

Sundaram Acharya

Address:

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Gender: Male

Age: 29 years

Date of Birth: 20-10-1991

Nationality: Indian

Languages:

English, Bengali, Hindi.

Twitter:

@SundaramAchary1

VISION

To delve into studying mystery of nature with scientific knowledge and conviction and, technological innovation for human welfare by and large.

EDUCATION

COURSE	INSTITUTION	BOARD	YEAR	PERCENTAGE /CGPA
M.Sc. Zoology	Banaras Hindu University (BHU)	Faculty of Science	2014	8.24
B.Sc. Zoology	Chandernagore Government College	The University of Burdwan (BU)	2012	64%
Higher Secondary (10+2)	Chinsurah Deshbandhu Memorial High School	West Bengal Council of Higher Secondary Education (WBCHSE)	2009	74%
Secondary (10)	Chinsurah Deshbandhu Memorial High School	West Bengal Board of Secondary Education (WBBSE)	2007	86%

Current Position

PhD student (ICMR-SRF) at CSIR-Institute of Genomics and Integrative Biology (IGIB).

Major Academic Achievements

- Received **scholarship** for attending **Keystone Symposia's** eSymposia on Precision Engineering of the Genome, Epigenome and Transcriptome in 2021.
- Finalist in the TNQ-Cell Press **Inspiring Science Award (ISA) 2020** for the best published Life Sciences paper in India.
- Awarded **ICMR-SRF** fellowship in 2019.
- Selected for **CSIR-Shyama Prasad Mukherjee Fellowship (SPMF)** interview in 2016.
- Qualified **CSIR-UGC NET June'15** with **AIR 42** for **Lectureship (LS)**.
- Qualified **GATE 2015** with **AIR 114** in **Life Sciences (XL)**.
- Qualified **CSIR-UGC NET December'14** with **AIR 8** for **Junior Research Fellowship (JRF)**.
- Secured **2nd position** in **Human and Molecular Genetics** as M.Sc. specialization course.
- Secured **3rd position** in **M.Sc. Zoology** at BHU.
- Ranked **16th** (GEN) in Postgraduate Entrance Examination (**PET**), **BHU**.

Work Experience

CSIR- Institute of Genomics and Integrative Biology (IGIB), India:

- Tenure : November 2017 – Present
- Designation : PhD student, ICMR-SRF
- Topic : CRISPR/Cas9 genome editing
- Supervisor : Dr. Debojyoti Chakraborty, PhD

University of Tokyo, Japan:

- Tenure : September 2019 – November 2019
- Designation : Collaborative researcher
- Topic : Structure-guided protein engineering
- Supervisor : Prof. Osamu Nureki

CSIR-Indian Institute of Chemical Biology (IICB), India:

- Tenure : 1st July 2015 – 31st April 2017
- Designation : PhD student, JRF
- Topic : Mechanistic understanding of eukaryotic transcription regulation
- Supervisor : Dr. Debabrata Biswas, PhD

Invited Talks

1. 'The CRISPR Wonderland: From an Immune System to Genome Editor and Beyond' at IISER Berhampur, India, 15th August 2021.
2. 'A Game change in Genome engineering by CRISPR/Cas9' at Amity University, Noida, India, 6th September 2019

Publications

Article:

1. **Acharya, Sundaram**, Asgar Hussain Ansari, Seichi Hirano, et al. 2021. "Kinetically enhanced, PAM-flexible FnCas9 variants for robust genome editing and diagnostics with single mismatch specificity" **(manuscript in preparation)**
2. Kumar, Manoj, Sneha Gulati, Asgar H. Ansari, Rhythm Phutela, **Sundaram Acharya**, Mohd Azhar, Jayaram Murthy, et al. 2021. "FnCas9-Based CRISPR Diagnostic for Rapid and Accurate Detection of Major SARS-CoV-2 Variants on a Paper Strip." **eLife** 10 (June). <https://doi.org/10.7554/eLife.67130>
3. Azhar, Mohd, Rhythm Phutela, Manoj Kumar, Asgar Hussain Ansari, Riya Rauthan, Sneha Gulati, Namrata Sharma...**Sundaram Acharya**, et al. 2021. "Rapid and Accurate Nucleobase Detection Using FnCas9 and Its Application in COVID-19 Diagnosis." **Biosensors & Bioelectronics** 183 (July): 113207
4. Naushin, Salwa, Viren Sardana, Rajat Ujjainiya, Nitin Bhatheja, Rintu Kutum, Akash Kumar Bhaskar, Shalini Pradhan...**Sundaram Acharya**, et al. 2021. "Insights from a Pan India Sero-Epidemiological Survey (Phenome-India Cohort) for SARS-CoV2." **eLife** 10 (April).
5. **Acharya, Sundaram**, Arpit Mishra, Deepanjan Paul, Asgar Hussain Ansari, Mohd Azhar, Manoj Kumar, Riya Rauthan, et al. 2019. "Cas9 Interrogates Genomic DNA with Very High Specificity and Can Be Used for Mammalian Genome Editing." **Proceedings of the National Academy of Sciences of the United States of America** 116 (42): 20959–68
6. Ray, Mukulika, **Sundaram Acharya**, Sakshi Shambhavi, and Subhash C. Lakhotia. 2019. "Over-Expression of Hsp83 in Grossly Depleted lncRNA Background Causes Synthetic Lethality and Phenocopy in." **Journal of Biosciences** 44 (2).

Review and Book Chapter:

1. Bansal, Mayank, **Sundaram Acharya**, Saumya Sharma, Rhythm Phutela, Riya Rauthan, Souvik Maiti, and Debojyoti Chakraborty. 2021. "CRISPR Cas9 Based Genome Editing in Inherited Retinal Dystrophies." **Ophthalmic Genetics** 42 (4): 365–74.
2. **Acharya, Sundaram**, Souvik Maiti, and Debojyoti Chakraborty. 2020. "CRISPR-Cas9 for Therapy: The Challenges and Ways to Overcome Them." **Genome Engineering via CRISPR-Cas9 System**.

Patent

'KINETICALLY ENHANCED FncAS9 AND ITS USES THEREOF' Provisional patent application 0023NF2021 jointly by CSIR-IGIB and University of Tokyo

Interest

1. Science outreach and communication: Co-founder of 'Biologically Speaking', a non-profit science outreach platform

Twitter: [@Biospeakweb](https://twitter.com/Biospeakweb)

Website: <https://biologicallyspeaking.com/>

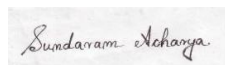
2. Popular science writing

Declaration

I hereby declare that the above details furnished by me are true to the best of my knowledge and belief.

Place: New Delhi

Date: 28th September 2021



Sundaram Acharya

