

# Abhishek R Singh

## Research Institute of Biology

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## Language skills

English

## Work experience

Institution	Research Institute of Biology
Period of time	2024 till now
Rank/degree	Researcher

Institution	Research Institute of Biology
Period of time	2023 - 2024
Rank/degree	Junior Researcher

## Publications

Article

### Impact of Nanofertilizers for the Mitigation of Multiple Environmental Stresses

Abhishek Singh, Sapna Rawat, Vishnu D. Rajput, Karen Ghazaryan, Tatiana Minkina,

Abdel Rahman Mohammad Al Tawaha, Ashi Varshney

Nanofertilizers for Sustainable Agroecosystems 2024 431-454

Article

### Green Synthesis of Nanofertilizers and Their Application for Crop Production

Abhishek Singh, Ragini Sharma, Vishnu D. Rajput, Karen Ghazaryan, Tatiana Minkina,

Abdel Rahman Mohammad Al Tawaha, Ashi Varshney

Nanofertilizers for Sustainable Agroecosystems 2024 205-231

Article

### Impact of Salinity Stress and Zinc Oxide Nanoparticles on Macro and Micronutrient

#### Assimilation: Unraveling the Link between Environmental Factors and Nutrient Uptake

Abhishek Singh, Rakesh Singh Sengar, Vishnu D. Rajput, Uday Pratap Shahi, Abdul Latief Al-Ghzawi,

Karen Ghazaryan, Tatiana Minkina, Abdel Rahman Mohammad Al Tawaha, Omar Mahmoud Al Zoubi,

Talaat Habeeb

Journal of Ecological Engineering 2024 1-9

Article

### Advancing Agricultural Resilience in Ararat Plain, Armenia: Utilizing Biogenic Nanoparticles and Biochar under Saline Environments to Optimize Food Security and Foster European Trade

Abhishek Singh, Gohar Margaryan, Anna Harutyunyan, Hasmik S. Movsesyan, Hrant Khachatryan, Vishnu D. Rajput, Tatiana Minkina, Athanasios Alexiou, Dimitrios Petropoulos, Athanasios Kriemadis, Hassan El-Ramady, Karen Ghazaryan  
Egyptian Journal of Soil Science 2024 459-483

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**Zinc Oxide Nanoparticles Influence on Plant Tolerance to Salinity Stress: Insights into Physiological, Biochemical, and Molecular Responses**

Abhishek Singh, Vishnu D. Rajput, Shivani Lalotra, Shreni Agrawal, Karen Ghazaryan, Jagpreet Singh, Tatiana Minkina, Priyadarshani Rajput, Saglara Mandzhieva, Athanasios Alexiou  
Environmental Geochemistry and Health 2024 148

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*Article*

**Effects of environmental metal and metalloid pollutants on plants and human health: exploring nano-remediation approach**

Priyadarshani Rajput, Abhishek Singh, Shreni Agrawal, Karen Ghazaryan, Vishnu D. Rajput, Hasmik Movsesyan, Saglara Mandzhieva, Tatiana Minkina, Athanasios Alexiou  
Stress Biology 2024 1-25

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**Nanotechnology applications for enhanced crop growth and yield. Chapter 4**

Sapna Rawat, Abhishek Singh, Vishnu D. Rajput, Karen Ghazaryan, Tatiana M. Minkina, Abdel Rahman Mohammad Al-Tawaha, Athanasios T. Alexiou, Priyadarshani Rajput  
Sustainable Agriculture: Nanotechnology and Biotechnology for Crop Production and Protection 2024 53-68

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*Article*

**Nanobiotechnology combined approaches for sustainable agriculture. Chapter 1**

Vishnu D. Rajput, Abhishek Singh, Shivani Lalotra, Karen Ghazaryan, Hasmik S. Movsesyan, Tatiana Minkina, Rahman Mohammad Al-Tawaha, Athanasios T. Alexiou, Priyadarshani Rajput  
Sustainable Agriculture: Nanotechnology and Biotechnology for Crop Production and Protection 2024 1-16

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*Article*

**Impact of nano-enzyme and nanomics for sustainable agriculture: Current status and future prospective**

Shivangi Singh, Omkar Singh, Sakshi Singh, Abhishek Singh, Vishnu D. Rajput, Karen Ghazaryan, Vaishali Singh, Athanasios Alexiou, Abdel Rahman Mohammad Said Al-Tawaha, Aleksandr Yesayan, Armine David Chakhmakhchyan, Hassan El-Ramady  
Harnessing NanoOmics and Nanozymes for Sustainable Agriculture 2024 1-18

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**Nano-omics-based abiotic and biotic stresses management**

Priyanka Upadhyay, Sonia Navvuru, Praveen Kumar Yadav, Shivani Lalotra, Abhishek Singh, Vishnu D. Rajput, Tatiana Minkina, Karen Ghazaryan  
Harnessing NanoOmics and Nanozymes for Sustainable Agriculture 2024 348-371

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**Detoxification of Biomedical Waste**

Abhishek Singh, Neha Chakrawarti, Vishnu D. Rajput, Karen Ghazaryan, Tatiana Minkina,  
Abdel Rahman Mohammad Said Al-Tawaha, Abdel Razzaq Al-Tawaha, Marwa Adel Qotb, Arun Karnwal  
Microbial Applications for Environmental Sustainability 2024 137-149

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**Microbial Enzymes for Eco-Friendly Recycling of Wastepaper by Deinking**

Sapna Rawat, Abhishek Singh, Vishnu D. Rajput, Karen Ghazaryan, Tatiana Minkina,  
Abdel Rahman Mohammad Said Al-Tawaha, Abdel Razzaq Al-Tawaha, Marwa Adel Qotb, Arun Karnwal  
Microbial Applications for Environmental Sustainability 2024 165-176

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**Microbial Manganese Peroxidase: Ligninolytic Enzymes for Bioremediation**

Abhishek Singh, Ragini Sharma, Vishnu D. Rajput, Karen Ghazaryan, Tatiana Minkina,  
Abdel Rahman Mohammad Said Al-Tawaha, Shreni Agrawal, Ashi Varshney, Abdel Razzaq Al-Tawaha,  
Arun Karnwal  
Microbial Applications for Environmental Sustainability 2024 189-199

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**Nanoparticles in revolutionizing crop production and agriculture to address salinity stress challenges for a sustainable future**

Abhishek Singh, Shreni Agrawal, Vishnu D. Rajput, Karen Ghazaryan, Aleksandr Yesayan,  
Tatiana Minkina, Yufei Zhao, Dimitrios Petropoulos, Athanasios Kriemadis, Marios Papadakis,  
Athanasios Alexiou  
Discover Applied Sciences 2024 317

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**Carbon Nanodot-Microbe-Plant Nexus in Agroecosystem and Antimicrobial Applications**

Prokisch József, Duyen H. H. Nguyen, Arjun Muthu, Aya Ferroudj, Abhishek Singh, Shreni Agrawal,  
Vishnu D. Rajput, Karen Ghazaryan, Hassan El-Ramady, Mahendra Rai  
Nanomaterials 2024 1-37

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**Study of tolerance and phytodesalination potential of wheat, oat, emmer, and barley for sustainable saline agriculture**

GHAZARYAN, K.A., HARUTYUNYAN, A.S., KHACHATRYAN, H.E., SINGH, A., MINKINA, T.M., RAJPUT, V.D.,  
MOVSESYAN, H.S.  
Applied Ecology and Environmental Research 2023 4853-4882

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**Small Tech, Big Impact: Agri-nanotechnology Journey to Optimize Crop Protection and Production for Sustainable Agriculture**

Ափիշեկ Սիսի, Vishnu D Rajput, Ashi Varshney, Կարեն Ղազարյան, Tatiana Minkina  
Plant Stress 2023 1-26

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**Green Nanofertilizers: the Need for Modern Agriculture, Intelligent, and Environmentally-Friendly Approaches**

Abdel Rahman Mohammad Al Tawaha, Abhishek Singh, Vishnu D. Rajput, Ashi Varshney, Shreni Agrawal,

Karen Ghazaryan, Tatiana Minkina, Omar Mahmoud Al Zoubi, Talaat Habeeb, Lysenko Dionis,  
Hanan Aref Hasan, Samar Shawaqfeh

Ecological Engineering and Environmental Technology 2023 1-21

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