SHIV NADAR
INSTITUTION OF EMINENCE DEEMED TO BE UNIVERSITY
DELHI NCR

ACADEMY OF CONTINUING EDUCATION

DEPARTMENT OF LIFE SCIENCES

POST-BACCALAUREATE PROGRAM IN *LIFE SCIENCE RESEARCH*

A one-year, research-intensive, residential program designed to equip participants with advanced research skills

(equivalent to PG Diploma)

SHIV NADAR UNIVERSITY, DELHI NCR

Shiv Nadar University, Delhi-NCR, is a multidisciplinary, student-centric research university. It was established in 2011 by Mr. Shiv Nadar, one of Asia's foremost philanthropists and a pioneer of the technological revolution in India. He is the Founder of HCL Tech, a $12.8 billion global organisation with 223,438 professionals operating from 60 Countries.

Shiv Nadar University, Delhi-NCR, is the youngest University recognised as an Institution of Eminence by the Ministry of Education, Government of India.

It has four Schools, viz., Engineering, Natural Sciences, Humanities and Social Sciences, Management and Entrepreneurship, and the Academy of Continuing Education. Shiv Nadar University, Delhi-NCR was the first University in the country to offer a 4-year multidisciplinary research degree. Today, the University continues as a trailblazer with new kinds of curriculum, championed by faculty drawn from some of the top institutions in the country and the world. From undergraduate to doctoral levels, the University offers distinctive degree programs, fosters cutting-edge research, and works for the betterment of society.

RECOGNITIONS & ACCOLADES

Awarded University of the year 2024 (Emerging category under 15 years)

10th FICCI Higher Education Excellence Awards 2024

Recognized as an Institution of Eminence

1 of the only 4 private universities in the country to be designated as an Institution of Eminence by the Government of India - The youngest in the list

National Institutional Ranking Framework (NIRF)

Youngest university to be ranked among the top 100 of NIRF, 7 years in a row

QS Asia Ranking 2024

41 in India; amongst top 36% in Asia

#1 India's best young university

Careers 360, 2023 ranking of private universities

#7 Top Universities in India

Careers 360, 2024 ranking of private and public universities

Nature India Index 2025

All India rank #25 (amongst 383 in institutions, all ranked subjects)

Asia Pacific rank #319 (amongst 2071 institutions, all ranked subjects)

Global Top 200; India Top 5

SDG 6 and SDG 2: Times Higher Impact Ranking 2023, 2024

#3 Top private university in India | #5 Top private university for employability

Indian Institutional Ranking Framework 2024

Global Co-Chair for SDG 6 by UN Academic Impact

The UN Academic Impact has named us Global Co-Chair for SDG 6 in its SDG Hub Network. Representing 17 countries across six continents, the global chairs will drive academic efforts toward the 2030 Sustainable Development Agenda.

SCHOOL OF NATURAL SCIENCES

The School of Natural Sciences (SNS) at Shiv Nadar University, Delhi-NCR is an integral part of the University's vision to build an institution of global education standards. The School aims to provide an international ambience in a local setting with innovative and engaging teaching methods, globally benchmarked curricula, world-class faculty and key partnerships in research. The School of Natural Sciences has four Departments: Chemistry, Life Sciences, Mathematics and Physics. It also nurtures the Big Data Analytics Center (BDAC), Center for Advanced Materials, Center for Informatics, the Institute for Innovations & Inventions with Mathematics & IT (IIIMIT) and Center for Environmental Sciences and Engineering (CESE), Center of Excellence in Epigenetics (CoEE) and Center of Excellence in Drug Discovery (CoEDD).

State-of-the-art laboratories and computational facilities are established in the School, keeping in mind the international standards.

The University is currently registered with DSIR, Government of India as a Research Institution; and all the departments at SNS have received DST-FIST (Improvement of Science & Technology Infrastructure) grants.

DEPARTMENT OF LIFE SCIENCES

The Department of Life Sciences in the School of Natural Sciences at Shiv Nadar University, Delhi-NCR, was established in 2012. A BSc Research program in Biotechnology (3 + 1 year, aligned with the National Education Policy, with the final year dedicated to research projects) is offered, and a significant cohort of PhD students is also being supported, placing the department at the forefront of scientific inquiry.

Research is being conducted across three primary thrust areas: Molecular and Systems Biology, Regeneration Biology, and Translational Biology. Research in the field of Cognition and Behavior has also been initiated.

Interdisciplinary collaboration is emphasized, and many projects are carried out through worldwide partnerships, bridging the gap between academia and industry and providing promising career opportunities.

A commitment to sustainable development goals is maintained, with research endeavours directed toward enhancing agricultural efficiency, developing value-added products, promoting sustainability, and mitigating environmental impacts. Numerous milestones have been achieved by the department, including the securing of the highest number of extramural research grants within the University and the publication of work in reputed journals.

Regular faculty and faculty fellows are employed by the Department of Life Sciences. Efficient management of the department is ensured by dedicated academic staff, administrative staff, lab staff, and technical officers. A wide spectrum of research is undertaken within the department, encompassing Cancer Biology, Cell Signaling, Epigenetics, Neuroscience, Genomics, Parasitology, Virology, Molecular Systems Immunology, Bioinformatics, Plant Biology, Bacterial Morphogenesis and Biofilms, Protein Folding and Stress Response, Chromatin Remodeling factors & Nuclear Receptor Signaling, Protein Structure Biology, Ecology & Evolutionary Biology, Developmental Biology, and Regeneration Biology.

A vision that extends beyond academic boundaries is pursued, with translational research and the innovation of new technologies with broad applications being pioneered. To support this, two Centres of Excellence — one in Epigenetics and the other in Drug Discovery — have been established. The Center for Integrative and Translational Research (CITRES) serves as a 30,000 sq.ft. animal research facility where mice, rats, rabbits, and zebrafish are housed, enabling important research to be conducted with model organisms. In addition, world-class facilities in genomics, proteomics, and imaging are available. With these resources, complex biological and healthcare challenges are being tackled.

The Department of Life Sciences has been recognized for its excellence and was ranked 21st in India by Nature Index India 2023.

FACULTY & RESEARCH INTERESTS

Sanjeev Galande
University Professor and Dean,
School of Natural Sciences,
Ph.D., Indian Institute of Science, India

Chromosome Biology and Epigenetic Regulation

Colin Jamora
Senior Professor, and Head,
Department of Life Sciences,
Ph.D., University of California San Diego, USA

Tissue regeneration and repair

Prasun Kumar Roy
Distinguished Professor,
Ph.D., Jadavpur University, India.

Neuroscience, Functional brain imaging, Clinical and computational neurobiology, Normal and impaired cognitive functioning, Degenerative disorders, Systems biology

Ashish Gupta
Associate Professor,
Ph.D., Jawaharlal Nehru University, India

Epigenetics and human diseases, cancer biology, regeneration biology

Ashutosh Singh
Associate Professor,
Ph.D., Banasthali University, India

Bioinformatics, Genomics and structure-based drug designing

Richa Priyadarshini
Associate Professor,
Ph.D., University of North Dakota, USA

Bacterial Cell Biology, Environmental Microbiology

Koyeli Mapa
Associate Professor,
Ph.D., Ludwig Maximilian University, Germany

Protein Folding, Cell and Molecular Stress

Anindita Chakrabarty
Associate Professor, Ph.D., University of Missouri-Columbia, Missouri, USA

Cancer Biology, Cell signaling, Inflammation, Carcinogenesis and Cancer therapeutics

Naga Suresh Veerapu
Associate Professor,
Ph.D., All India Institute of Medical Sciences, India

Virology, Virus–Host Interactions, Biology of HEV & HCV

Rohini Garg
Associate Professor,
Ph.D., National Institute of Immunology, India

Epigenomics of Abiotic Stress Responses In Plants, Plant epigenomics

Sri Krishna Jayadev M.
Associate Professor,
Ph.D., University of Delhi, India

Cancer Biology & cell signaling

Sachin Deshmukh
Associate Professor,
Ph.D., National Center for Biological Sciences, Bengaluru

Hippocampus, Spatial Navigation, Entorhinal Cortex, Electrophysiology, Sensory Systems, Behavioural and Systems Neuroscience

Geetanjali Chawla
Associate Professor,
Ph.D., Indian Institute of Science, Bengaluru

Age-related Diseases, RNA Biology, model organism genetics, RNA therapeutics development

Rajan Vyas
Assistant Professor,
Ph.D., Panjab University, Chandigarh

Structure-Based Drug designing using Protein X-ray Crystallography

FACULTY & RESEARCH INTERESTS

Neelesh Naresh Dahanukar
Assistant Professor,
Ph.D., University of Pune

Molecular ecology, Molecular phylogeny, biogeography and evolution, Evolutionary game theory and mathematical biology

Puli Chandramouli Reddy
Assistant Professor,
Ph.D., University of Pune
Evolutionary Developmental Biology,

Regeneration Biology, Epigenetics and Genomics

Rudra Nayan Das
Assistant Professor,
Ph.D., National Center for Biological Sciences, Bengaluru

Regeneration biology, Vascular development, Lymphatic transdifferentiation

Asthaa Dheer
Ramalingaswami Fellow,
Ph.D., DIPAS, DRDO, New Delhi

Neurodegenerative disorders, Glial Biology, Extracellular Matrix, Behavior and Cognition

Tanvi Deora
Faculty Fellow,
Ph.D., National Centre for Biological Sciences, Bengaluru

Neurobiology and Biomechanics of Insect Pollination, Tactile sensing, Multisensory integration, Flight control, Sensory ecology

Jugal Kishore Das
Ramalingaswami Fellow,
Ph.D., Kalinga Institute of Industrial Technology, Bhubaneswar

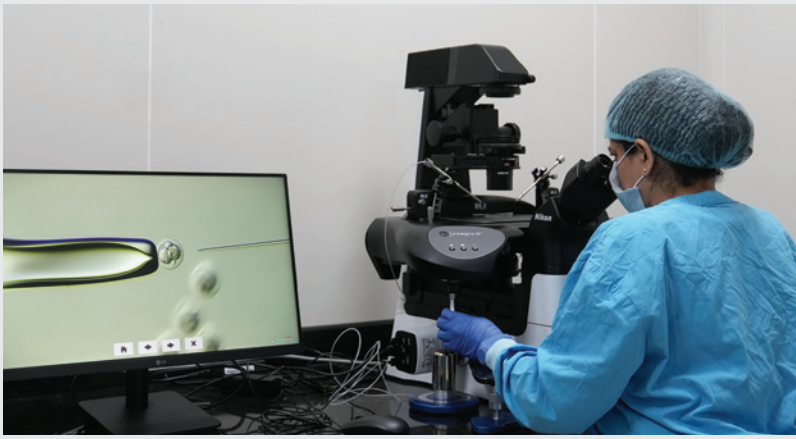
Immunology, Immunotherapy, Metabolic disorders

Kamlesh Ganesh Pawar
India Alliance Early Career Fellow
Ph.D., Freie Universitat, Berlin, Germany

Non-coding RNAs and their function, lung injury and infection

Kamlesh Kumari
Ramalingaswami Fellow,
Ph.D., NCBS, Bengaluru

Membrane Biology, Lipid Signaling, Microscopy



PROGRAM OVERVIEW

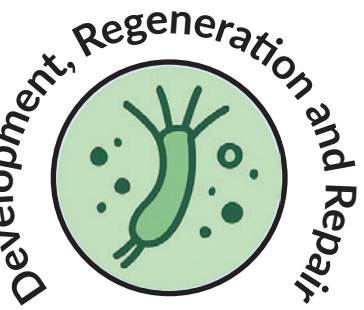
The **Post-baccalaureate Program in Life Science Research** is a unique and valuable opportunity for students looking to explore and advance their **research careers** in Life Sciences.

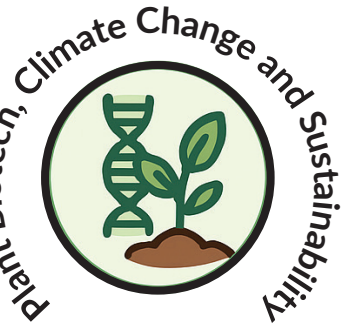
It combines rigorous academic training towards completing a **mentored research thesis** in a lab, ensuring that graduates are equipped and capable of conducting independent research projects.

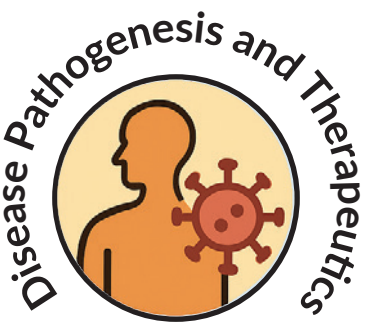
Students gain practical skills and in-depth exposure to cutting-edge science and research questions in **one of the seven thematic areas** that address major bioscience, biomedical and public health challenges.

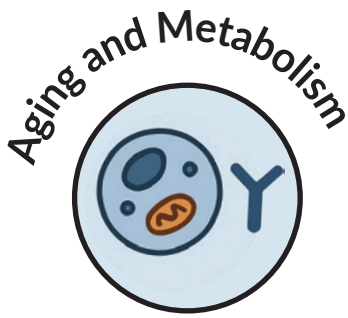
Leveraging state-of-the-art facilities, access to expert mentorship, and personalised training in small cohorts, students develop critical scientific thinking, experimental techniques, and professional research competencies sought by graduate programs (Masters and Doctoral) globally.

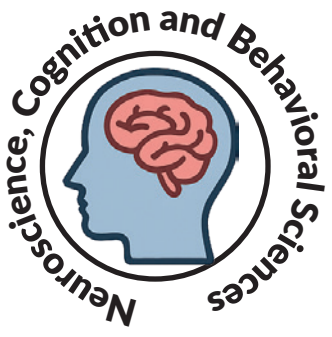
RESEARCH THEMES











WHY WAS THIS PROGRAM ENVISIONED?

This program is curated to bridge the gap left by traditional three-year undergraduate degree programs, which typically emphasise classroom teaching and basic laboratory techniques but rarely cultivate the skills necessary to tackle real-world scientific questions and contemporary research problems. Inspired by the significant impact of Shiv Nadar University's fourth-year thesis component in the BSc (Research) in Biotechnology program, this format extends similar research-intensive experiences to graduates from other institutions. The program is unburdened by the constraints of a full degree program, enabling participants to immerse themselves in the University's vibrant research ecosystem, gaining focused expertise and valuable exposure crucial for advancing their careers.

WHY IS THIS PROGRAM IMPORTANT?

The program offers an ideal and unique platform to tackle critical academic challenges effectively. The one-year post-bacc program equips students with rigorous laboratory skills and scientific research competencies by leveraging advanced infrastructure, distinguished faculty expertise, and a vibrant intellectual environment in the University. This supports the sustained growth and innovation essential to the global life science ecosystem. The program catalyses innovation within the global life science ecosystem by integrating rigorous research with targeted professional development.

HOW IS THIS PROGRAM DIFFERENT?

The thoughtfully crafted structure prioritising immersive, mentored research over conventional coursework sets this program apart. Unlike programs that only provide fragmented or technique-based lab exposure, our program offers a research-first experience anchored in scientific inquiry. The program begins with a short foundations segment, introducing students to key research methodologies across disciplines. This is followed by a sustained immersion segment where each student becomes part of an active research group led by a faculty investigator—this hands-on component forms the program's core.

Weekly activities complement the sustained mentored research component. The first activity is curated around responsible conduct of research, addressing both technical mastery and the ethical, social, and legal implications of scientific work, while the second activity is a journal club, where students learn to dissect, interpret, and present cutting-edge peer-reviewed research literature. In the second term, students also receive dedicated training in scientific communication to present findings to a diverse audience.

This fully residential program ensures seamless, round-the-clock access to laboratories—crucial for success in experimental life science research. Living on campus removes time and access barriers, allowing students to plan, monitor, and execute experiments without constraints, fostering deeper engagement, flexibility, and continuity in their research practice.

WHO WILL BENEFIT FROM THIS PROGRAM?

This program is ideal for recent graduates of Bachelor's programs **across STEM disciplines** — including science, engineering, medicine, pharmacy, and veterinary sciences — who are curious and motivated to learn about life science research. This program will benefit those seeking better exposure, significant hands-on experience, and a deeper understanding of the life science research enterprise. This program is for those exploring cutting-edge research in an immersive setting. It suits those considering a research-based career and looking to gain clarity, confidence, and foundational expertise.

HOW WILL THIS PROGRAM HELP STUDENTS?

Graduates of this program emerge with a robust set of problem-solving, analytical, and teamwork skills, preparing them for research careers in academia and industry. Under the guidance of 20 distinguished faculty members, students receive interdisciplinary mentorship that includes a diverse array of life sciences domains. The program will encompass seven key thematic areas that form the pillars of the Department's vision and research activities.

AN UNPARALLELED GATEWAY TO CONNECT AND GROW WITH OUR GLOBAL NETWORK OF ALUMNI

ELIGIBILITY & ADMISSION PROCESS

Applicants* must hold a bachelor's degree or equivalent

- with at least 60% marks or equivalent CGPA
- from a UGC-Recognised University

  * final year undergraduate students can apply.

ADMISSION PROCESS

ONLINE APPLICATION (Starts from April 2025)
Submit relevant academic documents and Statement of Purpose (Video Format) through the application process, and pay the application fee of ₹1,000/-

Online Interview (May 2025)

Fee Payment (July 2025)

Admission Offer (June 2025)

Program Starts (August 2025)

Acceptance (July 2025)

FEE & SCHOLARSHIP

- Program Fee: ₹3,35,000 + GST
  - ₹1,85,000 - Tuition Fee | ₹1,50,000 - Annual Living Fee*

    *The living charges are inclusive of the Hostel fee and cover access to 24*7 primary medical services. The hostel fee considered is for twin-sharing non-AC rooms. For AC room, additional charges of Rs 9K will be applicable.

- Four merit based scholarships – 50% on the tuition fee

CAMPUS LIFE

Immerse yourself in a diverse community and learn about other cultures. Showcase your talents and participate in co-curricular and extra-curricular activities throughout the year. Develop your passion with like-minded fellow students. Become part of an environment that embraces the essence of warmth, camaraderie, and support. Our residential institution provides you a home away from home, offering a range of exceptional facilities and amenities.

286
ACRE CAMPUS

571,410+
OUTDOOR FACILITIES (SQ. FT. AREA)

120,000+
INDOOR SPORTS COMPLEX (SQ. FT. AREA)

50+
CLUBS & SOCIETIES

400+
ON-CAMPUS JOBS

4,000+
STUDENTS FROM DIVERSE BACKGROUND

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INSTITUTION OF EMINENCE DEEMED TO BE

UNIVERSITY

DELHI NCR

CONTACT US

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