

Shiv Nadar Institute of Eminence Deemed to be University  
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## Personal Details

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**Full name:** Johan Ajnabi

**Date/Place of birth:** May 10, 1994/Jalpaiguri, West Bengal, India

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## Research Experience

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**July 2024 - Current** **Shiv Nadar Institute of Eminence Deemed to be University, Delhi-NCR**  
**Research Assistant**  
Under supervision of Prof. Colin Jamora

### **Epigenetic and mechanical regulation of wound response**

Understanding the regulation of *de novo* DNA methyltransferase, DNMT3a, an epigenetic factor under wound-induced mechanical cues; worked with primary mouse keratinocytes

**August 2019 – July 2024** **Institute for Stem Cell Science and Regenerative Medicine, Bengaluru**  
**Research Fellow**  
Under supervision of Prof. Colin Jamora

### **Mechanoregulation in the cutaneous wound response**

Worked with primary cells, cell lines and mouse models, handled and managed mouse colonies, employed cell biological, biochemistry, fluorescent microscopy and genetic engineering tools and techniques to address questions related to my project. (Manuscript in preparation)

### **Study of secreted factors in a transgenic mice model of fibrosis**

Worked with extracellular matrix protein, Mindin to study its role in skin fibrotic conditions, acquainted with primary cell culture techniques and transfection. (Published article: [Rana et al., 2023](#))

### **Role of antimicrobial peptides (AMPs) in combating different variants of SARS-CoV2**

Worked with multiple cell lines to study the effect of secreted antimicrobial peptide, human cathelicidin (LL37) on SARS-CoV2 entry, trained in FACS, BSLII practices, generated pseudo viruses (Published article: [Bhatt et al., 2023](#))

### **Maintenance of stem/progenitor state of skin epithelial cells and carcinomas through the autocrine effect of extracellular matrix protein**

Worked with primary epidermal cells to understand stemness and cancerous properties regulated by extracellular secreted factor mediated signaling cascades, developed skills in molecular techniques such as qPCR analysis, western blotting, etc. (Published article: [Badarinath et al., 2022](#))

**January 2018** – **ICAR-National Institute for Plant Biotechnology, New Delhi, India**  
**– AIEEA PG Scholar**  
**July 2019** Master's degree research project under supervision of Dr. Monika Dalal

**Identification of *cis*-regulatory regions regulating the expression of *PM19* gene in wheat**

Developed in-depth knowledge of literature searching; *in vitro* genome sequence analysis; basic molecular biology techniques like gene and promoter cloning, transient GUS expression analysis, plant tissue culture techniques, transformation, etc. (Published master's thesis: [Ajnabi J, 2019](#))

## Publications

1. Bhatt, Tanay, Binita Dam, Sneha Uday Khedkar, Sahil Lall, Subhashini Pandey, Sunny Kataria, **Johan Ajnabi** et al. "Niacinamide enhances cathelicidin mediated SARS-CoV-2 membrane disruption." *Frontiers in Immunology* 14 (2023).
2. Rana, Isha, Sunny Kataria, Tuan Lin Tan, Edries Yousaf Hajam, Deepak Kumar Kashyap, Dyuti Saha, **Johan Ajnabi** et al. "Mindin (SPON2) is essential for cutaneous fibrogenesis in a mouse model of systemic sclerosis." *Journal of Investigative Dermatology* 143, no. 5 (2023): 699-710.
3. Badarinath, Krithika, Binita Dam, Sunny Kataria, Ravindra K. Zirmire, Rakesh Dey, Gaurav Kansagara, **Johan Ajnabi** et al. "Snail maintains the stem/progenitor state of skin epithelial cells and carcinomas through the autocrine effect of extracellular matrix protein Mindin." *Cell Reports* 40, no. 12 (2022).

## Academic Background

Degree	Affiliation	Year	Percentage/ OGPA*
M.Sc. (Molecular Biology and Biotechnology)	ICAR-Indian Agricultural Research Institute, New Delhi, India	2019	8.51/10
B.Sc. (Agriculture) Honors	Bidhan Chandra Krishi Viswavidyalaya, West Bengal, India	2017	7.92/10
Higher Secondary (10+2)	West Bengal Council of Higher Secondary Education, West Bengal, India	2012	86.2%
Secondary (10 <sup>th</sup> )	West Bengal Board of Secondary Education, West Bengal, India	2010	88.6%

\*OGPA: Overall Grade Point Average

## Honors and Awards

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September, 2023	Paeonia Travel Award for attending and presenting my work at the MBI Conference 2023: Mechanobiology in Health and Disease, NUS, Singapore
January, 2020	Qualified National Eligibility Test in Agricultural Biotechnology for Lectureship by Agricultural Scientist Recruitment Board (ASRB), Department of Agricultural Research and Education, India
September, 2019	Junior Research Fellowship (JRF) in Life Sciences by Indian Council of Medical Research (ICMR)
August, 2019	Qualified National Eligibility Test for Lectureship and Junior Research Fellowship (JRF) in Life Sciences by Council for Scientific and Industrial Research (CSIR), India with All India Rank - 20
July, 2019	Qualified All India Common Entrance for JRF/SRF in Agricultural Biotechnology by Indian Council of Agricultural Research (ICAR), India with All India Rank – 3
May, 2019	Junior Research Fellowship (JRF) in Biotechnology by Biotech Consortium India Limited (BCIL), Department of Biotechnology (DBT), India
March, 2019	Graduate Aptitude Test in Engineering in Life Sciences (GATE-XL) fellowship by Department of Higher Education, Ministry of Human Resource Development, India with All India Rank – 8
July, 2017	AIEEA-PG Scholarship for master's research in Plant Biotechnology by Indian Council of Agricultural Research (ICAR), India with All India Rank – 1

## Presentations/Seminars/Conferences

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- Presented poster on “Epigenetic and mechanical regulation of the cutaneous wound healing” (MBI Conference 2023: Mechanobiology in Health and Disease, Singapore, September 26-29, 2023)
- Presented poster on “Understanding the role of DNMT3a in the cutaneous wound healing response using a mouse model” (10th International Conference of Laboratory Animal Scientists' Association (LASA), India, Hyderabad, June 3 and 4, 2022)
- Presented poster on “Identification and characterization of stress responsive *PM19* promoter from wheat” (National Agricultural Science Congress, Delhi, February 21, 2019)

## References

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### Dr. Dasaradhi Palakodeti

*Principal Investigator*

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