# NATHAN GONSALVES

Mumbai, India

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## **CURRENT ENGAGEMENT**

'Neuroscience Graduate Research Assistant' - University of Georgia, Athens, GA

#### **OBJECTIVE**

Understand and characterize immune microenvironments around TBI lesions and develop immunomodulatory strategies to improve functional outcomes

## **EDUCATION**

M.Sc. Life Science	St. Xavier's College, Mumbai, India	CGPA - 3.55/4	2017-19
B.Sc. Microbiology	SIES College, Autonomous, Mumbai, India	CGPA - 3.61/4	2014-17

#### **RESEARCH EXPERIENCE**

 1. Research Intern – Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Navi Mumbai, India
 (July 2019 – Feb 2020)

 Project - 'Understanding the molecular mechanism of leukaemia resistance using cellular and pre 

clinical mouse model'

- Elucidating the role of DNA-PKs and Topoisomerase 2B (TOP2B) in driving chemoresistance using chemoresistant leukemic cell lines.
- Master's Thesis St. Xavier's College, Mumbai, India (Oct 2018 Apr 2019) Project - 'In Vitro (C6 glioma cell line) and In Vivo (Caenorhabditis elegans) studies of zinc toxicity on the nervous system'
  - *In vitro* analysis was performed to assess the vulnerability of glial cells (C6 glioma cells) of the nervous system to toxic doses of zinc.
  - *In vivo* analysis was focused towards investigating the sensory ability of the worms to test agents upon high zinc doses. Also, the effect of toxic zinc concentrations on the egg hatching rate and different larval stages were evaluated to understand defects in the development and growth pattern of *C. elegans.*

# WORK EXPERIENCE

#### 1. R&D Consultant - Hindustan Unilever Research Centre, Bangalore, India

- a. '*In-Silico* analysis of hyperpigmentation-related pathways' (Oct 2020 Apr 2021)
  - Assessing the role of IFNs in pigmentation
- b. '*In-Silico* analysis of short chain fatty acids in regulating skin functions' (Mar 2020 Aug 2020)
  - Performed *In-Silico* analysis of SCFA using STITCH database to study chemical-protein interactions
  - Analysed natural sources of SCFA using databases like Dr. Dukes and IMPPAT
  - Shortlisted natural actives that could be potential compounds to be used in skin care products
- 2. Part Time Tutor Kennedy's Classes, Mumbai, India

Science and Mathematics Tutor for students of Grade 8 & 9 - State Board Curriculum (2014-Present)

# **TEST SCORES**

IELTS Academic Test Score– 7.5 (CEFR level – C1)

# **SKILLS AND ABILITIES**

- *In Vivo C. elegans –* Maintenance and handling, Behavioral studies, Developmental assays
- *In-Vitro* Mammalian Cell Culture, Biochemical assays, Staining and analysis
- In-Silico STITCH database, chemical-protein interactions and analysis, Naturals database (IMPPAT, Dr. Dukes)
- Techniques Western Blotting, Immunoprecipitation, Chromatin Immunoprecipitation (ChIP), PCR Variations – (Standard, Real-Time, Touchdown, Hotstart, Gradient, Colony), Aseptic technique and Microbiological assays, Agarose and Protein Gel Electrophoresis, Molecular Biology Techniques, Florescent Microscopy
- Others MS Office, Biostatistics, Bioinformatics, ImageJ, Teaching, Management and Planning, Independency, Communication

# **CO-CIRRICULARS**

## A) Summer School & Conferences –

- 1. Attended International Virtual Conference 'Natural products and Synthetic biology (ICSNB 2020),' VIT Vellore (July 2020)
- 2. Attended 'Biowaves 2018: Developmental Disabilities & You,' St. Xavier's College, Autonomous, Mumbai (Jan 2018)
- 3. Attended "Summer School for Innovation 2016" University of Mumbai (May 2016)

# B) Workshops –

- 1. 'Genomics Awareness Program' by Sophia College, Mumbai and K.C. College, Mumbai in collaboration with 'Bionivid', Bangalore (Feb 2018)
- 2. 'From Desk to Journal: A Closer Look,' by Cactus Communications at St. Xavier's College, Autonomous, Mumbai (Jan 2018)
- *3.* 'Academic Editing and Popular Science: What You Need to Know,' by Cactus Communications at St. Xavier's College, Autonomous, Mumbai (Nov 2017)

# C) Webinars –

- 1. 'Science of Scientific Writing' by The Biomics (Oct 2020)
- 2. 'Neurobiology: How do neurons work?' and 'Impact of Immune Cells on Neurodegeneration' by The Biomics (Sept 2020)
- 3. 'Introduction to AI & Machine Learning for Biologists' by Dr. Gitanjali Yadav, NIPGR, New Delhi organized by MANAV The Human Atlas Initiative (Sept 2020)
- 4. 'Current Trends in Cancer Immunotherapy: Perspective from Lab to Clinic' GENoMiX (Sept 2020)
- 5. 'How evolution shaped the brain' by Dr. Shubha Tole, TIFR, Mumbai organized by St. Xavier's College, Autonomous, Mumbai (June 2020)

I, hereby declare that all the information provided above is true to the best of my knowledge.