

Dr. Nadia Sharif

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[Nadia Sharif \(researchgate.net\) h-index -11](https://www.researchgate.net/profile/Nadia-Sharif)

PROFESSIONAL EXPERIENCE

Assistant Professor - Department of Biotechnology, Women University Mardan, KPK (November 2018 –Present).

Coordinator Admissions & Student Affairs - (Women University Mardan, (25th June 2024 –Present).

In charge Admissions & Student affairs - (Women University Mardan, November 2020 – June, 2024).

Head of Zoology Department - Women University Mardan, KPK (January 2019 –January 2024).

Deputy Director ORIC – (WUM, Mardan – March 2019- November 2020).

Visiting Lecturer - (LCWU, Lahore March 2016 to May- 2018).

Research Assistant – (LCWU, Lahore- July-2016 to July 2017).

EDUCATION

Ph.D. - 2017 - Lahore College for Women University (LCWU), Lahore, Pakistan.

M. Phil - 2011 - Lahore College for Women University (LCWU), Lahore, Pakistan.

M.Sc - 2009 - Bahauddin Zakariya University (BZU), Multan, Pakistan.

ACHIEVEMENTS

Indigenous Fellowship Award for Ph.D. from HEC Pakistan (2012-2015).

International Pre-Doctoral Fellowship- HEC IRSIP AWARD by Higher Education Commission (HEC), at the Department of Chemical and Biomolecular Engineering at John Hopkins University, USA (2015).

RESEARCH AWARDS

Sr. No.	Project Title	Role	Funding Agency	Status
1.	Extraction of phycobiliproteins from <i>Oscillatoria microalgae</i> and assessment of its medicinal and food benefits.	PI	Higher Education Commission (HEC) "Startup Research Grant Program (SRGP)"	Completed
2.	Development and application of Edible coating with color indicator for food spoilage	PI	Undergraduate Research Support Grant by (Directorate of Science and Technology (DoST), Kpk, Pakistan.	In Progress

RESEARCH EXPERIENCE

Microscopy, Spectrometry, GCMS, HPLC, TLC, ASE, PCR, Electrophoresis, Ribotyping and Cloning, *Agrobacterium* Mediated Transformation, Antibacterial, Antioxidant and Antiviral activities, Nanoparticles synthesis, Bioremediation, Phytochemistry, Algae Cultivation & Bioprocessing, Lipids extraction and Analysis, Pigments extraction and analysis. NCBI, BLAST, CLUSTAL W, NEB Cutter, EXPASY, Oligo CALC, Primer 3Plus, MEGA, Auto dock Vina, Endnote,

PUBLICATIONS (Books / Book Chapters)

-  **Co- editor:** Phytochemistry, vol 3: Marine Sources, Industrial Applications, and Recent Advances **(2019). CRC Taylor & Francis.**
1. Diverse Functional Roles of Strigolactones in Postharvest Biology. **In book:** Strigolactone in Plants. **[2026]. Publisher: CABI, GB.**
 2. Recent Developments in Strigolactone–Heavy-Metal Research in Plants. In book: Strigolactone in Plants. **[2026]. Publisher: CABI, GB.**
 3. Impact of non-coding rna networks in plant abiotic stress tolerance. **In Book:** ncRNAs in Abiotic Stress Tolerance in Plants. **[2026]. CRC Taylor & Francis.**
 4. Role of chemical nano sensors for alleviation of sustainable agricultural and biomass production. **In Book:** Nanobiosensors for Agricultural and Other Related Sectors. **(2025).** Springer Nature Singapore.
 5. Essential Oils from The Family Rutaceae. **In book:** Phytochemical and Pharmacological Investigation of the Family Rutaceae. **(2024). CRC Taylor & Francis.**
 6. Fungal organisms: a check for harmful algal blooms. **In book:** Freshwater mycology. **(2022). Elsevier.**
 7. Heavy metal accumulation potential of aquatic fungi. **In book:** freshwater mycology. **(2022). Elsevier.**
 8. Biochemical and pharmacotherapeutic potentials of lycopene in drug discovery. **In book:** preparation of phytopharmaceuticals for the management of disorders. **(2021). Academic Press, Elsevier.**
 9. Environmental impacts of ethanol production system. **In book:** sustainable ethanol and climate change: sustainability assessment for ethanol distilleries. **(2021). Springer.**
 10. Sensors for sorting and grading of fruits and vegetables. **In book:** sensor-based quality assessment systems for fruits and vegetables. **(2020).** Apple Academic Press, **Taylor & Francis.**
 11. Pharmacognosy, nanomedicine, and contemporary issues pharmacognosy: definition, scope, and history. In Book: Phytochemistry. **(2018).** Apple Academic Press, **Taylor & Francis.**
 12. Phytochemicals of marine origin. In Book: Phytochemistry Edition 1st. **(2018).** Apple Academic Press, **Taylor & Francis.**
 13. Extraction of marine phytochemicals. **In Book:** Phytochemistry Edition 1st. **(2018).** Apple Academic Press, **Taylor & Francis.**
 14. Marine sources, industrial applications, and recent advances. **In Book:** Phytochemistry: Volume 3 **(2018).** Apple Academic Press, **Taylor & Francis.**
 15. Origin of algae and their plastids. **In Book:** Algae based polymers, blends, and composites. **(2017). Elsevier.**

PUBLICATIONS (Research Articles)

1. **Nadia Sharif**, Ayesha Bibi, Rakhshinda Sadiq, Iffat Ullah, Abdul Rauf, Muhammad Tayyab Arshad, Shahid Bashir et al. "Computational Identification of Potent Multitarget Natural Ligands for Alzheimer's Disease Therapeutics." Scientifica 2025, no. 1 (2025): 1132636.
2. **Nadia Sharif**, Sadiq, R., Farzana, Javed, A., Ilyas, M., Wahab, A., & Bibi, A. **(2026).** Reforming food security and safety: The impact of emerging technologies. Indus Journal of Bioscience Research, 4(3), 184–189.
3. Maria Hasnain, Neelma Munir, **Nadia Sharif**, Daniel Anthony Dias, Zainul Abideen, Humaira Rizwana, Islem Abid, Farrukh Jamil, Murid Hussain, Yong Jun Choi. **(2024).** Potential of

Algal Biomass and Their Cultivation for Biofuels Production as Plausible Bio-resource for Economic Sustainability. Korean Journal of Chemical Engineering, 1-14.

4. Kainat Munir, Sobia Wali Muhammad, Sonia Ali, Abdul Manan, Imad Gul, Muhammad Saeed, **Nadia Sharif (2024)**. Prevalence, Symptoms and Effective Measures against Novel Covid 19 Virus. Journal of Population Therapeutics and Clinical Pharmacology 31 (1), 294-301.
5. Zainul Abideen, Hans-Werner Koyro, Faisal Zulfiqar, Anam Moosa, Sarwat Ghulam Rasool, Muhammad Zaheer Ahmad, Muhammad Ahsan Altaf, **Nadia Sharif**, Ali El-Keblawy. (2023). Impact of biochar amendments on copper mobility, phytotoxicity, photosynthesis and mineral fluxes on (*Zea mays* L.) in contaminated soils. South African Journal of Botany. 158:469-478.
6. Munir, N., M. Samad, **Nadia Sharif**, R. Haq, and S. Naz. "Effect of mutagens on biomass and lipid content of *ulothrix* sp. And *oscillatoria* sp. For improved biodiesel production." *japs: journal of animal & plant sciences* 33, no. 1 (2023).
7. A Mujeeb, Z Abideen, I Aziz, **Nadia Sharif**, MI Hussain, AS Qureshi, HH Yang. (2023) Phytoremediation of Potentially Toxic Elements from Contaminated Saline Soils Using *Salvadora persica* L.: Seasonal Evaluation. Plants 12 (3), 598.
8. Neelma Munir, Maria Rafique, Imran Altaf, **Nadia Sharif** and Shagufta Naz (2018). Antioxidant and Antimicrobial Activities of Extracts from selected Algal Species. Bangladesh Journal of Botany 47 (1), 53-61.
9. Yuting Tang, Yue Zhang, Julian N. Rosenberg, **Nadia Sharif**, Michael J Betenbaugh and Fei Wang (2016). Efficient lipid extraction and quantification of fatty acids from algal biomass using accelerated solvent extraction (ASE). RSC advances 6 (35), 29127-29134.
10. Neelma Munir, Ayesha Imtiaz, **Nadia Sharif** and Shagufta Naz (2015). Optimization of Growth Conditions of Different Algal Strains and Determination of Their Lipid Contents. JAPS: Journal of Animal & Plant Sciences 25 (2).
11. Neelma Munir, Ayesha Saleha Iqbal, Imran Altaf, Rasheeda Bashir, **Nadia Sharif**, Faiza Saleem and Shagufta Naz (2014). Evaluation of Antioxidant and Antimicrobial Potential of Two Endangered Plant Species *Atropa belladonna* and *Matricaria chamomila*. African Journal of Traditional, Complementary and Alternative Medicines, 1(5), 111- 117.

PUBLICATIONS (Review Articles)

1. Neelma Munir, Zainul Abideen, **Nadia Sharif. (2019)**. Development of halophytes as energy feedstock by applying genetic manipulations. Frontiers in Life Science, 2155-3777.
2. **Nadia Sharif**, Neelma Munir and Shagufta Naz (2018). Microbial Production of Alginate.
3. **Nadia Sharif**, Neelma Munir, Faiza Saleem, Farheen Aslam and Shagufta Naz (2014). Prolific Anticancer Bioactivity of Algal Extracts. American Journal of Drug Delivery and Therapeutics. 1(2).060-072.
4. Neelma Munir, **Nadia Sharif**, Shagufta Naz and Farkhanda Manzoor (2013). Algae: A potent antioxidant source. Sky J. Microbiol. Res 1 (3), 22-31.
5. Neelma Munir, **Nadia Sharif**, Shagufta Naz, Faiza Saleem and Farkhanda Manzoor (2013). Harvesting and Processing of Microalgae Biomass Fractions for Biodiesel Production. Sci Tech Dev 32 (3), 235-243.

PUBLICATIONS (Short Communications)

1. Nadia Sharif, Neelma Munir, Faiza Saleem and Shagufta Naz **(2015)**. Factors Affecting Agrobacterium mediated Transformation of Indigenous *Chlorella vulgaris* Bayerinck. Bangladesh journal of botany 44 (2), 323-326.
2. Farzana Rashid, Hira Fatima, Ijaz Ali, **Nadia Sharif**, Husna Malik and Sumera Sajjad **(2014)**. Heavy Metal Contamination of Drinking Water nearby Hadiara Drain. Pakistan J. Zool 46 (4), 1161-1163.
3. **Nadia Sharif**, Neelma Munir, Faiza Saleem, Farheen Aslam and Shagufta Naz **(2015)**. Mass cultivation of various algal species and their evaluation as a potential candidate for lipid production. Natural product research 29 (20), 1938-1941.

RESEARCH SUPERVISION

2025 - M.Phil. Research Supervision

Zainab – Bioderadable Bioplastic Synthesis

Nadia – Edible biocoating for fruits and vegetables shelf life extension

Ambreen Zari – *Solanum sp.* *Insilico* & *invitro* activities

Madiha – *Nigella Sativa* *Insilico* & *invitro* activities

BS – Research Supervision

Mahnoor Wahid, Assessment of the Polyethylene Biodegradation Potential of a *Bacillus* Strain Isolated from Soil.

Jannat Fatima: Plastic Biodegradation by Soil-Isolated *Streptococcus* from Landfill Sites.

Khushnuma Ghalib : Role of *Pseudomonas* spp. In polyethylene Degradation in Dump Soil: Isolation and Identification.

2024

Asma Gul: Cousin marriages associated with a number of Phenotypic and Genotypic of various Genetic diseases in District Mardan, Kpk, Pakistan.

Farhana, Antioxidant, anti-inflammatory and neuroprotective effects of Phycobiliprotein

2023

Javeriya Muhammad & Hafsa Ahmad: Genetic Disorders associated with consanguineous marriages in district Mardan, KPK, Pakistan.

Shabana Begum, Aneesa & Shumaila Bibi: Preparation of Chitosan from Fish Scales, Shrimp and Crab shell,

2022

Madiha Begum & Kainat Munir: Prevalence, Symptoms and effective measures against Novel COVID-19 virus in Population of District Mardan, KPK, Pakistan.

Wareesha Qazi & Azra Bibi: The Diversity of Ants (Hymenoptera: Formicidae) in District Mardan, Khyber Pakhtunkhwa Pakistan.

Asma Rafique & Sidra Siraj: Prevalence of Alzheimers Disorder worldwide while last ten years, KPK, Pakistan.

Kainat Nazir & Khadija Farooq: Prevalence of Beta Thalasemia in District Mardan, KPK, Pakistan.

Sapna: Response of Coronary Plaque and immune cell to myocardial infarction.

2021

Kiran and Ishrat: Gut content analysis of *Clupisoma naziri* in District Mardan, Pakistan
Aleena Ihsan and Bushra: Factors affecting Polio eradication in Pakistan
Munazza Kainat, Aneela Azeem and Sumbal Amir: Prevalence of Pneumonia under five years' age in District Mardan
Hufsa Jani, Ayesha Khan and Kainat Wajid: Effects of Micronutrients deficiencies on Immune System, Cardiovascular System and on Pregnancy.

2020

Nida Gul: Prevalence of hepatitis - C infection in Mardan, Khyber Pakhtunkhwa: a hospital-based study.

Uzma Jamshid: Prevalence report on the enteric fever or typhoid caused by (*Salmonella typhi* and para typhi) in Mardan.

Uzma Nihar: Extraction of casein protein from milk and its applications (Review).

Qurat ul Ain: Comprehensive Review on Novel Corona Virus_Covid-19.

Hanifa Tufail: Prevalence of tuberculosis in District Mardan, Khyber-Pakhtunkhwa.

Iqra: Effect of whey protein under influence of heat and cold in cow and buffalo milk as well as on human health (Review).

2019

Sidra Hussain and Zarqa Sabeen: Pytochemical screening, scavenging activity and lipid profiling of *Spirogyra* and *Oscillatoria* microalga strains.

Hina Zahir: Antimicrobial activity of *Parthenium hysterophorus* against potential microbes.

Amina Ikram: Extraction of pigments from Microalgae strains and evaluation of their potential antioxidant activity.

Asma Alam: Antimicrobial activity of *Tamarix aphylla*.

Sara Hussain: Antimicrobial activity of *Spirogyra* sp. and *Oedogonium* sp. Microalgae.

CONFERENCES AND WORKSHOPS

- ✚ Attended the workshop titled "one day national hands on training on basic tools of bioinformatics for molecular biology and biomedical research" dated **12-13 December 2023** (replicated on three days) organized by Department of Biochemistry, University of Agriculture, Faisalabad, Pakistan.
- ✚ Organized a valuable activity on "Clean and Green Revolution Society" at Women University Mardan on **11th March 2020**.
- ✚ Actively Participated, and showed excellent management and organizational skills in "women employability summit 2019" Organized by CATD (Centre for Awareness Training & Development and Women University Mardan on **20th to 21st February 2019**.
- ✚ Actively participated and made an **oral Presentation** in "39th Pakistan Congress of Zoology (International), Organized by Islamia College University, Peshawar on **4-6th March 2019**.
- ✚ Participated and made an **oral presentation** on "Bioprocess Engineering Aspects of Biodiesel production from Microalgae" in "3rd International Conference, Empowering nation through Sciences Organized by Women University Mardan on **24-25th April 2019** in Islamabad, Pakistan.
- ✚ Participated and made a **poster presentation** in "6th Invention to Innovation Summit" Organized by University of Punjab on **08-09th March 2017**.
- ✚ Participated and made **Oral Presentation** on "Biodiesel Potential of Microalgae *Ulothrix zonata*" in Research Colloquium, a four days' event, Organized by

Directorate of Faculty development and Internationalization of Lahore College for Women University, Lahore **(16th - 19th January 2017)**.

- ✚ Participated and made **Oral Presentation** on "Screening and Processing of microalga strains for prospective biodiesel Fabrication", in "1st International Conference on Advancements in Biotechnology" a two days' event, Organized and Hosted by GC Women University and Akhuwat FIRST, Faisalabad **(30th - 31th March, 2016)**.
- ✚ Attended "Algae Biomass Summit" Algal largest conference of the world, Organized by "ABO (Algae Biomass Organization) Washington, D.C., USA. **(29th - 2nd October, 2015)**.
- ✚ Participated and made **Oral Presentation** on "Algae Biofuel Challenges and Potentials in Pakistan" in 1st International Conference on Bioenergy, a two days' event, Organized and Hosted by University of South Asia, Lahore **(20th - 21th November, 2014)**.
- ✚ Participated and made **Oral Presentation** "Optimization of Conditions for *Chlorella vulgaris* transformation" in the "34th Pakistan Congress of Zoology (International)" Organized by Bahauddin Zakariya University, Multan **(25th - 27th February, 2014)**.
- ✚ Participated in Two Days Phycological Workshop on "Algal Collection & Culturing Techniques" Organized by Department of Botany, GCU Lahore, Pakistan in Collaboration with HEC & Pakistan Science Foundation **(19th - 20th February, 2014)**.
- ✚ Participated in Workshop on "Molecular Diagnostics for Robust Disease Detection" "Conducted by Lahore College for Women University & Ministry of Education, Training & Standards in Higher Education Government of Pakistan **(7th - 24th October, 2013)**.
- ✚ Participated in Training Workshop on "IPR, Patents and Patenting" conducted by Barisstor Ahmad Farooq Malik in Lahore College for Women University, Office of Research, Innovation & Commercialization - ORIC **(22nd February, 2013)**.
- ✚ Participated in International Work Shop on "Principles of Plant Breeding and Advancement of Molecular Techniques to Breeding of Bioscience". Organized by the Department of Biotechnology and Microbiology, Lahore College for Women University, Lahore **(21st May - 7th June, 2012)**.

Intellectual growth should commence at birth & cease only at death.

Albert Einstein