

CURRICULUM VITAE

Name : **Mrs. Nancy Catherine S.**
Designation : Assistant Professor
Department : Biotechnology
Email : nancycatherine@americancollege.edu.in
Area of Specialization : Marine Biotechnology, Immunology, Microbiology



Qualification	Institution	Duration	Score (%)	Class
Ph.D. Marine Biology & Oceanography	Centre of Advanced Science in Marine Biology, Annamalai University, Porto novo	2016 - till date (Thesis submitted on October, 2021)	-	Viva awaiting
SET (State-level Eligibility Test for Assistant Professors)	-	2016	-	-
M.Sc. Zoology (Spl. in Biotechnology)	Lady Doak college, Madurai	2014-2016	79	First class with Distinction
B.Sc. Zoology (Spl. in Biotechnology)	Lady Doak college, Madurai	2011-2014	83	First class with Distinction

ACADEMIC CREDENTIALS

❖ **Doctor of Philosophy in Marine Biology and Oceanography**

Research Supervisor: Prof. Dr. S.T.Somasundaram

Research Title: Metagenomic assessment of meiofaunal diversity with reference to Phylum Tardigrada in estuarine and mangrove ecosystems

❖ **Master of Science in Zoology with specialization in Biotechnology**

Thesis: Physico - chemical and functional characterization of biosurfactant from *Cronobacter sakasakii* and their potential applicability as an anti-adhesive to prevent biofilm formation.

Term paper: Gender differences in autoimmune diseases - Why are women more susceptible than men to autoimmunity?

❖ **Bachelor of Science in Zoology with specialization in Biotechnology**

Thesis: Formulation of low-cost feed using *Azolla microphylla* as principle protein supplement and its influence on body protein and lipid content in *Tilapia* sp.

EDUCATIONAL EXCELLENCE:

- University rank holder in Post Graduation degree Program
- College First Rank in Under Graduation degree Program

RESEARCH EXPERIENCE

➤ **Junior Research Fellow** for 2 years (May 2017 – April 2019)

Institution: Centre of Advanced Study in Marine Biology, Annamalai University, Porto Novo.

- Consultancy project financially supported by the Centre for Applied Research & Development, Neyveli Lignite Corporation India Limited, Neyveli, Tamil Nadu
- Mentor: **Prof. Dr. S.T. Somasundaram & Prof. Dr. P. Anandharaman**
- Experimentation on humic acid supplementation for the growth enhancement of marine phytoplankton.
- Investigation on growth and survival of *L. vannamei* larva fed with marine phytoplankton supplemented with humic acid
- Performed lab scale & mass scale culturing of marine phytoplankton, hatchery management, UV spectroscopy, and microscopy
- Results are currently being compiled into a manuscript and communicated for publication

➤ **Summer Research Fellow** for 3 months (May – July, 2015)

Institution: Medical Microbiology Laboratory, Bharathidasan University, Trichy.

- Summer Research Fellowship programme jointly sponsored by Indian Academy of Sciences (Bangalore), Indian National Science Academy (New Delhi) and National Academy of Sciences (Allahabad).
- Mentor: **Prof. Dr. K. Natarajaseenivasan**
- Investigated the immunogenic potential of recombinant HtrA1 from *Leptospira interrogans* using animal model.
- Overexpression and purification of HtrA1 of *L. interrogans*- serovar autumnalis, strain N2
- Immunogenicity elucidation by immunization of purified HtrA1 to animal model and production of HtrA1 specific polyclonal antibody.

- Performed culturing of bacterial cells, recombination, UV spectroscopy, immobilized metal affinity chromatography, polyacrylamide gel electrophoresis, protein studies, dialysis, maintenance of animal model, ELISA.

TECHNICAL EXPERIENCE

- **Skilled in culturing of marine plankton for sustainable fishery resources** at Annamalai University, Porto Novo, Tamil Nadu in 2018
- **Trained in applying bioinformatics tools in Molecular Taxonomic studies** at Lady Doak College, Madurai, Tamil Nadu in 2017

LEADERSHIP AND INVOLVEMENT

Peer Tutor - Lady Doak College, Madurai, Tamil Nadu

- Tutored a group of five peer slow learners during under graduation and post graduation studies (2011-2016)
- 8 hour per week

Service learning

- Lady Doak College, Madurai, Tamil Nadu
 - Created awareness in the people in squalid about cleanliness and sanitation as a part of study of Environmental Biology course during the under graduation program (2011-2012)
- Lady Doak College, Madurai, Tamil Nadu - Prof. Whitin Endowment Lecture series
 - Helped in organizing a seminar on taking research from bench to bedside (2016)
 - Supported the organizing members in conducting a two-day national seminar on emerging trends in Biological research (2014)
 - Volunteered in one day seminar on cancer in women (2013)
- Annamalai University, Porto Novo, Tamil Nadu
 - Organising member in one day workshop on culture techniques and mass scale propagation of microalgae for livelihood prospecting (2019)
 - Helped in organizing a three-day lecture workshop on modern trends in Biology (2019)
 - Assisted the organizing members in conducting two day International seminar on coastal and marine biodiversity and conservation (2018)
 - Supported in organizing two day International conference on aquatic animal health and parasitic diseases (2017)

AWARDS AND PRESENTATIONS

- Oral presentation at the International conference on changing contours of blue economy – promises and challenges - Annamalai University, Porto Novo, Tamil Nadu (2019)
- Oral presentation at the International conference on Benthos – Cochin University of Science and Technology, Kochi, Kerala (2019)

- Oral presentation at National symposium on algal diversity and resource status – current trends in utilization and prospects for innovation - V.O.Chidambaram College, Tuticorin, Tamil Nadu (2017)
- Qualified lifetime valid state eligibility test for lectureship (2016)
- Mrs. Mercy Williams memorial prize for the best candidate in M.Sc. Zoology lab (2016)
- First rank in major Zoology (specialization in Biotechnology) in B.Sc.(special) degree (2015)
- Dr. E.M. Thillayabalam endowed prize for the best candidate in B.Sc. degree examination in Zoology (2015)
- Oral presentation at National Conference on Biological Sciences: The amalgamation and advancements of multidisciplinary Life Sciences – V.V.Vanniaperumal College for Women, Virudhunagar, Tamil Nadu (2014)
- Mrs. Padma Hansraj endowed prize for the best Zoology student in Biology of Invertebrates (2014)
- J P Samuel memorial prize for consistent, creditable and excellent participation in various activities of the Department of Zoology while maintaining a high academic record (2014)
- Third prize in poster presentation - Lady Doak College, Madurai, Tamil Nadu (2013)
- Oral presentation in the State level inter-collegiate seminar on recent challenges in Biotechnology – The American College, Madurai, Tamil Nadu (2012)
- First prize in poster presentation - Lady Doak College, Madurai, Tamil Nadu (2012)

OTHER PRIZES

- Awarded certificate of Special honour for consistent, creditable and excellent performance in academic and co-curricular activities of the College – 2016
- Awarded certificate of personal meritorious achievement for working against social, physical, economic and psychological handicap still maintaining a good academic record – 2016
- Second prize for proficiency in Lab courses during the academic year 2015 - 2016
- Second prize for proficiency in Major courses during the academic year 2015 - 2016
- Awarded certificate of recognition for exhibiting the exemplary qualities of altruism, leadership, inclusive outlook, proactivity, analytical thinking, risk taking, interpersonal skills, endurance, team spirit, voluntarism and perseverance during 2014 – 2016
- Awarded Certificate of Special honour for consistent, creditable and excellent performance in academic and co-curricular activities of the College - 2014
- First prize for proficiency in Lab courses during the academic year 2013 - 2014
- Academic merit award for excellent and consistent academic performance during the years 2011- 2014
- Awarded Certificate of recognition for exhibiting the exemplary qualities of altruism, leadership, inclusive outlook, creativity, proactivity, analytical thinking, risk taking, interpersonal skills, endurance, team spirit, voluntarism and perseverance during 2011 – 2014
- Second prize for proficiency in Major optional (Nanoscience) during the academic year 2012 – 2013
- First prize for proficiency in Lab courses during the academic year 2012 – 2013
- First prize for proficiency in Major courses during the academic years 2011-2012 & 2012 - 2013

- First prize for proficiency in Major optional (Horticulture) during the academic year 2011 – 2012
- First prize for proficiency in Allied (Mathematics) during the academic year 2011 – 2012
- First prize for proficiency in Allied (Microbiology) during the academic year 2011 – 2012