

Swethika Balasankar

Boston, MA

Mobile: +1 (857) 504 4712

Email: balasankar.s@northeastern.edu

LinkedIn: [linkedin.com/in/swethika](https://www.linkedin.com/in/swethika)

EDUCATION

Northeastern University, Boston, MA

Jan. 2021 – May 2023

- Candidate for Master of Science in Biotechnology.

GPA: 4.0

Relevant Coursework: Cell culture processes for recombinant protein production, Cellular therapies, Foundations in biotechnology, Biotechnology enterprises.

SASTRA University, Thanjavur, India

Jul. 2016 – May 2020

- Bachelor of Technology (Distinction) in Biotechnology.

GPA: 7.85/10

PROJECT EXPERIENCE

Experiential Network – Northeastern University

Jul.2021- Aug 2021

Topic: Irradiation Medical Device Conceptualization

- Designed a medical device to immobilize the breast during therapy with biocompatible materials.

Vascular Biology Lab - Undergraduate Researcher, SASTRA University

Jul. 2017 – Feb. 2020

Research Topic: Renal Ischemia-Reperfusion.

Projects:

- Analysis of Bioenergetic changes in Renal IR.
- Analysis of mitochondrial-mediated inflammatory pathway in Renal IR.
- Analysis of distant organ injury due to Renal Ischemia.

INTERNSHIP EXPERIENCE

Center for Medical Genetics - Human Cytogenetics Intern, Chennai, India

May 2019 – Jul. 2019

- Identified chromosomal disorders using a microscope, and karyotyping software.
- Studied karyotyping techniques in-depth for analyzing pedigree charts.

Apex Biotechnology Training and Research Institute – Animal Cell Culture Intern, Chennai, India

May 2018 – Jun. 2018

- Analyzed impact of drugs on the gorilla cell line.

TECHNICAL SKILLS

Areas of Focus: Molecular Biology, and Biochemistry.

Molecular Techniques: Gel electrophoresis, PCR- cDNA Synthesis, qPCR, Western blotting.

Cell Culture Techniques: Subculturing, Cryopreservation, Drug treatment.

Clinical Studies: Cell separation, Blood typing, Karyotyping.

Biochemical Assays: Protein estimation, ETC enzymes, SOD, TBARS, Catalase, Myeloperoxidase, GPx, GSH, GR, DCFH-DA.

Histopathological Staining: PSR, PAS, H&E.

Research Equipment: Multimode reader, Real-time PCR, Spectrophotometer, Hemocytometer, Laminar flow hood, Centrifuge.

Data Analysis: Microsoft Excel, GraphPad Prism, PyMol.

CO – CURRICULAR ACTIVITIES

Certifications:

- Research Ethics, 4 credits (SWAYAM).
- Introduction to the Biology of Cancer- Johns Hopkins University (Coursera).
- Introduction to Forensic Science- Nanyang Technological University (Coursera).
- COVID-19 Contact Tracing- Johns Hopkins University (Coursera).

Achievements:

- IPLOCA Scholarship Recipient (2019).
- National Science Olympiad Rank Holder (2014).
- FIITJEE Science Olympiad Regional Rank Holder (2013).

LEADERSHIP, VOLUNTEER EXPERIENCE

Chairperson, Biotikos (Biotechnology Student Association)

Jun. 2019 – May 2020

- Headed a team of 100+ students to organize technical workshops, seminars throughout the year.
- Organized National level technical symposium - 'Samhitha' witnessing 300+ participants.

Head, SASTRA Arts Team

Jun.2019 – May 2020

- Coordinated with 40+ students to decorate walls with paintings for Intra college cultural, Sports fest.