Curriculum vitae

PERSONAL INFORMATION

Name: Dr. Abhishek Saxena Researcher unique identifier(s):

Google Scholar Citations: https://scholar.google.co.in/citations?hl=en&user=cbT_hncAAAAJ

ORCID Id: https://orcid.org/0000-0001-8202-9592
SciProfile: https://sciprofiles.com/profile/AbhishekSaxena

Date of birth: 13th June, 1986 Email: saxenaabhishek1386@gmail.com Mobile:+91-7668009401

OBJECTIVE:

Want to work with an organization of repute and related areas of life science and nanobiotechnology with an opportunity to work with people who can rally around me to maximize my potential and knowledge as a valuable future researcher and technologist.

EDUCATION:

2017 Ph.D. (**Biotechnology**) from Amity Institute of Biotechnology, Amity University Noida, India (**CGPA 8.5/10**)

Thesis title: "Development of nano-materials for the immobilization of biomolecules and their application as biosensors".

2011 M.Sc. (Biotechnology) (2009-2011) from Ch. Charan Singh University University, Meerut, India (68.30%)

Dissertation title: "Microbiology of SMP and ghee limit test" from Param Dairy Industries Pvt. Ltd., Bulandshahr, UP.

2009 B.Sc. (H) Biotechnology (2006-2009) from Amity Institute of Biotechnology, Amity University, Noida, India (CGPA 6.54/10)

Dissertation title: "Bacterial endotoxins and their applications" from Pareek Hospital & Research Centre, Agra, UP.

PROFESSIONAL COURSE:

- MBA (Pharmaceutical Marketing) (2018-2020) from Subharti University, Meerut, India (66.7%)
- Certificate course in French Language, Effective Technical Communication Skills, and Behavioural Science from Amity University, Noida, India.

RESEARCH INTEREST:

Nano-biotechnology, Algal biotechnology, Bio-organic chemistry, Nanomedicine, Electrochemical biosensor, Investigating new drug, Drug delivery, Wastewater management, Neurodegenerative disease detection, Antimicrobial resistance.

INSTRUMENTATION:

HPLC & GC-MS, Cyclic voltammetry, Atomic force microscopy, atomic absorption spectrometry, FTIR techniques, UV-VIS spectrometry, Scanning electron microscopy, Transmission electron microscopy, Dynamic light scattering, XRD, Zeta potential, Raman spectrometry, TGA-DSC, ICP-MS, EDX, BET surface analyzer, MOKE magnetometer, Fluorescence, Induction Plasma System, Confocal microscopy, Molecular identification of algal samples.

WORK EXPERIENCE:

Post Doc Researcher, May 2019- till date

Amity Institute of Biotechnology, Amity University, Noida

Job Responsibilities

 Isolation of diatoms from water bodies and their characterization based on SEM analysis and molecular techniques.



- Optimization of cost effective indoor mass cultivation of different diatom strains
- Extraction and purification of value added compounds from diatoms biomass for industrial application.
- Synthesis of nanoparticle from algal biomass for pharmaceutical applications.
- Optimization of biosilica as carrier for target drug delivery applications.
- Fabrication of live aquafeed using biopolymer for aquaculture applications.
- Handling and preparation of project documents, Establishing SOP; Writing scientific research papers, Patent draft and documentation, etc.
- Management of R&D lab, Address technical challenges and troule shoot problems during experimentation and provide support to the entire lab staff consists of 3 Ph.D. Scholars, 1 Lab Technician and several interns

R&D Scientist, January 2018- April 2019

Saveer Biotech Ltd, Greater Noida

Job Responsibilities

- Preparation and validation of controlled release of nanoformulations/agrochemicals
- Determination and evaluation of efficacy/stability of nanoparticle based ointment/gels/bandage for wound healing applications
- Controlled release of drug delivery system, nanoparticle characterization and determining the antimicrobial activity of APIs
- Estimation & testing of physicochemical parameters of water and control of water hardness using ion exchange method
- Maintain Induction Plasma system (IPS) machine for the synthesis and production of high-quality nanopowders (silver, silica, zinc, iron) at large scales while developing SOP for new nanomaterials.
- Hydrophobic coatings, Anti-Biofouling coatings, Anti-Algae & Anti-Hardness of cool pad installed at the greenhouse.
- Manage the R&D Lab and provide support to the development team in the field of Nanotechnology and Biotechnology
- Address technical challenges faced during product development with a special focus on complex delivery routes requiring advanced technical expertise.
- Identify external labs, Universities for collaboration and building analytical capability.
- Website designing for nanoparticles product promotion.

PUBLICATION(S): 27 Cumulative Impfact factor: 135.433

- 1. K. Iqbal†, A. Saxena†, P. Pandey, A. Tiwari, N. C. Joshi, D. Pant, A. Varma, A. Mishra (2022). Microalgae-bacterial granular consortium: striding towards sustainable production of H₂ coupled with wastewater treatment. Bioresour. Technol. 127203. [IF:9.642].(†EQUAL AUTHROSHIP).
- 2. A. Saxena, B. Mishra, A. Tiwari (2022). Mass cultivation of marine diatoms using local salts and its impact on growth and productivity. Bioresour. Technol. 352, 127128. [IF:9.642].
- 3. A. Saxena, S. Sharda, S.Kumar, B. Kumar, S. Shirodkar, P. Dahiya, R. Sahney (2022). Synthesis of alginate nanogels with polyvalent 3d transition metal cation: Applications in urease immobilization. Polymers, 14, 1277. [IF:4.329]
- 4. A. Saxena, B. Mishra, R. Sindhu, P. Binod, A. Tiwari (2022). Nutrient acclimation in benthic diatoms with adaptive laboratory evolution. Bioresour. Technol. 351, 126955. [IF:9.642]
- A. Saxena, A.Dutta, N. Kapoor, A. Kumar, A. Tiwari (2022) Envisaging marine diatom *Thalassiosira weissflogii* as a smart drug delivery system for insoluble drugs. J. Drug Deliv. Sci.Technol. 68, 102983 [IF:3.981]
- 6. P. K. Singh, R. Bhatacharjya, A. Saxena, I. S. Thakur, A. Tiwari (2022) Envisaging the role of pharmaceutical contaminant 17-β estradiol on growth and lipid productivity of marine diatom *Chaetoceros gracilis*. Bioresour. Technol. 346, 126642. [IF:9.642]
- 7. A. Saxena, P. K. Singh, A. Bhatnagar, A. Tiwari (2022) Growth of marine diatoms on aquaculture wastewater supplemented with nanosilica. Bioresour. Technol. 344, Part A, 126210. [IF:9.642]
- 8. T. K. Marella, A. Saxena, A. Tiwari, A. Datta, S. Dixit (2022) Treating agricultural non-point source

- pollutants using periphyton biofilms and biomass valorization. J. Environ. Manag. 301:113869. [IF:6.789]
- 9. A. Tiwari, R. Dhanker, A. Saxena, S. Goyal, E. M. Melchor-Martínez, H. M.N. Iqbal, R. Parra-Saldívar (2021) Toxicity evaluation of personal care and household products as silent killers on the survival of *Daphnia magna*. Case Stud. Chem. Environ. Eng. 4: 100124. Scopus
- 10. A. Saxena, B.Mishra, A. Tiwari (2021) Development of diatom entrapped alginate beads and application of immobilized cells in aquaculture. Environ. Technol. Innov. 23:101736. [IF:5.263]
- A. Saxena, T. K. Marella, P.K. Singh, A. Tiwari (2021) Indoor mass cultivation of marine diatoms for biodiesel production using induction plasma synthesized nanosilica. Bioresour. Technol. 332: 125098. [IF:9.642]
- 12. R.Bhatacharjya, P.K. Singh, B. Mishra, A. Saxena, A. Tiwari, (2021). Phycoprospecting the nutraceutical potential of Isochrysissp as a source of aquafeed and other high-value products. Aquacult. Res. 52(7) 2988-2995 [IF:2.082]
- 13. S. Phogat, A.Saxena, N. Kapoor, C. Aggarwal, A. Tiwari (2021) Diatom mediated smart drug delivery system. J. Drug Deliv. Sci. Technol. 63:102433. [IF:3.981]
- 14. P.K. Singh, R. Bhattacharjya, A. Saxena, B. Mishra, A. Tiwari, (2021) Utilization of wastewater as nutrient media and biomass valorization in marine Chrysophytes- *Chaetoceros* and *Isochrysis*. Energy Convers. Manag.: X 10:100062. Scopus
- 15. H. Aryan, A. Saxena, A. Tiwari (2021) Correlation between bioactive lipids and novel coronavirus: constructive role of biolipids in curbing infectivity by enveloped viruses, centralizing on EPA and DHA. Systems Microbiol. Biomanufact. Feb 3, 1-7. Scopus
- **16. A. Saxena,** A. Tiwari, R. Kaushik, H. M.N. Iqbal, R. Parra-Saldívar (2021) **Diatoms recovery from wastewater: Overview from an ecological and economic perspective.** J. Water Proc. Eng. 39:101705.[**IF:5.46**]
- 17. A. Tiwari, E. M. Melchor-Martínez, A. Saxena, N. Kapoor, K.Singh, S. Saldarriaga-Hernández, R. Parra-Saldívar, H. M.N. Iqbal (2021) Therapeutic attributes and applied aspects of biological macromolecules (polypeptides, fucoxanthin, sterols, fatty acids, polysaccharides, and polyphenols) from diatoms A review. Int. J. Biol. Macromol. 171: 398-413. [IF:6.953]
- 18. N. Gopal, A. Saxena, R. Sahney (2021). Effect of functionalization on the electrochemical behavior of multiwalled carbon nanotube and parafilm nanocomposites. Fuller. Nanotub. Carbon Nanostructures 29:8, 643-655 [IF:1.80]
- 19. R. Bhatacharjya, T.K. Marella, A.Tiwari, A. Saxena, P.K. Singh, B. Mishra (2020). Bioprospecting of marine diatoms *Thalssiosira*, *Skeletonema* and *Chaetoceros* for lipids and other value-added products. Bioresour. Technol. 318:124073. [IF:7.539]
- 20. B.Mishra, A. Saxena, A. Tiwari (2020) Biosynthesis of silver nanoparticles from marine diatoms *Chaetoceros* sp., *Skeletonema* sp., *Thalassiosira* sp., and their antibacterial study. Biotechnol. Rep. 28:e00571. [IF:4.982]
- 21. A. Saxena, K. Prakash, S. Phogat, P.K. Singh, A.Tiwari (2020) Inductively coupled plasma nanosilica based growth method for enhanced biomass production in marine diatom algae. Bioresour.Technol. 314:123747 [IF:7.539]
- 22. S.Guleri, A.Saxena, K.Singh, Rinku, R.Dhanker, N. Kapoor, A. Tiwari (2020) Phycoremediation: A novel and synergistic approach in wastewater remediation. J. Microbiol. Biotechnol. Food Sci.10:98-106. [IF:0.61]
- 23. T.K.Marella, A. Saxena, A. Tiwari (2020) Diatom mediated heavy metal remediation: A review. Bioresour. Technol. 305:123068. [IF:7.539]
- 24. A. Saxena, M. Bhardwaj, T.Allen, S.Kumar, R. Sahney (2017). Adsorption of heavy metals from waste water using agricultural-industrial wastes as biosorbents. Water Sci. 31:189-197. [IF:1.247]
- 25. A. Saxena, N. Bhagat, S. Kumar, L. Siyal, B. Kumar, R. Sahney (2017). Alginate based nanoparticles as a carrier matrix for the delivery of calixarene derivative as pharmaceutical compound. Int.J. Pharma BioSci. 8:217-224. Scopus
- 26. A. Saxena, A. Bhattacharya, S. Kumar, I. R. Epstein, R. Sahney (2017). Biopolymer matrix for nanoencapsulation of urease- a model protein and its application in urea detection. J. Coll. Interf. Sci. 490:

- 452-461 [**IF:7.489**]
- 27. A.K. Gupta, D. Ganjewala, N. Goel, N. Khurana, S. Ghosh, A. Saxena (2014). Bioremediation of tannery chromium: A microbial approach. Res. J. Pharm. Technol.7: 118-122. Scopus

PATENT(S): 5

- Rachana Sahney*, Abhishek Saxena, Shivani Sharda, Benu Kumar, Sumit Kumar 2021 DEVELOPMENT OF MICROEMULSION USING ALGINATE SOL-HEXANE SYSTEM AND ITS APPLICATION. Application No. 202111045884. Status: Filed on 8th October 2021
- 2. Archana Tiwari* Bharti Mishra and **Abhishek Saxena** 2021-A METHOD FOR DEVELOPMENT OF ALGINATE ENTRAPPED LIVE DIATOM AQUAFEED. **Application No. 202111018996**. **Status :Filed on 24th April 2021**
- 3. Archana Tiwari* **Abhishek Saxena**, and Raya Bhattacharjya, 2020-A METHOD FOR DIATOM ISOLATION USING ALGINATE IMMOBILIZATION AND RELATED PRODUCE. **Application No. 202011055224**. Status: Filed on 15th Dec 2020
- 4. Archana Tiwari* and **Abhishek Saxena** 2020-A NANOMIX FORMULATION FOR ENHANCED DIATOMGROWTH AND PREPARATION METHOD THEREOF. **Application No. 202011050793. Status**: Filed on 18th Nov 2020
- 5. An Indian patent based on my Ph.D. research is under progress on the **Biocompatible nanofertilizer for** the feeding iron (micronutrient) to the iron deficient rice crop.

BOOK CHAPTER(S): 3

- 1. **Abhishek Saxena**, Aditi Raj, Archana Tiwari, *Exploring the anti-cancer potential of micro-algae*. "Microalgae" **2022**, Intech. ISBN 978-1-80356-024-3.(*In press*).
- 2. Archana Tiwari, Thomas Kiran Marella, **Abhishek Saxena, Chapter 17-Diatom biorefinery: From carbon mitigation to high-value products**, Editor(s): Indu Shekhar Thakur, Ashok Pandey, Huu Hao Ngo, Carlos Ricardo Soccol, Christian Larroche, Biomass, Biofuels, Biochemicals, Elsevier, **2022**, Pages 401-420, https://doi.org/10.1016/B978-0-12-823500-3.00018-2.ISBN: 9780128235003
- 3. **Abhishek Saxena**, Archana Tiwari, **Chapter 12-Biodiesel production and advancement from diatom algae**, Editor(s):Neha Srivastava, Manish Srivastava, Bioenergy Research: Evaluating Strategies for Commercialization and Sustainability, Wiley Online Library, **2021**, Pages 261-277, https://doi.org/10.1002/9781119772125.ch12.

CONFERENCES INTERNATIONAL (13)/NATIONAL (6)

- 1. Abhishek Saxena and Archana Tiwari (2021) The potential of diatomaceous earth as highly efficient drug delivery system. 90th Annual meeting of SBCI-2021 (Society of Biological and Chemicals) on Metabolism to Drug Discovery: Where Chemistry and Biology Unite, Organized by Amity Institute of Biotechnology and Amity Institute of Integrative Sciences and Health, Amity University, Hrayana, India from December 16-19, 2021(E-Conference).
- 2. Abhishek Saxena and Archana Tiwari (2021) Synthesis of Silver nanoparticle from marine diatom and diatomite: A natural cost-effective treatment for wound healing. International Conference on Biotechnology for Resource Efficiency, Energy, Environment, Chemicals and Health (BREEECH 2021) CSIR-Indian Institute of Petroleum, Dehradun, India from December 1-4, 2021 (E-Conference).
- 3. Abhishek Saxena and Archana Tiwari (2021) Role of diatoms in aquaculture: A novel live fish feed solution to meet the growing food demand. 4th Global meet on Science & Technology for staying healthy

- & Feeding evergrowing population worldwide Organized by Hi-Tech Horticultural society and Prerna Foundation Meerut, UP, India on 12-13th September, 2021 (E-Conference).
- **4. Abhishek Saxena** and Archana Tiwari (**2021**) **Role of diatoms in aquaculture:Approaches towards circular bioeconomy**. International virtual conference on Advances in Agricultural and Food Sciences to Face the Challenges to Environment and Biosecurity Organised by School of Agricultural Sciences Sharda University Greater Noida from January 16-20, 2021 (E-Conference).
- **5. Abhishek Saxena** and Archana Tiwari (**2020**) **New paradigm on aquaculture wastewater treatment by the growth of diatoms-A sustainable approach**. Global Water Congress-2020 Organised by Environment and Social Development and Association (ESDA), Delhi. October 02-04, 2020 (E-Conference).
- **6.** Archana Tiwari Thomas K Marella, **Abhishek Saxena**, Pankaj Kumar Singh, Neha Kapoor (**2020**). **Diatoms as Precursors of Novel Age Drug Molecules**. Conference on Translational (Engineering) and Regenerative Medicine (CoTERM 2020), 21-23 January, Department of Biotechnology and Microbiology, Noida International University, U.P.
- **7. Abhishek Saxena**, Anoop kumar, Lamha Kumar, Archana Tiwari, Neha Kapoor (**2019**). **Novel Drug Delivery System for Drug Induced Hepatotoxicity.** ACS workshop on Greening our education system: Initiatives for propogating and preaching beyond benign concepts in classrooms and laboratories at Delhi University, North Campus, 19th Dec 2019.
- **8.** Archana Tiwari, Neha Kapoor, **Abhishek Saxena** (**2019**). **Marine diatom as highly efficient drug delivery system,** New Horizons in Biotechnology 2019, Trivandrum November 20-24, 2019.
- **9.** Archana Tiwari, Thomas K Marella, **Abhishek Saxena**, Pankaj Kumar Singh, Neha Kapoor (**2019**) **Diatoms as source of Nutraceuticals.** National Conference on Recent Trends in Chemical Sciences & RSC Workshop on Periodic Table: Boon for Mankind 30th August-1st September, New Delhi.
- **10.** Rachana Sahney*, **Abhishek Saxena**, Benu Kumar (**2016**). **Development of Bandage based Electrochemical Sensor for Monitoring Healing process in Chronic Wounds**. FICCI HEAL 2016, "Reengineering Indian healthcare" at FICCI house New Delhi between 31st August to 1st September, 2016.
- 11. Rachana Sahney*, Manish Bhardwaj, Tanu Allen, Sohini Singh, **Abhishek Saxena** (2016). Biosorption of toxic material from waste water using agri-industrial residues. International Conference on New Insights & Multidisciplinary approaches in Toxicological Studies as 36th annual conference of Society of Toxicology (INDIA)-2016 organized by Amity University Uttar Pradesh, 3-5th Aug, 2016.
- 12. Lovnish Siyal, Neha Gopal, Abhishek Saxena, Vaibhav Raina, Satish kumar, Benu Kumar, Rachana Sahney*(2016). Polysaccharide nanoparticles as carrier matrix for the delivery of pharmaceutical compounds. International Conference on Material Science & Technology, organized by Delhi University, 01-04th Mar, 2016.
- 13. Abhishek Saxena*, Lovnish Siyal, Neha Gopal, Vaibhav Raina, Satish kumar, Benu Kumar, Rachana Sahney (2015). Alginate based Nanoparticles as a Carrier Matrix for the Delivery of Pharmaceutical Compound. International Conference in collaboration with NRIs on Recent Trends in Material and Devices (ICRTMD-2015) jointly organized by Amity Institute for Advanced Research & Studies (Material And Devices) and Amity Institute of Applied Science, Amity University Noida, 15-17th Dec, 2015.
- **14. Abhishek Saxena***, Vaibhav Raina (**2015**). **Development of Urea Biosensor and its Application in Urea Measurement.** Recent Advances in Cardiovascular Sciences-2015, Organized by Amity University Uttar Pradesh, 10-11, March, 2015.
- **15.** Rachana Sahney*, **Abhishek Saxena (2014). Encapsulation of Urease Enzyme in Nano-Alginate Biopolymers for the Fabrication of Urea Biosensor**. International conference on Biomaterials-2014 of ASIAN POLYMER ASSOCIATION conducted by IIT DELHI, 27-30th Oct, 2014.
- **16.** Rachana Sahney*, **Abhishek Saxena**, Benu Kumar, R. S. Dubey, Satish Kumar (**2013**). **Application of Biopolymers for the Development of Urea Biosensor.** International Conference on Recent Trends In Materials And Devices (ICRTMD-2013) organised by Amity Institute of Applied Sciences ,Amity University, Noida from 30-31st Oct, 2013.
- 17. Rachana Sahney*, Benu Kumar, Abhishek Saxena (2013). Development of Electrochemical Biosensors using Stimuli Sensitive Collods for Urea Detection. National Symposium on "Chemistry and Environment" (NSCE-13) organized by Deen Dayal Upadhyaya College, University of Delhi, NewDelhi, from 22-23rd Mar, 2013.
- **18.** Rachana Sahney*, **Abhishek Saxena**, R. S. Dubey, Satish Kumar (**2013**). **Lead Determination in Environment Samples using Calixarene Ligands as Cation Sensor**. National Conference on Environmental Pollution, Soil Health and Sustainable Agriculture organised by Indian Network For Soil Contamination Research (INSCR) in association with University Of Delhi and Amity University Uttar Pradesh from 15-17 January, 2013.

19. Rachana Sahney*, Abhishek Saxena, A.K. Srivastava (2012). Immobilization of urease enzyme in alginate microspheres for the detection of urea and its application in the development of electrochemical urea biosensor for clinical diagnostic. International Conference on Interface between Chemistry and Environment (ICICE) Organized by Department of Chemistry, Ramjas College, University of Delhi, Delhi from 13-14 December 2012.

WEBINAR/WORKSHOP/SYMPOSIUM:10

- 1. International webinar with Taylor and Francis on "Publishing in Academic Journals-Humanities and Social Sciences" organized by EURAXESS.
- 2. National seminar on **Protection of Traditional Knowledge and Patent Issues** Organized by Central council for research in Unani Medicine, Ministry of Ayush, Government of India on 26th March, 2021 at Indian Habitat Centre, New Delhi.
- Organized webinar on "Green Growth and Waste Management Linkages" by Prof. Suneel Pandey, Director, Environment & Waste Management, TERI, New Delhi on November 21st 2020 at 11.00 AM
- 4. Organized webinar on "Role of Legal Regime for Effective Environmental Management in India" by Prof. Ganapathy Venkatasubramanian, Professor, Environmental law and Management, Anna University, Chennai on May 15th 2020 at 1.00 PM
- **5.** Organized webinar on "**Potential of Microalgae for Biofuels**" by Dr. (Mrs.) Dolly Wattal Dhar, Microbiology, Principal Sceintist at centre for Conservation and Utilization of BGA, IARI, New Delhi on May 14th 2020 at 3.00 PM
- **6.** Participated in a webinar on **Science Leadership Workshop** (**SLW**) at Punjab University from 22-28th June 2020. (E-Conference).
- 7. participated INDO-UK SYMPOSIUM on 'Stem Cell, Cancer & Drug Discovery' at Amity University, Noida
- 8. participated in Chem Careers Delhi 2015 held at Hindu College, DU, organized by Royal Society of Chemistry
- 9. participated Faculty Development Programme on "Interdisciplinary Approach to Biosciences Research" 8-10 May,2013 at Amity University Noida.
- **10.** participated Faculty Development Programme on'**Molecular Modeling & Docking Studies**'on 25th May 2015 at AUUP
- 11. participated National Workshop on Advanced Analytical Techniques in Research and Development-2012 at Amity University Noida.

FELLOWSHIPS ANDAWARDS

- **2020** InSc Research Excellence Award-2020 for paper entitled "Inductively coupled plasma nanosilica based growth method for enhanced biomass production in marine diatom algae". https://doi.org/10.1016/j.biortech.2020.123747.
- 2020 Best Oral Paper Presentation Award (Bronze Medal) at Global Water Congress-2020 (E-Conference).
- 2019 DBT, India-Research Associateship.
- **2015** DBT, India- Junior Research Fellow.
- **2009** Won 5th prize of Tycoons 2009-India`s Greatest Youth Leadership Hunt organized by CAREER LAUNCHER at Amity University, Noida, INDIA.

MEMBERSHIPS OF SCIENTIFIC SOCIETIES AND OTHERS

- o Reviewer of Current Trends in Engineering Science (CTES)
- Peer reviewer of International Journal of Microbiology and Biotechnology http://www.sciencepublishinggroup.com/journal/peerreviewers?journalid=396
- o Reviewer of Journal of Applied Pharmaceutical Science (JAPS).
- o Life time Professional member of Institute of Scholars (InSc).
- Reviewer of Journal of Institute of Scholars: International Journal of Basic and Applied Sciences
- o Reviewer of Journal of water process engineering (JWPE).
- Coordinator for the Amity Youth Festival (AYF-2013) at Amity University Uttar Pradesh.
- Member of Association of Microbiology

RESEARCH ACHIEVEMENTS:

- Purification of PUFAs, pigments and novel bioactive compounds using analytical techniques (GC-MS/FID, HPLC) for nutraceutical applications.
- Discovered and established nano-silica which can trigger diatom growth on par with normal silica. This
 observation was further tested successfully in field experiments to trigger diatom growth in eutrophic water
 bodies to remove excess nutrients and improve water quality.
- Established a SOP for cost effective indoor mass cultivation of different diatom strains.
- Established a new isolation technique using immobilization for diatoms.
- Determination of biodiesel potential of marine diatoms.
- Fabricate potentiometric urea biosensor for dialysis patient.
- Established AgNP as APIs for veterinary wound healing gel.
- Controlling hardness of coolpad installed at Green house through ion exchange method.
- Use of spent culture media for diatom biorefinary.
- Development of nutritious live aquafeed (diatoms) for fish farming.

LANGUAGE KNOWN:

- English-Spoken and written, fluent
- Hindi-Mother tongue
- French-Elementary Knowledge

REFERENCES:

REFERENCES:		
Dr. Rachana Sahney	Dr. Satish Kumar	Dr. Archana Tiwari
Associate Professor	Assistant Professor	Associate Professor
Amity University, Noida, Uttar	St. Stephen's College, Delhi	Amity University, Noida, Uttar
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