

AKANKSHA

FEMALE/ 22 YEAR
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Profile summary:

A passionate molecular biologist, possessing competent laboratory abilities spanning a diverse array of disciplines, including molecular biology, genetic engineering, recombinant DNA technology, cell biology, biochemistry, immunology, animal cell culture, and microbiology. Actively seeking a suitable opportunity to nurture my research skills.

Education:

M.Sc. Biotechnology	2021-2023	South Asian University, New Delhi	8.78 FGPA (9 point scale)
B.Sc. Hons. Microbiology	2018-2021	Ram Lal Anand College, University of Delhi	8.73 CGPA (10 point scale)
CBSE (Class XII)	2018	Kendriya Vidyalaya, New Delhi	82.80%
CBSE (Class X)	2016	Kendriya Vidyalaya, New Delhi	9.4 CGPA (10 point scale)

Research Experience:

Master's thesis

August 2022- May 2023

Advisor: Prof. Dr. [Senthil K Venugopal](#) (South Asian University)

Topic: Study of the role of PKM2 in moderating autophagy in NAFLD

PKM2 (Pyruvate kinase M2) is an essential glycolytic enzyme that promotes cancer in the liver when present in dimer form. Autophagy is essential in regulating hepatic steatosis in NAFLD by facilitating the breakdown of intracellular lipids in hepatocytes. Our research group hypothesized that PKM2 enhances the progression of NAFLD via inhibition of Autophagy. Here I devised an experiment on the HepG2 cell line and CDAA-induce mice model to investigate the effect of PKM2 on autophagy. The result showed that the Knockdown (KD) of PKM2 triggers autophagy.

Graduation Project

December 2019- April 2021

Advisor: Prof. Dr. [Prerna Diwan](#) (University of Delhi)

Topic: Communicating the science behind the phenomenon of antibiotic resistance to promote social awareness

Selected as a Research Intern in ICSSR- IMPRESS Funded project: Communicating the science behind the phenomenon of antibiotic resistance to promote social awareness (Project fund INR 5 lacs) Project helped in understanding the data collection through surveys and conducting awareness drive on AMR and result analysis.

Research interest:

- Molecular biology, cell biology, virology, immunology, translational research

Laboratory experience:

- Well versed with bacteriological techniques like media preparation, streaking/sub-culturing, isolation, identification of different microbial species, cloning, transformation, various staining procedures and microscopy.
- Molecular biology techniques such as RT-qPCR, western blotting, DNA isolation and purification, RNA isolation and cDNA synthesis, Quantitative estimation of DNA and RNA, Protein Isolation and purification, affinity chromatography, Bradford and BCA, SDS PAGE and agarose gel electrophoresis.
- Mammalian cell culture and transfection
- Bioinformatics tools such as NCBI, BLAST, GENSCAN, CLUSTAL W, Primer Designing, PSIPRED, PROCHECK, Pymol

Publications:

- Mohan, L., Anand, S., Mittal, M., Goyal, K., **Akanksha**, Dixit, A., Gupta, RK., Jain, R., Diwan, P. Cross-sectional study: knowledge assessment of youth regarding the global public health threat of antibiotic resistance. J Public Health (Berl.) (2023). <https://doi.org/10.1007/s10389-023-02179-7>

Honors and Awards:

- Awarded with “**Certificate of Merit**” and “**Gold Medal**” for securing 1st Position and outstanding academic performance in order of merit among the students of Master of Science (BioTechnology) (2023).
- Awarded **books worth INR 5000** for being a meritorious student in the subject of Biotechnology for the years 2021- 2023.
- Qualified National Level **Graduate Aptitude Test of Biotechnology** (GAT-B) in 2021.

- Awarded minor degree in **Basic Statistics for Biological Sciences** from Ram Lal Anand College, University of Delhi (2021).
- Awarded **gold medal** for securing 1st rank in the Discover India Quiz competition at Kendriya Vidyalaya, New Delhi (2012).

Certificates:

- Awarded with a Certificate of Appreciation for most active participation in 30-hour online certificate course on “**Science writing and research ethics**” organized by Ram Lal Anand College. (2020)
- Awarded with Certificate of completion for successfully completing a one-day training program on “**Biosafety and Waste Management**” in Webinar Series on “**Recent Advances and Outlooks in Biological Sciences**” conducted by Institute of Home Economics, University of Delhi. (2020)
- Awarded with Certificate of completion for successfully completing the fourty hour duration Certificate Course on “**Human Values, Ethics and life skills course**”. (2018-2019)

Workshop and Training:

- Attended a workshop on **pipetting by Eppendorf** organised by Faculty of Life Sciences & Biotechnology, South Asian University, New Delhi (2022).
- Participated in Quiz in Micro vitae 2020: The Departmental Fest organised by Department of Microbiology, Ram Lal Anand College, University of Delhi (2020).
- Attended workshop entitled “**Foldscope: An Educational and Research Tool**” organised by Department of Microbiology, Ram Lal Anand College, University of Delhi (2019).
- Participated in one-day **Disaster Management Training Camp** organized at Maitreyi College in association with NSS and NDRF (2019).

Conference/Seminar(s):

- Participated in a talk entitled “**Antibodies - Ek Naam, Anek Kaam**” organized by the Mikrobiologika Society, RLAC under the DBT Star College Scheme (2022).
- International webinar “**Impact of Covid-19 on Society and Education: A Perspective**”, organized by the internal quality assurance cell, Swami Shraddhanand College, University of Delhi. (2021)
- DBT sponsored International Seminar under Star College Scheme entitled “**Nanoparticles in Biology**” held on January 29th, 2020.
- DBT sponsored National Seminar under Star College Scheme on “**Metagenomics and Genome Editing**” held on 5th February 2020 organized by Department of Microbiology, Ram Lal Anand College.
- National Seminar on “**Probiotics: Ameliorating the Burden of Lifestyle Disorders**” held on 1st February 2019 organized by Department of Microbiology, Ram Lal Anand College in Association with Probiotic Association of India.

Leadership Experience:

- Appointed as an **Environment captain** of Kendriya Vidyalaya Sec VIII, R.K Puram New Delhi for the session (2017-2018).
- Appointed as an **Environment Vice-captain** of Kendriya Vidyalaya Sec VIII, R.K Puram New Delhi for the session (2016-2017).

Extracurricular activities:

- Awarded “**Certificate of Appreciation**” for outstanding contribution as volunteer for DBT sponsored National Seminar under Star College Scheme on ‘Metagenomics and Genome Editing’ organised by Department of Microbiology, Ram Lal Anand College, University of Delhi (2020).
- Awarded “**Certificate of Appreciation**” for securing 1st position in Just Act in The Moment (J.A.M) event of Annual Mathematical Fest, Implosion’20 organised by Ram Lal Anand College, University of Delhi (2020).
- Presented poster entitled “**Metagenomics: A Boon to modern science and medicines**” in DBT sponsored National Seminar under Star College Scheme on ‘Metagenomics and Genome Editing’ (2020).
- Actively participated as a **volunteer in NSS (National Service Scheme)**, a program run under the Ministry of Youth Affairs and Sports, Government of India, for the betterment of society (2018- 2020).
- Participated in the wheelchair rally by the Indian Spinal Centre on the occasion of **World Spinal Cord Injury (SCI) Day**. (2019)

Skills:

- **Language:** English and Hindi
- **Technical:** MS Office, Biorender, Image J
- **Soft:** Teamwork, scientific temperament, all-rounder, leadership, professionalism, time management, confident
- **Hobbies:** Badminton, travelling, baking, reading