


Dutt and Shilpee lab

Newsletter

June 2021



A terrified face (probably terrified seeing me through the objective!)

Total myosin in red. DNA in blue. Magnification 63X.

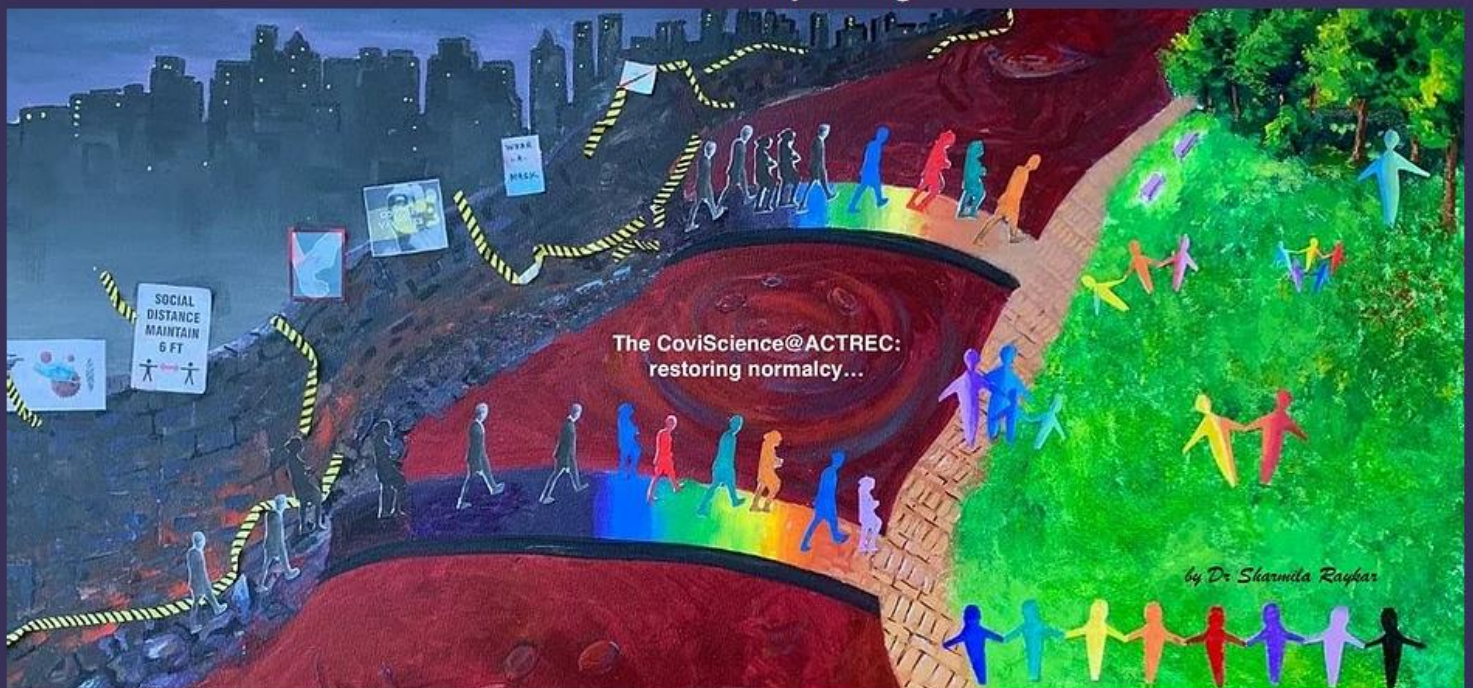
PICTURE COURTESY: TEJASHREE MAHADDALKAR

30 μm

A novel initiative to fight against the virus!

COVISCIENCE@ACTREC

an initiative for the underprivileged...



We, the scientists and clinicians from ACTREC- Tata Memorial Centre, have initiated this outreach program to generate funds through donations to sponsor the COVID-19 vaccine for underprivileged individuals (contractual staff in a residential society complex, street vendors, construction site workers, etc.) in our neighborhood.

Painting by Dr Sharmila Raykar, chosen from Creative Mind Contest on "COVID-19 and Life" at ACTREC

Do spread the word and help maximum people get vaccinated!



Congratulations

Desai et al. *BMC Bioinformatics* (2021) 22:247
<https://doi.org/10.1186/s12859-021-04172-x>

BMC Bioinformatics

SOFTWARE

Open Access

IPD 2.0: To derive insights from an evolving
SARS-CoV-2 genome



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**“Celebrate what you accomplish, but raise
the bar each time you succeed.”**

IPD → *IPD 2.0!*

Welcome to
our **TEAM**



A warm welcome to Aakash Singh, fourth year integrated MSc (life sciences) student from Visva Bharati, Santiniketan. He will be here for a year as a part of his MSc dissertation project.

Happy Birthday



The CREATIVE CORNER

वार्तालाप सूरज और चाँद

चाँद

मेरे हिस्से में अँधेरा है
मेरी रोशनी पे हक तेरा है
तेरे होने से जहाँ रोशान है
तुझमे दागहीन, प्रज्वलन है

चाँद

तेरे हिस्से में अंगड़ाई है
मेरे हिस्से में तन्हाई है
जीतने वाले तेरे सहारे हैं
हार, डर, प्रतीत हमारे हैं

चाँद

तेरे हिस्से में होते सब धर्म हैं
मेरे हिस्से में लोगो का द्रष्कर्म है
मेरे होने न होने से क्या बदलना है
में रहूँ या न चरागो को तो जलना है

सूरज

तुम्हारे साथ तो सितारे हैं
नीले आसमान तन्हाइयो के मारे हैं
मेरा डूबना लगता, जहाँ को हसीं है
तुम्हें देख कहते, क्या खूब चाँदनी है

सूरज

मेरे हिस्से में दौड़ भाग है
तेरे हिस्से आराम सीभाग्य है
मुझे देख कहते क्या तेज़ धुप है
तुझमे दिखता महबूब का रूप है

सूरज

चाँद तुम्हारा ये सौचना अधर्म है
होते मेरे हिस्से में बहत कृकर्म हैं
जो फूल तुम्हारी शीतलता में खिल आते हैं
अभाग्या में वो मेरी अग्नि में जल जाते हैं

चाँद और सूरज

इश्र्या हो खुद से तो गुण नहीं दिखते
हम लगते अपने आप में ही जलते
गुण और अवगुण हम दोनों में है
भलाई हमें इसको समझने में है

सुहेल अहमद "शाद"

Courtesy: Suhail

In conversation with...

General Facts

1. By birth, my name is : Aakash Singh
2. Pals call me : Aakash
3. I was born on : 10-12-1997
4. My childhood was spent at: Navi Mumbai



Personal Life

1. *Can you describe any one ever-lasting memory about your childhood?*

We had an interschool cricket match with Bharati Vidyapeeth. I was playing down the order, not getting enough balls to play since 2 matches so had an argument with team members gone for opening. I was confident that I can take match close. Had some good overs through bat. Scored 70-75 runs and got out. But given a momentum to the team for a win and had a must win match. From there, opened many times for the team.

2. *How was your college life? And, what did you enjoy the most?*

As my graduation college is in Santiniketan, West Bengal. I learned few Bengali words. Had new friends from different states, tried to learn their native languages. However, the food was not liking so always on Maggi, Bread n butter.

In first two years, I enjoyed a lot. Visited many heritage places, attended many cultural dance and songs. We used to have many *melas* (fair) in which one is *Anandamela* in which our department used to participate, make food and sell them to the peoples who are coming and the end having a group dance and the money which we collected were given in a donation to the charity for the wellness of unprivileged people. Whenever we are getting any vacation, we planned for a trip to Delhi, Manali, Punjab, Ladakh and Orissa.

But now as of this pandemic, online classes were going on and it's a very difficult phase of learning. Sitting in front of a laptop and looking on a whiteboard has a disadvantage of not having an exposure to the experimental labs.

3. *As a child/teenager, what did you aspire to become in life? Any reasons associated with it?*

On 26 Nov 2009 exact one year of 26/11 Mumbai Attack, our school were on a school trip to Navy Nagar, Colaba. There we visited INS Vikrant. It was very fascinating, we used their warship equipment, got chance to sit in a helicopter with a pilot. And saw submarine from far sight diving in a water. Even thought to join a service in Indian Navy. But parents planned that I should go for medical and took an off-track from there.

4. *Would you like to state a person or an event that has inspired/influenced your life?*

I was studying in 12th class listening to biotechnology class where we were introduced to new term “Superbugs” or “oil-eating bacteria” (*Pseudomonas putida*) by Prof. Anand Mohan Chakrabarty. I was really inspired by this research which will be helpful to the mankind. This event inspired to look a new field. Even his house is located in Sainthia, not too far from Santiniketan. Even we got a chance to meet Dr. Bruce Alberts (Cell Biology) at Santiniketan.

5. *Do you have any hobbies or passion apart from research?*

I love to play Cricket and Badminton a lot and have interest in sketching also. I admire Late. Sushant Singh Rajput and M.S. Dhoni. I like to explore places very much. A trip to somewhere I never visited or were I want to. Apart from this, I tried to learn video editing in lockdown, Auto-docking of Protein-ligand (however didn't succeeded). Listening to old classic songs and watching movies and web series is a must!! Even I want to try scuba-diving at least once in a lifetime....



Science and Philosophy

1. In your opinion, what is research?

For me research is finding an answer or a new information from the existing knowledge or information. Sometimes we don't even have an enough knowledge also, but if a person develops a hunger of knowing new things, it will definitely look to create any new outcomes. For that a person have to start to ask Why, How, can it be like this or that and What If??

What I learned till now is even having a negative inference or result is also a research. It'll make a person to think beyond than their imagination!!

2. Why did you choose to join the Dr. Amit Dutt laboratory for pursuing your dissertation?

In 2018, I had done my summer internship under the supervision of Dr. Prasanna Venkatraman. That time, I visited many labs as I want to explore what different works are going on in different labs. I visited in Dr. Amit Dutt lab also. Even met some of the PhD pursuing seniors. And during this pandemic time, I started to develop my interest in Sequencing (NGS and Sanger) and eagerly wanted to learn NGS and how to interpret the huge genomic data. I had few conversations with the passed PhDs also and they suggested to look for it. So, I kept this lab in the list for future summer internship or dissertation. I was very lucky to have a summer internship and dissertation both in the same lab.

3. What has motivated you to pursue research?

The event when I got to know about Superbugs or oil-eating bacteria in 12th class by Prof. Anand Mohan Chakrabarty.

4. What have been the most (a) exciting and (b) challenging scientific question you have had the opportunity to address?

One of the exciting questions which I faced- Can a cancer cell be dormant or in senescence state? If yes, then how will a cell progression will occur? How it will alter the normal cell genomics?

And one of the challenging questions which I faced- Can researchers and scientists will be able to grow plants in space and was the criteria to decide which plants has to grow and what will be the necessary conditions? Is genetic modified organisms or crops will be the future to fulfill the needs of a man? What will happen to recipient if by mistake a lymphoma donor donates its blood, having same blood groups?

5. What are your future plans?

Currently exploring the various areas of cancer research and oncogenomic but I would like to pursue PhD in European countries, particularly Finland. But still looking to qualify CSIR-NET. Qualified GATE 2021 but don't have any further guidance. Hence always having a talk with different people.