

Curriculum Vitae

Mr. Rahul Kumar

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Montreal Neurological Institute-Room BT 205
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Profile:

Research Specialization: Cell and Molecular biology, Protein biochemistry

Research Disciplines: Biochemistry, Cell Biology, Neurosciences

Areas of Research: Biological and Biochemical Mechanisms, Cell Signaling

Fields of Application: Biomedical Aspects of Human Health, Pathogenesis and Treatment of Diseases

Degrees:

2017/9 - Doctorate, PhD, Neuroscience, Montreal Neurological Institute
Degree Status: **In Progress (3rd year)**
Supervisors: Dr. Peter McPherson

2012/8 - 2017/5 Master's Thesis, Bachelor and Masters (BS-MS) dual degree programme, Department: Biological Sciences (Neurosciences), Indian Institute of Science Education and Research Kolkata
Degree Status: Completed
Supervisors: Dr. Jayasri Das Sarma

2012/8 - 2017/5 Bachelor's, Bachelor and Masters (BS-MS) dual degree programme, Department: Biological Sciences, Indian Institute of Science Education and Research Kolkata
Degree Status: Completed

Recognitions:

2019 Kenelm M. Winslow Student Travel Award- 1,500 CAD

2019/9 – 2022/8 ALS Canada Trainee Award- 75,000 CAD

2019 Graduate Research Enhancement and Travel (GREAT) Award- 500 CAD

2018/7 - 2019/6 Canada First Research Excellence Fund (CFREF): 'Healthy Brains for Healthy Lives'; Graduate Student Fellowship - 15,000 CAD
McGill University (AWARD)

2017/9 - 2018/8	Neuroscience recruitment award (IPN) - 4,000 CAD, McGill University Health Centre (AWARD)
2017/5	Director's Gold Medal for securing the first rank in the Department of Biological Sciences, Batch 2012-2017, BS-MS Program, Indian Institute of Science Education and Research Kolkata (DISTINCTION)
2016/5 - 2016/7	Khorana Program for Scholars Fellowship - 4,000 USD Indo-US Science and Technology Forum, Department of Biotechnology (DBT), Govt. of India (AWARD)
2015/5 - 2015/7	Summer Research Program Fellowship - 12,000 (Indian rupee) Saha Institute of Nuclear Physics, India (AWARD)
2012/8 - 2017/5	Innovation in Science Pursuit and Inspired Research Fellowship Grant (INSPIRE) - 300,000 (Indian rupee); Department of Science and Technology (DST), Government of India (AWARD)

Research experiences / Positions:

2016/8 - 2017/5	<i>Master Thesis Student (Supervisor: Dr. Jayasri Das Sarma)</i> Cell Biology (in-vitro and in-vivo), Biochemistry, Neurodegenerative diseases Project topic: Differential expression of DJ-1 in demyelinating strain versus non-demyelinating strain of Mouse Hepatitis Virus (MHV) infection Department of Biological Sciences, Mohanpur Campus, Indian Institute of Science Education and Research Kolkata
2016/5 - 2016/7	<i>Visiting Scholar (Supervisor: Dr. Jeannie Chen)</i> Cell Biology (in-vivo; Imaging), Neurodegenerative diseases Project topic: Rhodopsin Biosynthesis and Disc Formation in Rod Photoreceptor cell Zilkha Neurogenetic Institute (ZNI), Health Science Campus, University of Southern California
2015/5 - 2015/7	<i>Summer Research Student (Supervisor: Dr. Oishee Chakrabarti)</i> Cell Biology, Biochemistry, Neurodegenerative diseases Project topic: Genetic Manipulations of MGRN1 and its Interactors Biophysics and Structural Genomics Division, Saha Institute of Nuclear Physics
2014/5 - 2014/7	<i>Summer Student (Supervisor: Dr. Krushnamegh Kunte)</i> Project topic: No assigned project; Gained experience in molecular biology techniques.

National Centre for Biological Sciences, Tata Institute of Fundamental Research

2013/12

Project Student (Supervisor: Dr. Malancha Ta)

Project topic: No assigned project; Gained experience in culturing mesenchymal stem cells from human umbilical cord and characterization.

Department of Biological Sciences, Mohanpur Campus, Indian Institute of Science Education and Research Kolkata

Publications:

1. Carl Laflamme, Paul M McKeever, **Rahul Kumar**, Julie Schwartz, Mahshad Kolahehdouzan, Carol X Chen, Zhipeng You, Faiza Benaliouad, Opher Gileadi, Heidi M McBride, Thomas M Durcan, Aled M Edwards, Luke M Healy, Janice Robertson, Peter S McPherson. (2019) Implementation of an antibody characterization procedure and application to the major ALS/FTD disease gene C9ORF72. *eLife*. 8:e48363 <https://elifesciences.org/articles/48363>

Conference publication:

1. Rose K, **Kumar R**, Chen J. (2017). Rho-Timer, a reporter of rhodopsin biosynthesis and incorporation in to the rod outer segment in transgenic mouse rods. *Investigative Ophthalmology & Visual Science*. Volume 58 (2017) ARVO Annual Meeting (341). <https://iovs.arvojournals.org/article.aspx?articleid=2637109>

Poster presentations:

- 2019 *A novel mitochondrial recruitment assay to identify GTPase substrates of the major amyotrophic lateral sclerosis gene C9ORF72.*
ALS Canada Research Forum, Toronto, Canada
- 2019 *A novel mitochondrial recruitment assay to identify GTPase substrates of the major amyotrophic lateral sclerosis gene C9ORF72.*
HBHL Research Day, McGill University
- 2016 *Delineating cellular defense mechanism against Viral Induced Demyelination and Axonal Loss.*
Frontiers in Biotechnology (National Seminar at St. Xavier's College), Kolkata, India.
- 2015 *AIR POLLUTION - THE PROBLEM FOR GENERATIONS: Effects of Ambient Air Particulate Matter.*
1st World Science Conference, Jerusalem, Israel.