CRESCENDO

CV Template

A) Personal and contact details

Surname **ONIEL**

First name **RUCHIKA**

Date and place of Birth **29 SEPTEMBER ,1994. (DOHA – QATAR)**

Researcher ID, if applicable (e.g.: ORCID, Researcher ID) **0000-0002-2438-4200**

Date of the CV **01 JUNE 2022**

B) Education/Degrees

Date of awarding of the degree certificate **05 JULY 2015 to 06 JUNE 2017**

Research discipline **MARINE BIOTECHNOLOGY**

Degree title **MASTER OF SCIENCE**

Name of the educational institution and faculty/department
GOA UNIVERSITY, DEPARTMENT OF BIOTECHNOLOGY

Country where the degree was completed **INDIA**

Major subjects of study/degree programme **MARINE MICROBIOLOGY, BIOCHEMISTRY, GENETICS, MOLECULAR BIOLOGY, OCEANOGRAPHY, MARINE BIOLOGY AND CHEMISTRY (LAB), MARINE ECOSYSTEMS, BIOSTATISTICS**

Score **68.55% (MAGNUM CUM LAUDE)**

Supervisor/tutor name and contact details **PROF. URMILA MARIA BARROS (urmila@unigoa.aci.in)**

C) Other Education, qualifications and/or supplementary training

Dates of completion **05 JUNE 2012 to 26 MAY 2015**

Name of the certificate/diploma **BACHELOR OF SCIENCE (BIOTECHNOLOGY)**

Name of the provider of the education or training (name and locality) with contact details
DHEMPE COLLEGE OF ARTS AND SCIENCE (AFFILIATED TO GOA UNIVERSITY)
MIRAMAR – PANAJI
GOA - INDIA

Main subjects or modules of study **MICROBIOLOGY, GENETICS, BIOCHEMISTRY, CHEMISTRY, IMMUNOLOGY, BIOSTATISTICS, MOLECULAR BIOLOGY**

Score **88.6% (SUMMA CUM LAUDE)**

D) Current employment

Start date of employment **20 NOVEMBER 2021 to CURRENT**

Job title **RESEARCH ASSISTANT**

Employer name, contact details and place of work

PROF. PRAMOD WANGIKAR (BIOSYSTEMS ENGINEERING DIVISION)
INDIAN INSTITUTE OF TECHNOLOGY – BOMBAY (DEPARTMENT OF CHEMICAL ENGINEERING)

Short description of your role and main responsibilities

- **Investigating metabolic bottlenecks in *E. coli* to produce high-value proteins and chemical intermediates.**
  Responsibilities:
- **Established recombinant protein refolding protocols from *E. coli* inclusion bodies. Readouts for protein refolding include using a combination of circular dichroism spectroscopy, molecular biology techniques and biochemical enzyme assays.**
- **Acquisition and Analysis of metabolomics mass spectrometry data using R and MS-DIAL.**
- **Data – mining of publicly available databases RegulonDB, and MetaCyc using Python.**
- **Analysis of stress related bottlenecks in E. coli using a metabolomics approach to improve target protein production titres.**
- **Microbial culture maintenance.**

Stage /years to be counted for research career: -

E) Previous work experience

Start date of employment **01 JULY 2018 to 10 SEPTEMBER 2020**

Job title **JUNIOR RESEARCH FELLOW**

Employer name, contact details and place of work

DR. SUNIL LAXMAN (REGULATION OF CELL FATE DIVISION)
INSTITUTE FOR STEM CELL SCIENCE AND REGENERATIVE MEDICINE

Short description of your role and main responsibilities

- **Characterization of phenotypically heterogenous isogenic yeast populations**
  Responsibilities:
- **Design and execution of targeted mass spectroscopy experiments, followed by analysis of primary metabolites using MULTI-QUANT.**
- **Experimental design and transcriptome analysis using R, and Bioconductor package edgeR. (sequence data parsing done using python)**
- **Developed methods to analyse target compounds of interest using LC/MS Triple Quadrople. Further validated established methods to quantify central metabolites in both prokaryotic and eukaryotic cell lines**

Stage /years to be counted for research career:

Career /study breaks (if any):

Dates (from-to)	Reason
10/09/2020 to 01/04/2021	Volunteered at COVID-19 TESTING CENTRE (DBT-inStem, and NCBS-TIFR, BANGALORE)
01/04/2021 to 20/10/2022	Family related (terminal illness of parent)
06/06/2017 to 01/07/2018	Paid internship: Scientific outreach and Education. Role: Literature surveyor and programmer. Topic: "Threats to aquatic ecosystems, the future of Water security", funded by IFA (Indian Foundation for the Arts)

G) Language skills

Mother tongue	**KONKANI (LOCAL DIALECT OF INDIA)**				
	UNDERSTANDING		**SPEAKING**		**WRITING**
Other language(s)	**Listening**	**Reading**	**Spoken interaction**	**Spoken production**	
FRENCH	**A1**	**A1**	**A1**	**A1**	**A1**

H) Any scientific publications or published book?

1) Bhatia, M., Thakur, J., Suyal, S., **Oniel, R.,** Chakraborty, R., Pradhan, S., Sharma, M., Sengupta, S., Laxman, S., Masakapalli, S. K., & Bachhawat, A. K. (2020). Allosteric inhibition of MTHFR prevents futile SAM cycling and maintains nucleotide pools in one-carbon metabolism. *The Journal of biological chemistry*, *295*(47), 16037–16057. https://doi.org/10.1074/jbc.RA120.015129
2) Tripathi, A., Anand, K., Das, M., **O'Niel, R. A**., P S, S., Thakur, C., R L, R. R., Rajmani, R. S., Chandra, N., Laxman, S., & Singh, A. (2022). Mycobacterium tuberculosis requires SufT for Fe-S cluster maturation, metabolism, and survival in vivo. *PLoS pathogens*, *18*(4), e1010475. https://doi.org/10.1371/

I) Communication skills

- I have interacted with 30+ professors, graduate students, and administrators with diverse ethnic backgrounds (France, Denmark, Japan, Israel, America, Mexico, etc.) during the International CCCP 2020 (Cellular Conflict and Cooperation) conference.
- Proficient in creating graphical abstracts for poster presentations and publications. (Non-Verbal Communication)

J) Organisational/managerial/Team leadership skills

- Helped in organizing the CCCP 2020 (Cellular Conflict and Cooperation) conference.
- Assisting in managing time-slots for individual speakers and organizing poster presentation sessions.
- Coordinated tasks smoothly between the Science communications team and Administrations department.

K) Any international experience, including presentations at international conferences, or any other mobility period

- Presented my research (2018 – 2020) on multiple online platforms (Zoom, Skype) to communicate my findings during PhD selection rounds IMPRS – CE (Max Planck - Chemical Ecology) (2020), EMBL (European Molecular Biology Labs) (2021)

L) Prizes/awards or other societal merits and honours (if any)

- GATE – Biotechnology 2017 percentile: 98.77
- DST INSPIRE Scholarship (stipend to carry out research fellowship, based on merit, unapplied)
- Leo Mackeson Barros Gold Medal (2017) – First ranker in M.Sc. Marine Biotechnology (magnum cum laude)
- First ranker – Honors (2015) B.Sc. Biotechnology (summa cum laude)

M) Methods, software, infrastructures, materials, guides and tools developed or published (if any)

- Refolding protocol for recombinant expressed fungal dehydrogenases (publication in progress)