



Placement Brochure Department of Bioresources, University of Kashmir

COVER PAGE

- Title: *Bioresources for Human Welfare*
- Subtitle: *Producing highly talented and motivated Scientists, Academicians and Entrepreneurs*
- School and Department- *School of Biological Sciences and Department of Bioresources*



Students on educational tour to CSIR Innovation Complex Pune University, Pune



Students of Bioresources at National Park Dachigam-2016

CONTENTS

About our Department

Head's Desk-Message

As Head of the Department of Bioresources, I take this opportunity to introduce you to the Department of Bioresources at the University of Kashmir. The Department was sanctioned as a PG Programme in Bioresources in 2007 and recognized as a department in 2021 to impart Multidisciplinary teaching and, research in different areas of Modern Biology. In this pursuit, we maintain the interdisciplinary nature of the Department and have in-house expertise in Animal, Plant, and Microbial sciences.

Our Postgraduate teaching program is different from other Indian universities in that it incorporates synergy between Zoology, Botany, Microbiology, and Chemistry on equal footing with modern and classical biosciences and captures the entire spread of life science.

We have established well-equipped research laboratories. The Department maintains an animal cell and tissue culture laboratory facility along with fungal and bacterial cell culture facilities. Our vision is to develop Bioresources as a unique multidisciplinary research and teaching center to impart and promote interdisciplinary research in applied life sciences which can change people's lives. To achieve this, we have developed and are developing research linkages with various institutes of national excellence and eminence. Besides, every member of the Department is involved in research activities and has got projects from the national funding agencies. I must confess that with the support and cooperation of all stakeholders within a short span of three years our department has achieved academic and research excellence and placed itself among one of the best departments of the university in terms of research output.

In a nutshell, Bioresources is a fascinating subject that deals with understanding and efficient sustainable use of various bioresources from microbes, plants, and animals. Here at the Department, we provide challenging research opportunities to the students to make them world-class interdisciplinary scientists and academicians. I encourage everyone to remain hardworking, persistent, innovative, and consolidative as we are dealing with the Bioresources of our Union Territory of J&K and our work has the potential to transform people's lives and pave the way for a better and sustainable future along with opportunities for the generation of self-employment.

- **Brief overview of the department**

Bioresources is an innovative program sanctioned by UGC in April 2007. The program was envisaged to establish a sustainable technology for the exploration, development, and commercialization of a spectrum of high-value compounds for human and animal health derived from a diversity of bioresources (plants, animals, and microbes) based on innovation.

- **Vision and Mission Statement**

Vision and Mission is to explore the natural bioresources from plants, microbes, and animals for the betterment of human life. The program aims to develop a close and profitable interface between the academic institutions, research laboratories, and industries for the sustainable utilization of bioresources.

Introduction:-

Our Achievements:

Dr. Manzoor Ahmad Mir:

1. **Figured in Top 2% Global Scientists list** published by Stanford University for 2023-24.
2. **Awarded Best Scientific Research Paper Presentation** (2nd Prize, Citation, Certificate and Cash) at Indian immuno-oncology Society Conference (**I-OSCONF-2024**) at National Centre for Cell Science (NCCS) Pune, Maharashtra
3. Received Hackathon **3.0 Award 3rd Prize** (Citation and certificate), by CSIR & AIC-IIM, Govt of India 2023.
4. Awarded **Kashmir-Expo Award** by JKST&IC Govt of J&K (UT) and DST Govt of India, for Breast Cancer Awareness dated: **12-11-2022**
5. Awarded **Summer Research Fellowship (INSA-SRF)** by Indian National Science academies IASc-INSA-NASI vide No. **SRFP-LFT94** Dated: 02-04-2019
6. Selected as **Associate Professor** in Animal Sciences at School of Life sciences, Central University of Kashmir Ganderbal in 2019. Vide No. **CUKmr/RCT/F.No.401/19/560**. Dated: 23.07.2020
7. Awarded TARE- SERB Fellowship by Department of Science and Technology, Govt of India-2018-19, Vide No. **TAR/2018/001213** Dated: 05-11-2018
8. Awarded **Faculty Position** (Associate Professor) in Immunology by **College of Medicine, Department of Immunopathology, University of Shaqra, KSA** for the year 2017 (1437) Vide No. 35114/53 Dated: 06-11-1437 (10th August 2016)
9. Awarded **International Travel Grant** by University Grants Commission (UGC) under 12th five-year plan to attend the **14th Annual Congress of International Drug Discovery Science and Technology Nanjing, China** from 16th-19th November 2016 Vide No. F (Dep-MAK) Res/KU/16, Dated: Oct -1st 2016.
10. Won **First Prize** in National Level Competition on '**Role of Media in National Integration**' at Academic Staff College, Aligarh Muslim University Aligarh in the year 2011.
11. Won **First Prize** in **UGC sponsored National Seminar on Sustenance of quality in Higher Education Some Initiatives** at Govt. College of Education Srinagar in the year 2011.
12. **Topped the Assistant Professor Selection List in Zoology** published by **Jammu and Kashmir Public Service Commission** on 30-10-2009.
13. Won the **FIRST PRIZE** in **Chandigarh Science Congress CHASCON-2008** at **Post Graduate Institute of Medical Education and Research (PGIMER)** and Punjab University Chandigarh in the year 2008.
14. Awarded Prestigious Senior **Research Fellowship SRF** by **CSIR Govt of India** in year 2006-2007.
15. **Qualified Junior Research Fellow-National Educational Test (JRF-NET)** conducted by UGC-CSIR Govt. of India in year 2005 under **Roll 328164**.

Dr Reiaz Ul Rehman:

- ✓ Bachelors (1996), Aligarh Muslim University (AMU), Aligarh, UP, INDIA, Department of Botany.
- ✓ Masters (1998), Jamia Hamdard (New Delhi, India), Department of Botany.
- ✓ Doctorate (2003), Jamia Hamdard (New Delhi, India), Centre for Biotechnology.
- ✓ 2002, Best Presentation, National Seminar on recent Research Trends in Life Sciences. University of Kashmir, Srinagar-190006.
- ✓ 2002, Senior Research Fellowship, Sponsored by Technology Mission on oil seeds, pulses and Maize (CSIR) Ministry of Agriculture INDIA
- ✓ 2001, Junior Research Fellow, Hamdard National Foundation, Hamdard University, New Delhi-110 062.
- ✓ 2003 Postdoctoral Research Associate, University of Louisville, Kentucky, USA.
- ✓ 2008, Marie Curie Postdoctoral Research Associate, University of Salento, Lecce, Italy.

- ✓ 2011, Marie Curie International Incoming Fellowship (IIF), University of Lisbon, Lisbon, Portugal.
- ✓ National Best Researcher Award in Plant Sciences 2021 IMRF Institute of Higher Education and Research, Vijaywada, India
- ✓ Prof. YSRK Sharma Memorial Award 2023 Fellow Award Society for Plant Research International India
- ✓ DST Travel grant to attend 12th International symposium on Buckwheat". 21-25 Aug. Slovenia 2013.

Dr. Peer Abdul Haseeb Shah:

- Received **Gold Medal** (MSc. Biotechnology), from Kashmir University, J&K, 2008
- **Qualified DBT-JRF** Examination, in the years 2008 and 2009
- **Qualified CSIR-NET-JRF**, Life Sciences, Dec. 2008
- Was awarded **CSIR Research Associateship** vide file number No.212232/2K14/1, June 2015.
- Received **DSK-PDF Award** from UGC vide File no. F.4-2/2006(BSR)/BL/1415/0126, Jan 2016
 - Was appointed as **Young Ambassador to India** by the American Society for Microbiology for the year 2020-2022
- Received **Bill & Melinda Gates Foundation Travel Award** for Scientists from Low and Low-Middle Income Countries covering registration expenses to attend World Microbe Forum, June 20-24, 2021, a joint digital between ASM Microbe 2021 and FEMS Congress 2021.
 - Received international Travel awards from **ASM, EMBO, FEBS**, etc. to attend different international conferences abroad
 - Received international Travel awards from **SERB-DST, CSIR, DBT, INSA, ICMR, JNU** etc. to attend different international conferences abroad
 - Received **CSIR-Senior Research Associate Award (CSIR-Scientists Pool Scheme)** vide File No. B-12797 in Life Sciences, June 2021
 - Was awarded **European Molecular Biology Organization (EMBO) Travel and registration fee waiver grants** to attend the EMBO Workshop "Membrane transporters as essential elements of cellular function and homeostasis" 23 – 27 August 2022 at Chania, Greece
 - Was awarded the **IndiaBioscience Outreach grant (4th IOG Grant)** as Lead applicant by IndiaBioscience for the year 2023-24.
 - Secured "**Second Position**" in **Oral Presentation competition held during "Regional Young Investigators Meeting"** held at the University of Kashmir, Srinagar J&K from 19-21, Sep. 2023.

Kiesar Sideeq Bhat (Dr.):

- Received MSc. Organic Chemistry, from Pune University, Maharashtra, 2013.
- Research Assistant, Department of Chemistry, Pune University, Maharashtra 2014.
 - Brain Korea-21 full fellowship award for PhD program at Chonbuk National University, South Korea, March 2015-August 2019.
- Postdoc Research Fellow, Chonbuk National University, South Korea, September-October 2019.
- Postdoc Research Fellow, Nanyang Technological University, Singapore, 2020-2021.
- Ramanujan Fellowship/grant award, University of Kashmir, Srinagar, 2021-2026.
 - Research and Scientific staff at Singapore-MIT Alliance for Research and Technology (Research centre of MIT in Singapore), September 2022-December 2023.
- **Patents Awards:**
 1. Silver ink composition and methods for preparing the same (은 잉크 조성물 및 이의 제조방법) Korea Patent number: 10-2077690. Registration date: 2020.2.10. Inventors: Yoon-Bong Hahn, **Kiesar Sideeq Bhat**, Jinyoung Yoo. Also handed over to a company for commercialization.
 2. Plastically Deformable 3D Objects with Heat Channels (PCT patent application number

PCT/US2021/018783), International Publication Number WO 2022/177571 A1. Inventors: SONG Juha; **Kiesar Sideeq Bhat**; SHI Qian; Muhammad Aidil BIN JUHARI; Aravind Kumar JAYASANKAR; HAN Rui Yuan; Rafael BALLAGAS; Michael John REGAN.

Alumni

- Success stories of distinguished/illustrious alumni from the department/faculty

S. No.	Name of Alumni	Placement
1	<i>Dr Tanveer Bilal</i>	<i>Deptt. of Higher Education</i>
2	<i>Dr Bisma Malik</i>	<i>Deptt. of Higher Education</i>
3	<i>Miss Mehak Majeed</i>	<i>Deptt. of Higher Education</i>
4	<i>Dr. Fayaz Ahmad</i>	<i>Deptt. of Higher Education</i>
5	<i>Dr. Basharat A Bhat</i>	<i>Deptt. of Higher Education</i>
6	<i>Dr. Umer Mehraj</i>	<i>PDF, Duke University Durham, NC 27708, USA</i>
7	<i>Dr Sajad Ahmad Padder</i>	<i>PDF, Hackensack Medidian Health School of Medicine, Nutley ,USA</i>
8	<i>Mr. Irfan Baba</i>	<i>Police official in J&K Police</i>
9	<i>Ms. Rubeena Ashraf</i>	<i>Teacher in deptt. of school education</i>
10	<i>Mr. Bashir Ahmad Sheikh</i>	<i>Teacher in deptt. of school education</i>
11	<i>Ms. Rumaisa Beigh</i>	<i>Teacher in deptt. of school education</i>
12	<i>Ms. Kounsar un Nisa</i>	<i>Teacher in deptt. of school education</i>
13	<i>Miss. Sadaqat Farooq</i>	<i>DST-INSPIRE Fellow at IIM Jammu; PDF, USA</i>
14	<i>Ms. Qaiser-ul- nisa</i>	<i>Teacher in deptt. of school education</i>
15	<i>Miss Mariya Mir</i>	<i>Lab assistant at higher secondary</i>
16	<i>Mr. Mohd Umer Aftab</i>	<i>Employed in J&K Bank</i>
17	<i>Mr. Syed Sami Kozger</i>	<i>Entrepreneur</i>
18	<i>Mr. Suhail Ahmad</i>	<i>Entrepreneur</i>
19	<i>Miss Misbah</i>	<i>Employee in J&KBank</i>
20	<i>Mr. Zahoor</i>	<i>Officer in J&K Police</i>
21	<i>Miss Aliya Riyaz</i>	<i>Teacher in deptt. of school education</i>
22	<i>Miss Irfana</i>	<i>Lab. Assistant, Kashmir University</i>
23	<i>Mrs Nelofar</i>	<i>Teacher in deptt. of school education</i>
24	<i>Mr Parvaiz Ahmad</i>	<i>Bank Executive at J&K Bank</i>
25	<i>Dr. Anjum</i>	<i>Research Associate Deptt. Of Endocrinology, SKIMS</i>

- **Alumna testimonials**

- *I am eternally grateful for the education and training I received at University of Kashmir. During my research years earning a Ph.D. at the Department of Bioresources, School of Biological Sciences, I had the privilege of learning from some of the finest scientists – and hardworking people - I have ever met. The faculty at the Department especially my advisor Dr. Manzoor A Mir, ensured that I felt nurtured, cherished and challenged. I owe my present-day career to what I learned at the Department of Bioresources.*

Umar Mehraj, PhD, 2022.

Why Recruit Us?

- Student's skill set, strengths and achievements

Pass out students from the department develop entrepreneur mindset and have skills in Bee Keeping, Sericulture, Aqua culture, Dairy farming, Mushroom cultivation, poultry rearing, medicinal plant cultivation etc. Pass outs are groomed to start self-employment business

- Scope
School and Higher Education sector, Health sector, Pharmaceutical Industry, Nutraceutical Industry, Applied scientific research sector.
- Roles we play
Professors, Teachers, Researchers, Entrepreneurs, Drug inspectors, Fisheries inspectors, Quality control officers, Forensic experts
- **Broad Curriculum:**

S. No.	Programs	Degree titles	Specializations
1	M.sc.	Masters in Bioresources	Animal Resources, Plant Resources, Microbial Resources
2	M.Phil./I-PhD/Ph.D	Doctorate in Bioresources	Cancer Biology, Immunology, Drug discovery from medicinal Plants, Drug designing and computational biology, Plant Physiology, Plant Biotechnology, Microbial Biotechnology, Microbial Pathogenesis

Faculty Expertise

Dr Manzoor Ahmad Mir holds master's degree in Life Sciences with gold medal and Ph. D in Immunology (Life Sciences) from Jawaharlal Nehru University New Delhi. He has qualified the CSIR-JRF-NET exam three times and worked as JRF at CSIR-IMTECH from 2004 to 2006 and as SRF from 2006-2009. He started his teaching Job as Assistant Professor from 2009 at the J&K Higher Education Department and worked as Nodal officer and coordinator of Kupwara University Campus from 2011 to 2013. Dr Manzoor started working as Assistant professor in the Department of Bioresources from 2012 and is heading the Department since 2019. Dr Manzoor has an outstanding teaching and research experience of 15 years and recently his name has figured in top 2% globally recognized Scientists of the World for the year 2023 published by Stanford University. He has published more than 50 high impact scientific research papers in reputed peer reviewed international Journals with an H-index of 23, i-10 index of 54, cumulative impact factor of 314 and more than 2000 citations. He has also published 15 international Books with Web of Science publishers like Elsevier, Springer- Nature, Academic Press, NOVA Biomedical and OMICS international. Besides he has 56 book chapters to his credit with the publishers of international repute. Dr Manzoor has developed more than 160 MOOC modules of 4 quadrant in Immunology, endocrinology and human genetics for UGC-SWAYAM Ministry of Education, Govt of India. He has been awarded Summer Research Fellowship by Indian National Science Academies for year 2019, Teacher Associate for Research Excellence award by the SERB-DST Govt. of India in 2020. Dr. Manzoor has attended many international conferences at USA, UK, Kuwait, China, UAE, Scotland and Saudi Arabia. His basic research interests include molecular immunology and Cancer Biology especially Drug repurposing for breast cancer. Dr. Manzoor is on the editorial board of some prestigious journals and is member of many scientific organizations and societies like American association of Cancer Research, Fellow of Royal Society of Biology, American Society of Oncology, American Society of Clinical Oncology, European Medical Oncology society, International Immunology Association, Indian Association of Immunology, CHASCON, Indian National Science Association, and Immuno-oncology society of India.

Dr Manzoor has Research Expertise in Cancer Biology and Immunology

He has an experience of working and handling virulent Mycobacteria (M. tuberculosis H37Rv) in BSL-3, culture and maintenance of M. tuberculosis H37Rv, M. tuberculosis H37Ra and M. microti in brothbase (7H9 Broth), agar base (7H10 Agar with or without OADC or ADC) and on Lowenstein-Jensen slants. He has an expertise of maintaining and handling of different mammalian cell lines (EL-4, WEHI-279, THP-1, HuT-78, JM-1, J774A.1, Jurkat, COS-7 etc.), experience of handling BALB/c, C57BL/6, C3He mice for isolation of peritoneal macrophages, splenocytes, Dendritic cells etc. Purification of naïve T cells and B cells by density gradient centrifugation, purification of dendritic cells from spleen and bone marrow, preparation of Baby rabbit complement, purification of monoclonal antibody from culture supernatant by using sepharose protein A and G columns and other cellular immunological techniques. Dr Manzoor is also conversant with the instruments like Flow-cytometer, Fluorescence microscope, Phosphor-Imager, Confocal microscope, Gel-doc, beta counter, Inverted microscope, Fluorimeter and Luminometer, ELISA reader, Spectrophotometer, Sonicator, Centrifuges (RC5C, RC3C, table-top) etc. He has also the expertise in acquisition and analysis of data related to Immuno-fluorescence staining of cell surface molecules (Two colour as well as Multi-colour) and intracellular staining of cytokines, expertise in Cell Quest and FACS PRO-Software's of FACS acquisition and Analysis, Detection of apoptosis by PI staining.

Dr. Reiaz Ul Rehman is a Sr. Assistant Professor in the Department of Bioresources, School of Biological Sciences, University of Kashmir, Srinagar, India. He is actively involved in teaching Master's and Integrated PhD students and has guided several M.Sc., M.Phil and PhD theses. He is the recipient of several fellowships at both national and international levels, including the Marie Curie IIF award (MC-IIF-FP7-219339). His research interests include the agronomical, physiological and biochemical aspects of and mineral nutrition in underutilized crops. He has to his credit three published books, 60 research articles in various journals and 40 book chapters in several edited volumes. Dr. Reiaz is a member of various internal bodies viz American Society of Plant Biologists (ASPB), Member International Society for Development and Sustainability (ISDS), Member Institute of Scholars (InSc), Society for Plant Research (SPR) and Member Applied Microbiology International. Besides he serves as an active reviewer of many journals.

Dr. Peer Abdul Haseeb Shah, DST INSPIRE Faculty earned his Ph.D. and post-doctorate from the School of Life Sciences, Jawaharlal Nehru University, New Delhi. His research interests are focused mainly on understanding the basic biology, drug resistance, and regulation of membrane protein levels by various post-translational events in human pathogenic fungi, mostly belonging to the genus *Candida*. His group works towards understanding the antifungal properties of new or modified possible drug candidates. Dr. Shah's lab tries to understand the drug resistance mechanisms adopted by different clinical isolates of human pathogenic fungi. Besides research, he regularly teaches various courses to Master's level students at the University of Kashmir, Srinagar. Dr. Shah has published over 30 research and review articles in peer reviewed international journals of repute like ACS Pharmaceuticals, European Journal of Medicinal Chemistry, Biochemical Journal, Critical Reviews Microbiology, Scientific Reports, Journal of Molecular Biology, Fungal genetics and Biology, Antimicrobial agents and Chemotherapy, Journal of Applied Microbiology, Essays in Biochemistry, Microbiological Research, etc. Dr. Shah has also served as the American Society for Microbiology (ASM) Young Ambassador to India (2020-22), to advance the knowledge about microbial sciences locally. As a lead awardee he has also received prestigious 4th India Bioscience Outreach Grant Award (IOG) to take up science outreach activities in the area.

Kiesar Sideeq Bhat received his B.Sc. degree from University of Kashmir in 2009 and M.Sc. degree in Organic Chemistry from University of Pune, India in 2012. He pursued his PhD between 2015 to 2019 to work on development of conductive electrodes and sensors for printable and flexible electronics in Professor Yoon-Bong Hahn's Laboratory (AMPL) at the Chonbuk National University, South Korea. Immediately after his PhD, he joined as a short term postdoctoral researcher to work on the fabrication of sensitive DNA based biosensors with Professor Sooman Lim at department of flexible and printed electronics,

Chonbuk National University, South Korea. He then joined as postdoctoral research fellow between January 2020 to December 2021 to develop shape reconfigurable and recyclable 3D and 4D printed systems, Professor Juha Song's Laboratory (BFMLab) at Nanyang Technological University, Singapore. Currently, He is working as a Ramanujan Fellow (Equivalent of Scientist D or Assistant professor) at the Department of Bioresources, University of Kashmir, India. He also got the opportunity to work as a research and scientific staff from September 2022 to December 2023, at Singapore-MIT Alliance for Research and Technology (SMART), Singapore where he collaborated with team of scientist/biologists/engineers from MIT, USA and other industry partners to develop Magnetic Resonance Relaxometry CQA based tools for stem cell manufacturing. His research interests include broadly the synthesis of nanomaterials based inks for the fabrication of optoelectronics, printable & flexible electronics, development of sensor devices for biomedical sensing applications; Development of novel Magnetic Resonance Relaxometry (MRR) based cell phenotyping technology both in terms of instrumentation and scientific validation. So far, Dr Bhat has published over 25 research articles in highly reputed peer reviewed international journals such as, Chemical Engineering Journal, ACS Omega, Scientific Reports, npj Nature 2D materials and applications, Wiley Advanced healthcare Materials, Journal of Materials Chemistry C, Journal of Colloid and Interface Science, Nano-energy, RSC Advances etc and more to come soon accentuating to nanomaterials based low cost biomedical devices from different applications. Moreover, He has been awarded 2 patent during his PhD and Postdoc research time.

Research and Innovation

- Ongoing research projects,

Dr. Manzoor Ahmad Mir

S. No	Title of the Project	Cost in Lakh	Duration	Role as PI/ Co-PI	Agency
1	Targeting drug resistant cancer stem cells by combinational delivery of Paclitaxel and Quercetin/Zerumbone in breast cancer	10 Lacs	2 years	PI	JKST&IC Govt of J&K
2	Elucidation of Molecular Basis of Drug and Multidrug Tuberculosis Resistance of Mycobacterium tuberculosis in Kashmir Valley	18 Lacs	3 years	PI	SERB-DST Govt of J&K

Dr. Reiaz Ul Rehman

Principal Investigator: Dr. Reiaz Ul Rehman; Project "Elucidating the Roles of Heat Shock Proteins and Selenium Transporters in Proso Millet" Sponsored by: Science and Engineering Research Board (SERB-DST) Govt of India, New Delhi Total Amount: 2948260. Project No. SUR/2022/002065.

Adil Rasool (Co-Mentor): Reiaz Ul Rehman; Mentor: Tanveer Ali Dar): ICMR Fellowship. Topic: Cholinesterase and glycation inhibition potential of Glycyrrhiza glabra and identification of bioactive molecules (s). Indian Council of Medical Research (ICMR: 45/06/2022/TRM/BMS). Grant Amount: 15 Lakh.

Ms Wasifa (Co-Mentor): Reiaz Ul Rehman; Mentor: Showket A. Ganai): ICMR Fellowship. Topic: Phytochemicals in modulating drug induced complications in type 2 diabetes. Indian Council of Medical Research (ICMR: 03/01/3(1)/Endo-fellowship/22-NCD-III). Grant Amount: 15 Lakh.

Dr. Peer Abdul Haseeb Shah

- 4th **IndiaBioscience Outreach grant** funded by IndiaBioscience entitled “**Outreach and mentorship program for providing exposure to the underprivileged student community**”
- **Core Research grant** entitled “**Pharmaceutical co-crystals/salts of azole antifungals. Development and investigation of their physicochemical and anti-fungal properties and cytotoxicity studies**” (approx.. 55 lakh) approved by SERB-DST for the period 2024-2027

Dr. Kiesar Sideeq Bhat

Development of sensors for biomedical applications (Under Ramanujan Fellowship Scheme)

Important publications

Dr. Manzoor Ahmad Mir

Author(s)	Title	Name of Journal	Volume	Page/Article No.	Year
Mehraj U, Mushtaq U, Manzoor A Mir, ... Wani NA.	Chemokines in triple- negative breast cancer heterogeneity: New challenges for clinical implications	Seminars in Cancer Biology (Elsevier) (Impact Factor-17.012)	86 (Pt 2)	769-783	2022
Burhan Ul Haq, Hina Qayoom, Shazia Sofi, Nusrat Jan, Aisha Shabir, ... M A Mir	Targeting p53 Misfolding Conundrum by Stabilizing Agents and their Analogues in Breast Cancer therapy: A comprehensive computational analysis	Frontiers in Pharmacology (Impact Factor-5.988)	14	1333447	2024
Shazia Sofi, Umar Mehraj Nusrat Jan, Manzoor A Mir	Clinicopathological significance and expression pattern of Bcl2 in Breast Cancer: A comprehensive insilico and in vitro study	Saudi Journal of Biological Sciences, (Elsevier) (Impact Factor-4.052)	31	103916	2024
Nusrat J, Shazia S, Hina Q, Aisha S, Burhan Ul H, MA Mir	Metronomic Chemotherapy and Drug Repurposing: A paradigm Shift in Oncology	Heliyon (Cell Press) (Impact Factor- 3.776)			2024
Basharat Ahmad Bhat, Wajahat Rashid Mir, ... Manzoor AMir*	Network pharmacology and experimental validation for deciphering the action mechanism of Fritillaria cirrhosa D. Don constituents in suppressing breast carcinoma	Journal of Biomolecular Structure and Dynamics (Taylor & Francis) (Impact Factor-5.235)	10	1-21	2023
Hina Qayoom, Burhan Ul Haq., Manzoor A Mir*	Decoding the molecular mechanism of stypoldione against breast cancer through network pharmacology and experimental validation	Saudi Journal of Biological Sciences, (Elsevier) (Impact Factor-4.052)	30(12)	103848	2023
Hina Qayoom, Shazia Sofi & Manzoor A. Mir*	Targeting tumor microenvironment using tumor-infiltrating lymphocytes as therapeutics against tumorigenesis	Immunologic Research (Springer Link) (Impact Factor-4.423)	71	588-599	2023

Jan, N., Qayoom H,... Manzoor A Mir*	Elucidation of Interleukin-19 as a therapeutic target for breast cancer by computational analysis and experimental validation.	Saudi Journal of Biological Sciences (Elsevier) (Impact Factor-4.052)	30(9)	103774	2023
Nusrat Jan, Shazi a Sofi, ... Manzoor A Mir*	Targeting breast cancer stem cells through retinoids: A new hope fortreatment	Critical Reviews in Oncology/Haematology (Elsevier) (Impact Factor-6.625)	192	104156	2023
Mir, W. R,... Manzoor A Mir*	Network pharmacology combinedwith molecular docking and in vitro verification reveals the therapeutic potential of Delphinium roylei munz constituents on breast carcinoma.	Frontiers in Pharmacology (Impact Factor-5.988)	14	1135898	2023
Qayoom, H., Alkhanani, M.,... Manzoor A Mir*	Mechanistic elucidation of Juglanthraquinone C targeting breast Cancer: A network Pharmacology-based investigation.	Saudi Journal of Biological Sciences (Elsevier) (Impact Factor-4.052)	30(7)	103705	2023
Qayoom, H., Alkhanani,... Manzoor A Mir*	A network pharmacology-based investigation of brugine reveals its multi-target molecular mechanism against Breast Cancer	Medical Oncology (Springer-Nature) (Impact Factor-3.738)	40(7)	202	2023
Khalid Bashir Dar, Manzoor A Mir et. al.	Immunomodulatory Efficacy of Cousinia Thomsonii C.B. Clarke in Ameliorating iNOS, COX-2, PPAR- γ , Rel-A, and CRP Expression and Molecular Docking Analysis	Journal of Ethnopharmacology (Elsevier) (Impact Factor-4.364)	300	115727	2023
M. Nadeem Lone, Shazia Gul, ... Manzoor A Mir*	Synthesis and Biological Evaluation of Novel Uracil Derivatives as Thymidylate Synthase Inhibitors	Applied Biochemistry and Biotechnology (Springer-Nature) (Impact Factor-3.094)	195(10)	6212-6231	2023
Aadil A. A, Manzoor A, Mir, Abdul H Shah*, Aijaz A. Dar*	Physicochemical and Anti-fungal Studies of the Pharmaceutical Co-crystal/Salt of Fluconazole	Molecular Pharmaceutics (ACS Publications) (Impact Factor-5.364)	20(7)	3471-3483	2023
Umar Mehraj, Irfan A Mir,... Manzoor A Mir*	Adapalene and doxorubicin synergistically promote apoptosis of TNBC Cells by hyperactivation of the ERK1/2 pathway through ROS induction	Frontiers in Oncology (Impact Factor-6.244)	12	938052	2022
Umar Mehraj, Nissar A Wani, ... Manzoor A Mir*	Adapalene inhibits the growth of triple-negative breast cancer cells by S- phase arrest and potentiates the antitumor efficacy of GDC-0941	Frontiers in Pharmacology (Impact Factor-5.988)	13	958443	2022
Hina Qayoon, Umar	Expression patterns and therapeutic implications of CDK4	Medical Oncology (Springer-Nature)	39(10)	158	2022

Mehraj, ... Manzo or A Mir*	across multiple carcinomas: a molecular docking and MD simulation study	(Impact Factor-3.738)			
Umar Mehraj, Bader Alshehri, ... Manzo or A Mir*	Expression Pattern and Prognostic Significance of Chemokines in Breast cancer: An Integrated Bioinformatics Analysis	Clinical Breast cancer (Elsevier) (Impact Factor-3.128)	22(6)	567-578	2022
Mehraj Umar, Qayoom Hina, ... Manzo or A Mir*	Cryptolepine Targets TOP2A and Inhibits Tumor Cell Proliferation in Breast Cancer Cells - An in vitro and in silico Study	Anti-Cancer Agents in Medicinal Chemistry (Impact Factor-2.473)	22(17)	3025-3037	2022
Bhat BA, Mir WR, ... Manzo or A Mir*	In vitro and in silico evaluation of antimicrobial properties of Delphinium cashmerianum L., a medicinal herb growing in Kashmir, India.	Journal of Ethnopharmacology (Elsevier) (Impact Factor-4.364)	291	115046	2022
Umar Mehraj, Shazia Sofi, ... Manzo or A Mir*	Expression Pattern and Prognostic significance of CDKs in Breast Cancer: An Integrated Bioinformatic Study.	Cancer Biomarkers IOS-Press Netherlands (Impact Factor-3.828)	34(3)	505-519	2022
Wajahat R Mir, Basharat A Bhat, ... Manzo or A Mir*	Molecular docking analysis and evaluation of the antimicrobial properties of the constituents of Geranium wallichianum D. Don ex Sweet from Kashmir Himalaya	Scientific Reports (Springer Nature) (Impact Factor-4.663)	12	12547	2022
Shazia Sofi, Umar Mehraj, ... Manzo or A Mir*	Cyclin-Dependent Kinases in Breast Cancer: Expression Pattern and Therapeutic Implications	Medical Oncology (Springer Nature) (Impact Factor-3.738)	39(6)	106	2022
Suliman A., Manzo or A Mir et. al.	In silico investigations identified Butyl Xanalterate to competently target CK2 α (CSNK2A1) for therapy of chronic lymphocytic leukemia	Scientific Reports (Springer Nature) (Impact Factor-4.663)	12	17648	2022
Shazia Sofi, Umar Mehraj, ... Manzo or A Mir*	Targeting Cyclin-dependent kinase 1 (CDK1) in Cancer: Molecular Docking and Dynamic Simulations of potential CDK1 Inhibitors	Medical Oncology (Springer-Nature) (Impact Factor-3.738)	39(9)	133	2022
Mehraj U, Aisha S, ... Manzo or A Mir*	Expression pattern and prognostic significance of baculoviral inhibitor of apoptosis repeat-containing 5 (BIRC5) in breast cancer: A comprehensive analysis.	Advances in Cancer Biology- Metastasis (Elsevier) (Cite Score-1.8)	4	100037	2022
Umar Yousuf, Shazia Sofi, ... Manzo or A Mir*	Identification and analysis of dysregulated fatty acid metabolism genes in breast cancer subtypes	Medical Oncology (Springer Nature) (Impact Factor-3.738)	39	256	2022

Mohd Zahoor ul haq Shah, Manzoor A Mir et. al.	<i>Gallic acid reverses ovarian disturbances in mice with Letrozole-Induced PCOS via modulating Adipo R1 expression</i>	<i>Toxicology Reports (Elsevier)</i> (Impact Factor-3.952)	9	1938-1949	2022
Mohd Zahoor ul Haq Shah, Vinoy Kumar Shrivastava, ... Manzoor A Mir*	<i>Chlorogenic Acid Restores Ovarian Functions in Mice with Letrozole-Induced Polycystic Ovarian Syndrome Via Modulation of Adiponectin Receptor</i>	<i>Biomedicines</i> (Impact Factor-4.757)	11(3)	900	2023
Basharat Ahmad Bhat, Rakeeb A Mir, ... Manzoor A Mir*	<i>Integrins in the development of antimicrobial resistance: critical review and perspectives</i>	<i>Frontiers in Microbiology</i> (Impact Factor-6.064)	14	1231938	2023
Hafsa Qadri, Abdul Haseeb*, ... Manzoor A Mir	<i>Quinidine Drug Resistance transporter Knockout Candida cells modulate glucose transporter expression and accumulate metabolites leading to enhanced azole drug resistance</i>	<i>Fungal Genetics and Biology (Elsevier)</i> (Impact Factor-3.883)	161	103713	2022
Manzoor A Mir* , Bilkees Mir, et. al.	<i>Manipulation and exploitation of host immune system by pathogenic Mycobacterium tuberculosis for its advantage</i>	<i>Future Microbiology (Future Medicine)</i> (Impact Factor-3.553)	17	1171-1198	2022
Mohd Zahoor ul haq Shah* Vinoy kumar Shrivastva, Manzoor A Mir et. al.	<i>Effect of quercetin on steroidogenesis and folliculogenesis in ovary of mice with experimentally-induced polycystic ovarian syndrome</i>	<i>Frontiers in Endocrinology</i> (Impact Factor-5.234)	14	1153289	2023
Basharat A Bhat, Abdullah Almilaibary, ... Manzoor A Mir*	<i>Natural therapeutics in aid of treating Alzheimer's disease (AD): A green gateway towards ending the quest for treating neurological disorders</i>	<i>Frontiers in Neuroscience</i> (Impact Factor-4.253)	16	884345	2022
Basharat A Bhat, Wajahat R Mir, ... Bashir A Sheikh, Mustafa Al & Manzoor A Mir*	<i>Metabolite fingerprinting of phytoconstituents from Fritillaria cirrhosa D. Donand molecular docking analysis of bioactive peonidin with microbial drug target proteins</i>	<i>Scientific Reports (Nature Springer)</i> (Impact Factor-4.663)	12(1)	7296	2022
Wajahat Rashid Mir, Basharat Ahmad Bhat, ... Manzoor A Mir*	<i>Evaluation of the In Vitro Antimicrobial Activities of Delphinium roylei: An Insight from Molecular Docking and MD-Simulation Studies</i>	<i>Medicinal chemistry (Bentham Science)</i> (Impact Factor-2.434)	18(10)	1109-1121	2022
Mohd Zahoor ul haq Shah... Manzoor A Mir et. al.	<i>Role of diacerein on steroidogenesis and folliculogenesis related genes in ovary of letrozole-induced PCOS mice</i>	<i>Chemico-Biological Interactions (Elsevier)</i> (Impact Factor-5.192)	377	110468	2023

Mohd Zahoor ul haq Shah, Vinoy S ... Manzoor A Mir*	<i>Metformin treatment ameliorates endocrine-metabolic disturbances in the letrozole-induced PCOS mice model by modulating adiponectin status</i>	<i>Obesity Medicine (Elsevier) (Cite Score-4.5)</i>	31	100392	2022
Suliman A. Alsagaby, Danish Iqbal,..... Manzoor A Mir*	<i>In silico investigations identified Butyl Xanalterate to competently target CK2α (CSNK2A1) for therapy of chronic lymphocytic leukemia</i>	<i>Scientific Reports (Springer Nature) (Impact Factor-4.663)</i>	12	17648	2022
Hafsa Qadri, Abdul Haseeb Shah,... Manzoor A Mir*	<i>Immunotherapies against human bacterial and fungal infectious diseases: A review</i>	<i>Frontiers in Medicine (Impact Factor-3.978)</i>	10	1135541	2023
Bashir A Sheikh, Manzoor A Mir*	<i>Strategies employed to evade the host immune response and the mechanism of drug resistance in Mycobacterium tuberculosis: In search of finding new targets</i>	<i>Current Pharmaceutical Biotechnology (Bentham Science) (Impact Factor-3.978)</i>	23(14)	1704-1720	2022
Bashir Ahmad Sheikh, Basharat Ahmad Bhat & Manzoor A Mir*	<i>Antimicrobial resistance: new insights and therapeutic implications</i>	<i>Applied Microbiology and Biotechnology (Springer Nature) (Impact Factor-5.562)</i>	106(19-20)	6427-6440	2022
Bashir A. Sheikh, Basharat A. Bhat, ... Manzoor A Mir*	<i>Nano-Drug Delivery Systems: Possible End to the Rising Threatsof Tuberculosis</i>	<i>Journal of Biomedical Nanotechnology American Scientific Publishers (Impact Factor-2.973)</i>	17(12)	2298-2318	2021
Hina Qayoom, Nissar A Wani, Bader Alshehri & Manzoor A Mir*	<i>An insight into the cancer stem cell survival pathways involved inchemoresistance in triple-negative breast cancer</i>	<i>Future Oncology (Future Medicine Group)(Impact Factor-3.674)</i>	17(31)	4185-4206	2021
Umar M, Rais A, ... Manzoor A Mir* & Nissar A Wani*	<i>The tumor microenvironment as driver of stemness and therapeutic resistance in breast cancer: New challenges and therapeutic opportunities</i>	<i>Cellular Oncology (Springer Nature) (Impact Factor-6.679)</i>	44(6)	1209-1229	2021
Umar Mehraj, Hina Qayoom & Manzoor A Mir*	<i>Prognostic significance and targeting tumor-associated macrophages in cancer: new insights and future perspectives</i>	<i>Breast Cancer (Springer Nature) (Impact Factor-4.024)</i>	48	101408	2021
Umar Mehraj, Abid Hamid Dar, Nissar A. Wani & Manzoor A Mir*	<i>Tumor microenvironment promotes breast cancer chemoresistance</i>	<i>Cancer Chemotherapy and Pharmacology (Springer Nature) (Impact Factor-3.288)</i>	87(2)	147-158	2021
Manzoor A Mir* , Hina Qayoom, ..., Nissar A. Wani	<i>Targeting Different Pathways Using Novel Combination Therapy in Triple Negative Breast Cancer</i>	<i>Current Cancer Drug Targets (Bentham Science) (Impact Factor-2.907)</i>	20(8)	586-602.	2021
Hafsa Qadri, Abdul H. Shah, Manzoor A Mir*	<i>Novel Strategies to Combat the Emerging Drug Resistance in Human Pathogenic Microbes</i>	<i>Current Drug Targets (Bentham Science) (Impact Factor-3.234)</i>	22(12)	1424-1436	2021

<i>Bashir A. Sheikh, Basharat A. Bhat, Manzoor A Mir*</i>	<i>Development of New Therapeuticsto Meet the Current Challenge of Drug Resistant Tuberculosis</i>	<i>Current Pharmaceutical Biotechnology (Bentham Science) (Impact Factor-2.829)</i>	22(4)	480-500	2021
<i>Mahak Majeed, Tanveer B Pirzadah, Manzoor A Mir et.al.</i>	<i>Comparative Study on Phytochemical Profile and Antioxidant Activity of an Epiphyte, Viscum album L. (WhiteBerry Mistletoe), Derived from Different Host Trees</i>	<i>Plants (Impact Factor-4.658)</i>	10(6)	1191	2021
<i>Hafsa Qadria, Munazah F Qureshi, Manzoor A Mir*, Abdul H Shah*</i>	<i>Glucose - The X factor for the survival of human fungal pathogens and disease progression in the host</i>	<i>Microbiological Research (Elsevier) (Impact Factor-6.763)</i>	247	126725	2021
<i>Samra Hafeez, Mahwish Urooj, , Manzoor A Mir et.al.</i>	<i>BAD, a Proapoptotic Protein, Escapes ERK/RSK Phosphorylation in Deguelin and siRNA- Treated HeLa Cells</i>	<i>PLOS ONE Impact Factor (4.293)</i>	11(1)	e0145780	2015
<i>Marta Mila, Marina Garriga, Manzoor A Mir et.al.</i>	<i>¹²³I-FP-CIT SPECT imaging, clinical diagnosisof common types of dementia and contribution of ischemia to brain damage</i>	<i>Frontiers in Systems Neuroscience Impact Factor (3.673)</i>	9	99	2015
<i>Manzoor A Mir and Javed N. Agrewala</i>	<i>Signaling through CD80:an approach for treating lymphomas</i>	<i>Expert Opinion in Therapeutic Targets (Taylor & Francis) Impact Factor (6.324)</i>	12(8)	969-79	2008

Important Books- Dr. Manzoor Ahmad Mir

1. Books/Reports/Chapters/General articles etc.

S. No	Title	Author's Name	Publisher	Year of Publication
1	Novel Approaches in Metronomic Chemotherapy for Breast Cancer Treatment	Manzoor A Mir	Taylor & Francis GroupCRC Press	2024
2	Cytokine and Chemokine Networks in Cancer	Manzoor A Mir	Springer-Nature Singapore	2023
3	Therapeutic potential of Cell Cycle Kinases in Breast Cancer	Manzoor A Mir	Springer-Nature Singapore	2022
4	Role of tumor microenvironment in breast cancer and targeted Therapies	Manzoor A Mir	Elsevier Science Publishers	2022
5	Combinational Therapy in Triple Negative Breast Cancer	Manzoor A Mir	Elsevier Science Publishers	2022
6	Combination Therapies and their Effectiveness in Breast Cancer Treatment	Manzoor A Mir	Nova Biomedical USA	2021
7	Cytokines and their Therapeutic potential	Manzoor A Mir	Nova Science Publishers	2020

8	Plant Metabolites in Treatment of Cancer and Cerebrovascular Diseases	Manzoor A Mir And Umar Mehraj	Omics International	2019
9	Natural Medicine for Cerebrovascular Diseases	Manzoor A Mir, Umar Mehraj,	Ariana Publishers	2018
10	Natural Herbs in the Prevention and treatment of Stroke	Manzoor A Mir (Single Author)	Nova Science Publishers USA	2016
11	Developing Costimulatory Molecules for Immunotherapy of Diseases	Manzoor A Mir (Single Author)	Elsevier Publishers USA	2015
12	Recent Advances in Stroke Therapeutics	Manzoor A Mir, Raid S Albaradie, Malik D Alhusainwi	Nova Biomedical Publishers New York	2014
13	Costimulation Immunotherapy for Autoimmunity, Transplantation and Lymphomas	Manzoor A Mir, Raid S Albaradie Abdul R Alharbi	Nova Science Publishers USA	2013
14	Polyphenols in Human Health	Manzoor A Mir and Javed N Agrewala	Nova Science Publishers USA	2008
15	Human pathogenic microbes : diseases and concerns.	Manzoor A Mir	Elsevier Science Publishers	2022

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Dr. Peer Abdul Haseeb Shah (Important Publications)

- *Novel role of a family of major facilitator transporters in biofilm development and virulence of Candida albicans.* **Shah AH**, et al. *Biochem. J.* (2014) 460: 223–235. (IF-4.1)
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- *Quorum sensing: A less known mode of communication among fungi.* Padder SA, Prasad R, **Shah AH***. *Microbiol Res.* (2018) 210:51-58 (IF-6.7)
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- *Metabolic flexibility and extensive adaptability governing multiple drug resistance and enhanced virulence in Candida albicans.* Padder SA, Ramzan A, Tahir I, R Reiaz ul, **Shah AH***. *Crit Rev Microbiol.* (2022);48:1-20 (IF-6.5)
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- *Physicochemical and anti-fungal studies of pharmaceutical cocrystal/salt of fluconazole.* Ahangar AA, Qadri H, Malik AA, Mir MA, **Shah AH*** and Dar AA. *ACS Mol. Pharmaceutics.* (2023) doi: 10.1021/acs.molpharmaceut.3c00087 (IF:4.9)

Publications: • Citations: 1295 • h-index: 19 • i10-index: 23 (01.02.2024)

1. **Kiesar Sideeq Bhat**, Hyejin Kim, Asrar alam, Myunggon Ko, Jungeun An, Sooman Lim. *Rapid and label-free detection of 5-hydroxymethylcytosine in genomic DNA using an Au/ZnO nanorods hybrid nanostructure based electrochemical sensor.* *Adv. Healthcare Mater.* 2021, 2101193. (Impact factor 11.092).
2. **Kiesar Sideeq Bhat**, Rafiq Ahmad, Tahmineh Mahmoudi, and Yoon-Bong Hahn. *High performance chemical sensor with field-effect transistors array for selective detection of multiple ions.* *Chemical Engineering Journal* 417 (2021) 128064. (Impact factor 16.744).
3. **Kiesar Sideeq Bhat**, Umesh T. Nakate, Jin-Young Yoo, Yousheng Wang, Tahmineh Mahmoudi, and Yoon-Bong Hahn* *Cost-effective Silver Ink for Printable and Flexible Electronics with Robust Mechanical Performance.* *Chemical Engineering Journal*, 373 (2019) 355-364, (Impact factor

16.744).

4. **Kiesar Sideeq Bhat**, Umesh Tukaram Nakate, Jin-Young Yoo, Yousheng Wang, Tahmineh Mahmoudi, and Yoon-Bong Hahn* Nozzle-jet printed Ag/rGO based flexible FET sensor for phosphate ion detection. *ACS Omega*, 2019, 4 (5), pp 8373-8380. (**Impact factor 4.132**).
5. **Kiesar Sideeq Bhat**, Rafiq Ahmad,* Jin-Young Yoo, Yoon-Bong Hahn* Fully nozzle-jet printed non-enzymatic electrode for biosensing application. *Journal of Colloid and Interface Science* 512(2018) 480-488. (**Impact factor 9.965**)
6. **Kiesar Sideeq Bhat**, Rafiq Ahmad, Jin-Young Yoo and Yoon-Bong Hahn* Nozzle-jet printed flexible field-effect transistor biosensor for high performance glucose detection. *Journal of Colloid and Interface Science* 506 (2017) 188-196. (**Impact factor 9.965**)
7. **Kiesar Sideeq Bhat**, Rafiq Ahmad, Yousheng Wang and Yoon-Bong Hahn* Low-temperature sintering of highly conductive silver ink for flexible electronics. *J. Mater. Chem. C*, 2016,4, 8522-8527. (**Impact factor 8.067**)
8. **Kiesar Sideeq Bhat**, Shi Qian, Aidil Mohammad Johari, Song Juha. 4D mechanism of shape reconfigurable and recyclable smart plastics. (manuscript In progress, Target journal_ *Advanced Materials*, **Impact factor 32.086**).
9. **Kiesar Sideeq Bhat**, Hyejin Kim, Asrar alam, Myunggon Ko, Jungeun An, Sooman Lim. A fast and label-free detection of hydroxymethylated DNA using a nozzle-jet printed AuNPs@Ti3C2 MXene-based electrochemical sensor. *Talanta*, 244, 123421, (**Impact factor 6.556**).
10. Dattatray Chadar, Soniya S. Rao, Ayesha Khan, Shridhar P. Gejji, **Kiesar Sideeq Bhat**, Thomas Weyhermuller and Sunita Salunke-Gawali*. Benzo[α]phenoxazines and Benzo[α]phenothiazine from Vitamin K3: Synthesis, Molecular structures, DFT studies and Cytotoxic activity. *RSC Adv.*, 2015, 5, 57917-57929. (**Impact factor 4.036**)
Rafiq Ahmad,* Nirmalya Tripathy, Muhammad Yasir Khan, **Kiesar Sideeq Bhat**, Min-sang Ahn, Gilson Khang, Yoon-Bong Hahn* Hierarchically assembled ZnO nanosheets microspheres for enhanced glucose sensing performances. *Ceramics International* 42 (2016) 13464-13469. (**Impact factor 5.532**)
11. Rafiq Ahmad,* Nirmalya Tripathy, Muhammad Yasir Khan, **Kiesar Sideeq Bhat**, Min-sang Ahn and Yoon-Bong Hahn* Ammonium ion detection in solution using vertically grown ZnO nanorod based field-effect transistor. *RSC Adv.*, 2016, 6, 54836-54840. (**Impact factor 4.036**)
12. Rafiq Ahmad, **Kiesar Sideeq Bhat**, Min-Sang Ahn and Yoon-Bong Hahn* Fabrication of a robust and highly sensitive nitrate biosensor based on directly grown zinc oxide nanorods on a silver electrode. *New J. Chem.*, 2017, 41, 10992-10997. (**Impact factor 3.925**)
13. Yousheng Wang, Tahmineh Mahmoudi, Won- Yeop Rho, Hwa-Young Yang, Seunghui Seo, **Kiesar Sideeq Bhat**, Rafiq Ahmad, Yoon-Bong Hahn* Ambient-air-solution-processed efficient and highly stable perovskite solar cells based on CH₃NH₃PbI₃-xCl_x-NiO composite with Al₂O₃/NiO interfacial engineering. *Nano Energy* 40 (2017) 408- 417. (**Impact factor 19.069**)
14. Rafiq Ahmad, Nirmalya Tripathy, Min-Sang Ahn, **Kiesar Sideeq Bhat**, Tahmineh Mahmoudi, Yousheng Wang, Jin- Young Yoo, Dae-Wook Kwon, Hwa-Young Yang & Yoon-Bong Hahn* Highly efficient non-enzymatic glucose sensor based on CuO modified vertically-grown ZnO nanorods on electrode. *Sci Rep* 7, 5715 (2017). (**Impact factor 4.996**)
15. Min-Sang Ahn, Rafiq Ahmad,* **Kiesar Sideeq Bhat**, Jin-Young Yoo, Tahmineh Mahmoudi, Yoon-Bong Hahn* Fabrication of a solution-gated transistor based on valinomycin modified iron oxide nanoparticles decorated zinc oxide nanorods for potassium detection. *Journal of Colloid and Interface Science* 518 (2018) 277-283. (**Impact factor 9.965**)
16. Yousheng Wang, Tahmineh Mahmoudi, Hwa-Young Yang, **Kiesar Sideeq Bhat**, Jin-Young Yoo and Yoon-Bong Hahn* Fully-ambient-processed Mesoscopic Semitransparent Perovskite Solar Cells by Islands-structure-MAPbI₃- xCl_x-NiO Composite and Al₂O₃/NiO Interface Engineering. *NanoEnergy* 49 (2018) 59-66. (**Impact factor 19.069**)
17. Umesh Nakate, Rafiq Ahmad, Pramila Patil, **Kiesar Sideeq Bhat**, Yousheng Wang, Tahmineh Mahmoudi, Y. T Yu, Eun-kyung Suh, Yoon-Bong Hahn. High response and low concentration hydrogen gas sensing properties using hollow ZnO particles transformed from polystyrene@ZnO core-

- shell structures. *Int. J. Hydrogen Energy* 44 (2019) 15677-15688. (**Impact factor 7.139**)
18. Umesh Nakate, Rafiq Ahmad, Pramila Patil, Yousheng Wang, **Kiesar Sideeq Bhat**, Tahmineh Mahmoudi, Y. T Yu, Eun-kyung Suh, Yoon-Bong Hahn. Improved selectivity and low concentration hydrogen gas sensor application of Pd sensitized heterojunction n-ZnO/p-NiO nanostructures. *Journal of Alloys and Compounds* 797 (2019) 456-464. (**Impact factor 6.371**)
 19. Xue Qi, Xinlin Li, Hyunjin Jo, **Kiesar Sideeq Bhat**, Sehyun Kim, Jungeun An, Jae-Wook Kang, Sooman Lim. Mulberry paper-based graphene strain sensor for wearable electronics with high mechanical strength. *Sensors and Actuators A-Physical*, 301(2020), 111697. (**Impact factor 4.291**)
 20. Jingyi Zhang, Lydia Chong, **Kiesar Sideeq Bhat**, Derrick Yong, Juha Song* *Supramolecular and Additive Coatings for Designing Artificial Spores in Biomedical Engineering and Beyond: Overview and Prospects. Biomaterials*, 266, 120473, 2021. (**Impact factor 15.304**)
 21. Anha Bhat, Shoaib Anwer, **Kiesar Sideeq Bhat**, M. Infas H. Mohideen, Kin Liao, and Ahsanulhaq Qurashi. Prospects challenges and stability of 2D MXenes for clean energy conversion and storage applications, *Nature npj journal of 2D materials* 5(1), 61, 2021. (**Impact factor 11.541**)
 22. Saqib Qazi Muhammad, Chougale Mahesh, Khan Muhammad Umair, Shaukat Rayyan Ali, Kim Jungmin, **Kiesar Sideeq Bhat**, Bae Jinho. Lignocellulosic Waste Fruit Shell Based Tribopositive Materials for Harnessing Green Energy: A Comparative Analysis. *Materials Today Sustainability* 18, 100146, (**Impact factor 7.244**).
 23. Marya Khan, Vandana Nagal, Sakeena Masrat, Talia Tuba, Nirmalya Tripathy, Shamshad Alam, Ajit Khosla, Mansoor Ali Syed, **Kiesar Sideeq Bhat** and Rafiq Ahmad. Vertically-Oriented Zinc Oxide Nanorods Based Electrolyte-Gated Field-Effect-Transistor for High-Performance Glucose Sensing. *ACS Anal. Chem.* 2022, 94, 25, 8867–8873 (**impact factor 8.008**).
 24. Sakeena Masrat, Vandana Nagal, Marya Khan, Iqra Moid, Shamshad Alam, **Kiesar Sideeq Bhat**, Ajit Khosla, Rafiq Ahmad. Electrochemical Ultrasensitive Sensing of Uric Acid on Non- enzymatic Porous Cobalt Oxide Nanosheets-Based Sensor. *Biosensors* 2022, 12(12), 1140.
 25. Sakeena Masrat, Vandana Nagal, Marya Khan, Akil Ahmad, Mohammed B. Alshammari, Shamshad Alam, Ajit Khosla, **Kiesar Sideeq Bhat***, Rafiq Ahmad*. Boosted electrochemical sensing of uric acid with zinc oxide nanorods and copper oxide nanoseeds based hybrid nanostructures. *ACS Appl. Nano Mater.* 6, 18, 2023.
 26. Vandana Nagal, Sakeena Masrat, Marya Khan, Shamshad Alam, Akil Ahmad, Mohammed B Alshammari, **Kiesar Sideeq Bhat**, Sergey M Novikov, Prabhask Mishra, Ajit Khosla, Rafiq Ahmad. Highly Sensitive Electrochemical Non-Enzymatic Uric Acid Sensor Based on Cobalt Oxide Puffy Balls-like Nanostructure. *Biosensors* 2023, 13(3), 375.
 27. Nagal, Vandana; Khan, Marya; Masrat, Sakeena; Alam, Shamshad; Ahmad, Akil; Alshammari, Mohammed; **Bhat, Kiesar Sideeq**; Ahmad, Rafiq. Hexagonal Cobalt Oxide Nanosheets Based Enzymeless Electrochemical Uric Acid Sensor with Improved Sensitivity. *New J. Chem.*, 2023, 47, 4206-4212.
 28. Metabolic modulation to improve MSC therapeutic potential for articular cartilage repair Ching Ann Tee; Daniel Ninio Roxby; Rashidah Othman; Vinitha Denslin; Kiseer Sideeq Bhat; Zheng Yang; Jongyoon Han; Lisa Tucker-Kellogg; Laurie A. Boyer. **Stem Cell Research & Therapy (Submitted)**
 29. Muthu, Yie-Hou Lee, Rhodolfo, Andrea, Chester Lee-Drum. Magnetic resonance relaxometric study of cardiomyocytes. (Manuscript in progress for **Science translational medicine journal**).

Invited Talks/Presenations/Workshops:

1. Poster presentation, ACGT workshop, Singapore, 16-05-2023. Detection of paramagnetic ferric ions in Mesenchymal Stem Cells by highly sensitive and non-invasive magnetic resonance relaxometry. Kiesar Sideeq Bhat, Yie Hou Lee, Jongyoon Han.
2. Invited participant/viewer of 10th Global Young Scientist Summit Singapore 17-21, 01, 2022.
3. Invited talk at international conference of Nanotechnology for better living (ICNBL-2021), NIT, Srinagar, India 07- 11.09.2021. **Kiesar Sideeq Bhat**, Song Juha. Shape reconfigurable and recyclable 4D smart plastics.

4. Tech Talk, HP-NTU, Singapore, 13.10.2020. **Kiesar Sideeq Bhat, Juha Song.** *In situ or post-functionalization conductive inks for 3D printed electronics.*
5. Virtual workshop, HP-NTU, Singapore, 25-28 August 2020, **Kiesar Sideeq Bhat, Juha Song.** *4D printed smart systems through material and structural designs.*
6. Virtual workshop, HP-NTU, Singapore, 09.05.2020, **Kiesar Sideeq Bhat, Mohammad Aidil, Juha Song, Tico Ballagas.** *Development of 4D printed smart systems.*
7. Oral Talk at CMCEE, Singapore, 22-27.02.2018. **Kiesar Sideeq Bhat, Jin-Young Yoo, Yousheng Wang and Yoon- Bong Hahn.** *Nozzle-jet printed flexible enzymatic field-effect transistor (FET) and non-enzymatic electrochemical based glucose biosensors.*
8. Invited Talk at MCARE, South Korea, 20-24.02.2017. **Kiesar Sideeq Bhat, Rafiq Ahmad, Yousheng Wang and Yoon- Bong Hahn.** *Low-temperature sintering of highly conductive silver ink for flexible electronics.*
9. Poster Presentation at NANO KOREA, South Korea, 12-14.07.2017. **Kiesar Sideeq Bhat, Jin Young Yoo, Rafiq Ahmad, Min-Sang Ahn and Yoon-Bong Hah.** *Nozzle-jet printed flexible biosensor-based field-effect transistor for high performance glucose detection.*
10. Poster Presentation at IWFPE, South Korea, 23-24.11.2016. **Kiesar Sideeq Bhat, Rafiq Ahmad, Yousheng Wang, and Yoon-Bong Hahn*** *Low-temperature sintering highly conductive silver ink for flexible electronics.*
11. Poster Presentation at IWFPE, South Korea, 04-06.11.2015. **Kiesar Sideeq Bhat, Rafiq Ahmad, Muhammad Yasir Khan, Hwa-Yong Yang, Won-Yeop Rho and Yoon-Bong Hahn*** *Synthesis of Low-temperature Sintering Silver Precursor Ink for the Fabrication of Highly Conductive Flexible Electronics by Spin Coating.*
12. Poster Presentation at KiChe, South Korea, 27.10.2018. **Kiesar Sideeq Bhat, Jin-Young Yoo, Umesh Nakate, Yousheng Wang and Yoon-Bong Hahn*** *Fully nozzle-jet printed non-enzymatic electrode for biosensing application.*
13. Poster Presentation at KiChe, South Korea, 27.04.2018. **Kiesar Sideeq Bhat, Jin-Young Yoo,, Yousheng Wang, Tehmineh mahmoudi, Dae-Ook Kwan and Yoon-Bong Hahn*** *Fully nozzle-jet printed non-enzymatic electrode for biosensing application.*
14. Poster Presentation at KiChe, South Korea, 28.04.2017. **Kiesar Sideeq Bhat, Rafiq Ahmad, Yoo Jin Young, Min- Sang Ahn, Yousheng Wang and Yoon-Bong Hahn.** *Nozzle-jet printed flexible biosensor-based field-effect transistor for high performance glucose detection.*
15. Poster Presentation at KiChe, South Korea, 20.10.2016. **Kiesar Sideeq Bhat, Rafiq Ahmad, Wang Yousheng, and Yoon-Bong Hahn*** *Low temperature Sintering Highly Conductive Silver Ink for Flexible electronics.*
16. Poster Presentation at KiChe, South Korea, 28.04.2016. **Kiesar Sideeq Bhat, Rafiq Ahmad, Wang Yousheng, and Yoon-Bong Hahn*** *Low-temperature Sintering Highly Conductive Silver Ink for Flexible electronics*

- **Research highlights of importance**

Dr. Manzoor Ahmad Mir

No. of Publications: 76

Cumulative Impact Factor: 314

Reads on Research Gate: 3.87 Lacs

No. of Citations: 2108 (RG)/ 1813 (GS)

H-index/i-10 Index: 24/ 55 (RG/GS)

Our Research Group started working in Cancer Biology with a focus on Breast Cancer in 2019 & since then we have published almost 36 Papers in high impact Journals like *Seminars in Cancer Biology* (Impact Factor 17.107), *Cellular Oncology* (IF-7.127), *Critical Reviews in Oncology/Hematology* (IF-6.786), *Frontiers in Oncology* (IF-6.280), *Frontiers in Pharmacology* (IF-5.983), *Molecular Pharmaceutics* (IF-5.263), *Chemico-Biological Interactions* (IF-5.428), *Frontiers in Medicine* (IF-5.765), *Biomedicines* (IF-5.347), *Heliyon* (IF-4.023), *Frontiers in Endocrinology* (IF-5.876), *Journal of Ethnopharmacology* (IF-5.171), *Applied Microbiology and Biotechnology* (IF-5.760), *Scientific Reports* (IF-4.996), *Breast Cancer* (IF-4.567), *Cancer Biomarkers* (IF-4.338), *Immunologic Research* (IF-4.784), *Journal of Biomedical Nanotechnology* (IF-4.833), *Saudi Journal of Biological Sciences* (IF-4.056), *Clinical Breast Cancer* (IF-3.457), *Medical Oncology* (IF-3.786),

Current Drug Targets (IF-3.234), Medicinal Chemistry (IF-3.023), Natural Products (IF- 2.345), Current Pharmaceutical Biotechnology (2.832), Applied Biochemistry and Biotechnology (IF-2.735), Anti-cancer Agents in Med Chemistry (IF- 2.505), Advances in Cancer Biology, etc. to name a few & we have also published five Books on various aspects of Breast Cancer with Elsevier, Springer and CRC Press. I being the Coordinator of the group have got more than 1000 citations in 2023 and was listed by Stanford University USA among the top 2% of global scientists list.

My research Group has published more than 5 international books in last two years with Publishers like Elsevier, Springer and CRC Taylor & Francis listed below:

1. Role of Tumor Microenvironment in Breast Cancer and Targeted Therapies

<https://www.sciencedirect.com/book/9780443186967/role-of-tumor-microenvironment-in-breast-cancer-and-targeted-therapies>

2. Combinational Therapy in Triple Negative Breast Cancer

<https://www.sciencedirect.com/book/9780323961363/combinational-therapy-in-triple-negative-breast-cancer>

3. Therapeutic potential of Cell Cycle Kinases in Breast Cancer

<https://link.springer.com/book/10.1007/978-981-19-8911-7>

4. Cytokine and Chemokine Networks in Cancer

<https://link.springer.com/book/10.1007/978-981-99-4657-0>

5. Novel Approaches in Metronomic Chemotherapy for Breast Cancer Treatment

<https://www.routledge.com/Novel-Approaches-in-Metronomic-Chemotherapy-for-Breast-Cancer-Treatment/Mir/p/book/9781032620459>

Besides this I have developed two websites Databases Developed related to research work:

1. Breast cancer awareness Website/Database <https://breastcancer.uok.edu.in/Main/Default.aspx>

2. Medicinal Plants Database of J&K. <https://bioresources.uok.edu.in/Main/ViewPage.aspx?Page=database&active=lnk7s>

Dr. Peer Abdul Haseeb Shah

Research Stats

Orcid ID:	<u>0000-0003-2242-0551</u>	Scopus Author ID:	<u>54685076200</u>
Research Interest Score:	>535	Researcher Id/Web of Science	<u>ABH-8823-2020</u>
Citations:	862	Publications (International):	23
H-index:	13	Cumulative impact factor:	104.69
i10-index:	19	Average impact factor:	4.55
PhD students guided:		05	
Projects completed as PI:		02	
New Projects sanctioned as PI:		01	
Outreach Projects awarded as PA:		02	
Projects submitted as Co-PI:		01	

Research Projects

- Novel insights into the role of amino acid ... *Candida albicans* multidrug ABC transporter Cdr1p

Agency	Amount (INR)	Status	Role
UGC-GoI	~20 lakhs	Completed (2015-18)	PI
- Drug resistance in fungi and the role of post-translational modifications of membrane proteins

Agency	Amount (INR)	Status	Role
DST	35 Lakhs+ Salary Grant	Completed (2015-20)	PI
- Clinical drug resistant strains of pathogenic *Candida*: ... of drug resistance and drug tolerance

Agency	Amount (INR)	Status	Role
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	SERB (DST)	42 lakhs	Completed (2016-20)	PI
4.	ASM Young Ambassador to India (Outreach Project)			
	Agency	Amount (INR)	Status	Role
	American SM	2.6 lakhs (Approx.)	Completed (2020-22)	PA
5.	Outreach and mentorship program for underprivileged student community (Outreach Project)			
	Agency	Amount (INR)	Status	Role
	IndiaBioscience	1 lakhs	Ongoing (2023-24)	PA
6.	Pharmaceutical co-crystals/salts of. ... and anti-fungal properties and cytotoxicity studies			
	Agency	Amount (INR)	Status	Role
	SERB (DST)	46 lakhs (approx.)	Approved (2023-26)	PI

Group (Ph.D. students awarded/ongoing)

- **Dr. Sajad Ahmad Padder (Ph. D. awarded)**
- **Dr. Asiya Ramzan (Ph. D. Awarded)**
- **Ms. Hafsa (Ph. D. Submitted)**
- **Ms. Safura Nisar (Ph.D. Ongoing)**
- **Mr. Asif A Malik (Ph.D. Ongoing)**

Research Highlights:

1. *We have developed crystalline form of antifungal drug fluconazole (FLC-C). FLC-C is active against several human pathogenic yeast strains, including the leading and emerging Candida strains (Candida albicans and Candida auris, respectively), at comparable and/or lower drug concentrations without showing any enhanced host cell toxicity.*
2. *Study related to elucidation of antifungal properties of β -Nitrostyrene derivatives show that β -Nitrostyrene derivatives have strong antifungal potential with a particular mode of activity similar to known cell wall perturbing antifungal agents and thus can be exploited as promising potential antifungal agents for further studies.*
3. *Study of Quinidine drug transporter knockout (QDRKO) Candida strains show that KO strains exhibit an enhanced azole drug resistance than the parental Candida strain, particularly at a low glucose concentration of the culture media. Our findings imply that deleting QDR genes (individually or collectively) alters cellular pathways, particularly those associated with glucose and glycerol accumulation. This possibly provides the cells with a mechanism to overcome stress and partially maintain the cellular pathogenicity/virulence in the absence of QDR MFS transporters.*
4. *Drug resistant clinical isolates of Candida show novel mechanisms of drug resistance. In the case of C. albicans drug resistance was mostly mediated by Hexokinase 2 (Hxk2) and Glucose-6-phosphate dehydrogenase (G6pd). Increased expression of Hxk2 was associated with increased glucose uptake, more lactate production, and more ATP generation in drug-resistant C. albicans. At the same time, increased G6pd expression was responsible for the increased production of NADPH, which imparts a better ROS scavenging potential. While in C. glabrata the resistance was linked with glycerol metabolism, where the drug-resistant isolate tends to accumulate more glycerol as an osmolyte in response to external stresses. This glycerol accumulation was found to be triggered by the HOG1-MAPK pathway*

Industry Collaborations/Internship Hubs

- Collaboration with industry partners.

JKEDI, SKIMS, Central University of Kashmir, IIIM Srinagar, SKAUST-Kashmir, RRIUM Srinagar

- Major internship hubs

JKEDI, SKIMS, Central University of Kashmir, IIIM Srinagar, SKAUST-Kashmir, RRIUM Srinagar

Placement Assistance and Support

- Department/faculty's efforts in providing career counseling, placement support, and industry connections for students.
- Department has career counseling cell which along with CCPC Kashmir University Counsels and helps the students for placements in various agencies/institutions

Placements in the last 5 years (Mandatory field*)

S.No	Candidate	Reputed Companies
1.	<i>Dr. Peerzada Tanveer Bilal</i>	Assistant Professor, J&K Higher Educaion
2.	<i>Dr. Bisma Malik</i>	Assistant Professor, J&K Higher Educaion
3.	<i>Dr. Mehak Majeed</i>	Assistant Professor, J&K Higher Educaion
4.	<i>Miss Mehvish</i>	Bank Associate J&K Bank Ltd.
5.	<i>Ms. Rubeena Ashraf</i>	Teacher in deptt. of school education
6.	<i>Mr. Bashir Ahmad Sheikh</i>	Teacher in deptt. of school education
7.	<i>Ms. Rumaisa Beigh</i>	Teacher in deptt. of school education
8.	<i>Ms. Kounsar un Nisa</i>	Teacher in deptt. of school education
9.	<i>Ms. Qaiser-ul- nisa</i>	Teacher in deptt. of school education
10.	<i>Mr. Mohd Umer Aftab</i>	Employed in J&K Bank
11.	<i>Miss Aliya Riyaz</i>	Teacher in deptt. of school education
12.	<i>Mrs Nelofar</i>	Teacher in deptt. of school education

List of Prominent Recruiters

Our department has strong connections with several prominent recruiters, including:

1. *J&K Higher Educaion*
2. *SKIMS, Srinagar.*
3. *J&K Bank.*
4. *J&K School Education.*

Contact Information

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