Integrated Cancer Genomics Lab

JULY NEWSLETTER 2025

Contents

Meet the New Lab Members!

Archana Jaiswal

Swati Gogoi

Darshit Rawat

Samiksha Khanduri

Events of the Month!

A memorable visit by Col. Dr. Amol Patel and Lt. Col. Dr. Dharmendra Singh with Dutt Lab members.

Candid moments with Prof. Amit Dutt and Dutt Lab members.

Events of the Month!

A collaborative lunch with Prof. Amit Dutt's and Prof. Shilpee Dutt's labs.

Ornella Khwairakpam with Prof. Amit Dutt, proudly holding her dissertation thesis.

Interview with Sharukesh V

1. Can you Introduce yourself.

   Hello. I am Sharukesh V. I am currently pursuing my Masters from University of Hyderabad. I am an ardent student of Life Sciences particularly interested in Immunology, Genomics and Molecular biology.

2. Can you share a brief overview of your educational background?

   I did my Bachelors in Zoology from Bishop Heber College, Tiruchirappalli. I am a university rank holder under Bharathidasan University, Tiruchirappalli, Tamilnadu. Currently, I'm a second year Masters student in Animal Biology and Biotechnology from University of Hyderabad.

3. Where are you originally from, and where did you grow up?

   I come from a small yet serene town called Thiruvaiyaru in the Thanjavur district of Tamilnadu. It is a culturally rich place especially known for its ancient architecture and classical music. I essentially grew up in the same place till I was 16 years old. After which, I shifted to Tiruchirappalli for my intermediate and Bachelors.

4. What influenced your decision to pursue a career in genetics?

   My interest in genetics began during my undergraduate coursework, where I was fascinated by how small changes at the molecular level could influence entire organisms, traits, and even populations. What truly sparked my curiosity was working on a toxicity study in zebrafish. Understanding how environmental factors could impact genetic expression and development made me realize the powerful intersection between genes and real-world outcomes.

5. What are some lesser-known facts about you?

   People generally think of me as a silent and serious person. I am the opposite. I am highly opinionated especially when it comes to topics that I care truly about. I am pretty jovial but very dedicated when it comes to my work. I love animals.

Personal life:

1. What are some of your hobbies and passions outside of science?

I like to talk and read about politics, play sports, dancing, singing and photography.I deeply care about underprivileged children and I try my best to help them in any way possible. I am passionate about leaning and exploring about wildlife.

2. As a child or teenager, what were your career aspirations, and what influenced those career aspirations?

I have always been a person that wanted to contribute to the society and help his fellow human beings in my own way. From wanting to be a doctor, my interests gradually shifted from clinical medicine to understanding the diseases at the molecular level.

3. What has been the most exciting or challenging scientific question you have explored so far?

The answer to that question would be my Bachelors project. It was the understanding of how pesticides affect the zebra fish embryo development. It was fascinating to see how the environmental toxins can influence the gene expression and development. It opened up a broader spectrum to how such elements can affect humans.

4. How has your perspective on science and research evolved over time?

Initially, I saw science as something that gives answers. Over time, I realized that science is more about asking better questions. It's a process of continuous exploration, where even small findings contribute to a bigger picture.

5. If you could contribute one significant discovery to your field, what would it be?

I would like to develop a dendritic cell-based platform that can present personalized tumor antigens on their surface to activate a targeted immune response against cancer cells. The goal is to create a customizable treatment where a patient's own immune system is trained to recognize and eliminate cancer cells more effectively. I believe this could lead to more effective treatments with fewer side effects, and it really excites me to think about how personalized medicine can change the future of cancer therapy.

6. Can you share an important life lesson or philosophy that guides you?

'Trust the process'. I think this motto has been a guiding light throughout my academic journey. In today's world with the competition and stimulation around a person, it is easy to get overwhelmed and pushed away by stress, So, I choose to focus on one step at a time and trust my process rather than giving into the scary what-ifs. The idea of 'everything happens for a reason' keeps me optimistic and grounded.

7. Is there a particular person or event that has greatly influenced you?

Dr B.R. Ambedkar has had a huge influence on my way of thinking and living. He has had a terrific journey rising from social struggles to becoming of the greatest minds and reformers of Modern India. His journey has taught me the purpose of knowledge and education in one's life.My parents (Saraswathi, Vadivel), brother (Vignesh) and my friend (Kavya) also have changed me for the better. Seeing the importance that my parents gave into my good upbringing and education made me want to become a better, purposeful human being.

8. If you could spend a day entirely to yourself, how would you spend it?

I would probably start my day with a gym session. I would invest in some quality reading and rest to energize. In the evenings, I would spend some time with my loved ones.

Science and research:

1. How would you define research? What does it mean to you personally?

   To me, research is like following a trail of curiosity where it starts with a simple "why". As you go by, you tend to get deep into exploring something no one fully understands yet. It's not always about big discoveries; even small findings feel meaningful because they add to a bigger picture. Personally, research gives me a sense of direction. It brings together my curiosity, passion, and patience, and even when things don't work out, I see failures as lessons that guide me toward better questions. It's challenging, but that's what makes it exciting.

2. What keeps you motivated to pursue your masters, especially when challenges arise?

   My Master's is in Animal Biology and Biotechnology. I have always been interested in learning regarding the molecular mechanisms underlying life processes. I am also interested in the finding the potential applications of biotechnology in addressing the real-world problems related to health and disease. Challenges are always part of the journey. Acknowledging my privilege in having the ability to help the lesser privilege has been my major driving source through it all.

Creative Corner

A calm night with pretty lights!
Picture courtesy – Suhail Ahmed