Dr. Ravi Datta Sharma

Curriculum Vitae Date of Birth: 13-08-1985

CONTACT INFORMATION

Associate Professor,
School of Biotechnology,
Shri Mata Vaishno Devi University,
Katra, Pin-182320
Jammu and Kashmir, India

E-Mail *ravidattasharma@gmail.com*
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Voice *+91 7895331711*

LINK TO ORCID:0000-0002-1723-3113, GoogleScholar, Scopus, Lab Website,

CITIZENSHIP Indian

RESEARCH INTERESTS Development of software & Analysis of Genomics & transcriptomics data, Data Science (Deep learning), Functional Genomics and system biology, Structural analysis of proteins

EDUCATION

Tecnun University of Navarra, Spain **August 2010-October 2013**
Ph.D in **Applied Engineering** (Bioinformatics, Computational Biology & Genomics)
"***Statistical analysis in finding of Alternative Splicing using splicing arrays***"

IASE University, Sardarsahar, Rajasthan, India (In campus)
M.Sc in Bioinformatics **July 2004-June 2006**

Choudhry Charan Singh University, Meerut, India
B.Sc in Chemistry, Botany and Zoology **July 2001-June 2004**

EMPLOYMENT/ RESEARCH/ TEACHING EXPERIENCE

Shri Mata Vaishno Devi University, Katra, Jammu and Kashmir
Associate Professor January 29, 2025
Focused to Research and Teaching

Amity University Haryana, Gurugram, India
Associate Professor June 28, 2022-January 28, 2025
Assistant Professor-II February 15, 2016-June 27, 2022
Focused to Research and Teaching

Centre of Microbial and Plant Genetics, KU-Leuven, Belgium
Post-doctoral Research Fellow **Nov. 1, 2013-September 30, 2015**
Focused to Research: Systems Biology of *Mycobacterium tuberculosis* (within the European project SysteMTb http://www.systemtb.eu) and study of alternative splicing in plant stress response.

Tecnun University of Navarra, Spain
Doctoral fellowship, **August 26, 2010-October 31, 2013**
Focused to Research

CCBB, SIT, Jawaharlal Nehru University, New Delhi, India
Project Assistant, **4 Months**
Focused to Research: Project Open Source Drug Discovery (OSDD), CSIR, India,
Supervisor: Prof. Andrew M. Lynn

Department of Microbiology, C.C.S. University, Meerut, India
Lecturer Bioinformatics, **November 6, 2006-May 31, 2010**
Focused to Research and Teaching

Department of Genetics & Plant breeding, C.C.S. University, Meerut, India
Guest Faculty Bioinformatics, **January 2010-June 2010**
Focused to Teaching: Delivered lecture and conducted practical session in Bioinformatics and Computers to M.Sc Agriculture Botany

CCBB, SIT, Jawaharlal Nehru University, New Delhi, India
Focused to Structural and functional analysis of proteins **November 2006-June 2010**

Co-ordinator Data Science program **From 22-02-2022 To 28-01-2025**

ADMINISTRATIVE EXPERINCE	Head Amity Institute of Integrative Science and Health,	**From 17-04-2023 To 28-01-2025**
ASSOCIATION & MEMBERSHIP	Association of Microbiologist of India (AMI),Life member	**From 2008**
	Member of Board of studies, Bioinformatics,CCSU, Meerut	**From 2020-22**
	Member of Board of studies, Maharaja Suhel Dev University,Ajamgarh	**From 2023**
EXAMINER RESPONSIBILITY	Examiner (Question paper setting),IP University, New Delhi	
	Examiner (Question paper setting),CUH, Dharamshala	
	Examiner (Question paper setting, External Practical Examiner),CCS University, Meerut	
COURSE DEVELOPED	M.Sc Integrative Science, Maharaja Suhel Dev State University, Azamgarh, 2023	
	M.Sc Computer Science, Maharaja Suhel Dev State University, Azamgarh, 2023	
REVEIWER	Human Genomics, Journal of Biosciences, Journal of Biomolecular Structure & Dynamics, Computers in Biology and Medicine, Heliyon, Arabian Journal of Chemistry, Journal of Applied Biology and Biotechnology, Biocell, Plos One	
FELLOWSHIP/ AWARD	**International travel support (ITS)** awarded on 06 Oct 2023 by DST -SERB for Financial Assistance to Dr. Ravi Datta Sharma for oral presentation in "The 22nd International Conference on Bioinformatics (InCoB 2023), Australia"	**12th November 2023 to 15th November 2023**
	Senior research Fellow (SRF) awarded to Ms Harsh Sharma (PI- Dr. Ravi Datta Sharma) for project title "Finding biomarkers for precision medicine using differential alternative splicing and deep learning as a tool, **ICMR** (BMI/11(106)/2022)	**20th May 2022 to 19th May 2023**
	Best Poster awarded to Ms Harsh Sharma (PI- Dr. Ravi Datta Sharma) at SGRF conference, 2019 title "Development of novel method to predict survival rate of cancer patient using Alternative splicing", Mumbai, India	**30 Sept. to 2nd October, 2019**
	Doctoral fellowship awarded by University of Navarra, Spain	**2010-2013**
	Post-doctoral fellowship (F+)awarded by KU-Leuven,Belgium	**2014-2015**
THESIS GUIDED	9.**PhD Thesis**: Statistical analysis of expression data generated through RNA-Sequencing, by Ms Harsh Sharma to Amity University Haryana, Gurugram submitted on 03-08-2022 **Awarded 03-02-2023,Supervisor -Dr.Ravi Datta Sharma, Co -Supervisor Dr. Jyotsana Batra,** Shodhganga Link	
	8.**PhD Thesis**: Functional relationship between genetic variations and alternative splicing in Yeast, by Ms Kusum Yadav to Amity University Haryana, Gurugram Awarded on 27-07-2023, **Supervisor -Prof Rajendra Prasad, Co -Supervisor Dr.Ravi Datta Sharma,**	
	7.**PhD Thesis**: Small Peptides Prediction Using Machine Learning Methods, by Ms Ankita Tripathi to Amity University Haryana, Gurugram Awarded on 19-07-2023, **Supervisor -Dr.Ravi Datta Sharma, Co -Supervisor Dr. Tapus Goswami**	
	6.**PhD Thesis**: Insights into Mycobacterium tuberculosis dormancy adaptation in axenic culture and intracellular milieu from transcriptome analysis, by Ms Malobi Nandi to Amity University Haryana, Gurugram submitted on January, 2020, **Awarded 14-08-2020,Supervisor -Dr.Ravi Datta Sharma, Co -Supervisor Prof. Jaya Tyagi,** Shodhganga Link	
	5.**PhD Thesis**: Identification of molecular targets for the treatment of prostate cancer, by **Ms. Julie Pratibha Singh** to Amity University Haryana, Gurugram, Awarded 15-03-2021, Supervisor- Dr. Gargi Bagchi, Co-Supervisor- Prof. Rakesh Tyagi, Professor, **Co-Supervisor- Dr. Ravi Datta Sharma,** Shodhganga Link	
	4.**M.Sc Biotechnology thesis:** "Molecular docking of a non-nucleoside analogue into the binding pocket of reverse transcriptase enzyme" by Raghukul Chaudhary, Amity University Haryana, 2020	
	3.**B.Tech+M.Tech (Dual)Biotech thesis**: "Statistical analysis of RNA-Seq data and development of a novel method to predict survival rate of cancer patients,Amity University Haryana, by Harsh Sharma, 2019	
	2.**M.S Bioinformatics thesis:** "Next Generation Sequencing as a tool to study the role of differential expression and alternative splicing in *Arabidopsis thaliana*", Bert Bogaerts,KU Leuven, Belgium 2015	
	1.**M.Phil Thesis:** "High temperature unfolding of small chlorotoxin",CCS University Meerut, Nitin Verma, 2009	
RESEARCH PROJECT		

On-going 1.***Principal investigator in*** "Identification of early diagnostic biomarkers for GBM using differential Alternative Splicing and deep learning", **ICMR**, Sanctioned (Amount Rs.18,25,232/-, Date: 23-01-2023)

Completed 1.***Principal investigator in*** "A Computational Software to find biomarkers using alternative splicing as a tool", **DBT-[BT/PR27108/BID/7/820/2017]**, (Sanctioned Amount Rs.1996063/-,Date:19-09-2018 to 18-09-2021)

2.***Co-Principal investigator in*** "Alternate splicing in clinical drug resistance in pathogenic Candida", **DST-SERB [EMR/2017/001907]**, (Sanctioned Amount Rs. 2470000/-,Date:22-10-2018)

3.***Co-Principal investigator in*** "National level training Programme: In-house two weeks training/FDP programme for faculty/UG/PG/Doctoral students on Blockchain technology" under ICPS Division of DST,(Sanctioned Amount Rs.9,00,000/-,Date:30-03-2019)

Principal investigator in "Stress Induced alternative splicing in *A.thaliana*" (Funded by F+ fellowship no.F+/14/050, KU-LEUVEN, Belgium), [2014-2015]

RESEARCH PUBLICATIONS

32 Engineered nanomicelles inhibit the tumour progression via abrogating the prostaglandin-mediated immunosuppression, Poonam Yadav, Kajal Rana, Viviani Nardini, Ali Khan, Trishna Pani, Animesh Kar, Dolly Jain, Ruchira Chakraborty, Ragini Singh, Somesh K. Jha, Devashish Mehta, Harsh Sharma, **Ravi Datta Sharma**, S.V.S. Deo, Sagar Sengupta, Veena S. Patil, Lúcia Helena Faccioli, Ujjaini Dasgupta, Avinash Bajaj, **Journal of Controlled Release** 368 (2024) 548-565 DOI: https://doi.org/10.1016/j.jconrel.2024.03.009

31 A Localized Hydrogel-mediated Chemotherapy Causes Immunogenic Cell Death via Activation of Ceramide-mediated Unfolded Protein Response, Animesh Kar, Dolly Jain, Sandeep Kumar, Kajal Rajput, Sanjay Pal,Kajal Rana,Raunak Kar,Somesh K. Jha, Nihal Medatwal, Prabhu Srinivas Yavvari, Nishant Pandey, Devashish Mehta, Harsh Sharma, Debanjan Bhattacharya, Manas K. Pradhan, Ravi Datta Sharma,Aasheesh Srivastava, Usha Agarwal, Arnab Mukhopadhyay, Sagar Sengupta,Veena S. Patil,Avinash Bajaj and Ujjaini Dasgupta, **Sci. Adv.9,eadf2746(2023).DOI:10.1126/sciadv.adf2746**

30 Prediction of transcript structure and concentration using RNA-Seq data, Harsh Sharma, Trishna Pani, Ujjaini Dasgupta, Jyotsna Batra, **Ravi Datta Sharma**, **Briefings in Bioinformatics**, 2023, 1-9, DOI: https://doi.org/10.1093/bib/bbad022 IF-13.99

29 Directed Evolution Detects Supernumerary Centric Chromosomes Conferring Resistance to Azoles in Candida auris, Aswathy Narayanan,Praveen Kumar,Anshu Chauhan,Mohit Kumar,Kusum Yadav,Atanu Banerjee,**Ravi Datta Sharma**,Shivaprakash M. Rudramurthy,Arunaloke Chakrabarti,Kaustuv Sanyal, Rajendra Prasad, **mBio**. 2022 Nov 29;13(6):e0305222

28 Progesterone limits the tumor-promoting effects of the beta-subunit of human chorionic gonadotropin via non-nuclear receptors, Moumita Sarkar, Harsh Sharma, Parminder Singh, Ranbala Ranu, **Ravi Datta Sharma**, Usha Agrawal, Rahul Pal, **iScience**, 25 (7),104527,2022 IF-5.7

27 Identification of Candidate mRNA Isoforms for Prostate Cancer-Risk SNPs Utilizing Iso-eQTL and sQTL Methods, Afshin Moradi, Harsh Sharma, Ravi Datta Sharma, Achala Fernando, Roberto A. Barrero and Jyotsna Batra, Int. J. Mol.Sci.2022,23,12406.IF-6.2

26 Computational insights of the unfolding of N-Terminal domain of TDP-43 reveal the conformational heterogeneity in the unfolding pathway, Ruhar Singh, Tara Kashav, **Ravi Datta Sharma**, Andrew M. Lynn, Rajendra Prasad, Amresh Prakash, Vijay Kumar, **Front. Mol. Neurosci. 15:822863,** IF-5.13, doi: 10.3389/fnmol.2022.822863

25 Alternative Splicing of Ceramide Synthase 2 Alters Levels of Specific Ceramides and Modulates Cancer Cell Proliferation and Migration in Luminal B Breast Cancer Subtype, Trishna Pani, Kajal Rajput, Animesh Kar, Harsh Sharma, Rituparna Basak, Nihal Medatwal, Sandhini Saha, Gagan Dev, Sharwan Kumar, Siddhi Gupta, Arnab Mukhopadhyay, Dipankar Malakar, Tushar Maiti, Aneeshkumar G. Arimbasseri, SVS Deo, **Ravi Sharma**, Avinash Bajaj, and Ujjaini Dasgupta, **Cell Death & Disease,12, Article number: 171 (2021),** IF-8.4

24 Intron distribution and emerging role of alternative splicing in fungi Suraya Muzafar, **Ravi Datta Sharma**, Neeraj Chauhan, Rajendra Prasad,**FEMS Microbiology Letters**, Volume 368, Issue 19, October 2021, fnab135, https://doi.org/10.1093/femsle/fnab135

23 Microscopic and transcriptomic analyses of Dalbergoid legume peanut reveal a divergent evolution leading to Nod Factor dependent epidermal crack-entry and terminal bacteroid differentiation, Bikash Raul, Oindrila Bhattacharjee, Amit Ghosh, Priya Upadhyay, Kunal Tembhare, Ajeet Singh, Tarannum Shaheen, Asim Kumar Ghosh, Ivone Torres-Jerez, Nick Krom Josh Clevenger, Michael Udvardi, Brian E Scheffler, Peggy

Ozias Akins, **Ravi Dutta Sharma**, Kaustav Bandyopadhyay, Vineet Gaur, Shailesh Kumar, Senjuti Sinharoy, Mol Plant **Microbe Interact.,2021** Oct 23. doi: 10.1094/MPMI-05-21-0122-R

22 Identification of Nafamostat and VR23 as COVID-19 drug candidates by targeting 3CLpro and PLpro,Deep Bhowmik, **Ravi D.Sharma**, Amresh Prakash, Diwakar Kumara, **Journal of Molecular Structure,** 1233(2021),130094, IF-2.0

21 A Novel Multi Class Random Forest (MCRF) Model for Detecting Small Peptides, Ankita Tripathi, Tapas Goswami,Shrawan Kumar Trivedi, **Ravi Datta Sharma**, **International Journal of Information Management Data Insights**, 1(2), November 2021, 100029

20 Identifying the natural polyphenol Catechin as a multitargated agent against SARS-cvV2 For the plausible therapy of COVID19: An Integrated computational approach, Chandra Bhushan Mishra, Preeti Pandey, Ravi Datta Sharma, Md. Zubbair Malik, Raj Kumar, Mongre, Andrew. M. Lynn, Rajendra Prasad, Raok Jeon and Amresh Prakash, **Briefings in Bioinformatics**, (2020)Dec 31;bbaa378. doi: 10.1093/bib/bbaa378,Impact factor-11.6

19 Identification of Best Features of Small Peptides Using Various Feature Selection, Ankita Tripathi, Tapas Goswami, Shrawan Kumar Trivedi and Ravi Datta Sharma, International Journal of Advanced Research in Engineering and Technology,11(12), 2020, pp. 384-394

18 Bile Acid-tethered Docetaxel-based Nanomicelle Mitigates Tumor progression via Epigenetic Changes, Vedagopuram Sreekanth, Animesh Kar, Sandeep Kumar, Sanjay Pal, Poonam Yadav, Yamini Sharma, Varsha Komalla, Harsh Sharma, Radhey Shyam, Ravi D Sharma, Arnab Mukhopadhyay, Sagar Sengupta, Ujjaini Dasgupta, Avinash Bajaj, **Angewandte Chemie**,2020 Nov 30, Impact factor-15.3, DOI:10.1002/anie.202015173

17 Activation of GPR56, a novel adhesion GPCR, is necessary for nuclear androgen receptor signaling in prostate cells, Julie Pratibha Singh, Manisha Dagar, Gunjan Dagar,Sudhir Rawal,**Ravi Datta Sharma**, Rakesh Kumar Tyagi,Sudhir Kumar,Gargi Bagchi, **Plos One**, 2020,15(9): e0226056 (IF-2.7)

16 Identification of Genome-Wide Alternative Splicing Events in Sequential, Isogenic Clinical Isolates of Candida albicans Reveals a Novel Mechanism of Drug Resistance and Tolerance to Cellular Stresses″ by Suraya Muzafar, **Ravi Sharma**, Abdul Shah, Naseem Gaur, Ujjaini Dasgupta, Neeraj Chauhan, and Rajendra Prasad, **MSphere**, July 2020,5:e00608-20 (IF-4.2)

15 VapBC22 toxin-antitoxin system from Mycobacterium tuberculosis is required for pathogenesis and modulation of host immune response, Sakshi Agarwal, Arun Sharma, Rania Bouzeyen, Amar Deep, **Harsh Sharma**, Kiran K Mangalaparthi, Keshava K Datta, Saqib Kidwai, Harsha Gowda, Raghavan Varadarajan, **Ravi Datta Sharma**, Krishan Gopal Thakur and Ramandeep Singh, **Science Advances,**03 Jun 2020:6(23),eaba6944 DOI: 10.1126/sciadv.aba6944,Impact factor-14.1

14 A Localized Chimeric Hydrogel Therapy Combats Tumor Progression through Alteration of Sphingolipid Metabolism, Sanjay Pal, Nihal Medatwal, Sandeep Kumar, Animesh Kar,Varsha Komalla,Prabhu Srinivas Yavvari, Deepakkumar Mishra, Zaigham Abbas Rizvi,Shiv Nandan,Dipankar Malakar,Manoj Pillai,Amit Awasthi, Prasenjit Das,**Ravi Datta Sharma**,Aasheesh Srivastava,Sagar Sengupta, Ujjaini Dasgupta, and Avinash Bajaj, **ACS Central Sciences,2019**, 5 (10), 1648-1662, DOI:10.1021/acscentsci.9b00551,If-14.5

13 Delineating the conformational dynamics of intermediate structures on the unfolding pathway of β-lactoglobulin in aqueous urea and dimethyl sulfoxide, Ruhar Singh, Naveen Kumar Meena, Trishala Das, **Ravi Datta Sharma**, Amresh Prakash Icon & Andrew M. Lynn, **Journal of Biomolecular Structure and Dynamics**,2020,Oct;38(17):5027-5036.DOI:10.1080/07391102.2019.1695669, IF-3.3

12 Multiple transcription factors co-regulate the Mycobacterium tuberculosis adaptation, response to Vitamin C, **Malobi Nandi**, Kriti Sikri, Neha Chaudhary, Shekhar Chintamani Mande, **Ravi Datta Sharma** & Jaya Sivaswami Tyagi, **BMC Genomics** 20, Article number: 887(2019),Doi: 10.1186/s12864-019-6190-3 ,Impact factor-3.7

11 Aberrant splicing of BAF45d in gliomas: a link between splicing regulation and transcription, Guillermo Aldave, Marisol Gonzalez-Huarriz,Angel Rubio, Juan Pablo Romero, **Datta Ravi**, Belén Miñana, Mar Cuadrado-Tejedor, Ana García- Osta, Roeland Verhaak, Enric Xipell, Naiara Martinez-Vélez, Arlet Acanda de la Rocha, Montserrat Puigdelloses, Marc García-Moure, Miguel Marigil, Jaime Gállego Pérez-Larraya, Oskar Marín-Bejar, Maite Huarte, Maria Stella Carro, Roberto Ferrarese, Cristobal Belda-Iniesta, Angel Ayuso,Ricardo Prat-Acín,Fernando Pastor, Ricardo Díez- Valle, Sonia Tejada, and Marta M. Alonso, **Neuro-Oncology (2018),Volume 20, Issue 7, July 2018, Pages 930-941**, DOI:10.1093/neuonc/noy007, Impact factor-12.3

10 Identification of Plant Species using Supervised Machine Learning, Ankita Tripathi, Ravi Datta Sharma, Shrawan Kumar Trivedi, International Journal of Computer Applications 2018 (0975 - 8887), Volume 182 - No. 13, Impact factor-0.7

9 Differential alternative splicing coupled to nonsense-mediated decay of mRNA ensures dietary

restriction-induced longevity,Syed Tabrez, **Ravi Sharma**, Vaibhav Jain, Atif Siddiqui, and Arnab Mukhopadhyay, **Nature Communications 8, Article number: 306 (2017),** DOI:10.1038/s41467-017-00370-5, IF-15

8 Understanding the molecular basis of stability in Kunitz (STI) family of inhibitors in terms of a conserved core tryptophan residue: A theoretical investigation, **Ravi Datta Sharma**, Nabajyoti Goswami, Debasree Ghosh, Sudip Majumder, **Journal of Molecular Graphics and Modelling**, 75(2017): 233-240, Impact factor-1.8

7 RDM16 and STA1 regulate differential usage of exon/intron in RNA directed DNA Methylation pathway,Ravi Datta Sharma, Bert Bogaerts, Neha Goyal,**Gene** 2017 April 20(609): 62-67,DOI:10.1016/j.gene.2017.01.027,Impact factor-3.6

6 A large-scale analysis of alternative splicing reveals a key role of QKI in lung cancer, Fernando J de Miguel, Ravi D Sharma et al., **Molecular Oncology**, 2016,Nov;10(9):1437-1449. DOI:10.1016/j.molonc.2016.08.001,Impact factor-6.6, ISSN: 1574-7891

5 Data on RDM16 and STA1 regulate differential usage of exon/intron in RNA directed DNA Methylation pathway, Ravi Datta Sharma, Bert Bogaerts, Neha Goyal, **Data in Brief** 12 (2017) 261-268

4 Identification of alternative splicing events regulated by the oncogenic factor SRSF1 in lung cancer, Fernando J de Miguel*, **Ravi D Sharma***, María J Pajares, Luis M Montuenga, Angel Rubio, Ruben Pio, **Cancer Res** (2014)74:1105-1115,Impact factor-12.7,PMID: 24371231 *Joint First Authors

3 High Temperature Unfolding of a truncated hemoglobin by Molecular Dynamics Simulation, **Ravi Datta Sharma**, Rajnee Kanwal, Andrew M Lynn, Prerna Singh, Syed Tazeen Pasha, Tasneem Fatma, Safdar Jawaid, **J Mol Model** (2013)19:3993-4002.Imapct factor- 1.9 [PMID:23839248]

2 High temperature unfolding of Bacillus anthracis amidase-03 by molecular dynamics simulations, **RD Sharma**, AM Lynn, PK Sharma, Rajnee, Safdar jawaid, Bioinformation 3(10): 430-434 (2009). [PMID: 19759865]

1 A modelled structure for amidase-03 from Bacillus anthracis, **RD Sharma**, Nabajyoti Goswami, AM Lynn, Rajnee, PK Sharma, Safdar jawaid. Bioinformation 4(6):242-244 (2009). [PMID: 20975917]

CONFERENCE PUBLICATIONS

Ascertaining alternative splicing in NSCL carcinoma using Affymetrix Exon Junction Arrays (HJAY), **RD Sharma**, F. de Miguel, R. Pio, L. Montuenga, A. Rubio, In proceeding of 50th Anniversary Conference of tecnun, Engineering Science & Technology, San-Sebastian, Spain, 31 May, 2012

BOOK CHAPTER PUBLICATIONS

1. **Chapter 2**: Role of alternative splicing in health and diseases,Harsh Sharma, Kusum Yadav, **Ravi Datta Sharma**,Book:Transcription and Translation in Health and Disease,Editor(s): Manoj Garg, Gautam Sethi, Amit Kumar Pandey, Academic Press, 2023, Pages 19-36,ISBN 9780323995214, https://doi.org/10.1016/B978-0-323-99521-4.00002-7.
2. **Chapter 34:** In Silico Analysis of Endosymbionts of Bemisia tabaci (White Fly) by Artemis and Artemis Comparison Tool, Pardeep Kumar, **Ravi Datta Sharma** and Machiavelli Singh, **Book: "Trends in Technology for Agriculture, Food, Environment and Health"** Editors: R. K. Behl, Machiavelli Singh, Achim Ibenthal and Manfred J Kern released with AGROBIOS (INTERNATIONAL) ISBN: 978-81-947480-7-7
3. **Chapter 13:** Solving the Structure of Amidase-03, **Ravi Datta Sharma** and Garima Bhardwaj,Book: "Microbial Catalysts. Volume ", Editors: SMA aziz, N Garg ,A aeron, CK Jha, SC Nayak, VK Bajpai released with NOVA Publisher (2019), ISBN: 978-1-53614-679-0

ABSTRACT PUBLICATION

1. Alternative splicing in glioblastoma: a big new world ahead,Marisol Gonzalez-Huarriz, Guillermo Aldave, Datta Ravi, Angel Rubio, Miguel Marigil, Patricia Jauregi, Ricardo Diez-Valle, Beatriz Vera, Arlet-Acanda de la Rocha, Sonia Tejada, Marta M. Alonso, In -4th Quadrennial Meeting of the World Federation of Neuro-Oncology and 2013 Scientific Meeting, San-Francisco. **Neuro-Oncology,** 15:iii12-iii31, 2013 DOI:10.1093/neuonc/not174
2. Abstract 2124: Analysis of the functional relevance of novel alternative splicing events in non-small cell lung cancer, Fernando J. de Miguel, **Ravi D. Sharma** et al., **Cancer res.**, August 1, 2015 -75;2124, doi:10.1158/1538-7445.AM2015-2124

CONFERENCE POSTER

17th International conference on Bioinformatics (InCob 2018)
at Jawaharlal Nehru University, New Delhi **26-28 September, 2018**

Protein complexes of Mycobacterium tuberculosis through Affinity purification and Mass-Spectrometry,**R.D. Sharma**,D. Laubitz,P. Plocinski,O. Schubert,J. Mouritsen,C.Carolis,Luis Serrano,Ruedi Aebersold,A. Dziembowski, V.Noort, In From functional genomics to systems biology,
At Heidelberg,Germany **8-11 November, 2014**

Identification of splice variants regulated by the oncogene ASF/SF2 in lung cancer, Fernando de Miguel,

Ravi D Sharma, María José Pajares, Angel Rubio, Luis M Montuenga, Ruben Pio, "III IMPPC Annual Conference:RNA Biology in Cancer and other diseases Jointly organized with the Consolider RNAREG Consortium" at Barcelona,Spain **3-4 May, 2012**

Identification of alternative splicing events regulated by the oncogenic factor SRSF1 using microarray platforms,Fernando de Miguel, **Ravi D. Sharma**, Angel Rubio, Luis M. Montuenga, Rubén Pío, Jornadas Investigación,Universidad de Navarra, Pamplona, Spain. **22 March, 2013**

pH-Dependent Molecular Dynamics of BaGlb, "Biomolecular Simulation" at CCMS in Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR),Bangalore,India **6-16th November, 2007**

Structural modeling of N-Terminus amidase-03, A cell wall hydrolase enzyme N-acetylmuramoyl -L-alanine amidase from Bacillus anthracis,International Symposium of "Microbial biotechnology, Diversity, Genomic and Metagenomics" organized by AMI,New Delhi,India **18-20th November, 2008**

PDB/GEO/SRA SUBMISSION

PDB (Protein Databank) IDs: 2IQZ, 2IR0, 2IR4, 2IR8, 2IR9, 2IRA, 2IRB, 2IRC, 2IRD, 2IRE, 2IRH, 2IRI
GEO (Gene Expression Omnibus) Submission ID: GSE53410
SRA (Sequence Read Archive) Submission IDs: PRJNA623685, PRJNA630134, PRJNA937019

ATTENDED-EVENTS

INVITED SPEAKER:-

14. On topic "Alternative splicing based biomarker discovery using NGS technologies" at National Conference on Emerging Trends in Biotechnology and Food Engineering organised by Sharda University, Greater Noida, UP **4th-5th April 2024**

13. "Alternative Splicing based Transcriptional BioMarkers Discovery using NGS- Technology" in a six-month certificate course on "Computer Assisted Drug Design" (CADD), jointly with Centre for Converging Technologies, University of Rajasthan under the Design and Innovation Centre (DIC) and Birla Institute of Scientific Research(BISR), Jaipur, Rajasthan, sponsored by Department of Education, Ministry of Human Resource Development, Government of India. **10th February 2024**

12. "Prediction of numbers and concentration of Alternative splicing based transcriptional biomarkers using FASE software" in The 22nd International Conference on Bioinformatics (InCoB) organized by Translational Research Institute (TRI),Brisbane,**Australia** **12th -15th November 2023**

11. On Topic "Prediction of numbers and concentration of Alternative splicing based transcriptional biomarkers using RNA-Seq Data" in International conference on recent trends in Biotechnology & applied Bioinformatics (ICRTBAB) 2023 organized by Department of Biotechnology (DBT) and Sharda University, Greater Noida **27th -29th April 2023**

10. FDP -"Recent Advancements, Innovations, Future Trends in Emerging Technologies & Their Impact on Higher Education", Talk title; "Artificial Intelligence in Healthcare" **17th -21th July 2023**

9. On Topic of "Alternative splicing as a tool to find biomarkers" in COLLOQUIUM ON "Emerging Trends in Genome Editing", organized by Amity University Uttar Pradesh. **7th January 2021**

8. FDP- Integrative Biology: From molecules to the ecosystem in health and medicine, organized by Amity University Haryana, Gurugram **2-6th August 2021**

7. On Topic "Digital education: a worldwide prospective" in International E-Conference on Digital Education: Scope and Challenges in India, organised by **Bharatiya Shikshan Mandal,** Meerut Prant and **Ch. Charan Singh University**, Meerut, U.P., India **27 & 28 June 2020**

6. On topic "Finding alternative Splicing events Using RNA- Seq" at Department of Life Science, Modi Institute of Management & Technology, Kota, Rajasthan **17 December 2020**

5. On topic "Genomics for personalized medicine" at National Conference on Innovation and Entrepreneurship & Startup Summit (NCIESS 2020) organized by FITT, IIT Delhi and Startupindia & Atal Innovation Mission (Niti Ayog) at IIT New Delhi **22 January,2020**

4. Differential alternative Splicing using RNA-Seq data in Summer School organized by SCIS at JNU New Delhi **11th July, 2018**

3.On topic "Protein-protein interaction analysis using AP- Mass Spectrometry data from M.Tuberculosis" at International Lab Seminar 2014 organized by KULeuven CMPG Lab of Genetics and Genomics, and VIB Lab of System Biology by Prof Verstrepen at Sechry, Belgium **2-6 June, 2014**

2. On topic "Protein-protein interaction analysis using AP- Mass Spectrometry data from M.Tuberculosis" at 4th SysteMTb Annual Meeting,Mallorca,Spain. **23-25 March, 2014**

1. On topic "Gene Expression Analysis" at Seminar, KU Leuven, Faculty of Bioscience Engineering, Department of Microbial and Molecular Systems, Kasteelpark,Arenberg 31, B-001,Heverlee,Belgium **1st April, 2014**

FDP/SHORT-TERM TRAINING/ORIENTATION PPRGRAMME:-

4.**Orientation Programme (OR-93)**: Attended Orientation Programme at Centre for Professional

Development in Higher Education (CPDHE)-UGC HRDC at University of Delhi, **03-30 July, 2018**

3.**Short term training**: Attended program on Artifical Intellegence and deep learning organized by Model Institute of Engineering and Technology , Kot Bhawal, Jammu funded by All India Council for Technical Education, New Delhi **10-02-2021**

2.**FDP:** Attended five days faculty development program on ″Emerging tools and trends in Pharmaceutical research″ organized by Amity University, Lucknow **21-25 September, 2020**

1.**FDP**:"How to save time for research and analytics using artificial intelligence and machine learning techniques" at Amity University Haryana, Gurugram **27 June, 2017**

CONFERENCE/WORKSHOP/SYMPOSIUM:-

16.**Seminar**: Indo-Canadian Seminar "Sustainability in Agriculture and Improving Human Health by Amity University Haryana **20th February, 2020**

15.**Webinar**:AI in Healthcare" organized by Springer Nature **5th May, 2020**

14.**Conference**:NextgenGenomics, Biology, Bioinformatics and Technologies(NGBT) organized by SGRF at Taj Hotel,Mumbai **30th Sept to 2nd October, 2019**

13. **Conference**:1st International Molecular Medicine Conference "From Bench to bedside and Beyond",organized at AUH **29-30 August,2019**

12.**Conference:** 17th International conference on Bioinformatics (InCob 2018) at Jawaharlal Nehru University, New Delhi **26-28 September, 2018**

11.**Symposium**: "Role of Non-coding RNAs (Human & Plants) at Amity University Haryana, Gurugram **4 September, 2018**

10.**Symposium**: "Recent advances in Nanobiology" at Amity University Haryana, Gurugram **3 August, 2018**

9.**Indo-German workshop**: "Sustainable intensification of Agriculture-From theory to Practice" at Amity University Haryana, Gurugram **7 November, 2017**

8.**Workshop**: Hands- on workshop on "Molecular Docking, Virtual Screening & Computational Biology", Amity University Haryana, Panchgaon,Gurgaon, India **23-26 January, 2017**

7.**Symposium**: "Lipids in the forefront: A lot more to discover″ at Amity University Haryana, Panchgaon, Gurgaon **14-15 December, 2016**

6.**Seminar (in organizing committee):** India Current Trends in Structural Biology at Amity University Haryana, Panchgaon,Gurgaon **01 March, 2016**

5.**Conference**: From functional genomics to systems biology, at EMBL,Heidelberg,Germany **8-11 November, 2014**

4.**Symposium**:"International Symposium: New Frontiers in Hematological Malignancies" at Palacio Baluarte Pamplona,Spain **16-18 November, 2011**

3.**Workshop:**Poster on "*pH- Dependent Molecular Dynamics of BaGlb*" a 10-days workshop on "Biomolecular Simulation" at CCMS in JNCASR,Bangalore,India **6-16 November, 2007**

2.**Symposium**: System Biology, by JNU and University of Delhi, New Delhi, India **11-12 March, 2006**

1.**Workshop**:"Protein Databases and Protein structure Confirmation Techniques " organized by "TheBioinformatica Solution",Lucknow **26-27th November, 2005**

CO-CURRICULAR ACTIVITIES (CULTURAL, SPORTS)

1.Participated in National Technological Day **2023**

2.Participated in Amifest 2017 at Amity University Haryana **2017**

ORGANISED EVENTS

8. International Symposium on "Current trends in Computational biology and Data Science" organized by Amity University Haryana, Gurugram **4th November 2020**

7. 2nd An international Symposium on Lipids on the forefront: A lot to Discover at Amity University Haryana,Gurugram **12-13 December, 2019**

6. **As Secretary**: DST sponsored a two-week national Training/FDP/ Workshop on Blockchain technology" **29th July to 9th August,2019**

4. Symposium on "World TB Day: Challenges to win MTR-TB″ at Amity University Haryana,Gurugram **27 March, 2019**

3. From Genes to Network: Recent trends in Cell-Signaling at Amity University Haryana, Gurugram **14-15 December, 2018**

2. 35th SMYTE-A small meeting on Yeast Transport and Energetics,
at Amity University Haryana, Gurugram **17-21 September, 2017**

1. "A brain storming day on Data Science and Predictive analytics"
at Amity University Haryana, Gurugram **9 June, 2017**

ADDITIONAL EDUCATION

Computer Fundamental & programming **One year**
Diploma In Computer Application from nbc(NavBharat Computer Edu.),India

Computer Networking **Three Month**
Certificate in Networking from "JSS Academy of Technical education",Noida Sponsored by DST (Department of Science and Technology), Govt. of India.

Diploma in Bioinformatics from BII,Noida,India **One year**
Bioinformatics

DEVELOPED PACKAGES/ SOFTWARE

Prediction of transcript structure and concentration using RNA-Seq data (available at https://github.com/harshsharma-cb/FASE), Citation: Briefings in Bioinformatics,2023,1-9, DOI: https://doi.org/10.1093/bib/bbad022

ExonPointer and IntronPointer: Finding alternative splicing using RNA-Seq data (available at https://github.com/ravidattasharma/EP-IPrnaSeq), Citation: **Nature Communications** 8, Article number: 306 (2017), DOI:10.1038/s41467-017-00370-5

Developed package ExonPointer in R using Junction Microarray data, Citation "Identification of alternative splicing events regulated by the oncogenic factor SRSF1 in lung cancer" (Fernando J de Miguel, **Ravi D Sharma** et al., Cancer Research, DOI: 10.1158/0008-5472.CAN-13-1481).[PMID: 24371231]

Developed package in R for "A complete pipeline to annotate and analyse the new generation of Affymetrix junction arrays.

TECHNICAL SKILLS

Experience in handling of Linux & UNIX variants. Knowledge of R-programming language, Perl, Java and C++.

Knowledge of Databases (Oracle 8i, MySQL), Latex