


Faculty Profile

	Name*		Dr. Ravi Rajwanshi	
	Designation*		Associate Professor	
	Contact Address*		Discipline of Life Sciences, School of Sciences, IGNOU, Maidan Garhi, New Delhi-110068	
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Web page		https://scholar.google.co.in/citations?user=FCNEw04AAAAJ&hl=en		
EDUCATIONAL QUALIFICATIONS				
Degree	Year	Institute/University		
Ph.D.	2008	School of Life Sciences, Jawaharlal Nehru University, New Delhi, India		
Masters	2001	Department of Biosciences, Jamia Millia Islamia, New Delhi, India		
Bachelors	1999	Department of Biosciences, Jamia Millia Islamia, New Delhi, India		
CAREER PROFILE				
<p>Associate Professor (27th August 2021 – Continuing to date), Discipline of Life Sciences, School of Sciences, Indira Gandhi National Open University (IGNOU), New Delhi, India</p> <p>Assistant Professor (26th March 2010- 26th August 2021), Department of Biotechnology Assam University Silchar - 788011 Assam, India</p> <p>Research Associate (5th March 2009 – 23rd March 2010), National Research Center on Plant Biotechnology, IARI, New Delhi, India</p>				
AREA OF INTEREST/SPECIALIZATION*				
Plant Molecular Biology, Plant Biochemistry and Biotechnology, Plant stress Physiology, Functional Genomics, Plant Tissue Culture, Transgenic Plants				
ROLE AND RESPONSIBILITIES AT IGNOU				
<ol style="list-style-type: none"> 1. Programme Coordinator, Ph.D. Life Sciences (PHDLS) at School of Sciences, IGNOU, New Delhi since 05-10-2021. 2. Laboratory Incharge, Life Sciences Laboratory at School of Sciences, IGNOU, New Delhi since 05-10-2021. 				

3. Course Coordinator [LSE 08 (L), LSE 09 (Animal Diversity – I), LSE 10 (Animal Diversity – II), LSE 11 (L) (Animal Diversity Lab), LSE 12 (Plant Diversity – I), LSE 13 (Plant Diversity – II), LSE 14 (L) (Plant Diversity Lab), BAQL 002 (Coastal Aquaculture Laboratory), BAQ 003 (Coastal Aquaculture), BBYET 143 (Economic Botany and Biotechnology), BBYEL 144 (Economic Botany and Biotechnology: Laboratory), RLS 103 (Biostatistics & Computer Application in Biological Research) since 05-10-2021.
4. Member, Cultural Programme Committee of School of Sciences, IGNOU, New Delhi since 02-08-2022.
5. Member, CDER Committee of School of Sciences, IGNOU, New Delhi since 03-08-2022.

RESEARCH GUIDANCE

Supervision of Dr. Ravi Rajwanshi	Year of completion	Students Name	Thesis title
Doctoral Students	2019	Karam Jayanandi Devi	Identification, characterization and validation of regulatory microRNAs and their targets from expressed sequence tags (ESTs) and genome survey sequence (GSSs) of <i>Coffea arabica</i> L.
	2021	Ningthoujam Seema Devi	Genetic variability in <i>Mucuna pruriens</i> (L.) collections of North East India
	2022	Sahana Basu	Exploration of physiological and molecular mechanisms of quantitative trait loci sub associated submergence tolerance in <i>Oryza sativa</i> L.
Masters Students	2011	Abhijit Mitra	A study on the physiological effect and expression of metallothionein (MT1) gene during Cu stress tolerance in <i>Oryza sativa</i> (rice) var. MSE-9
	2011	U. Nirupma	Physiological and expression studies of PIP2 gene in <i>Pisum sativum</i> cv. Aikel under salt stress condition
	2011	N. Renuka Devi	Physiological and expression studies of PIP2 gene in <i>Pisum sativum</i> cv. E6 under drought stress condition
	2011	Kh. Yaiphabi Devi	Physiological and expression study of Metallothionein in <i>Oryza sativa</i> cv. MSE-9 under heavy metal (CdCl ₂) stress condition
	2012	Shantanu Sen	An <i>in silico</i> appraisal of few compounds against the enzyme helicobacter pylori urease for anti <i>H. pylori</i> drug efficacy and their QSAR analysis
	2012	Kaushik K. Bharadwaj	Physiological and Biochemical response of wheat towards salinity and heavy metal stress
	2012	Saurav Nath	Drought stress in Wheat: A Physiological and Biochemical study
	2013	Deboshri Roy	Effect of aluminium toxicity on rice cultivars of Assam

2015	Saugat Nath	Computational identification of miRNAs from expressed sequence tags and genome survey sequences of Peanut (<i>Arachis hypogaea</i>)
2015	Hemonta Bordoloi	Computational prediction of miRNAs from expressed sequence tags and genome survey sequences of Onion (<i>Allium cepa</i> L.)
2015	Prasanta Saha	Computational identification of regulatory miRNAs from expressed sequence tags of <i>Actinidia delicosa</i> , <i>Actinidia chinensis</i> & <i>Actinidia eriantha</i>
2016	Adrita Chawdhury	Computational prediction of miRNAs of <i>Oryza longistaminata</i> and <i>Oryza minuta</i>
2016	Bikram Biswas	In silico prediction of miRNAs from ESTs and GSSs of <i>Quercus petraea</i> and <i>Quercus robur</i>
2016	Afrin Yasmin	Computational identification and characterization of conserved miRNAs in Walnut (<i>Juglans regia</i> L.)
2017	Abu Barkat Md. Gulzar	Effect of heavy metal (copper) on selected rice cultivars of Assam
2017	Trideep Jyoti Bora	Response of selected rice varieties of Assam to salinity stress
2017	Gopa Rani Sharma	Screening of rice cultivars for iron toxicity tolerance
2018	Karobi Nath	Biochemical study in <i>Mucuna pruriens</i> leaves using different extraction solvents
2018	Nerswn Basumatary	Biochemical study in <i>Mucuna</i> sp. seeds using different extraction solvents
2018	Saheli Akthar Choudhur	Biochemical study of salt stress in <i>Coffea arabica</i> L.
2019	Ajita Nath	Effect of drought stress on biochemical parameters of two <i>Coffea arabica</i> L. cultivars
2019	Ayesha Siddique	Prediction of miRNAs and their targets using <i>in silico</i> approach from expressed sequence tags (ESTs) and genome survey sequences (GSSs) of coffee (<i>Coffea canephora</i> P.)
2019	Bikramjit Lahiri	Biochemical screening of two varieties of <i>Coffea arabica</i> L. for drought tolerance
2020	Pappu Deb	<i>In silico</i> approach for predicting microRNAs from expressed sequence tags of <i>Citrus reticulata</i> L.
2020	Namrata Kumari Mahato	In silico prediction of miRNA from Chromosome 10 of <i>Coffea canephora</i>
2020	Mamta Singha	Identification and characterization of miRNA from <i>Centella asiatica</i> L.: An EST-based homology approach
2021	Swarnali Bhattacharjee	Development of Transgenic Brassica for Abiotic Stress Tolerance

	2021	Rupam Nath	Development Of Transgenic Rice for enhanced Biotic Stress Tolerance
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PUBLICATIONS

A. Papers in Refereed/Peer reviewed Journals:

1. Mohd. Aslam Yusuf, Deepak Kumar, **Ravi Rajwanshi**, Reto Jörg Strasser, Merope Tsimilli Michael, Govindjee, Neera Bhalla Sarin (2010) Overexpression of γ -tocopherol methyl transferase gene in transgenic *Brassica juncea* plants alleviates abiotic stress: Physiological and chlorophyll a fluorescence measurements. **Biochimica et Biophysica Acta – Bioenergetics**, 1797(8): 1428–1438. doi:10.1016/j.bbabi.2010.02.002 [Impact Factor (2021): 4.428]
2. Amit Katiyar, Shuchi Smita, Sangram Keshari Lenka, **Ravi Rajwanshi**, Viswanathan Chinnusamy and Kailash Chander Bansal (2012) Genome-wide identification and comparative analysis of MYB transcription factor family in rice and *Arabidopsis*. **BMC Genomics**, 13(1): 544. DOI: 10.1186/1471-2164-13-544 [Impact Factor (2021): 4.560]
3. **Ravi Rajwanshi**, Neera Bhalla Sarin (2013) Selection of genetically transformed *Brassica juncea* L. cv. Varuna (Indian mustard) based on Positech system. **Journal of Plant Biochemistry and Biotechnology**, 22(2): 214–221. DOI: 10.1007/s13562-012-0126-1 [Impact Factor (2021): 1.525]
4. Shuchi Smita, **Ravi Rajwanshi**, Sangram Keshari Lenka, Amit Katiyar, Viswanathan Chinnusamy, Kailash Chander Bansal (2013) Comparative analysis of fruit transcriptome in tomato (*Solanum lycopersicum*) genotypes with contrasting lycopene content. **Plant Molecular Biology Reporter**, 31(6): 1384–1396. DOI: 10.1007/s11105-013-0613-0 [Impact Factor (2021): 1.816]
5. Shuchi Smita*, **Ravi Rajwanshi***, Sangram Keshari Lenka, Amit Katiyar, Viswanathan Chinnusamy, Kailash Chander Bansal (2013) Expression profile of genes coding for carotenoid biosynthetic pathway during ripening and their association with accumulation of lycopene in tomato fruits. **Journal of Genetics**, 92(3): 363-368. DOI: 10.1007/s12041-013-0275-6 [Impact Factor (2021): 1.508] (* Authors contributed equally)
6. Jyotsna Gorantala, Sonam Grover, Amit Rahi, Perna Chaudhary, **Ravi Rajwanshi**, Neera Bhalla Sarin, Rakesh Bhatnagar (2014) Generation of protective immune response against anthrax by oral immunization with protective antigen plant-based vaccine. **Journal of Biotechnology**, 176: 1–10. doi:10.1016/j.jbiotec.2014.01.033 [Impact Factor (2021): 3.595]
7. **Ravi Rajwanshi***, Sreejita Chakraborty, Karam Jayanandi, Bibhas Deb, David A. Lightfoot (2014) Orthologous plant microRNAs: microregulators with great potential for improving stress tolerance in plants. **Theoretical and Applied Genetics**, 12: 2525-2543 DOI 10.1007/s00122-014- 2391-y [Impact Factor (2021): 5.574] (*Corresponding author)
8. Sreejita Chakraborty, Karam Jayanandi Devi, Bibhas Deb, **Ravi Rajwanshi*** (2016) Identification and Characterization of Novel microRNAs and Their Targets in *Cucumis melo* L.: An in silico Approach. **Focus on Sciences**, 2(1). DOI: 10.20286/focsci-020123 (*Corresponding author)

9. Karam Jayanandi Devi, Sreejita Chakraborty, Bibhas Deb, **Ravi Rajwanshi*** (2016) Computational identification and functional annotation of microRNAs and their targets from expressed sequence tags (ESTs) and genome survey sequences (GSSs) of coffee (*Coffea arabica* L.). **Plant Gene**, 6: 30-42. doi: 10.1016/j.plgene.2016.03.001 (*Corresponding author)
10. **Ravi Rajwanshi**, Deepak Kumar, Mohd Aslam Yusuf, Suchandra DebRoy, Neera Bhalla Sarin (2016) Stress-inducible overexpression of *glyoxalase I* is preferable to its constitutive overexpression for abiotic stress tolerance in transgenic *Brassica juncea*. **Molecular Breeding**, 36(76): 1-15 DOI 10.1007/s11032-016-0495-6 [Impact Factor (2021): 3.297]
11. Sahana Basu, Ranjan Kumar Giri, Ibtesham Benazir, Santosh Kumar, **Ravi Rajwanshi**, Sharad Kumar Dwivedi, Gautam Kumar (2017) Comprehensive physiological analyses and reactive oxygen species profiling in drought tolerant rice genotypes under salinity stress. **Physiology and Molecular Biology of Plants**, 23(4): 837-850. DOI: <https://doi.org/10.1007/s12298-017-0477-0> [Impact Factor (2021): 3.023]
12. Karam Jayanandi Devi, Prasanta Saha, Sreejita Chakraborty, **Ravi Rajwanshi*** (2018) Computational identification and functional annotation of microRNAs and their targets in three species of kiwifruit (*Actinidia* spp.). **Indian Journal of Plant Physiology**, 23(1): 179-191. DOI: <https://doi.org/10.1007/s40502-018-0353-0> (*Corresponding author)
13. N. Seema Devi, Puran Chandra, **Ravi Rajwanshi**, Pankaj Baiswar, T. S. Mehra, Shimreiso Vashum, K.P. Mohapatra (2020) Genetic variability and association analyses of growth and yield attributes in *Mucuna pruriens* (L). collections of India. **Indian Journal of Hill Farming**, Special Issue: 46-51. 5
14. Sahana Basu, Gautam Kumar, Nitu Kumari, Surbhi Kumari, Shashi Shekhar, Santosh Kumar, **Ravi Rajwanshi*** (2020) Reactive oxygen species and reactive nitrogen species induce lysigenous aerenchyma formation through programmed cell death in rice roots under submergence. **Environmental and Experimental Botany**, 177: 104118 DOI: <https://doi.org/10.1016/j.envexpbot.2020.104118> [Impact Factor (2021): 6.028] (*Corresponding author)
15. Sahana Basu, Surbhi Kumari, Pankaj Kumar, Gautam Kumar, **Ravi Rajwanshi*** (2021) Redox imbalance impedes photosynthetic activity in rice by disrupting cellular membrane integrity and induces programmed cell death under submergence. **Physiologia Plantarum**, 1–15. <https://doi.org/10.1111/ppl.13387> [Impact Factor (2021): 5.081] (*Corresponding author)
16. Deepak Kumar[#], **Ravi Rajwanshi**[#], Preeti Singh, Mohd Aslam Yusuf, Neera Bhalla Sarin (2022) Pyramiding of γ -TMT and *gly I* transgenes in *Brassica juncea* enhances salinity and drought stress tolerance. **Physiologia Plantarum**, 174(1), e13618. <https://doi.org/10.1111/ppl.13618> [Impact Factor (2021): 5.081] ([#]Contributed equally)
17. Akanksha Sharma, Neelam Prabha Negi, Meenakshi Raina, Damini Supolia, Ayushi Mahajan, **Ravi Rajwanshi**, Vibhav Gautam, Bhawana Bhagat, Harshita Kakoria, Deepak Kumar (2022) Phytomelatonin: Molecular messenger for stress perception and response in plants, **Environmental and Experimental Botany**, 201, 104980. <https://doi.org/10.1016/j.envexpbot.2022.104980> [Impact Factor (2021): 6.028]

18. Kritika Bhardwaj, Meenakshi Raina, Giovanni Marco Sanfratello, Prashasti Pandey, Ankita Singh, **Ravi Rajwanshi**, Neelam Prabha Negi, Anjana Rustagi, Khushboo, Deepak Kumar (2022) Exogenous Melatonin Counteracts Salinity and Cadmium Stress via Photosynthetic Machinery and Antioxidant Modulation in *Solanum lycopersicum* L. **Journal of Plant Growth Regulation**. <https://doi.org/10.1007/s00344-022-10843-7> [Impact Factor (2021): 4.640]

B. Books/Monographs (Authored/Edited)/ Book Chapter:

1. **Ravi Rajwanshi**, Suchandra Deb Roy, Mikhail Pooggin, Thomas Hohn, Neera Bhalla Sarin (2007) Marker free approach for developing abiotic stress tolerant transgenic Brassica juncea (Indian Mustard). In: Long CA, Anninos P, Pham T (eds) Proceedings of the 3rd WSEAS International Conference on Cellular and Molecular Biology, Biophysics and Bioengineering (BIO'07) In: Book Series: Mathematics and Computers in Science and Engineering, Vouliagmeni, Athens, Greece, pp 110-116. (ISBN: 978-960-6766-03-9; ISSN 1109-2769) [Published by World Scientific and Engineering Academy and Society (WSEAS) Press (<http://www.wseas.org>)].
2. **Ravi Rajwanshi***, Manoj Kumar, Beche Lal (2017) Pre- and Postharvest Management Practices for Litchi Production in India. In: Kumar M., Kumar V., Bhalla-Sarin N., Varma A. (eds) Lychee Disease Management, pp 45–66, Springer, Singapore. (ISBN: 978-981-10-4246-1) (*Corresponding author)
3. **Ravi Rajwanshi***, Karam Jayanandi Devi, Gopa Rani Sharma, Beche Lal (2019) Role of MiRNAs in Plant-Microbe Interaction. In: Kumar M, Muthusamy A, Kumar V, Bhalla-Sarin N (eds) In vitro Plant Breeding towards Novel Agronomic Traits: Biotic and Abiotic Stress Tolerance, pp 167–195, Springer, Singapore. (ISBN: 978-981-32-9823-1) (*Corresponding author)
4. Anjana Rustagi, Neelam P. Negi, Himanish Dutta Choudhury, Ayushi Mahajan, Rekha, Swati Verma, Deepak Kumar, **Ravi Rajwanshi**, Neera Bhalla Sarin (2020) Transgenic Approach for Improvement of *Brassica* species. In: Wani SH, Jeshima Y, Thakur AK (eds.) *Brassica* Improvement – Molecular, Genetics and Genomic Perspectives, pp 187–213, Springer Cham. (ISBN: 978-3-030-34693-5) (All authors contributed equally)
5. Himanish Dutta Choudhury, Pappu Deb, **Ravi Rajwanshi*** (2021) Microbes: An Integral Component of Flavor Production. In: Arora P.K. (eds) Microbial Products for Health, Environment and Agriculture. Microorganisms for Sustainability, vol 31, pp 19–38, Springer, Singapore. https://doi.org/10.1007/978-981-16-1947-2_2 (Print ISBN: 978-981-16-1946-5) (All authors contributed equally) (*Corresponding author)
6. Sekhar Tiwari, **Ravi Rajwanshi*** (2022) Overview of Omics-Assisted Techniques for Biodiversity Conservation. In: A. Kumar, B. Choudhury, S. Dayanandan, M.L. Khan (eds.), Molecular Genetics and Genomics Tools in Biodiversity Conservation, pp 63–78, Springer Singapore. https://doi.org/10.1007/978-981-16-6005-4_4 (Print ISBN: 978-981-16-6004-7) (*Corresponding author)

7. Anjana Rustagi, **Ravi Rajwanshi**, Deepak Kumar, Neelam Prabha Negi, Paomipem Phazang, Mohd Aslam Yusuf, Arun Vincent Kisku, Nishakant Pandey, Shashi Shekhar, Prerna Chaudhary, Subhash Chandra Prasad, Suchandra Deb Roy, Mukesh Saxena, Neera Bhalla Sarin (2022) Genetic Modification of *Brassica juncea*: Current Scenario and Future Prospects. In: Kole, C., Mohapatra, T. (eds) The Brassica juncea Genome. Compendium of Plant Genomes, pp 171–196, Springer, Cham. https://doi.org/10.1007/978-3-030-91507-0_10 (Print ISBN978-3-030-91506-3) (All authors contributed equally)

C. Abstracts Published in Proceedings of National/International Conferences/Seminars:

1. Neera Bhalla Sarin, P.Bhomkar, C.P.Upadhyay, A.Muthusamy, **Ravi Rajwanshi**, M.Saxena, N.Shiva Prakash, Mikhail Poogin and Thomas Hohn (2005) Regeneration and transformation of Black gram [*Vigna mungo* (L.)Hepper.]– A marker free approach for salt-stress tolerance. 4th International food legumes research conference, New Delhi, India, p.p. A-91.
2. N.B. Sarin, P. Bhomkar, C.P. Upadhyay, S. Deb Roy, **R. Rajwanshi**, A. Muthusamy, M. Saxena, N. Shiva Prakash, M. Pooggin, and T. Hohn (2006) Antibiotic marker free approach for obtaining salt stress tolerant *Vigna mungo* (blackgram), In in vitro cellular & developmental biology-Animal, 42, pp. 21A.
3. Chandrama P. Upadhyay, P. Bhomkar, M. Saxena, **Ravi Rajwanshi**, Nisha Kant, Deepak Kumar, M.Pooggin, T.Hohn and N.B. Sarin (2006) Development and evaluation of transgenic Blackgram (*Vigna mungo*) for salt stress tolerance by overexpression of the glyoxalase I gene. International Meeting on Biotic and Abiotic Stress Responses in Plants, I.C.G.E.B., New Delhi, India, P-44.
4. Neera Bhalla Sarin, C.P.Upadhyaya, P.Bhomkar, **R.Rajwanshi**, Nishakant Pandey, N. Shiva Prakash, Mikhail Pooggin and Thomas Hohn (2007) Developing salt stress tolerance in the legume *Vigna mungo* (Blackgram) using the transgenic approach. 3rd cell stress society international congress on stress responses in biology and medicine and 2nd world conference of stress, Budapest, Hungary, p.p.-222.
5. Neera Sarin, Chandrama Upadhyaya, Prasanna Bhomkar, **Ravi Rajwanshi**, Suchandra Deb Roy, Nishakant Pandey, Mikhail Pooggin and Thomas Hohn (2008) Stress Tolerance and Value addition in *Brassica juncea* and *Vigna mungo* through Transgenic approach. 5th International Crop Science Congress & Exhibition, Jeju, Korea, p.p.-202-203.
6. **Ravi Rajwanshi**, Sangram K. Lenka, Shuchi Smita, Amit Katiyar and Kailash C. Bansal (2009) Expression analysis of carotenoid biosynthesis genes in tomato (*Solanum Lycopersicum* L.). The 6th Solanaceae Genome Workshop 2009, New Delhi, India, p.p.-229.
7. Amit Katiyar, Shuchi Smita, Sangram Keshari Lenka, **Ravi Rajwanshi**, Viswanathan Chinnusamy and Kailash Chander Bansal (2010) Insilico analysis of Myb transcription factor family genes in rice and arabidopsis. Ist IFIP international conference on Bioinformatics, Surat, Gujrat, p.p. 142.
8. Ghosh SK, Chakrabarty C, Laskar RS, Mondal R, Bhattacharjee MJ, Choudhury Y, **Rajwanshi R**, Ahmad A, Sherpa A, Bhaumik A, Haldar A, Singha B, Bhuiya B, Tiwary B, Choudhury B, Sharma I, Sharma J, Sengupta M, Pasha M, Das M, Bhattacharjee M, Kumar

NS, Ghosh PR, Ghosh P, Majumder R, Devi S, Bhattacharjee S, Sen S, Maitra SS, Duttagupta S, Chakrabarti S (2011) Development of Individual Barcode for Human by using Mitochondrial D-loop Hypervariable Region: A tool that may be useful for the UID (Unique Identity) project in India, Proceedings of the 98th Indian Science Congress, Chennai, India, Section XII : New Biology p.p. 6.

9. **Ravi Rajwanshi** (2012) The Gyoalase system: A potential candidate for crop improvement. International conference on Biodiversity conservation and environmental health, Department of Life Sciences and Bioinformatics Assam University, Silchar, Assam, p.p.-21.
10. Deepak Kumar, Mohd. Aslam Yusuf, Preeti Singh, **Ravi Rajwanshi**, Neera Bhalla Sarin (2013) OS5-3 gene pyramiding with γ -TMT and *gIy I* genes adds value by enhancing salt and drought tolerance in Brassica juncea (Indian Mustard), 3 rd International Symposium on Genomics of Plant Genetic Resources, Jeju, Korea.
11. David A Lightfoot, Ayan Malakar, **Ravi Rajwanshi** (2014) Field analysis of SDS resistance in Soybean transgenic with the RLK from Rhg1 and Rfs2, Plant & Animal Genome XXII, San Diego, CA, USA, P972.
12. David A Lightfoot, Ayan Malakar, **Ravi Rajwanshi** (2015) Peptide binding by alloprotein and mutants of a receptor like kinase in soybean, Plant & Animal Genome XXIII, San Diego, CA, USA, P720.
13. Deepak Kumar, **Ravi Rajwanshi**, Mohd. Aslam Yusuf, Nisha Kant Pandey, Preeti Singh, Mukesh Saxena, Neera Bhalla Sarin (2015) Towards development of superior *Brassica juncea* by pyramiding of genes of diverse pathway for value addition, stress alleviation and human health, World Academy of Science, Engineering and Technology, 17th International conference on agricultural and forestry engineering, Melbourne, Australia, Vol 2, No. 12.
14. Karam Jayanandi Devi, Sreejita Chakraborty, Bibhas Deb, **Ravi Rajwanshi** (2015) An insilico based update on microRNAs and their targets from expressed sequence tags (ESTs) of *Coffea arabica*, Proceedings of the 102nd Indian Science Congress, University of Mumbai, Mumbai, India, p.p. 165-166.
15. Karam Jayanandi Devi, Sreejita Chakraborty, Bibhas Deb, **Ravi Rajwanshi** (2016) Insilico approach for identification of novel miRNAs from *Coffea arabica* using Expressed Sequence Tags. Proceedings of National Seminar on Recent advances and scope in Herbal Technology: Challenges and prospects (RASHTCP-2016), Department of Pharmaceutical Sciences, Assam University, Silchar, Assam, India, p.p.-10.
16. Sreejita Chakraborty, Adrita Chowdhury, Karam Jayanandi Devi, **Ravi Rajwanshi** (2016) Computational identification of microRNAs and their targets from expressed sequence tags (ESTs) and genome survey sequences (GSSs) of red rice (*Oryza longistaminata*). International Conference on Functional Plant Biology 2017, Assam University, Silchar, Assam, India, p.p.-25.
17. Sreejita Chakraborty, Adrita Chowdhury, Karam Jayanandi Devi, **Ravi Rajwanshi** (2016) In silico identification of microRNAs and their targets from expressed sequence tags (ESTs) and genome survey sequences (GSSs) of *Oryza minuta*. International Symposium on Plant Biotechnology for Crop Improvement 2017, Indian Institute of Technology, Guwahati,

Assam, India, p.p.-80.

18. Ningthoujam Seema Devi, Banshanlang Iangrai, Kamal Prasad Mohapatra, **Ravi Rajwanshi** (2016) Assessment of genetic variability of velvet bean (*Mucuna pruriens*) using ISSR markers. International Symposium on Plant Biotechnology for Crop Improvement 2017, Indian Institute of Technology, Guwahati, Assam, India, p.p.-69.
19. Karam Jayanandi Devi, Prasanta Saha, Sreejita Chakraborty, **Ravi Rajwanshi** (2016) Computational identification of microRNAs and their targets in three species of kiwifruit (*Actinidia* spp.). International Symposium on Plant Biotechnology for Crop Improvement 2017, Indian Institute of Technology, Guwahati, Assam, India, p.p.-58.
20. Rupjyoti Sarmah, Banshanlang Iangrai, Chubasenla Aochen, Thongbam Premila Devi, **Ravi Rajwanshi** (2016) Molecular screening for identification of blast resistance genes (R-genes) from rice cultivars belonging to different agro-climatic zones of North East India. International Symposium on Plant Biotechnology for Crop Improvement 2017, Indian Institute of Technology, Guwahati, Assam, India, p.p.-49.
21. Sahana Basu, Suraj Kumar Jaiswal, Gautam Kumar, **Ravi Rajwanshi** (2016) Differential response of submergence on rice: A study on Sub 1-mediated submergence tolerance. International Symposium on Plant Biotechnology for Crop Improvement 2017, Indian Institute of Technology, Guwahati, Assam, India, p.p.-35.
22. Ningthoujam Seema Devi, **Ravi Rajwanshi**, Kamal Prasad Mohapatra (2018) Biochemical studies of *Mucuna pruriens* (L.) De genotypes of North East India. The 105th Indian Science Congress, Manipur University, Manipur, India, p.p.-46.
23. Karam Jayanandi Devi, Bikram Biswas, **Ravi Rajwanshi** (2018) Computational identification of miRNAs from expressed sequence tags and genome survey sequences of *Quercus petraea* (Matt.) Liebl. and *Quercus robur* L. The 105th Indian Science Congress, Manipur University, Manipur, India, p.p.-47.
24. Sahana Basu[#], Gautam Kumar, **Ravi Rajwanshi**^{*} (2020) Understanding the mechanism of submergence tolerance in rice. Global Water Congress 2020, E-conference/E-competition. ([#]Achieved 1st Position and Gold medal in the technical session 10 of Poster Paper Presentation) (^{*}Corresponding author)

CONFERENCES/SEMINARS/WORKSHOPS ORGANISED/PARTICIPATED/INVITED LECTURES

D. Conferences/Seminars/Workshops participated:

1. Participated in symposium and seminar organized by Department of Biosciences on “Intellectual Property Rights and Indian Germplasm Resources: Emerging Challenges” (20th October - 21st October 2000) at Jamia Millia Islamia, New Delhi, India.
2. Attended the “Workshop on Molecular Analysis of Transgenic Plants” (28th January- 6th February 2005) as a part of Indo-Swiss collaboration in Biotechnology (ISCB) Project at School of Biotechnology, Madurai Kamaraj University, Madurai, India.
3. Participated at “5th International Conference on Bioinformatics & Biotechnology InCoB 2006” (18th – 20th December 2006) organized by Indian Institute of Technology (Delhi), 9 Jawaharlal

Nehru University and Department of Biotechnology (Govt. of India) at The Ashok, New Delhi, India.

4. Participated in Interdisciplinary Science Conference – 2007 on “Recent Trends in Research in Biological Sciences” (7th December 2007) organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, India.
5. Participated in 2nd International Conference on “Trends in Cellular and Molecular Biology” (5th – 7th January 2008) organized by School of Life Sciences, Jawaharlal Nehru University, New Delhi, India.
6. Attended and presented a poster entitled “Expression analysis of carotenoid biosynthesis genes in tomato (*Solanum Lycopersicum L.*” at the “The 6th Solanaceae Genome Workshop 2009” (8th – 13th November 2009) organized by Department of Biotechnology (Govt. of India) at Le Meridien, New Delhi, India.
7. Participated at the National Workshop on “Principles & Applications of GC-MS and Atomic Absorption Spectrometry” (6th – 9th September 2010) organized by Central Instrumental Laboratory, Assam University, Silchar, Assam, India.
8. Participated at the workshop on “Basic Tools in Molecular Biology and Genomics” (7th – 16th December 2010) organized by Department of Biotechnology, Assam University, Silchar, Assam, India.
9. Participated and presented a paper entitled “The Gyoxalase system: A potential candidate for crop improvement” at the UGC sponsored “International conference on Biodiversity conservation and environmental health” (16th – 17th March 2012) organized by Department of Life Sciences and Bioinformatics, Assam University, Silchar, Assam, India.
10. Participated in the Workshop on “URKUND & MENDLEY” organized by Rabindra Library, Assam University, Silchar, Assam, India on 7th November, 2016.
11. Participated in the Workshop Cum Hands-on-Training on “Creating Healthy World Through Agriculture Base, Balanced Diet” jointly organized by the Division of Biochemistry, ICAR-IARI & Society for Plant Biochemistry and Biotechnology, New Delhi during 06th - 08th September, 2021 in Hybrid Platform.

E. Invited lectures / Resource Person/ Paper presentation in Seminars/ Conferences:

1. Delivered a lecture on “Development of Transgenic plants using marker free approach” in a “National Workshop on Basic Tools in molecular biology and genomics” conducted by Department of Biotechnology, Assam University, Silchar in collaboration with Silchar Medical College and Hospital, Silchar, Assam, India on 15-12-2010.
2. Delivered a lecture on “DNA Sequencing and its applications in molecular biology” in a “National Workshop on Basic Tools in molecular biology and genomics” conducted by 10 Department of Biotechnology, Assam University, Silchar in collaboration with Silchar Medical College and Hospital, Silchar, Assam, India on 16-12-2010.
3. Delivered a lecture on “The Gyoxalase system: A potential candidate for crop improvement” in an “International conference on Biodiversity conservation and environmental health”

conducted by Department of Life Sciences and Bioinformatics, Assam University, Silchar, Assam, India on 17-03-2012.

4. Acted as Judge in a Lecture competition on “Carbon Nano Material (CNM)” organized by YMCA University of Science and Technology, Faridabad, Haryana, India on 08-06-2012.
5. Delivered a lecture on “Biotechnology: Tools and Techniques” in a workshop organized by Gurucharan College, Silchar, Assam, India on 30-01-2013.
6. Acted as Judge in a KVS regional level event of “National Children Science Congress (NCSC)” at Kendriya Vidyalaya, Tarapur, Silchar, Assam, India on 08-10-2015.
7. Acted as Judge/Chairperson of a technical session in National conference "MICRON 2016" organized by Department of Microbiology, Assam University, Silchar, Assam, India on 30-12-2016.
8. Acted as a resource person in a workshop on "Some Modern Techniques in Molecular Biology and Bioinformatics” conducted by Institutional Biotech Hub, Karimganj College, Karimganj, Assam, India on 21-02-2017.
9. Acted as a expert/judge for the “National Science Day” Programme organized by Assam University Biotech Hub, Assam University, Silchar, Assam, India on 28-02-2017.
10. Acted as a resource person in a CSIR-Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow, Uttar Pradesh and Department of Horticulture, Aromatic and Medicinal Plants, Mizoram University, Aizawl sponsored National Workshop on "Skill Development Programme on Cultivation and Primary Processing of Economically Important Aromatic & Medical Plants Under Aroma Mission" at Mizoram University, Aizawl, Mizoram, India on 24- 04-2018.
11. Delivered an invited lecture on “Identification, characterization and expression profiling of selected microRNAs in Coffea arabica L.” in a UGC-SAP (DRS II) funded National Seminar on "Current Trends in Biotechnology Research (CTBR-2019)" organized by Department of Biotechnology, Assam University, Silchar, Assam, India on 20-03-2019.
12. Acted as Judge in a KVS regional level event of 27th “National Children Science Congress (NCSC)” at Kendriya Vidyalaya, Tarapur, Silchar, Assam, India on 19-10-2019.

F. Webinar Participation:

1. Participated in the webinar on “**Education for Future**” organized by FICCI, Guwahati, Assam, India on 6th June 2020.
2. Participated in the webinar on “**Entrepreneurship opportunities in Assam post COVID**” organized by FICCI, Guwahati, Assam, India on 6th June 2020.
3. Participated in the webinar on “**Climate change and sustainable agriculture**” organized by Department of Botany, Central University of Jammu, Jammu (J&K), India on 12th – 13th June 2020.
4. Attended the One-Day International Webinar on “**Application of geospacial and molecular tools in natural resource conservation and management**” organized by Department of Ecology and Environmental Science, Assam University, Silchar, Assam, India on 29th July 2020.

5. Participated in the webinar on “**Oppertunities in Engineering post Covid 19**” organized by Department of Agricultural Engineering, Assam University, Silchar, Assam, India on 31st July 2020.
6. Participated in the International Youth Day webinar on “**Role of youth in policy making and increasing their engagement at the local, national and global level to address the health and education issues during and post pandemic**” jointly organized by Ummeed Swasth Bhawishya (USB) Foundation and PISRD, India on 12th August 2020.
7. Attended an international webinar on “The challenges and Scientific Advances of SARS-COV 2” organized by Department of Microbiology, Assam University, Silchar, Assam, India on 27th August 2020.
8. Participated in the virtual webinar on “**Plant Based Technologies for Entrepreneurship Development**” organized by Rotary Club of Orchid City, Shillong, Meghalaya, India on 29th August, 2020.
9. Participated in the webinar on “**Evolving Role of Teachers and Future of Education**” organized by FICCI, Guwahati, Assam, India on 5th September 2020.
10. Participated in the one day virtual symposium on Biophysics “**(Biophysika-5)**” organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, India on 23rd February 2021.
11. Participated in the online workshop on “**Intellectual Property Rights**” organized by Assam University, Silchar in collaboration with ASTEC, Guwahati, India on 8th – 9th April 2021.
12. Participated in the two days webinar on “**Sustainable Ecosystem Restoration Initiative & Practices (SERIP 2021)**” held in view of World Environment Day 2021 on 5th and 7th June, 2021 organized by National Institute of Technology (NIT), Silchar, Assam, India.

G. Refresher Courses/ Orientation Courses/FDP attended:

1. Participated in the 77th Orientation Course (8th Nov 2011 – 2nd Dec 2011) organized by Academic Staff College, Jawaharlal Nehru University, New Delhi, India.
2. Participated in the Refresher Course in Life Sciences (26th March 2013 – 15th April 2013) organized by Academic Staff College, Mizoram University, Mizoram, India.
3. Completed the Faculty Development programme (19th Dec 2016 – 31st Dec 2016) organized by Entrepreneurship Development Institute of India at Assam University, Silchar, Assam, India.
4. Participated in the Refresher Course on “Indian Medicinal Plants” (24th Aug 2017 – 13th Sep 2017) organized by Human Resource Development Centre, Mizoram University, Aizawl, Mizoram, India.
5. Participated in One Week International Virtual FDP (15th – 19th June, 2020) on “**Moodle Learning Management System**” organized Don Bosco College Central Library and IQAC, Itanagar, Arunachal Pradesh, India in association with Spoken Tutorial, IIT Bombay (An Initiative of National Mission on Education through ICT, MHRD, Government of India).
6. Participated in the Online Refresher Course on “**Research Methodology**” (7th July 2020 – 20th July 2017) organized by Human Resource Development Centre, Mizoram University, Aizawl, Mizoram, India.
7. Participated in the 5-day international Faculty Development Program (FDP) cum Workshop (21st – 25th September 2020) on “**Sustainable Environmental Engineering Practices (SEEP 2020)**” organized by Department of Civil Engineering, National Institute of Technology Rourkela, India.
8. Participated in the 5-day “**Induction cum Orientation Programme for Newly Recruited Faculty**” of IGNOU (20-24 September 2021) organized by Staff Training and Research Institute of Distance Education (STRIDE), Indira Gandhi National Open University (IGNOU), New Delhi, India.
9. Participated in the UGC approved Six-Days Short Term Professional development

<p>Programme (09-16 November , 2022) on “NEP 2020: Design and Development of Audio/ Video Programmes” (Batch –III) organized by the Staff Training and Research Institute of Distance Education (STRIDE) & Electronic Media Production Centre (EMPC), Indira Gandhi National Open University (IGNOU), New Delhi, India.</p>				
RESEARCH PROJECTS				
Sponsoring Agency	Period	Amount of grant (in Lakhs)	Title of Project	Co-investigator(s) (if any)
SERB, Government of India	4 Years (4-5-2017 to 3-5-2021)	Rs. 40.32	Project entitled “Identification, characterization and expression profiling of drought stress responsive microRNAs in Coffea arabica L.” funded by SERB, DST, Government of India	None
HONOURS/AWARDS/DISTINCTIONS				
<ol style="list-style-type: none"> 1. Qualified GATE 2002 in Life Sciences. 2. Senior Research Fellow (SRF) in the Department of Biotechnology (DBT), Government of India funded ISCB Project from 01-09-2004 to 31-08-2006. 3. Travel Grant and Fellowship awarded for training under Indo-Swiss Collaboration in Biotechnology (ISCB) Project at University of Basel, Switzerland. 4. Qualified ICAR-NET 2009 in Agricultural Biotechnology. 5. DBT Overseas Associateship (Long Term) awarded by Department of Biotechnology (DBT), Government of India for research work at Southern Illinois University (SIU) at Carbondale, USA from 01-08-2013 to 31-07-2014. 				
PROFESSIONAL ASSOCIATIONS				
<ol style="list-style-type: none"> 1. Life Member of Society for Plant Biochemistry and Biotechnology, New Delhi, India since since 30th April, 2021. [Membership No. L-912 (2021)] 2. Life Member of Professor H.S.Srivastava Foundation for Science and Society, Lucknow, India since 30th April, 2021. 				
OTHER ACTIVITIES				
<ol style="list-style-type: none"> 1. Internal member of “Institutional Biosafety Committee’ of Assam University, Silchar, Assam from 27-5-2011to 26-5-2014. 2. Laboratory Incharge, Biochemistry Lab, Department of Biotechnology, Assam University, Silchar, Assam from 14-11-2012 to 13-11-2013. 3. Member (Boards of Schools) of School of Life Sciences, Assam University, Silchar, Assam from 14-08-2013 to 13-08-2015. 4. Member (Boards of Post Graduate Studies) of School of Life Sciences, Assam University, Silchar, Assam from 11-3-2016 to 10-3-2019. 5. Coordinator, Remedial coaching at Department of Biotechnology, Assam University, Silchar, Assam from 19-8-2016 to 26-8-2021. 6. Member of Alumni Association, Assam University, Silchar, Assam from 15-9-2016 to 26-8-2021. 7. Head (i/c), Department of Biotechnology, Assam University, Silchar, Assam from 5/6/2018 to 6/6/2018 & 18/6/2018 to 30/6/2018. 				