

# Dr. Debojyoti Chakraborty

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## **Current position** CSIR- Institute of Genomics and Integrative Biology (New Delhi)

Senior Scientist [October 2016- ]

### **Faculty of Biological Sciences, Academy of Scientific and Innovative Research**

Assistant Professor [February 2017- ]

## **Academic Affiliations** CSIR- Institute of Genomics and Integrative Biology (New Delhi)

Scientist Fellow [January 2016- October 2016 ]

### **Biotechnology-Zentrum, Medical Faculty, Technical University Dresden**

Post Doctoral Researcher [December 2013 – November 2015]

### **Max Planck Institute of Molecular Cell Biology and Genetics & Technical University, Dresden, Germany**

PhD in Molecular Biology, 2014 [Magna Cum Laude]

### **West Bengal University of Technology, Kolkata, India**

Master of Science in Molecular Biology, 2009 [DGPA 8.92, First position]

### **University of Kalyani, Kalyani, India**

Bachelor of Science, 2007 [83%, First position]

## **Awards** EMBO Young Investigator, European Molecular Biology Organization [2020]

Young Scientist Award, Indian National Science Academy (INSA) [2020]

Young Scientist Award, Council for Scientific and Industrial Research [2020]

Young Scientist Award, Merck [2019]

Young Investigator Award, Lady TATA Trust [2019]

Wellcome Trust India Alliance Early Career Fellowship (not activated) [2016]

INSPIRE Faculty Award, Department of Biotechnology, India (not activated) [2015]

German Stem Cell Network Travel Award, Frankfurt, Germany [2015]

German Stem Cell Network Conference Poster Prize, Heidelberg, Germany [2014]

Nucleic Acids Research Poster Prize, Heidelberg, Germany [2014]

Dresden International Graduate School Travel Award, Dresden, Germany [2012]

Future of Science Foundation Scholarship, Keystone Symposia, Utah, USA (2012)

National Eligibility Test, Council for Scientific and Industrial Research, India [2009]

University merit scholarship, West Bengal University of Technology, Kolkata, India [2008]

Lindau Meeting of Nobel Laureates Award, DST (India) and DFG (Germany) [2007]

## Selected Publications

Rapid, field-deployable nucleobase detection and identification using FnCas9

Mohd. Azhar, Rhythm Phutela, Asgar Hussain Ansari, Dipanjali Sinha, Namrata Sharma, Manoj Kumar, Meghali Aich, Saumya Sharma, Khushboo Singhal, Harsha Lad, Pradeep K. Patra, Govind Makharia, Giriraj Ratan Chandak, **Debojyoti Chakraborty**<sup>#</sup>, Souvik Maiti. *bioRxiv* 2020.04.07.028167

TUTase mediated site-directed access to clickable chromatin employing CRISPR-dCas9

Jerrin Thomas George, Mohd. Azhar, Meghali Aich, Dipanjali Sinha, Uddhav B. Ambi, Souvik Maiti<sup>#</sup>, **Debojyoti Chakraborty**<sup>#</sup>, Seergazhi Srivatsan<sup>#</sup>. **JACS** (2020)

Francisella novicida Cas9 interrogates genomic DNA with very high specificity and can be used for mammalian genome editing

Sundaram Acharya, Arpit Mishra, Deepanjan Paul.. **Debojyoti Chakraborty**. **PNAS** (2019)

Restoration of miRNA-149 expression by TmPyP4 induced unfolding of quadruplex within its precursor

Arpita Ghosh, Mary Krishna Ekka,.. **Debojyoti Chakraborty**, Souvik Maiti. **Biochemistry** (2019)

RNA G-quadruplex mediated structural enhancement of CRISPR-Cas9 based genome editing

Smita Nahar, Paras Sehgal.. **Debojyoti Chakraborty**<sup>#</sup> and **Souvik Maiti**<sup>#</sup>. **Chemical Communications** (2018)

LncRNA *Panc1* maintains mouse embryonic stem cell identity by recruiting TOBF1 to Oct-Sox sequences in early G1

**Debojyoti Chakraborty**, Maciej Paszkowski-Rogacz, Nicolas Berger, Li Ding, Jovan Mircetic *et al.* **Cell Reports** (2017)

CRISPR-Cas9: a new tool for gene therapy

Saumya Sharma, Souvik Maiti, **Debojyoti Chakraborty**. **eLS** (2017)

CRISPR/Cas9: a historical and chemical biology perspective of targeted genome engineering

Amrita Singh, **Debojyoti Chakraborty**<sup>#</sup>, and **Souvik Maiti**<sup>#</sup>. **Chem. Soc. Rev.** (2016)

Inactivation of cancer mutations utilizing CRISPR/Cas9

Christina Gebler, Tim Lohoff, Maciej Paszkowski-Rogacz, Jovan Mircetic, **Debojyoti Chakraborty** *et al.* *Journal of the National Cancer Institute* (2016)

Directed evolution of Brec1: A broad-range recombinase that inactivates HIV-1 in patient-specific humanized mice

Janet Karpinski, Ilona Hauber, Jan Chemnitz, Carola Schäfer, Maciej Paszkowski-Rogacz, **Debojyoti Chakraborty** *et al.* **Nature Biotechnology** (2016)

Targeting Human Long-Noncoding Transcripts by Endoribonuclease-prepared siRNAs

Mirko Theis, Maciej Paszkowski-Rogacz, Ina Weisswange, **Debojyoti Chakraborty**, Frank Buchholz. **Journal of Biomolecular Screening** (2015)

Systems Analyses Reveal Shared and Diverse Attributes of Oct4 Regulation in Pluripotent Cells

Li Ding, Maciej Paszkowski-Rogacz, Maria Winzi, **Debojyoti Chakraborty**, Mirko Theis *et al.* **Cell Systems** (2015)

Universal Tre (uTre) recombinase specifically targets the majority of HIV-1 isolates

Janet Karpinski, Jan Chemnitz, Ilona Hauber Josephine Abi-Ghanem, Maciej Paszkowski-Rogacz, Vineeth Surendranath, **Debojyoti Chakraborty** *et al.* **Journal of the International AIDS Society** (2014)

Combined RNAi and localization for functionally dissecting long noncoding RNAs

**Debojyoti Chakraborty**, Dennis Kappei, Mirko Theis, Anja Nitzsche, Li Ding, Maciej Paszkowski-Rogacz *et al.*  
**Nature Methods** (2012)

#co- corresponding authors

## Personal Details

Date of birth : 28<sup>th</sup> August 1985

Nationality : Indian

