Shrinivas Nandi

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Education

Rutgers University **Aug 2022 – Present**
PhD Microbial Biology *United States of America*

Hong Kong University of Science and Technology (HKUST) Aug 2018 – May 2022
Bachelor of Science in Environmental Science: First Class Honors *Hong Kong, SAR*

Chirec International School, Hyderabad Aug 2014 - May 2018
CBSE (Central Board of Secondary Education) *India*
Finished preliminary studies with an emphasis in Math, Physics, Chemistry and Economics. Final score – 92%.

Work and Research Experience

Bhattacharya Lab **Aug 2022 – Present**
PhD Student

-Utilizing multi-omics techniques and molecular biology to study coral bleaching, spawning, and coral-algal symbiosis to identify markers of stress.

OceanEcol Lab **June 2020 - June 2022**
Undergraduate Research Opportunity

- Developing and leading a project to understand the genetics of heat stress in Hong Kong corals.

- Using Stable Isotope Analysis to understand trophic levels in Hong Kong. Assisted in the development of an Isoscape of HK waters.

- Using gradient flux analysis to better understand the functions of a coral reef across Hong Kong's waters. Conducted data analysis using R, to compile the data and draw conclusions.

- A literature review. Focused heavily on coral reef ecology and various methods and technologies used

Yung Labs (Microbial Oceanography) **June 2021 – June 2022**
Summer Intern

- Learning and utilizing biomolecular techniques like PCR, DNA extraction, and culturing to study the *Vibrio spp.* population in Hong Kong.

Yancha India **June 2019 - September 2019**
Product design intern

- Conducted research and analysis of teen psychology.

- Participated in key strategical decisions such as the development of a viable product.

- Assisted in developing a prototype java code of an interactive digital application, to judge various core aspects of teen psychology development.

CERN (European Organization for Nuclear Research) **May 2017**
Research Trainee

- Engaged in numerous workshops and seminars that revolved around learning about the multiple projects taking place at CERN.

- Part of a select group of students who were invited to be summer research trainees at CERN.

- An emphasis on data analysis and teamwork on large-scale projects was given during the program.

Papers and Reports

- In Preparation**: Shrinivas Nandi**, Timothy G. Stephens, Samantha Goyen, Line K. Bay Debashish Bhattacharya. Meta-proteome analysis of coral holobiont demonstrates endosymbiont quiescence under thermal stress. (2023)

- In Preparation**: Shrinivas Nandi**, Julia van Etten Timothy G. Stephens, Felipe Benites, Debashish Bhattacharya. Metagenomic analysis of heterotrophic *Paulinella* provides insights into the evolution of phototrophy (2023).

- HKUST Final Year Project: **Shrinivas Nandi**, Charmaine Yung, Alex SJ Wyatt: Gene Expression of *Acropora digitifera* host and symbiodinium in response to short-term heat stress. (2022)

- HKUST Undergraduate Research Opportunity: **Shrinivas Nandi,** Pei Yu-de, Alex SJ Wyatt: Characterizing coral reef function across anthropogenic gradients. (2021)

Talks

- **Shrinivas Nandi**, Timothy G. Stephens, Samantha Goyen, Line K Bay, Debashish Bhattacharya: Towards predictive coral phenomics-evaluating the potential of hyperspectral imaging. 16th November 2023. Act VI Revive and Restore.

- **Shrinivas Nandi**., Timothy G. Stephens, Debashish Bhattacharya: A meta-proteomic model of coral-algal dysbiosis. International Society of Endocytobiology 10-14 September 2023, Field Museum, Chicago USA.

Awards

- 2023 Core Facility Utilization Application, $5,000 USD Funds for metabolomic profiling of the sex hormone cycle in spawning corals. Principal Investigators: Debashish Bhattacharya, Rutgers University

- 2023 Climate Action Grant: $10,000 USD Funds for analysing the impacts of thermal stress and coral mass spawning asynchrony. Principal Investigators: Debashish Bhattacharya, Rutgers University

- 2022 James Macmillan Endowed fellowship in Microbial biology PhD program, Rutgers University.

- 2021 UROP Support Grant, $32,000 HKD. Characterizing coral reef function across anthropogenic gradients. Principal Investigator: Alex SJ Wyatt, Hong Kong University of Science and Technology

EXTRA CURRICULAR ACTIVITES

PADI Scuba Diver **2014 - Present**

- Undergone training to become a PADI Advanced Open Water Diver, with a specialty in Deep Diving, Nitrox Diving, and Wreck Diving. Recently obtained the certification for Emergency First Responder by DAN.

- Aspiring for PADI Divemaster certification

Literature **2016 - Present**

- Wrote and published “The Darkness of Stars” (fiction) in 2016 and other short stories with Pothi publishing.

- Short articles (unpublished) to improve skills as a science communicator.

HKUST RedBird Leadership Community **August 2018 - June 2020**

- Bronze Track: Developing leadership skills, through collaborative activities and team-building camps with an emphasis on interpersonal skills and team cohesiveness.

- Silver Track: Further developing leadership skills based on the Stanford Leadership model and working on a self-directed leadership project