

Nosheen Fatima Rana

Associate Professor

School of Mechanical & Manufacturing Engineering

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About

Dr. Nosheen Fatima Rana is working as Associate Professor in the School of Mechanical & Manufacturing Engineering. Dr. Nosheen Fatima Rana has a PhD in Molecular And Cellular Biology. Dr. Nosheen Fatima Rana has published 38 research articles & conference papers having a citation count of 795, carried out 1 projects and filed 3 intellectual property.

Qualifications

PhD in Molecular And Cellular Biology Université de Caen Basse Normandie , France	2009 - 2012
MS in Cellular Biology Université de Caen Basse Normandie , France	2008 - 2009
MPhil in Biochemistry Arid Agriculture University , Pakistan	2006 - 2008
MSc in Biochemistry Arid Agriculture University , Pakistan	2004 - 2006
BSc in Phy Chem Bio University of Central Punjab , Pakistan	2002 - 2004

Experience

Associate Professor School of Mechanical & Manufacturing Engineering	2021- Present
Assistant Professor School of Mechanical & Manufacturing Engineering	2014 - 2021
Assistant Professor School of Mechanical & Manufacturing Engineering	2014 - 2014
Assistant Professor School of Mechanical & Manufacturing Engineering	2013 - 2013
Research Assistant Arid Agriculture University, Rawalpindi , Arid Agriculture University, Rawalpindi	2007 - 2008
research Trainee Arid Agriculture University, Rawalpindi , Arid Agriculture University, Rawalpindi	2007 - 2007

Research Projects

National Projects

Preclinical Studies of Antibacterial Nano?carriers (ATNs); Real Time Effect of the ATNs on Bacterial Colonization Funding Agency: Higher Education Comission Amount: PKR 3,978,404.00 Status: Completed	2017
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International Projects

Research Articles

Computational evaluation of efflux pump homologues and lignans as potent inhibitors against multidrug-resistant <i>Salmonella typhi</i> <i>Iqra Shafique Mehak Rafiq Nosheen Fatima Rana Fatemah Almalki Alya Aljuad Sulaiman Mohammed Alnasser Amenah S. Alotaibi Madahiah Bint E. Masood Tehreem Tanveer Farid Menaa</i> <i>Plos One</i> , Volume 19(6), Article Number e0303285 Impact Factor: 2.900 Quartile: 1 Citations: 2 DOI: https://doi.org/10.1371/journal.pone.0303285	2024
Polycaprolactone/sodium alginate membrane with MgZnO nanoparticles for treatment of periodontal infection in diabetic wister rats <i>Tehreem Tanveer Nosheen Fatima Rana Ayesha Naeem Iqra Shafique Farid Menaa</i> <i>Journal of Materials Research and Technology</i> , Volume 29, Pages 3366-3379 Impact Factor: 6.400 Quartile: 1 DOI: https://doi.org/10.1016/j.jmrt.2024.02.005	2024
Silymarin Encapsulated Liposomal Formulation: An Effective Treatment Modality against Copper Toxicity Associated Liver Dysfunction and Neurobehavioral Abnormalities in Wistar Rats <i>Tuba Maryam Nosheen Fatima Rana Sultan Alshahrani Farhat Batool Misha Fatima Tahreem Tanveer Salma Alrdahe Yasmene Alanazi Ifat Alsharif Fatima S. Alaryani Amer Sohail Kashif Farid Menaa</i> <i>Molecules</i> , Volume 28(3), Article Number 1514 Impact Factor: 4.6 Quartile: 2 Citations: 15 DOI: https://doi.org/10.3390/molecules28031514	2023
Dental Composites with Magnesium Doped Zinc Oxide Nanoparticles Prevent Secondary Caries in the Alloxan-Induced Diabetic Model <i>Tehreem Tanveer Nosheen Fatima Rana Iqra Shafique Sultan Alshahrani Iqra Saleem Hanadi A. Almukhlifi Amenah S. Alotaibi Sohad Abdulkaleg Alshareef Farid Meena</i> <i>International Journal of Molecular Sciences</i> , Volume 23, Issue 24, Article Number 15926 Impact Factor: 6.208 Quartile: 1 Citations: 26 DOI: https://doi.org/10.3390/ijms232415926	2022
Effectiveness of Se/ZnO NPs in Enhancing the Antibacterial Activity of Resin-Based Dental Composites <i>Iqra Saleem Nosheen Fatima Rana Tehreem Tanveer Wafa Arif Iqra Shafique Amenah S. Alotaibi Hanadi A. Almukhlifi Sohad Abdulkaleg Alshareef Farid Meena</i> <i>Materials</i> , Volume 15, Issue 21, Article Number 7827 Impact Factor: 3.748 Quartile: 1 Citations: 22 DOI: 10.3390/ma15217827	2022
Antibacterial Activity of Dental Composite with Ciprofloxacin Loaded Silver Nanoparticles <i>Wafa Arif Nosheen Fatima Rana Iqra Saleem Tehreem Tanveer Muhammad Jawad Khan Sohad Abdulkaleg Alshareef Huda M. Sheikh Fatima S. Alaryani Manal Othman AL-Kattan Hanan Ali Alatawi Farid Menaa Aroosa Younis Nadeem</i> <i>Molecules</i> , Volume 27(21), Article Number 7182 Impact Factor: 4.6 Quartile: 2 Citations: 32 DOI: https://doi.org/10.3390/molecules27217182	2022
DEAE-Dextran Coated AgNPs: A Highly Blendable Nanofiller Enhances Compressive Strength of Dental Resin Composites <i>Nosheen Fatima Rana Amer Sohail Kashif Tahreem Tanveer Iqra Shafique Shabia Azhar Farid Menaa</i> <i>Polymers</i> , Volume 14(15), Article Number 3143 Impact Factor: 4.967 Quartile: 1 Citations: 13 DOI: https://doi.org/10.3390/polym14153143	2022
Water Treatment Using High Performance Antifouling Ultrafiltration Polyether Sulfone Membranes Incorporated with Activated Carbon <i>Zubia Abid Asad Abbas Azhar Mahmood Nosheen Fatima Rana Sher Jamal Khan Laurent Duclaux Kashif Mairaj Deen Nasir Mahmood Ahmad</i> <i>Polymers</i> , Volume 14, Issue 11, Article Number 2264 Impact Factor: 4.967 Quartile: 1 Citations: 8 DOI: https://doi.org/10.3390/polym14112264	2022
A Novel Sprague-Dawley Rat Model Presents Improved NASH/NAFLD Symptoms with PEG Coated Vitexin Liposomes <i>Adil Farooq Arfa Iqbal Nosheen Fatima Rana Misha Fatima Tuba Maryam Farhat Batool Zahra Rehman Farid Meena Afrah Nawaz Faheem Amin Zuhair M Mohammedsaleh Salma Saleh Alradhe Shabia Azhar</i> <i>International Journal of Molecular Sciences</i> , Volume 23, Issue 6, Article Number 3131 Impact Factor: 6.208 Quartile: 1 Citations: 14	2022

DOI: <https://doi.org/10.3390/ijms23063131>

Formulation and characterization of curcumin nanoparticles for skin cancer treatment

2022

Najma Bibi Asim ur Rehman Hasham Akhtar Muhammad Ijaz Khan Muhammad Faheem Syed Babar Jamal Naveed Ahmad Nosheen Fatima Rana Applied Nanoscience , Applied Nanoscience

Impact Factor: 0 | **Citations:** 14

DOI: 10.1007/s13204-022-02346-4

Ciprofloxacin-Loaded Gold Nanoparticles against Antimicrobial Resistance: An In Vivo Assessment

2021

AfrAh Nawaz Syesh Mohsin Ali Nosheen Fatima Rana Tehreem Tanveer Amna Batool Thomas J. Webster Farid meena Sundus Riaz Zahra Rehaman Farhat Batool Misha Fatima Tuba Maryam Iqra Shafique Abida Perveen Arfa Iqbal Nanomaterials , Volume 11(11), Article Number 3152

Impact Factor: 5.719 | **Quartile:** 1 | **Citations:** 42

DOI: <https://doi.org/10.3390/nano11113152>

Effect of Flavonoid-Coated Gold Nanoparticles on Bacterial Colonization in Mice Organs

2020

Sundus Riaz Nosheen Fatima Rana Irshad Hussain Tahreem Tanweer AfrAh Nawaz Farid Menaa Hussnain Ahmed Janjua Tahseen Alam Amna Batool Ayesha Naeem Maryam Hameed Syed Mohsin Ali Nanomaterials , Volume 10(9), Article Number 1769

Impact Factor: 5.076 | **Quartile:** 1 | **Citations:** 33

DOI: <https://doi.org/10.3390/nano10091769>

Virtual Screening of FDA-Approved Drugs against LasR of Pseudomonas aeruginosa for Antibiofilm

2020

Potential

Suhaib Sadiq Nosheen Fatima Rana Muhammad Ammar Zahid Muhammad Kazim Zargaham Tahreem Tanweer Amna Batool Ayesha Naeem AfrAh Nawaz Rizwan-ur-Rehman Zahid Muneer Abdul Rauf Siddiqi Molecules , Volume 25(16), Article Number 3723

Impact Factor: 4.412 | **Quartile:** 2 | **Citations:** 32

DOI: 10.3390/molecules25163723

Cannabinoids and Terpenes as an Antibacterial and Antibiofouling Promotor for PES Water Filtration

2020

Membranes

Ismara Nadir Nosheen Fatima Rana Nasir Mehmood Ahmad Tahreem Tanweer Amna Batool Zara Taimoor Sundus Riaz Syed Mohsin Ali Molecules , Volume 25(3), Article Number 691

Impact Factor: 4.412 | **Quartile:** 2 | **Citations:** 15

DOI: <https://doi.org/10.3390/molecules25030691>

Doxorubicin-loaded quaternary ammonium palmitoyl glycol chitosan polymeric nanoformulation:

2018

uptake by cells and organs

Ummarah Kanwal Nadeem Irfan Bukhari Mehreen Rehman Khalid Hussain Nasir Abbas Arshad Mehmood Abida Raza Nosheen Fatima Rana International Journal of Nanomedicine , Volume 14, Pages 1-15

Impact Factor: 4.471 | **Quartile:** 1 | **Citations:** 49

DOI: 10.2147/IJN.S176868

Metabolic Engineered Biocatalyst: A Solution for PLA Based Problems

2018

Sundus Riaz Nosheen Fatima Rana Ahmed Rasheed Mehwish Riaz Faiza Anwar Yamna Khatoon International Journal of Biomaterials , NULL

Impact Factor: 0 | **Citations:** 27

DOI: 10.1155/2018/1963024

Chemical sensing of Benzo[a]pyrene using Corchorus depressus fluorescent flavonoids

2018

Sundus Riaz Nasir Mehmood Ahmad Maryam Hameed Ayesha Naeem Rabbiya Tahir Wajiha Ahmad Nosheen Fatima Rana Natural Product Research , Vol. 32, No. 8, Pages 968–971

Impact Factor: 1.999 | **Quartile:** 2 | **Citations:** 2

DOI: 10.1080/14786419.2017.1367778

Synergistic effect of Chitosan-Zinc Oxide Hybrid Nanoparticles on antibiofouling and water disinfection of mixed matrix polyethersulfone nanocomposite membranes

2017

Iqra Munnawar Sadia S. Iqbal Muhammad Nabeel Anwar Mehwish Batool Sheraz Tariq Asim L. Khan Umair Nazar Tahir Jamil Nasir M.Ahmad Nosheen Fatima Rana Carbohydrate Polymers , Volume 175, Pages 661-670

Impact Factor: 5.158 | **Quartile:** 1 | **Citations:** 88

DOI: 10.1016/j.carbpol.2017.08.036

PEG capped methotrexate silver nanoparticles for efficient anticancer activity and biocompatibility

2016

Zarmina Muhammad Abida Raza Sana Ghafoor Ayesha Naeem Syeda Sohaila Naz Sundus Riaz Wajiha Ahmed Nosheen Fatima Rana

Impact Factor: 3.756 | **Quartile:** 1 | **Citations:** 71

DOI: 10.1016/j.ejps.2016.04.029

Internal fixation: An evolutionary appraisal of methods used for long bone fractures

2014

Seemab Mehmood Umar Ansari Murtaza Najabat Ali Nosheen Fatima Rana

International Journal of Biomedical and Advance Research, Volume 05(03), Pages 143-149

Impact Factor: N/A

DOI: 10.7439/ijbar.v5i3.627

A paradigm shift of the conventional intramedullary devices to new biological osteosynthetic devices:

2014

Bone stents

Zainab Munib Umar Ansari Murtaza Najabat Ali Nosheen Fatima Rana

International Journal of Biomedical and Advance Research, Volume 5(3), Pages 135-141

Impact Factor: 0

DOI: 10.7439/ijbar.v5i3.596

Magnetically Responsive Hybrid Polymer Colloids for Ultrasensitive Molecular Imaging

2014

Nadia Naseer Hira Fatima Arfa Asghar Nosheen Fatima Rana Naveed Ahmed Asad U. Khan Nasir Mahmood Ahmad

Journal of Colloid Science and Biotechnology, Volume 3, Number 1, Pages:19-29

Impact Factor: -

DOI: 10.1166/jcsb.2014.1073

Redox Balance via Lactate Dehydrogenase Is Important for Multiple Stress Resistance and Virulence in

2013

Enterococcus faecalis

Nosheen Fatima Rana Nicolas Sauvageot Jean-Marie Laplace YinYin Bao Ingolf Nes Alain Rincé Brunella Posteraro Maurizio Sanguinetti Axel Hartke

Infection and Immunity, Volume 81(8), Pages 2662–2668

Impact Factor: 4.156 | **Quartile:** 1 | **Citations:** 25

DOI: <https://doi.org/10.1128/IAI.01299-12>

Genetic modifications and introduction of heterologous pdc genes in Enterococcus faecalis for its use in production of bioethanol

2012

Nosheen Fatima Rana Stephanie Gente Alain Rince Yanick Auffray Jean-Marie Laplace

Biotechnology Letters, Volume 34, Pages 1651–1657

Impact Factor: 1.853 | **Quartile:** 3 | **Citations:** 5

DOI: 10.1007/s10529-012-0964-x

Ethanol production from Sorghum bicolor using both separate and simultaneous saccharification and fermentation in batch and fed batch systems

2009

Muhammad Gulfranz Nosheen Fatima Rana Asif Ahmad Brigitte Kiær Ahring Nasir Minhas Muhammad Faheem Malik Sajid Mehmood

African Journal of Biotechnology, Volume 8 (12), Pages 2857-2865

Impact Factor: -

DOI: <https://www.ajol.info/index.php/ajb/article/view/60927>

Comparison of the Antidiabetic Activity of Berberis lyceum Root Extract and Berberine in Alloxan-induced Diabetic Rats

2008

Muhammad Gulfranz Sajid Mehmood Asif Ahmad Nosheen Fatima Rana Zahida Perveen E.M Williamson

Phytotherapy Research, Volume 22, Issue 9, Pages 1208–1212

Impact Factor: 1.772 | **Quartile:** 3 | **Citations:** 71

DOI: 10.1002/ptr.2438

Antimicrobial activity of Berberis lyceum royle against different microorganisms

2007

Muhammad Gulfranz Zahida Perveen Sajid Mehmood Nosheen Fatima Rana

Canadian journal of pure and applied sciences, Vol. 1, No. 1, Pages:15-20

Impact Factor: 0

DOI: <https://www.cjpas.net/single-article/?id=1252>

- Synthetic Periodontal Membranes with MagnesiumDoped Zinc Oxide To Control Bacterial Adhesion and Immuno-Inflammatory Responses** 2025
Tahreem Tanweer Melissa Grant Nosheen Fatima Rana Sabah Javaid Nasir Mahmood Ahmad
BMEiCON2025 , res.country(217,)
Citations: N/A
DOI: 10.1109/BMEiCON66226.2025.11113737
- Novel Ultra-Deformable Nanovesicles for Transdermal Delivery of Sepia Melanin: Characterization and in vivo Skin Permeation Assessment** 2025
Ayesha Naeem Nosheen Fatima Rana
BMEiCON 2025 , res.country(217,)
Citations: N/A
DOI: 10.1109/BMEiCON66226.2025.11113681
- Advanced Bio-mimetic Coating of Titanium Implants with Silver Nano stars: Evaluation of Surface interactions and Anti-Biofilm Activity** 2025
Nosheen Fatima Rana Aqsa Mushtaq Eman Shahid Sabah Javaid Syeda Saira Haider Kazmi Tahreem Tanweer
2025 17th Biomedical Engineering International Conference (BMEiCON), res.country(217,)
Citations: N/A
DOI: 10.1109/BMEiCON66226.2025.11113780
- Advance Silver-Loaded Lecithin Liposomes as Effective Antimicrobial Biomaterials Against Odor Associated Skin Microbiota** 2025
Nosheen Fatima Rana Sabah Javaid Afrah Nawaz
BMEiCON 2025 , res.country(217,)
Citations: N/A
DOI: 10.1109/BMEiCON66226.2025.11113513
- Knowledge of Biosafety and Biosecurity among Laboratory Practitioners in Islamabad, Pakistan: A Three-Day Training Program Assessment** 2023
Nosheen Fatima Rana Hadiya Malik Tahreem Tanveer Farid Menaa
International Conference on Innovation, Sustainability and Applied Sciences (ICISAS), res.country(2,)
Citations: N/A
DOI: <https://link.springer.com/book/9783031689512>
- Optimization of the Experimental Design Parameters for Synthesis of Minoxidil Loaded Transethosomes as Nano-Based Hair Growth Vesicles** 2023
Ayesha Naeem Nosheen Fatima Rana Farid Menaa
11th IEEE International Conference on e-Health and Bioengineering (EHB 2023), res.country(188,)
Citations: N/A
DOI: Nil
- Transition Metal Doped ZnO Loaded PVA/SA Biodegradable Barrier Membrane against Periodontal pathogen** 2023
Nosheen Fatima Rana Tahreem Tanweer
20th International Bhurban Conference on Applied Sciences & Technology (IBCAST). Islamabad, 2023, res.country(177,)
Citations: N/A
DOI: www.ibcast.org.pk
- Transition Metal Doped Zinc Oxide Nanoparticles Ameliorates Antibacterial Potential of Dental Resin Composite in a Closed System In-vitro Biofilm Model** 2022
Tahreem Tanveer Nosheen Fatima Rana Muhammad Jawad Khan Iqra Saleem Shabia Azhar Iqra Shafique Farid Meena
2022 10th E-Health and Bioengineering Conference, EHB 2022, res.country(188,)
Citations: N/A
DOI: 10.1109/EHB55594.2022.9991374

Book Chapters

Predictive Biomarkers for Anticancer Drugs

2022

Tehreem Tanveer Nosheen Fatima Rana

In: *Book on Cancer Biomarkers in Diagnosis and Therapeutics*, 1st Edition, Chapter 6, Pages 149-176

Citations: N/A

DOI: DOI: 10.1007/978-981-16-5759-7_6

Editorial Activities

Molecular Biology Reports

2022

Reviewed Papers for Journals

Impact Factor: 2.742

Intellectual Property

Copyrights

Patents

Dental resin composites with Novel DEAE-Dextran coated AgNPs

2022

Status: Filed

A novel PEGylated vitexin liposomal formulation exhibiting hepatoprotective behavior against a novel Liver cirrhosis rat model.

2022

Status: Filed

Industrial Designs

Suture free Strip bond patch for suture-less wound closure

2019

Status: Granted Filed

Trademarks

Trainings

Invitro assays in Biomedical research: Module Invitro assays in Microbiology

2023

Partner: nil

Duration: 26-Jul-2023 to 06-Sep-2023

Training Workshop on Laboratory Techniques in Biomedical Sciences.

2023

Partner: NA

Duration: 24-Jul-2023 to 30-Aug-2023

Occupational health and Safety: Module Biosafety and Biosecurity

2021

Partner: nil

Duration: 18-Oct-2021 to 21-Oct-2021