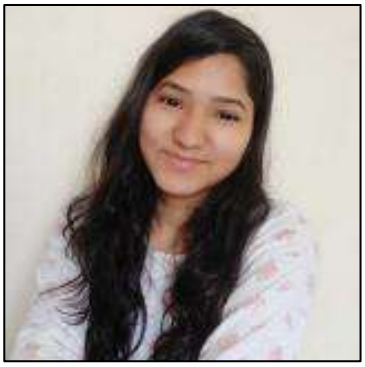
ASHU
Contact no: 8743008654
E-mail: ashubiochem78@gmail.com



Carrier objective: I Ashu, PhD student under the supervision of Dr. Alpana Sharma in Department of Biochemistry, AIIMS, New Delhi. My focus is on functional aspects of preexisting immune system particularly memory T cells before and after checkpoint inhibitor therapies in Renal cell carcinoma. Ion channels and autophagy are two major mechanisms that involve in determination and regulation of cellular fate of memory T cells within the immune system. In PhD duration, we are trying to understand the regulation of these factors through newly identified ubiquitin ligase to determine physiology of memory T cells in tumor microenviourment.

Academic details:

- Perusing PhD (Biochemistry Department) from All India of Medical Sciences under session 2018, Delhi (India).
- Join PhD (July 2017) at National institute of immunology, Delhi (India).
- National level CSIR–JRF qualified in July 2016.
- M.Sc (Biochemistry) from All India of Medical Sciences under session 2015-2017.
- B.Sc (H) in Biochemistry from Deshbandhu College, Delhi university duration 2012-2015.
- Schooling had been completed from Delhi CBSE Board.

Degree/Courses	Percentage	Year Passing	Attempt
12th **G.S.K.V CBSE Delhi**	**74%**	**2012**	**First**
B.SC (Biochemistry H) **Deshbandhu college, DU**	**74%**	**2012-2015**	**First**
M.Sc (Biochemistry H) **AIIMS New Delhi**	**68%**	**2015-2017**	**First**

Strengths:

- A proactive learner, hardworking and keeping attitude for learning and applying new knowledge.
- Thinking conceptually and quires about basic concept of science.

Theoretically and practically knowledge about the Techniques

- **Flow cytometry:** Sample preparation from blood and tissues, Acquiring, Data analysis and interpretation.

- **Molecular biology Techniques:** Isolation of genomic DNA, RNA from serum, PBMC and from tissue by liquid nitrogen, homogenizer, tyspin- EDTA, cDNA synthesis, PCR, gel electrophoresis, real time PCR and statistically analysis of data.

- **ELISA:** Serum and culture supernants by concentrating the protein by using Amicon falcons.

- **Immunofluorescence and/or Confocal Microscopy:** sample processing, panel designing, staining , analysis and data representation.

- **Immunohistochemistry:** Paraffin embedding the tissue, sectioning, and different staining and scoring.
- **Western blot:** Antibody optimization, immunoblotting and data interpretation using imageJ software.
- **Electron microscopy:** sample preparation, acquiring and analysis

- **In vitro work:** Dendritic cells culture from PBMC, Cells lines handing, Explants culture.

- **In vivo works:** Mice handling, culling, bones collection, smear test for breeding, oral gavages in mice, regimen preparation of mice.

- **Inductively coupled Plasma mass spectrophotometry (ICPMS):** Standard preparation for trace metal ions, sample preparation from human tissue samples, data analysis.

- **Exosomes:** Exosomes isolation from human samples and explant culture, characterization using Naonosight Analyzer and Electron microscopy , data analysis and interpretation.

Equipment handling details:

- Flow cytometry (Quanto/ LSR Fortessa X-20)
- Real time PCR machine (BD)
- Microscope (Inverted/ Florescent/ light).
- Confocal microscope

Poster and Oral Presentation:

- **Ashu**[1], Santosh K[1], Dayasagar Das[1], Somesh Gupta[2], Sudheer K Arava[3], Alpana Sharma[1].**Role of Dendritic Cells in Immunopathogenesis of Vitiligo.** 43rd Annual conference of Indian immunological society (Immunocon 2016), India, 17th February 2017.

- **Singh A,** Choudhury DS, Singh P, Singh VV, Singh NS, Sharma A. **KCMF1 regulate autophagy and ion channels function in Renal Cell Carcinoma: A future therapeutic target**. 2nd Annual Research day, AIIMS, New Delhi. 18th October 2022.

- **Singh A,** Choudhury DS, Singh P, Sharma A. **Ubiquitin mediated regulation of autophagy in memory T cells of Renal cell carcinoma: therapeutic target.** 48th Annual Conference of Indian Immunology Society (Immunocon 2022), India, 8th – 9th July, 2022.

Publications:

- **Singh A**, Choudhury SD, Singh P, Kaushal S, Sharma A. **Disruption in networking of KCMF1 linked ubiquitin ligase impairs autophagy in CD8+ memory T cells of patients with renal cell carcinoma.** Cancer Lett. 2023 Jun 28;564:216194. doi: 10.1016/j.canlet.2023.216194. Epub 2023 Apr 20. PMID: 37084875.(**Impact factor =9.7)**

- **Singh A,** Choudhury SD, Singh P, Singh VV, Singh SN, Sharma A. **KCMF1 regulates autophagy and ion channels' function in renal cell carcinoma: a future therapeutic target.** J Cancer Res Clin Oncol. 2023 Aug;149(9):5617-5626. doi: 10.1007/s00432-022-04507-y. Epub 2022 Dec 14. PMID: 36515749. **(Impact factor=4.5)**

- **Singh A**, Das D, Kurra S, Arava S, Gupta S, Sharma A. **Dendritic cells and their associated pro-inflammatory cytokines augment to the inflammatory milieu in vitiligo skin**. Cytokine. 2021 Dec;148:155598. doi: 10.1016/j.cyto.2021.155598. Epub 2021 Jun 5. PMID: 34103210. **(Impact factor=3.9)**
- **Singh A**, Sharma A. **Lymphoid tissue inducer cells in cancer: a potential therapeutic target.** Mol Cell Biochem. 2023 Mar 15. doi: 10.1007/s11010-023-04699-y. Epub ahead of print. PMID: 36922480. **(Impact factor=3.8)**

- Das D, **Singh A**, Antil PS, Sharma D, Arava S, Khandpur S, Sharma A. **Distorted frequency of dendritic cells and their associated stimulatory and inhibitory markers augment the pathogenesis of pemphigus vulgaris**. Immunol Res. 2020 Dec;68(6):353-362. doi: 10.1007/s12026-020-09166-0. Epub 2020 Nov 12. PMID: 33184735. **(Impact factor=4.4)**

Membership:

- **Indian immunological society,** All India Institute of Medical Sciences, New Delhi **(Member id: 558/01/17).**

REFERENCES:

Dr. Alpana Sharma
Professor, Department of Biochemistry,
All India Institute of Medical Sciences, New Delhi, India.
E-mail: dralpanasharma@gmail.com; 011-26546665

Dr. Abhigyan Satyam (Ph.D.)
Instructor in medicine
Beth Israel Deaconess medical Centre
Department of medicine
330 Brookline Ave, Boston MA-00215
Email: asatyam@bidmc.havard.edu

Dr. Dayasagar Das (Ph.D.)
Postdoctoral Research Scholar
Department of internal medicine
Division of clinical immunology and Rheumatology
University of California (Davis)-95817
Email: dayasagarbiochem@gmail.com

REHAN KHAN (Ph.D.)
Gu 16-28
Guggenheim Building
Mayo Clinic
200 First Street S.W.
Rochester, MN 55905,
Email- khan.rehan@mayo.edu; rehan_bt@yahoo.co.in Mob: +15073196544