Abhishek Puthenveetil

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A Post-Graduate student of M.Sc. Immunology at Amity University. I am interested in developing a career which combines research and teaching in the field of Cancer Biology, while maintaining my interest in other inter-disciplinaries related to the respective field. I am profoundly interested in the world of intracellular signaling and its connection with the cell cycle. The highly-specific relay of information processed from the outside of a cell deep into its nucleus intrigues me. It is fascinating how signal cascades function and how they malfunction, leading to cancer. The further we understand how a signal pathway works, the closer we are to be able to provide treatment and cure for patients.

Date of birth: 10 Sep 1996

Education:

- Amity University Uttar Pradesh, Noida (2017-2019): M.Sc. Immunology, CGPA: 9.12, Grade: A+. SGPA semester wise: 9.07, 8.90, 8.79, 10.
- Bangalore University, Bangalore (2014-2017): B.Sc. Biological Sciences, CGPA: 8.24, Grade: A+. SGPA semester wise: 8, 7.63, 8.63, 8.2, 8.25, 8.75.

Research experience:

Although my research career has just begun, I have accumulated a strong background in several aspects. Over the last 5 years of my Undergraduate and post-graduate life I have gained a lot of experience in the scientific world which lead me to immerse more into scientific literature and to see exciting avenues of research.

Various techniques learnt hands-on:

- Cloning DNA and RNA isolation, PCR, Gel electrophoresis, digestion-Ligation-Transformation and Expression.
- Protein extraction and purification SDS-PAGE, Western blot and ELISA, protein interaction techniques Co-IP, Pull down assays, chromatography (Affinity and Ion-exchange)
- PBMC isolation, Cell culture Techniques, Flow cytometry, transfection, Cytotoxicity Assays – Chromium release assay, Degranulation assay, Luminex, Intracellular Cytokine Staining.
- Programming R, python basics and beginner level training in NGS.

Fellowship:

• Khorana Fellow 2018. IUSSTF, DBT and Winstep Forward.

Awards and Honors:

- Amity University Uttar Pradesh Academic Scholarship during Post Graduation.
- Amity University Uttar Pradesh Shree Baljit Shastri Award for the best in Human and Traditional values.

Projects:

- "Reprogramming CAR+ cells in culture milieu" Dr. Harjeet Singh, CTCT, Cooper Laboratory, MD Anderson Cancer Centre, Houston, Texas. Khorana Fellow - IUSSTF. (3 months)
 - CAR (Chimeric Antigen Receptor) T cell therapy is the current method trending in Adoptive Cancer Immunotherapy, designed to overcome the HLA restriction of the T cell responses. The goal during the research period was to find ways to reduce the effector memory response of the CAR T cells developed in Cooper's lab via assessing the memory responses via modulating cytokine cocktails. Under the supervision of Dr. Harjeet, I performed flow cytometry and cell-based assays to assess the expression of T cell markers and cytotoxicity profiles of the two groups of T cells, thus taking them a step closer towards clinical testing.
- "Cloning Strategy, expression and purification of human Dicer and Ago2 proteins for interaction studies"- Dr. Sujatha Sunil, International Centre for Genetic Engineering and Biotechnology (ICGEB), Delhi. (6months)
 - Dengue and Chikungunya virus are being researched in the Vector Borne Diseases group at ICGEB. The RNAi mechanisms of both the insect and human host system were being looked into, to get an idea on how the virus evades both the co-host anti-viral responses. My contribution to the project was cloning, expressing and purifying the Dicer and Ago proteins and studying the interaction of these with TRBP1 via protein-protein interaction assays, so as to bring out a therapeutic application.
- **"Potyvirus- An outlook and co-evolution of the host and virus"** Dr. Ashish Srivastava, Dr. Gary J Loake. Amity University Uttar Pradesh, Delhi. (8 months)

Publications:

- **Neuro-immune-endocrine cross talk: Insights into tumor progression**. Abhishek P, Somnath Pai. In communication with the **Journal of Neuroscience**. For further information please contact, Dr. Somnath Pai, <u>sspai@amity.edu</u>.
- **Potyvirus: an outlook and coevolution of the virus and the host**. Abhishek Puthenveetil, Ashish Srivastava, Narayan Rishi. 'In Draft' the **Journal of New Phytologist**. Please do not hesitate to contact Dr. Ashish Srivastava <u>asrivastava10@amity.edu</u>.

Presentation:

• "Reprogramming CAR T cells in culture milieu" – Pediatric Lab meet, MD Anderson Cancer Centre, Houston, Texas, USA.

Certification course:

- Cancer Metastasis Johns Hopkins University (Coursera)
- Training in R studio, python, and NGS ArrayGen Technology Pvt. Ltd.

Communication skills:

I have delivered many seminars and talks, involving class presentations on different topics and were clearly understood and perceived by the listeners. Professionally extrovert personality allows good reciprocal conversation and help me build connections.

Pertaining to leadership quality, I have represented my class at various levels, from school days to present college days being a class representative (CR). I am good with connecting to people and motivating people to bring out the best in them, thus increasing overall efficiency.

Extra-Curricular Activities:

- Student panel of International Quality Review, QAA, UK Accreditation
- Student panel of NAAC, India Accreditation.
- Sports: Chess, Athletic Events (100m), Football and Calisthenics.

Other Interests:

Interests in understanding the field of Cognitive Psychology, Astrophysics, Quantum and Sub-Quantum Mechanics. Further Channeling quantum physics into strings theory, singularity (Theoretical Physics).

Reading books by Richard Feynman, Carl Sagan, Dr. Brian Weiss, Deepak Chopra thereby cultivating more scientific and philosophical approach to various aspects.

References:

- Dr. Somnath Pai (<u>sspai@amity.edu</u>), Assistant Professor, Amity University, Noida, India. +91-8586061517
- Dr. Shweta Dubey (<u>sdubey@amity.edu)</u>, Associate Professor, Amity University, Noida, India. +91-9911315898.
- Dr. Harjeet Singh (<u>hsingh@mdanderson.org</u>), Division of Pediatrics, UT MD Anderson Cancer Centre, Houston, Texas.
- Dr. Sujatha Sunil (<u>sujatha@icgeb.res.in</u>), Group Leader, Vector Borne Diseases, ICGEB, New Delhi, India.