

CURRICULUM VITAE



Name of the faculty: Dr. Starlaine Mascarenhas

Qualification: Ph.D (Biotechnology), 2019, BITS Pilani University

Email Id: scm008@chowgules.ac.in

Current Position: Assistant Professor and Head,
Department of Biotechnology,
Parvatibai Chowgule College of Arts and Science (Autonomous)

Areas of expertise: Environmental toxicology, Environmental Chemistry, Clinical Biochemistry, Hydrogeochemistry, Food biochemistry, Food toxicology, Animal cell culture, Chemosensor designing.

Awards/Accomplishments:

- Awarded the prestigious ICMR SRF for the project entitled Study of environmental toxins in Chronic Kidney Disease of unknown etiology in Canacona taluka, Goa (Scheme number:- No.3/1/2(6)/Nephro/2018-NCD-II) from the period of 02-07-2018 to 01-07-2019.
- Worked as a CSIR-JRF in project entitled "Role of environmental toxins in Kidney Related Diseases of Canacona taluka, Goa (Scheme number:-27(0284)/13/EMR-II) from the period of 15-10-2013 to 30-6-2016, funded by the Council of Scientific and Industrial Research, an Indian Central Government Research Institute.
- GATE qualified (Registration No:-16512058) in the subject Biotechnology with an All India Rank of 677 among 16159 students in the year 2013.

Work experience:

- 2013-2016: Worked as a Junior Research Fellow (JRF) in a Council of Scientific and Industrial Research (CSIR) project entitled Role of environmental toxins in Kidney related diseases of Canacona Taluka, Goa [(Scheme number:-27(0284)/13/EMR-II) from the period of 15-10-2013 to 30-6-2016].
- 2014-2018: continued the same field of research work as a part of my Ph.D programme in the Biological Sciences Department, BITS Pilani, K K Birla Goa Campus, India. Registered for the Ph.D programme in BITS Pilani, K K Birla Goa Campus in January 2014 and worked as an Institute Doctoral fellow (Ph.D student) from June 2016-July 2018 under the guidance of Prof. Anasuya Ganguly (Associate Professor) for the fulfillment of my PhD work entitled Environmental toxins responsible for the development of Chronic Kidney Disease of unknown etiology in Canacona Taluka, Goa.
- 2018-June 2019: awarded the prestigious Senior Research Fellowship (SRF) from the Indian council of medical research (ICMR) and worked as an ICMR SRF in continuation of my PhD work from July 2018-July 2019. Awarded the PhD degree from BITS Pilani University in September 2019.
- July 2019-till date: Assistant Professor at the Department of Biotechnology of Parvatibai Chowgule College of Arts and Science (Autonomous), Goa, India

Research Publications (Scopus & Web Of Science Indexed):

1. **Starlaine Mascarenhas**, Srikanth Mutnuri, and Anasuya Ganguly. "Deleterious role of trace elements–Silica and lead in the development of chronic kidney disease." *Chemosphere (impact factor-7.09)* 177 (2017): 239-249.
2. **Starlaine Mascarenhas**, Srikanth Mutnuri, and Anasuya Ganguly. "Silica-A trace geogenic element with emerging nephrotoxic potential." *Science of The Total Environment (impact factor- 7.96)* 645 (2018): 297-317.
3. **Starlaine Mascarenhas**, Ram Gawas, Barun Kumar Ghosh, Mainak Banerjee, Anasuya Ganguly, Amrita Chatterjee, and Narendra Nath Ghosh. "Water-Dispersible Rhodamine B Hydrazide Loaded TiO₂ Nanoparticles for “Turn On” Fluorimetric Detection and Imaging of Orthosilicic Acid Accumulation In-Vitro in Nephrotoxic Kidney Cells." *Journal of nanoscience and nanotechnology (impact factor-1.5)* 18, no. 12 (2018): 8142-8154.
4. Chatterjee, Amrita, Mainak Banerjee, Dipratn G. Khandare, Ram U. Gawas, **Starlaine Mascarenhas**, Anasuya Ganguly, Rishabh Gupta, and Hrishikesh Joshi. "Aggregation-induced emission-based chemodosimeter approach for selective sensing and imaging of Hg (II) and methylmercury species." *Analytical chemistry (Impact factor- 6.99)* 89, no. 23 (2017): 12698-12704.
5. Hiremath, Sharanabasava D., Ram Uttam Gawas, **Starlaine Mascarenhas**, Anasuya Ganguly, Mainak Banerjee, and Amrita Chatterjee. "A water soluble AIE-gen for organic-solvent-free detection and wash-free imaging of Al³⁺ ions and subsequent sensing of F⁻ ions and DNA tracking." *New Journal of Chemistry (impact factor-3.59)* 43, no.19 (2019): 5219-5227.

Paper presentations, Faculty Development Programmes completed and Workshops conducted:

-Successfully completed a five days **DST-SERB sponsored Karyashala, High-End International Workshop on “Technologies for Increasing the Shelf-Life of Perishable Foods”** organized by the Department of Food Process Engineering, National Institute of Technology, Rourkela, Odisha, conducted from 13th to 17th December 2021.

-Successfully completed a five days **AICTE Training and Learning (ATAL) Academy online sponsored Faculty Development Programme (FDP) on “Recent Development in Food Processing”** from 25th to 29th October 2021 at Rastreeya Vidyalaya College of Engineering, Bangalore, Karnataka, India.

-Participated in the ‘**27th International conference on Interdisciplinary Research in Biomedical Sciences –CONIAPS XXVII**’ organised by Amity Institute of Molecular Medicine & Stem Cell Research (AIMMSCR) and Amity Institute of Applied Sciences (AIAS), Amity University Uttar Pradesh (AUUP), Noida in association with International Academy of physical Sciences (AIPS), Prayagraj conducted from 26th to 28th October 2021.

-Completed a '**DST and ACS' organized International workshop entitled "Virtual workshop on scholarly publishing, peer review, ethics, plagiarism, science communication and careers"**, held on 22nd October 2021.

- Successfully completed a two days **International Workshop entitled “3rd Australian Bioprinting workshop for Tissue Engineering and Regenerative Medicine”** organized by Faculty of Engineering and Information Technology – School of Biomedical Engineering, The University of Sydney, Australia from 4th to 5th October 2021.

-Attended a **National webinar on "Scope of Wildlife Biology"** held on 12th August 2021 organized by the Department of Zoology, Dhempe College of Arts and Science, Miramar, Farmagudi, Ponda -Goa.

-Participated in the **National webinar on “Conservation of Nature -A way of life”** to celebrate World Nature Conservation Day organized by the Department of Botany of Dhempe College of Arts and Science on 28th July 2021.

-Successfully completed a five days **AICTE Training and Learning (ATAL) Academy online sponsored Faculty Development Programme (FDP) on “Green Technology and Sustainability Management”** from 1st July to 5th July 2021 at Engineering College Bikaner.

-Successfully completed a five days **AICTE Training and Learning (ATAL) Academy online sponsored Faculty Development Programme (FDP) on “Transgene Technologies”** from 21st June to 25th June 2021 at Bharath Institute of Higher Education and Research.

- Participated in the **national talk series (seminar series) entitled 'La Biologie - Know and Learn Biology'** jointly organized by Department of Botany & Zoology, JECRC University, Jaipur, Rajasthan on 10th June 2021.
- Attended the on **National Webinar on "Mucormycosis: 'The black fungus' traumatizing COVID-19 patients in India"**, organized by the Department of Microbiology, Government College of Arts, Science and Commerce, Khandola, Goa in collaboration with Microbiologists society, India on 5th June 2021.
- Conducted a **Certificate course on data computation in applied biological sciences using GraphPad Prism** for Life Science students of college from 10th February to 31st March 2021.
- Participated in the **workshop cum training on "Natural Products from Marine Bio-resources" (Virtual Mode)**, organized by CSIR-NIO, Dona Paula, Goa from 30th-31st March 2021.
- Attended the **International popular lecture series on 'Environment and health'** organized by the Department of Biotechnology, Karunya Institute of Technology and Sciences, Coimbatore, Tamil Nadu from 1st to 4th Feb 2021.
- Participated in the **State level webinar on "Haematological Biomarkers in the diagnosis of COVID-19"** on 03.02.2021 organized by Government College of Arts, Science and Commerce, Khandola. Marcela-Goa.
- Participated & successfully completed **AICTE Training And Learning (ATAL) Academy Online Faculty Development Programme (FDP) on Aqua-food technology (Emerging Food Processing Technologies: Prospects and Challenges for Food and Nutrition Security** from 04-01-2021 to 08-01-2021 at Tezpur University.
- Participated & successfully completed **AICTE Training And Learning (ATAL) Academy Online Faculty Development Programme (FDP) on Synthetic Biology** from 14-12-2020 to 18-12-2020 at Bharathiar University.
- Attended the **International webinar on "Emerging research in Microbiology"** on 20th December 2020 organized by the Department of Microbiology, P.E.S's R.S.N College, Farmagudi, Ponda -Goa.
- Participated in the **'2nd Joint workshop of Birla Institute of Technology and Science (BITS) Pilani and Hiroshima University on various aspects of biological, pharmaceutical and chemical applications'** held on 20th November 2020.
- Participated in a virtual workshop organised by 'DST and ACS' on 30th October 2020 **entitled "DST and ACS virtual workshop on scholarly publishing, peer review, ethics, plagiarism, science communication and careers"**.
- Attended the **webinar on 'Introduction to Intellectual Property Rights & Patent Process'** on 16th September 2020 organised by Goa State Council for Science & Technology, Saligao-Goa.
- Successfully completed a **two days National hands-on workshop on "Membrane Processes for Application in Food, Water and Health Sector"** organized by the Department of Chemical Engineering, BITS Pilani K K Birla Goa campus, conducted from 1st to 2nd February 2021.
- Fullbright specialist program on The importance of Engineering-Economics-Entrepreneurship (3-Es) in engineering education and nation building** conducted at BITS Pilani K K Birla Goa campus (2018).
- BIRAC workshop on Bio-entrepreneurship, Grant writing and Intellectual property management** conducted at BITS Pilani K K Birla Goa campus (2018).
- Poster presentation** on the topic Silica-A trace geogenic element with emerging nephrotoxic potential at **The 3rd International conference on emerging contaminants (emcon forum 2017) held at Taiwan, Republic of China.**
- Participated in a national level conference titled **Trends in Cell and Molecular biology Conference(TCMB)** in December 2015 held in BITS Pilani K K Birla Goa campus, India.
- Completed a Dissertation Project in fulfillment of my M.Sc degree entitled **Spectrophotometric determination of dye decolonization by fungal isolates F17 & F38** under the guidance of Dr. Cathrine Sumathi J, Scientist C, Biological Oceanography division at **CSIR-National institute of Oceanography, Dona Paula-Goa** in May 2012.
- Completed a **Summer training programme** in April 2010 in various techniques and methods in Microbiology at Microxpress, a division of Tulips Diagnostics, Verna, Goa, India.

Research Projects:

- Under graduate students guided: 13
- Under graduate students currently guiding: 9