RITU GAUR, Ph.D.

Professor and Group Leader (Virology Laboratory)

Faculty of Life Sciences and Biotechnology (FLSB)

Teaching Experience at SAU

I have developed and taught the following courses to MSc and PhD students at SAU.

MSc Biotechnology

- a) Molecular Biology (Credits: 2)
- b) Genetic Engineering (Credits: 2)
- c) Virology (Credits: 2)
- d) Laboratory Techniques in Molecular Biology (Credits: 2)
- e) Laboratory Techniques in Genetic Engineering (Credits 2)
- f) Research Methodology (Credits: 2)

PhD Biotechnology

- a) Techniques in Genetic Engineering (Credits: 2)
- b) Advances in Medical Biotechnology (Credits: 2)
- c) Advanced Cell and Molecular Biology (Credits: 4)
- d) Advanced Studies in Life Sciences and Biotechnology (Credits: 4)
- e) Research Methodology (Credits: 4)

Research Grants Awarded as Principal Investigator

- 1. **DBT grant** (2023-2026) by Department of Biotechnology, Govt of India (5 million)
- 2. **Hetero Research Foundation grant** (2023-2024) by Hetero Research Foundation, Hyderabad, India (1 million)
- 3. **DBT –NER Grant (2019-2022)** by Department of Biotechnology, Govt of India (4 million)
- 4. **DST Extramural Research Funding (2017-2020)** by Department of Science and Technology, Govt of India (5 million)
- 5. **NIH Intramural to India grant (2013–2016)** by National Institutes of Health, USA and ICMR/DBT (5 million)
- 6. Start-Up Grant at South Asian University (2012 2017) (4.8 million)
- 7. Rapid Grants for Young Investigators (RGYI Grant) (2010- 2013) by Department of Biotechnology, Government of India.

International Research Conferences Attended/Presented: 45

Research experience at SAU

- a) Supervised seven Ph.D. students and 25 MSc students at SAU.
- b) Obtained National and International research grants as Principal Investigator.
- c) Established research collaborations with academia and Industries in India and USA.
- d) Serving as a chairperson/member on several university administrative and academic committees.

Industry-Academia Collaborations established at SAU

- a) Collaboration with DFH Pharma, USA
- b) Collaboration with Pfizer, USA
- c) Collaboration with Hetero Pharmaceuticals, India

Independent Research Interest

Host – Pathogen interactions in HIV and development of antivirals

I have been leading my own independent research program in India for more than 10 years. Our research program is focused on studying host-pathogen interactions in HIV infections and translating the basic findings in the development of novel anti-HIV retroviral drugs and latency reversal agents. We have identified novel second-generation Maturation Inhibitors, which display potent, and broad anti-retroviral activity across major HIV-1 virus subtypes including the most infectious HIV-1 subtype C. We have also identified and characterized the bifunctional activity of Proteasome inhibitors as novel latency reversal agents. Our research on Maturation Inhibitors and latency reversal agents has paved the way forward for their clinical development as novel anti-HIV therapeutics.

Administrative experience at SAU

- a) Serving as Dean (R&D) (April 2023- present)
- b) Served as Associate Dean, FLSB (February 2018- 2019)
- c) Designing and coordinating SAU Entrance Exam
- d) Contributed towards designing of research labs and BSL3 facility in the new SAU campus.
- e) Chairperson of Board of Studies (BOS), University Complaints Committee (UCC), SAU Institutional Biosafety committee (IBSC).
- f) Member of SAU Library committee and University Central admission committee

International Peer Reviewed Publications:

Total Publications: 47

Awards & Honours

- a) Chairperson in several scientific sessions in National and International conferences
- b) NIH Performance Award in recognition and appreciation of special achievement in 2007 & 2008
- c) NIH Fellows Award for Research Excellence in the field of AIDS Basic Research., in 2007