Midhun K Madhu

Computational Biology Researcher

Lab 202, AB2, IISER Bhopal, Madhya Pradesh, India, 462066 (+91) 974 495 1075 midhunk16@iiserb.acin midhunkidangoor@gmail.com

EXPERIENCE

IISER, Bhopal — *Graduate Research*

December 2016 - PRESENT

On the topic "Allosteric Regulation in G protein-Coupled Receptors" under the mentorship of Dr. Rajesh K Murarka, Associate Professor, Computational biophysics and soft matter group, Indian Institute of Science Education and Research Bhopal, India.

IISER, Bhopal — *MS Thesis*

July 2015 - March 2016

Under the guidance of Dr. Vineet K Sharma, Associate Professor, Metabiosys Lab, Indian Institute of Science Education and Research Bhopal, India.

IIRBS, Kerala — Summer Project

May 2012 - June 2012

Under the guidance of Dr. I Ibnusaud, Director, Institute for Integrated programmes and Research in Basic Sciences (IIRBS), MG University, Kerala

EDUCATION

IISER, Bhopal — *Five year BS-MS Dual Degree*

August 2011 - May 2016

Major Subject: Biology

Minor Subject: Mathematics Percentage Mark: 86.10

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Holy Cross HSS, Cherpunkal — Kerala

June 2009- March 2011

Major Subject: Science and Computer Science

Percentage Mark: 95

SKILLS

Programming:

Python (intermediate)
Perl, R, Matlab (basics)

Computer Software:

Microsoft Office, Amber, Pymol, Visual Molecular Dynamics

Techniques:

Machine learning, Molecular Dynamics Simulation, Graph and information theoretical analysis techniques

AWARDS

Qualified for UGC-CSIR NET Junior Research Fellowship

3 rd Prize In National Level Essay Writing Competition, on the topic 'Healthcare' held by IMPRINT INDIA, MHRD

LANGUAGES

English (fluent), Malayalam (native), Hindi (basic)

RESEARCH PUBLICATIONS

- 1. Gupta, Ankit, Ahmad Ahmad, Dipesh Chothwe, <u>Midhun K. Madhu</u>, Shireesh Srivastava, and Vineet K. Sharma. "Genome-scale metabolic reconstruction and metabolic versatility of an obligate methanotroph. Methylococcus capsulatus str. Bath." PeerJ 7 (2019): e6685.
- 2. Gupta, Sudheer, <u>Midhun K. Madhu</u>, Ashok K. Sharma, and Vineet K. Sharma. "ProInflam: a webserver for the prediction of proinflammatory antigenicity of peptides and proteins." Journal of translational medicine 14, no. 1 (2016): 178.
- 3. Gupta, Sudheer, Ashok K. Sharma, Vibhuti Shastri, <u>Midhun K. Madhu</u>, and Vineet K. Sharma. "Prediction of anti-inflammatory proteins/peptides: an *in silico* approach." Journal of translational medicine 15, no. 1 (2017): 7.
- 4. Gupta, Sudheer, Parul Mittal, <u>Midhun K. Madhu</u>, and Vineet K. Sharma. "IL17eScan: a tool for the identification of peptides inducing IL-17 response." Frontiers in immunology 8 (2017): 1430.

CONFERENCES

REFEREES

Dr. Rajesh K. Murarka Associate Professor Department of Chemistry

E-Mail:rkm@iiserb.ac.in

Dr. Vineet K Sharma Associate Professor Department of Biology

E-Mail: vineetks@iiserb.ac.in