterial, antifungal, antioxidant, phytotoxic and cytotoxic activities of Neurada procumbens
- **25. Mr. Sajjad Ullah (2017):** Phytochemical screening and pharmacological activities of methanol root extract of Rosocea alpine
- 26. Mr. Akram Ullah (2017): Free radical inhibition assessment of Quercus dialatata
- **27. Mr. Imran Khan (2017):** Phytotoxic and antimicrobial activities of crude extract of Lonicera quinquelocularis Hardw
- **28. Mr. Muhammad Nadeem Khan (2018):** Phytochemical screening and pharmacological activities of three selected plants of District Bannu
- **29. Mr. Aamir Khan (2018):** Antioxidant and antidiabetic activities of pomegranates seeds
- **30. Mr. Sibghat Ullah (2018):** Mycochemical analysis and biological screening of selected mashrooms collected from district Shangla
- **31. Mrs. Shumila (2018):** Pharmacological evaluation and phytochemical assessment of two selected plants of District Bannu
- **32. Mrs. Nila Sher** (**2018**): Callygonum polygonoides reduced nanosilver: A new generation of nanoproduct in medical application
- **33. Mrs. Shahnoor** (**2018**): Pharmacological evaluation of antioxidant, antimicrobial and phytotoxic activities of crude extract and purified compound of Lonicera quinquelocularis Hardw

- **34.** Mr. Arfan Ullah (2018): Phytochemical investigation and pharmacological assessment of Kickixia incane
- 35. Mr. Abdullah (2018): Pharmacological assessment of selected herbs of District Bannu
- **36. Mr. Allah Nawaz (2018):** Prevalence of Hemophilia A and B in District Bannu and North Waziristan
- 37: Mr. Arshad Khan (2019): Prevalence of Measles in District Bannu, Karak and Lakki Marwat
- **38. Mr. Sibghat Wazir (2019):** Antimicrobial activity and secondary metabolites from Helitropium europeam
- 39. Shah Muhammad (2019): Evaluation of antimicrobial activity of Convulvolus spicatus
- **40. Mr. Siffat Ullah (2019):** Antimicrobial assessment of Oligumeris launifolia and dictation of its metabolites
- **42. Mr. Ishfaq Khan (2019):** Nutritional investigation of pomegranates seeds by using HPLC
- **43.** Aman Ullah (2020): Biosynthesis of silver nanoparticles and their characterizations
- **44. Muhammad Adnan (2020):** Phytosynthesis of organo-metallic silver nanoparticles, their antioxidant and antimicrobial assessments
- **45. Zahid Ullah Khan (2021):** Antioxidant and antibacterial activities of silver based nano formulations
- **46. Hina Bibi (2021):** Analysis of mental retardation in District Bannu

BS/MSc theses supervised: 120 (Due to space limitations their details are not shown)