

## Curriculum Vitae

First name(s) / Surname(s)

Work Address(es)

Telephone(s)

E-mail

Profile

Nationality

Date of birth

Marital Status/Family

### Academics

PhD.

University/Institute

Thesis

M.Phil./MS.

University/Institute

Thesis

Post Graduate Advanced Diploma

Institute/University

Thesis

Master of Science

Institute/University

Thesis

Bachelor of Science

Institute/University

### Scientific Accolades

(International: 04, National: 16)

## Rupak Kumar, PhD

MIGAL Galilee Research Institute

P.O.B. 831, Kiryat Shmona 11016 Israel

+971587990745, +919650207665

[rupakraman@gmail.com](mailto:rupakraman@gmail.com)

<https://scholar.google.co.in/citations?user=eRo0meYAAAAJ&hl=en>

Indian (Passport No: T1528871)

05-12-1977

Married and having twin's girl namely Reebeeca Raman and Rubeeca Raman



2011-2018: Biological Science/Biotechnology

BITS Pilani, Rajasthan, India

Biological Approaches for Treating Industrial Effluents Containing Morpholine under the mentorship of Late Dr. Suman Kapur, Dean IPCD, BITS Pilani, Hyderabad Campus, Hyderabad, India

2007-2008: Life Science (Biochemistry) with 8.002 CGPA

Sambalpur University, Sambalpur, Orissa, India

Scale-up Purification and Characterization of  $\beta$ -Glucosidase from Thermo Tolerant Yeast *Pichia etchellsii* under the mentorship of Dr. Saroj Mishra, Visiting Professor, DBEB, IIT, Delhi, India

2009-2010: Post Graduate Advanced Diploma in Molecular Diagnostics with 77.4%

Bharathidasan University, Tiruchirappalli, Tamilnadu, India

Preliminary Investigations on the Proteomic profiles of Platelets from Patients with Chronic Myeloid Leukemia (CML) and Healthy Control under the mentorship of Dr. Rukmini Govekar, PI, Tata Memorial Centre, ACTREC, Navi Mumbai, India

2004-2006: M.Sc. in Biotechnology with 8.42 CGPA

Maharaja Sriram Chandra Bhanjadeso University (North Orissa University), Baripada, Orissa, India

Solid State Fermentation of Oil-seed Cake for the Production of Microbial Esterase

Mentor: Dr. R. H. Balasubramanya, Former Head, CBPD, ICAR-CIRCOT, Mumbai, India

1995-1998: BSc in Zoology (Hons),

BNM University, Madhepura, Bihar, India

- ❖ **Member Expert** of United Nations Educational, Scientific and Cultural Organization (UNESCO) Inclusive Policy Lab on Environmental Policy/Climate Change, Water and Sanitation
- ❖ **Scientist** under Global Land Programme (GLP) hosted by the Centre for Development and Environment of the University of Bern, Switzerland
- ❖ **Third Prize** in quiz competition commemorating the 19th Biocules Foundation Day (India leading bioinformatics society, Hyderabad, India on 2<sup>nd</sup> October, 2023)
- ❖ **Mentor** under Teach for Science Fellowship for Progressive Regional Association of Youth for Advancement of Sciences (PRAYAS): A registered with Govt. of Punjab, India
- ❖ **Member** of Young Academy of India, Punjab, India
- ❖ **Members** of Networking database in AgriSciences Platform for Scientific Enhancement of HEIs in Ukraine since 2021
- ❖ **Young Researcher Award** on best Research paper entitle "Concise perspectives on some synthetic thiazolidine-2,4-dione derivatives and their specific pharmacodynamic aspects by UIJIR Academic Research Foundation (A Non-Profit Organization) on 20th May, 2021.
- ❖ **Broadcasted** the program: Fruits and Vegetables- A toxic glazing chemical in Vigyan Patrika program of All India Radio (AIR) on 18th Feb 2020.
- ❖ Selected for **Research Associate** Position, 2019-2020 at Dept. of Applied Biology and Chemical Technology, Hong Kong Polytechnic University (PolyU-World QS rank: 91)
- ❖ **Israel Govt. Fellowship** (IGF), 2016-17 under Ministry of Human Resource Development (MHRD), Govt. of India.
- ❖ **Print media coverage** in Times of India, Hyderabad edition newspaper article on "Toxic gloss on 'fresh' veggie plate" dated Dec 16, 2016
- ❖ Indian Council Medical Research (ICMR), **Senior Research Fellowship**, 2011-13
- ❖ **Best Poster- Second Prize** in National Seminar on Science and Technology for Indigenous Development in India under Indian Science Congress-Hyderabad Chapter, Hyderabad
- ❖ **Best Presentation Award** in Young Researcher's South Asian Symposium on Sustainable

Development under United Nations Sustainable Development Solution Network and Delhi Sustainable Development Summit (DSDS) at TERI University, New Delhi

- ❖ **Young Scientist Award** in National Conference on New Frontier in Biotechnology-Prospects and Challenges at UCW, Osmania University, Hyderabad
- ❖ **Best Oral Presentation Award** in National Conference on Emerging Challenges and Innovative Strategies in Freshwater Ecology, Biodiversity and Applied Toxicology at Nizam College, Osmania University, Hyderabad
- ❖ **Best Oral Presentation Award** in National Conference on Biodiversity, Environment Hazards – Therapeutic approaches and Drug Design at GDCW, Srikalahasthi, A.P
- ❖ **Qualified GATE** for MHRD, Govt. of India fellowship in 2009 and 2011
- ❖ **DBT, Govt. of India Studentship** for Advance Diploma in Molecular Diagnostics & Biotech Industrial Training Programme. under Biotech Consortium India Limited, New Delhi
- ❖ Dope Sample Processing and analysis in **1<sup>st</sup> Summer Youth Olympics Games, Singapore** (2010) & **XIX Commonwealth Games, Delhi** (2010)
- ❖ **3rd Topper** in M.Phil. (Life Sciences) and M.Sc. (Biotechnology)

## Research interests

- ❖ Environmental Biotechnology (Biological treatment/Pollutant removal/Bioremediation, Enzymatic removal)
- ❖ Bio-analytical Science, Microbiology, Agriculture Science
- ❖ Point of care/Point of detection, Biochemistry (Genomics-Proteomics)

## Work experience

Period  
Position  
Responsibilities

April, 2023-Ongoing

Post Doctoral Fellow, MIGAL Galilee Research Institute, Israel

Enzymatic degradation of patulin; A mycotoxin. Engineered enzyme has been investigated for its efficacy for the removal of patulin in the infected apple.

Period  
Position  
Responsibilities

Dec, 2017- April, 2023

Senior Technical Associate, Central Drugs Standard Control Organization, New Delhi, India  
Facilitate and technical regulatory requirements of notified medical devices and Diagnostics for grant license to registration/re-registration/endorsement and import as per Drug and Cosmetic Act 1940 and Medical Devices Rule 2017. Well versed in QMS in compliance with ISO 13485

Period  
Position held  
Responsibilities

Nov, 2016 – July, 2017

Visiting Fellow, Shamir Research Institute, University of Haifa, Qatrin, Israel

Bacterial extracellular laccase production and treatment of olive mill waste water (OMWW) through the route of Biodegradation. Two first authored peer reviewed publications of my credit and become the member of Israel Society of Microbiology

Period  
Position held  
Responsibilities

Aug, 2011 – May, 2013

ICMR-Senior Research Fellow, BITS Pilani, Hyderabad Campus, Hyderabad, India

Development of point of care (POC) device for the estimation of blood glucose. The price for test of the blood sugar has been dropped to 5.00 INR in low resource setting

Period  
Position held  
Responsibilities

Feb, 2010 – Aug, 2011

Research Fellow, National Dope Testing Laboratory, New Delhi, India

Bioanalytical sample processing and screening of Stimulants, Narcotics and Hydroxyl Ethyl Starch (HES) banned in Sports by liquid-liquid extraction followed by qualitative and quantitative estimation using GC-NPD/MSD and well-versed documentation as per ISO: IEC17025:2005(NABL) and WADA-ISL (Ver. 6.0) guidelines.

Period  
Position held  
Responsibilities

Feb, 2008 – July, 2008

BCIL-BITP Intern, Advanced Enzyme Technology Ltd, Mumbai, India

Efficacy and potentiality studies of enzymes (Amylase, Xylanase, Cellulase, Catalase and Protease) in different areas of non-Pharma industries, mainly textile, food processing, beverage and oil refinery. Enzymatic treatments of fabrics, food, beverage and oil extraction are some of example for better quality approach considering at optimize parameters.

**Editorial Board Members**  
(Total: 19, National: 8, International: 10,  
Online 1)

- ❖ Technoarete Transactions on Recent Research in Applied Microbio & Biotechnology, India
- ❖ Medicon Dental Science, India
- ❖ Engineering & Environmental Sciences Review, Logan Publication, Minnesota USA
- ❖ ACITYA WISESA (Journal of Multidisciplinary Research), JM Publishing, Indonesia
- ❖ PriMera Scientific Surgical Research and Practice, PriMera Scientific Publications, USA
- ❖ Agrology, Dnipro State Agrarian and Economic University, Ukraine
- ❖ Frontiers in Environmental Microbiology, USA
- ❖ Texila International Journal of Academic research, India

**Guest/Invited Reviewer  
(Total: 21, National: 9,  
International:12)**

- ❖ Journal of Sustainability and Environmental Management, Nepal
- ❖ PHD World, an On-Line Journal of multidisciplinary Subjects
- ❖ Journal of Agriculture and Applied Biology, Indonesia
- ❖ International Engineering Journal for Research & Development, India
- ❖ VIT Press International Journal of Microbiology Research (VITP-IJMBR), India
- ❖ Universe International Journal of Interdisciplinary Research (An International Peer Reviewed Refereed Journal), India
- ❖ Healthcare Review under Scientific Research Initiative Open Journals, USA
- ❖ Research Journal in Advanced Sciences (Royallite Global), China
- ❖ Indian Journal of Microbiology Research, IP Innovative Publication Pvt. Ltd., India
- ❖ International Journal of Innovations in Engineering, Research and Technology, India
- ❖ International Scholar Journal of Basic and Applied Research, Egypt

- Agronomy Research, Estonia
- Environmental Science and Pollution Research, Springer Nature
- Drug Metabolism Letters, Bentham Science Publisher, USA
- Journal of Applied Pharmaceutical Science, India
- Indian Journal of Microbiology Research, India
- International Research Journal of Environmental Sciences and Studies, Prudent Journal, India
- Chemical Science International Journal, India
- Circular Economy and Sustainability, Springer Nature, USA
- Analytical Chemistry: An Indian Journal
- Journal of Microbiology and Biotechnology Reports, India
- E-book: Studies in Natural Products Chemistry (Bioactive Natural Products), Elsevier Science Publisher, Amsterdam, Netherland
- E-book: A Review on Major Metabolites of Certain Marketed Plant Alkaloids and Guide to Neglected and Underutilized Vegetables and their Medicinal Potentials, Bentham Science Publisher, USA
- OSP Journal of Cancer Biology and Clinical Oncology, London, UK
- International Journal of Science Annals, Ukraine
- Journal of Advances in Biotechnology, India
- Current Pharmaceutical Biotechnology, Bentham Science Publisher, USA
- Journal of Food Processing and Preservation, Wiley Online Library, USA
- Journal of Agriculture and Applied Biology, Indonesia
- Grassroots Journal of Natural Resources, Canada
- Technoarete Transactions on Recent Research in Applied Microbiology & Biotechnology, India
- Acta Scientific Microbiology (ASMI), India

**Membership of Professional  
Bodies (Total: 15, National: 10,  
International;5)**

- Life Member (Membership No: UIJIR/521/119) of the UIJIR Academic Research Foundation, Rajasthan, India
- Membership (10000778 QM15) of Global Forum for Sustainable Rural Development, Birbhum, West Bengal, India
- Life Member (Membership No: LM-2019/56) of the Indian Society of Analytical Scientists (ISAS) - Delhi Chapter, India
- Annual Membership of American Chemical Society (Membership No. 31790732), USA,
- Annual Membership of Israel Society of Microbiology (Registration Number: 562368), Tel Aviv, Israel for 2017-2018
- Associate Member (Membership No: LM02368) of Indian Society of Systems for Science and Engineering, Hyderabad Chapter, India
- Life Time (Application No: 2015150616424) participant of Global Initiative of Academic Networks (GIAN) under Ministry of Human Resources Department, Govt. of India.
- Life Member (Membership No:627) of Vijnana Bharati (VIBHA- a Guinness Book World Record Holder for the successful conduct of the „Largest Practical Science Lesson), Delhi, India
- Life Member (Membership No: L29042) of The Indian Science Congress Association, Kolkata, India
- Life Member (Membership No: 3699) of The Society of Biological Chemists, Bangalore, India
- Personal Member of European Federation of Biotechnology (EFB), Barcelona, Spain
- Triennial Membership of Education Research and Development Association (Certificate

**Publications and Citation**  
**(Total cumulative Impact factor:**  
**25.627**  
**h index=5, i10 index=3, citations**  
**140, till Dec 10, 2023)**  
**Journal Publication: 18**  
**Book Chapter: 3**  
**Monograph: 1**  
**Proceeding: 9**

ID:ERDA-INDM/86/2020 ), India for 2020-2023

- Annual Membership of International Society of Environmental Relationship and Sustainability (Membership ID: PM79251043), India for 2020-2021
- Doctoral/PhD. Membership of Institut De Diplomatie Publique, UK
- Personal Membership of The Society for Conservation of Historical and Ecological Resources (SCHER), India
- The Antibody Society (TAbS Postdoctoral membership), USA for 2021-23

#### Journal Manuscripts:

##### Peer Reviewed (Scopus/Thomson Reuters/WOS index/UGC Care)

- **Kumar, R., Kapur, S., & Rao Vulichi, S.** (2022). Unraveling the Novel Bacterial Assisted Biodegradation Pathway of Morpholine. *Hungarian Journal of Industry and Chemistry*, 50(1), 33–43. <https://doi.org/10.33927/hjic-2022-07>
- Srinivasa Rao Vulichi\*, AshishRunthala, Nagaraju Begari, **Kumar Rupak**, Venkata Rao Chunduri, Kapur Suman, Appa Rao Chippada, Durga Srinivasa Murthy Sistla (2022) Type-2 Diabetes Mellitus-associated Cancer Risk: In Pursuit of Understanding the Possible Link, *Diabetes & Metabolic Syndrome: Clinical Research & Reviews* 16 (9), 102591, **Rank Q2**, IF: 2.461, ISSN 1871-4021, <https://doi.org/10.1016/j.dsx.2022.102591>
- Srinivasa R Vulichi, Atul Kabra, Mohammad Khalid, **Kumar Rupak**, Natalia Cruz-Martins\*, (2021), Interlink between pollution and COVID-19 in India: compelling view and key attributes *Environmental Science and Pollution Research*, Springer Journals, 15;1-4, , **Rank Q2**, IF: 5.190, ISSN: 1614-7499, <https://doi.org/10.1007/s11356-021-13451-2>
- Srinivasa Rao Akiri, **Kumar Rupak**, Srinivasa Rao Vulichi\*, Atul Kabra, Appa Rao Chippada, and Durga Srinivasa Murthy Sistla (2021), A Short Review on Floating Microspheres: One of the Credible Gastro-Retentive Dosage Forms, *Journal of Global Trends in Pharmaceutical Sciences* 12(3), 9911-9921, **Rank Q4**, IF: 0.11, e-ISSN-2330-7346
- Srinivasa R. Vulichi, Atul Kabra, **Rupak Kumar**, Kapur Suman, Chunduri Venkata Rao, Natália Cruz-Martins\* (2021), Concise perspectives on some synthetic thiazolidine-2,4-dione derivatives and their specific pharmacodynamic aspects, *Life Sciences (Elsevier) Volume 271*, 2021,119182, **Rank Q1**, IF: 6.78 ISSN 0024-3205, <https://doi.org/10.1016/j.lfs.2021.119182>
- Yeara Bar Oz, Hadas Mamane, Ofir Menashe, Vered Cohen Yaniv, Rupak Kumar, Lilach lasur Kruh, Eyal Kurzbaum\* (2018) Treatment of Olive mill waste water using ozonation followed by an encapsulated acclimated biomass, *Journal Environmental Chemical Engineering*, Elsevier, 6: 5014–5023, , **Rank: Q1**, IF: 7.968, ISSN: 2213-3437, <https://doi.org/10.1016/j.jece.2018.07.003>
- Kumar Rupak\*, Srinivasa R Vulichi and Kapur Suman (2016) Emphasizing morpholine and its derivatives (MAID): A typical candidates of pharmaceutical importance, *Int. J. Chem. Sci.*, 14(3):1777-88, **Rank: Q4**, IF: 1.6, ISSN: 0972-768X
- Rupak Kumar, Yasmin Raizner, Lilach lasur Kruh, Ofir Menashe, Hassan Azaizeh, Suman Kapur, Eyal Kurzbaum\* (2018) Extracellular laccase production and phenolics degradation by an olive mill wastewater isolate, *Grasas y Aceites*, 69 (1): 1-20, e231, ISSN-L: 0017-3495, , **Rank: Q3**, IF: 1.416, ISSN: 0017-3495y, <http://dx.doi.org/10.3989/gya.0776171>
- Rupak Kumar\* (2016) Health effect of morpholine based coating for fruits and vegetables. *Int J Med Res. Health Sci.*,5 (9):32-38, IF: 0.52, ISSN: 2319-5886
- Rupak Kumar\* and Suman Kapur (2016). Cytochrome P450 Biocatalysts: A Route to Bioremediation, *Int. J. Pharm. Res. Allied Sci.*, 5(3):113-123, IF: 0.102, ISSN: 2277-3657

##### Peer Reviewed (Non-Scopus/SCI/WOS index)

- Meega Reji, **Rupak Kumar\*** (2022) Response Surface Methodology (RSM): An Overview to Analyze Multivariate Data, *Indian J Microbiol Res.*; 9(4):241-248, Print ISSN: 2394-546X <https://doi.org/10.18231/j.ijmr.2022.042>
- Meega Reji, **Rupak Kumar\*** (2022) Emergence of SARS-CoV-2 Variant of Concern Omicron: Biological Features and Genomic Concern, *Indian J Microbiol Res.* 9(4):252-271, Print ISSN: 2581-4753, <https://doi.org/10.18231/j.ijmr.2022.044>
- Rupak Kumar\* and Srinivasa Rao Vulichi (2021) Post Covid-19: How it might cause change and impact the education in India, *ASEAN Journal of Basic and Higher Education* 5(1), 65-74, e-ISSN 2719-048x
- Kumar R\*, Saha A. (2021). The prevalence of SARS-CoV-2 in sewage waste water: A review. *Indian J Microbiol Res.*; 8(3):185-190, Print ISSN: 2394-546X, <https://doi.org/10.18231/j.ijmr.2021.038>
- Rupak Kumar\* and Srinivasa R. Vulichi (2018) Recapitulating the biomedical applications of smart materials, *World Journal of Advance Health care Research*, 2(6), 85-87,SJIF: 3.458 ISSN: 2457–0400
- Rupak Kumar and Suman Kapur\* (2016) Miniaturization of spectrophotometric assay for automated monitoring of Industrial Pollutant "morpholine" *International journal of biology, pharmacy and allied sciences* 5(12):3134-3142, , ISIIF: 1.318, ISSN: 2277–4998
- Rupak Kumar and Suman Kapur\* (2016). Morpholine: A Glazing Agents for Fruits and Vegetables

**Book Chapter:**

- Srinivasa Rao Vulichi\*, Kumar Rupak, Appa Rao Chippada, Durga Srinivasa Murthy Sistla, Venkata Rao Chunduri, Kapur Suman, Krishna Murthy Naidu Galla (2020). Pharmaceutical significance and recent developments in utilizing bacterial enzymes, chapter 9, volume 2, Recent developments in applied microbiology and biochemistry, edited by Buddolla Viswanath, Academic press, an imprint of Elsevier, Amsterdam, Netherland, PP 89-101, ISBN: 9780128167007, <https://doi.org/10.1016/B978-0-12-821406-0.00009-6>
- Srinivasa R Vulichi\*, Kumar Rupak (2020). The Corona Conundrums: Spotlighting Environmental and Psychological issues, Torment 2020: A Wake up Call, (Volume 3), Anthology of „3rd National Article Writing Competition”, Pen Acclaims, India PP 76-79, ISBN: 9798648200371
- Rupak Kumar, Punita Manga, Shivani Gupta, Suman Kapur\*. (2014). Biological approaches for treating industrial effluents containing Morpholine. Industrial and Environmental Biotechnology, edited by Krishna Pramanik and Jayant Kumar Patra. Studium Press India Pvt. Ltd., New Delhi, PP-255-64, ISBN: 9789380012674

**Monograph:**

- Rupak Kumar\*, Suman Kapur, Srinivasa Rao Vulichi (2021), A Xenobiotic Pollutant Detection for a Zero Pollution Environment, 1st International Conference Strategies towards Green Deal Implementation organized by Mineral and Energy Economy Research Institute, Polish Academy of Science, Poland on 15th December, 2020, pp 74-90.

**Proceeding:**

- Rupak Kumar, Suman Kapur, Srinivasa Rao Vulichi (2022) Spotlighting Insidious Pollutant and Its Bioremediation: An Attempt Towards Appraisal of Morpholine and Its Derivatives, 2<sup>nd</sup> International Conference on Agriculture, Biosystem and Technology (IconABT) on 25- 26 August, 2022 at Tarlac Agricultural University, Philippines
- Kumar Rupak, Petkar Gayatri Investigating the Presence and Analysis of Synthetic Coating Agents on Fruits and Vegetables and their Health Effects 2nd International Conference on Agriculture, Biosystem and Technology (IconABT) on 25- 26 August, 2022 at Tarlac Agricultural University, Philippines
- Meega Reji, Sandra Ann Litto, Rupak Kumar (2022) The Impact of Environmental Factors on The Transmission of Covid-19 2nd International Conference on Agriculture, Biosystem and Technology (IconABT) on 25- 26 August, 2022 at Tarlac Agricultural University, Philippines
- Rupak Kumar (2019). Detection Device for the Estimation of Glazing Agent on Coated Fruits and Vegetables, Rural Innovators Start-up Conclave (RISC-2019) under the category of Innovator, Agriculture and Allied Activities, at National Institute of Rural Development and Panchayati Raj, Hyderabad, Ministry of Rural Development, Govt. of India, 27-28 September 2019, (pp 23), ISBN No. 978-81-941674-4-0
- Rupak Kumar, Abhishek Dave, Suman Kapur (2016). A Sustainable Environmental Technology: Biological Treatment of Morpholine and Its Derivatives (MAID) in Industrial Effluents, National conference on large scale multidisciplinary systems of national significance-trends and challenges (LAMSYS-2016) at Satish Dhawan Space Centre SHAR, Sriharikota, Andhra Pradesh, India, 24-25th June 2016
- Rupak Kumar (2015). Bacterial Biodegradation of Environmental Pollutant “Morpholine”-A Review, UGC Sponsored National Seminar on Socio-Economic Factors Influencing- Environmental Pollution, Biodiversity & Sustainable Development at Government Degree College, Nagari, Andhra Pradesh, India, 25-26th July 2015, (PP 263-71), under International E – Publication, International Science Congress Association, Indore, India. ISBN: 978-93-84659-06-6
- Manjyot Kaur, Rupak Kumar, DV Padmavathi, Shivani Gupta, Anuradha Pal and Suman Kapur (2015). Bacterial Strains for Morpholine Degradation: An adaptation and screening strategy, International Conference on Advances in Agricultural, Biological & Environmental Sciences (AABES-2015) under International Institute of Chemical, Biological and Environmental Engineering, London (UK), 22-23, July 2015, (PP 117-19), edited by Prof. Dr. Md. Aminur Rahman and Prof. Dr. Rahim Ahmadi. ISBN 978-93-84422-29-5, <http://dx.doi.org/10.15242/IICBE.C0715>
- Rupak Kumar and Suman Kapur (2014) The Biodegradation of Environmental pollutant “Morpholine”, National Conference on “Biodiversity, Environment Hazards – Therapeutic approaches and Drug Design” at Government Degree College for Women, Srikalahasthi, Andhra Pradesh, 26 -27th, July 2014, (PP 49-60) under International E – Publication, International Science Congress Association, Indore, India. ISBN:978-93-84648-32-9
- Rupak Kumar and Suman Kapur (2013) Quantitative Estimation of Morpholine by Gas Chromatography, National Conference on Innovations in Chemical Engineering, BITS Pilani, Hyderabad Campus, 15-16 Nov 2013, (PP 133-36) edited by D. Srikanta, V. Karthik C. and S. Vikranth K., BS Publication, Hyderabad, India. ISBN:978-81-7800-329-0

**M.Sc. Dissertation: 02**

- Investigation of various tobacco/non-tobacco chewing products available in north India by Gas Chromatograph Coupled with Nitrogen Phosphorous Detector and Mass Spectrometric Detector (GC-NPD/MSD) at National Dope Testing Laboratory, New Delhi, India
- Excretion Study of Bupropion and Codeine after oral administration in Human by Gas Chromatograph Coupled with Nitrogen Phosphorous Detector and Mass Spectrometric Detector (GC-NPD/MSD) and Gas Chromatograph Coupled with Mass Spectrometric Detector (GC-MSD) at National Dope Testing Laboratory, New Delhi, India

**Mentorship & Teaching Undertaken  
(Master: 05, Summer term:02)**

**Conferences (2017-23)**  
**(Invited speaker/Presenter: 19)**  
**International-11, National-8)**

**Master Thesis (Dual Degree): 03**

- Treatment of waste water from Textile Industries by Bacterial Isolates at Dept. of Biological science, BITS Pilani, Hyderabad Campus, Hyderabad, India
- Removal of NMMO and its derivatives from Industrial Effluent at Dept. of Biological science, BITS Pilani, Hyderabad Campus, Hyderabad, India
- Removal of Phenolic compounds by bacterial extracellular laccase at Shamir Research Institute, Qatzrin, Israel

**Summer Term: 02**

- The adsorption of morpholine on Fly ash at Dept. of Biological science, BITS Pilani, Hyderabad Campus, Hyderabad, India
- Optimization of parameter for removal of NMMO and its derivatives from industrial effluent by bacterial isolates at Dept. of Biological science, BITS Pilani, Hyderabad Campus, Hyderabad, India

**Teaching Undertaken:**

- Teaching Assistant/Instructor at BITS-Pilani, Hyderabad Campus from August 2011 to May 2016 to teach undergraduate B.E Course Bio Laboratory and Bio Physics

- Rupak Kumar<sup>1\*</sup> (2023) Biocatalyst and Nano catalyst Based Approaches for the Efficient Remediation of Organophosphate: A Notional Conceptional Review on 5<sup>th</sup> edition of the International Scientific Conference "Applications of Chemistry in Nanosciences and Biomaterials Engineering (NanoBioMat Winter edition)" organized by the Academy of Romanian Scientists and University POLITEHNICA of Bucharest on 22<sup>th</sup> November, 2023.
- Rupak Kumar<sup>1\*</sup> Anuradha Saha (2023) Ugly Shade of Manual Scavengers in India: Insides and Recommendation 4<sup>th</sup> International Multidisciplinary Conference for Young Researcher (MCYR), co-organized by the Biogas Research Team (Faculty of Tropical AgriSciences, Czech University of Life Sciences Prague on 5<sup>th</sup> October, 2023.
- Rupak Kumar<sup>1\*</sup> (2023) The Concern to Develop Analytical Method for Residual Mycotoxins Patulin: Gas Chromatography-Mass Spectrometry (GC-MS) Prospects, 5<sup>th</sup> International Conference for the Arts and Sciences, hosted by Cebu Normal University- College of Arts and Sciences. Philippines on 20-21<sup>st</sup> Sep, 2023.
- 5<sup>th</sup> edition of the International Scientific Conference "Applications of Chemistry in Nanosciences and Biomaterials Engineering (NanoBioMat summer edition)" organized by the Academy of Romanian Scientists and University POLITEHNICA of Bucharest as keynote presentation "Mycotoxin Patulin: A Natural Compound of Comprehensive Review of Interest" on 30<sup>th</sup> June 2023
- Rupak Kumar<sup>1\*</sup> (2023) An Apprehensive Approach of Gas Chromatography/Mass Spectrometry Method Development for Patulin: A Mycotoxin, 2<sup>nd</sup> Young Science Beyond Borders online conference organized by Polish Young Academy, Poland on 1<sup>st</sup> June, 2023.
- Rupak Kumar (2023) The saying "Does an apple a day keeps the doctor away"?: An inside investigation on New Age Technology Show, 8<sup>th</sup> India International Science Festival 2022 at MANIT Bhopal on 21-24<sup>th</sup> January, 2023.
- Rupak Kumar (2021) One Night of Innovation (Sensing anthropogenic pollutant "Morpholine" to ascertain Point of Detection Device) on International Conference on Innovation and Application in Science & Technology (ICIAST) Organized by Department of Applied Sciences Galgotias College of Engineering and Technology, Greater Noida, U.P, on 22<sup>nd</sup> Dec, 2021
- Rupak Kumar, Eyal kurzbaum (2021) Olive Mill Wastewater Isolate for its Bioprospect to the Production of Laccase and the Removal of Phenolic Compound on 2<sup>nd</sup> International Conference Strategies toward Green Deal Implementation Water, Raw Materials & Energy, during wastewater and sludge management session organized by Mineral and Energy Economy Research Institute of the Polish Academy of Sciences, Poland on 9<sup>th</sup> Dec, 2021-Online
- Rupak Kumar, Anuradha Saha (2021), Industrial Mishaps in India: A Challenge to Nation's environment sustainability on 2<sup>nd</sup> Multidisciplinary Conference for Young Researchers - Sustainable Development Trends and Challenges under COVID-19" organized in the framework of the development project: Interuniversity Cooperation as a Tool for Enhancement of Quality of Selected Universities in Ukraine, Sumy State University, Sumy, Ukraine for a period of 2 days (29<sup>th</sup>-30<sup>th</sup> Nov, 2021).
- Rupak Kumar and Anuradha Saha (2021), Monitoring Water Resources in Environmental: A Public Health Concern on 1<sup>st</sup> International Conference Science Cannot Wait: New Horizons in Water, Raw Materials, Geology, Ecology, Energy and Environmental and Veterinary Sciences organized by University of Veterinary Medicine and Pharmacy in Košice for a period of 2 days (29<sup>th</sup>-30<sup>th</sup> Nov, 2021).
- Rupak Kumar (2021) Development of Point of Detection (POD) Device for the Estimation of Morpholine: A Procarcinogenon Coated Fruits/Vegetables on Virtual International Summit *TECH4SEVA*: Technology Outreach as Enabler for Inclusive, Sustainable and Affordable Healthcare organized by ICMR-Center for Innovation and BioDesign (CiBioD), PGIMER Chandigarh in association with Unnat Bharat Abhiyan, New Delhi and Vijnana Bharati, New Delhi for the period of 4 days (20<sup>th</sup> - 23<sup>th</sup>, Oct, 2021) and won 3<sup>rd</sup> Prize
- Rupak Kumar (2021) Morpholine: A Xenobiotic Pollutant Detection by Gas Chromatography in One Health International PhD and Post-doc Summer School 2021 University of Bern, Switzerland on 10<sup>th</sup> August, 2021.
- Rupak Kumar (2021) Biodegradation of N-Methylmorpholine-N-oxide (NMMO) : An insidious Pollutant of Textile Effluent in 1<sup>st</sup> Virtual ASEAN Multidisciplinary Research Conference (VAMCON2021) organised by Philippine Association of Research , Practitioners, Educators and Statistical Software Users (PARESSU) on 26<sup>th</sup> -27<sup>th</sup> March, 2021

**Quality Management System (QMS)**

- Rupak Kumar (2021) A Xenobiotic Pollutant Morpholine: Biological Treatment and Its Degradation Pathway in 3rd Virtual Festival of Life and Earth Science, Poland on 4th February, 2021
- Rupak Kumar (2021) Morpholine: A Xenobiotic Pollutant, Biological Treatment and Its Biotransformation in Refresher Programme in Environmental Science/Education organized by MVP's KRT Arts, BH Commerce & AM Science College, Nashik on 12th January, 2021
- Rupak Kumar (2020) Morpholine –A Xenobiotic Pollutant Detection in 1st International Conference Strategies towards Green Deal Implementation organized by Mineral and Energy Economy Research Institute, Polish Academy of Science, Poland on 15th December, 2020
- Rupak Kumar (2020) Waste to Value: The Removal of Morpholine –A Xenobiotic Pollutant in Virtual Festival of Life and Earth Science, Poland on 27th July, 2020
- Rupak Kumar (2019). Development of Point of Detection Device for the Estimation Glazing Agent on Coated Fruits and Vegetables in 1st International Seminar on Socio-Cultural Study of Agriculture at Mata Sundari College of Women, University of Delhi, New Delhi on 15th-16th March 2019
- Rupak Kumar (2018). Xenobiotic "Morpholine": Source, Availability, Health Effect and Biological Solution at SVU College of Pharmaceutical Sciences, Sri Venkateswara University (NAAC A+), Tirupati, Andhra Pradesh on 17th August 2018
- Rupak Kumar and Suman Kapur (2017). Waste to value: A solid and liquid waste management with reference to morpholine and its derivatives in National Seminar on Perspectives on Solid Waste Management at Krishna University, Machilipatnam, Andhra Pradesh on 12th-13th October 2017.

- Worked with an ISO: IEC 17025:2005 (NABL) and WADA-ISL (Ver. 6.0) accredited Bio Analytical Laboratory and engaged in Drug Testing.
- Well versed in QA/QC Documentation Policy, SOP preparation, audits and regulations and all other requirements of Quality Control and Quality Assurance.
- Have experience of requirements and guidelines of international certifying agencies like CAP and WADA.
- Worked with regulation of Medical Devices in compliance with ISO 13485

**Entrepreneurship Attributes**

- Developed microscopic spectrophotometric assay for the estimation of glazing agent coated on fruits and vegetables. On the basis of this assay, we are under process of developing point of detection (POD) device for the quantification of glazing agent on coated fruits and vegetables. Further, MorpphGlaze Start-up will be founded in due course of time. This innovation was well appreciated and recognized in National and International platform as Agri Start-ups by various academics and think tanks. The innovation has been shortlisted for Shaker Lab Biotech – Edition # 9, 2021 under the Genopole (an incubator for cutting-edge projects in biotechnology), Evry Cedex, France.

**Personal Skills**

- Organisational: Time management, Communication effectively, setting goals, Deliberation of the research finding, Working under pressure, Self-motivation and Analytical thinking
- Digital Competence: Advanced Microsoft office package, Basic skills of ICT to retrieve, assess, store, produce, present and exchange the information using electronic tools/device and media.
- Language: Although Hindi language is the native mother tongue. However, Advanced C1 level of English has been thought from senior secondary to doctoral studies and onward and never come across the language barrier to understand the subject. This is the reason; there were 19 first author publications of my credit of national and international reputed journal.

**Higher Degree Transcript (Subject with Grade)**

**Post-Graduation 2004-2006: M.Sc. Biotechnology**

1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester	3 <sup>rd</sup> Semester	4 <sup>th</sup> Semester
Cell Biology: C	Molecular Biology:A	Animal Cell Sciences and Technology: B	Environmental Biotechnology: A
Biomolecules & Biophysical Chemistry:C	Enzymology: B	Genetic Engineering: A	Bioprocess Engineering and Technology: A
Microbial Physiology and Genetics: D	Biology of Immune System: B	Plant Biotechnology: D	Practical: O
Biotechniques: B	Computer Application and Biostatistics: A	Intermediary Metabolism & Clinical Biochemistry: A	Project Work: A Solid State Fermentation of Oil-seed Cake for the Production Microbial Esterase
Practical: A	Practical: O	Practical: A	
CGPA: 7.46	CGPA: 8.15	CGPA: 8.18	CGPA: 9.27

**M.Phil. 2007-2008: Life Sciences (Specialization: Biochemistry)**

1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester
Data Analysis and Computer Application: 6.90	Seminar: 7.20
Instrumental techniques: 8.34	Dissertation and Viva: 8.44 Scale-up Purification and Characterization of $\beta$ -Glucosidase from Thermo Tolerant Yeast <i>Pichia etchellsii</i>
Physico-Chemical Properties of Protein and Nucleic Acid: 7.74	
Practical: 8.40	
CGPA: 7.808	CGPA: 8.196

**Ph.D. 2011-2018: Biological Science (Environmental Biotechnology)**

Mode	Regular as per UGC regulation 2016
Thesis	Biological Approaches for Treating Industrial Effluents Containing Morpholine
Viva Voce	Open under Dr. Shaik Bhasha
External Examiner Evaluation	<ul style="list-style-type: none"> <li>❖ Dr. Rakesh Kumar, Distinguished Professor and National Chair, RGCB, Thiruvananthapuram, India</li> <li>❖ Dr. Shaik Bhasha, Scientist and Head, CSIR-NEERI Hyderabad Zonal Centre, Hyderabad, India</li> </ul>
Supervisor	Late Prof. Suman Kapur, Dept. of Biological Sciences, BITS-Pilani,, Hyderabad Campus, Hyderabad, India
Course Work	Technical Communication Introduction of Nano Science Study in Advanced Topic (Smart Materials)
Ph.D. Qualifying Subjects	Introduction of Nano Science Recombinant DNA Technology Genetic Engineering

**PDF.: 2023 Ongoing: Biological Science (Enzyme Biotechnology)**

Mode	Regular
Project entitle	Enzymatic degradation of patulin; A mycotoxin. Engineered enzyme has been investigated for its efficacy for the removal of patulin in the infected apple
Principal Investigator	Dr. Livnat Afriat-Jurnou Directed Evolution of Enzymes Group, MIGAL Galilee Research Institute, Israel <a href="https://scholar.google.com/citations?user=ZwTGGI0AAAAJ&amp;hl=en">https://scholar.google.com/citations?user=ZwTGGI0AAAAJ&amp;hl=en</a>
Publication	
Active Participation	<ul style="list-style-type: none"> <li>❖ 18<sup>th</sup> MIGAL Conference in memory of Yaakov Arzi on 11<sup>th</sup> May, 2023 at Pastoral Hotel, Kfar Blum, Israel</li> <li>❖ 10<sup>th</sup> Water conference: Water and energy challenges and solutions in light of climate change on 24<sup>th</sup> May, 2023 at Tel Hai Academic College, Upper Galilee, 9977, Qiryat Shemona, Israel</li> </ul>
Speaker/Virtual Presentation	<ul style="list-style-type: none"> <li>❖ <b>Rupak kumar (2023)</b> An Apprehensive Approach of Gas Chromatography/Mass Spectrometry Method Development for Patulin: A Mycotoxin, International Conference Yong Science Beyond Borders organized by Academy of Young Scientists, Polish Academy of Sciences, Warsaw, Poland on 1<sup>st</sup> June, 2023.</li> <li>❖ <b>Rupak Kumar (2023)</b> Mycotoxin Patulin: A natural compound of comprehensive review of interest, summer session of the International Conference "Applications of Chemistry in Nanosciences and Biomaterials Engineering – NanoBioMat 2023" organized by the University POLITEHNICA of Bucharest, Romania on 28<sup>th</sup>– 30<sup>th</sup> June 2023.</li> <li>❖ <b>Rupak kumar (2023)</b> The Concern to Develop Analytical Method for Residual Mycotoxins Patulin: Gas Chromatography-Mass Spectrometry (GC-MS) Prospects, 5<sup>th</sup> International Conference for the Arts and Sciences, hosted by Cebu Normal University- College of Arts and Sciences, Philippines on 20-21<sup>th</sup> Sep, 2023.</li> <li>❖ <b>Rupak kumar (2023)</b> Ugly Shade of Manual Scavengers in India: Insides and Recommendation, 4<sup>th</sup> International Multidisciplinary Conference for Yong Researchers organized by Biogas Research Team (Faculty of Tropical AgriSciences, Czech University of Life Sciences, Prague on 5-6<sup>th</sup> October, 2023.</li> </ul>

Invited Reviewer	<ul style="list-style-type: none"> <li>❖ International Research Journal of Public and Environmental Health, Nigeria</li> <li>❖ Journal of Agriculture and Applied Biology, Indonesia</li> <li>❖ Journal of Clinical Microbiology and Infectious Diseases</li> </ul>
Professional Appointment	<ul style="list-style-type: none"> <li>❖ Appointment as Professional Ambassador in the Institute for Engineering Research and Publication (IFERP), a unit of Technoarete Research and Development Association, Chennai, India</li> <li>❖ Appointment as a member of the Executive Body of Education Research and Development Association (ERDA), Patna, India</li> </ul>
Online Course	<ul style="list-style-type: none"> <li>❖ Completed Biomaterials and Tissue Engineering Course by participating 14 Module Online Training from June 2023 to August 2023 organized under Erasmus+ project called "Creating a Virtual Laboratory for Online Teaching", (CVL40T) with agreement number 2020-1-TR01-KA226-HE-098239.</li> </ul>
Online Scholarship	<ul style="list-style-type: none"> <li>❖ Watson IMPACT Scholarship for Excellence 2023 (WISE 2023) by Biotechnika Info Labs Pvt Ltd, Bangalore, India</li> </ul>