

#### 4. CV OF THE EXPERIENCED RESEARCHER

Name - **Raghuram Badmi**

Gender - Male

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#### EDUCATION

2014 PhD: **Disputation date: 07.08.2014**  
Jawaharlal Nehru University/National Institute of Plant Genome Research,  
India (supervisor: Dr. Alok K Sinha)

2009 Master of Science  
Department of Biotechnology, Gulbarga University, India

#### CURRENT AND PREVIOUS POSITIONS

2017- Postdoctoral Researcher  
Division for Biotechnology and Plant Health, Biotechnology and Molecular  
Genetics, Norwegian Institute of Bioeconomy Research (NIBIO), Norway

2015-2017 Postdoctoral Researcher  
Biosciences Division, Plant Systems Biology group, Oak Ridge National  
Laboratory, United States of America

#### FELLOWSHIPS AND AWARDS (\*not availed)

2009-2014 Junior Research Fellowship and Senior Research Fellowship by Department  
of Biotechnology, India.

2010 Junior Research Fellowship by Council of Scientific and Industrial Research,  
India.\*

2007 Summer Research Fellowship, Indian Academy of Sciences, India

2007 Merit Certificate for securing highest marks in Bachelors of Science exams in  
Bellary City, India.

#### SUPERVISION OF GRADUATE STUDENTS AND RESEARCH FELLOWS

2009-2016 Supervised **7** students in the laboratory for completion of their thesis  
dissertation work, including **2** bachelors in science/technology and **5** masters  
in science/technology. Trained **2** graduate students in molecular methods and  
experimental protocols during their initial stages of graduation. Official co-  
supervisor for **1** M.Sc. student at the Norwegian University of Life Sciences  
(NMBU). *Total = 10 students supervised*

#### COMMISSIONS OF TRUST

2015- Reviewer of manuscripts (*publons.com/a/1240976/*)  
On 15 occasions for nine journals including Plant Biotechnology Journal,  
Forest Pathology, PLOS One, Bio-Protocol, Plant Physiology and Biochemistry  
and Indian Journal of Plant Physiology.

## MAJOR COLLABORATIONS (current)

1. Jurriaan Ton, Department of Animal and Plant Sciences, University of Sheffield, UK. External project partner in ongoing FRIMEDBIO TOPPFORSK project no. 249958, 2016-2021.
2. Tage Thorstensen, Division for Biotechnology and Plant Health, NIBIO, Norway. Project partner in ongoing FRIMEDBIO TOPPFORSK 2016-2021.
3. Paal Krokene, Division for Biotechnology and Plant Health, NIBIO, Norway. Project PI for ongoing FRIMEDBIO TOPPFORSK 2016-2021.

## Early achievements track record

### Published 12 papers in peer-reviewed scientific journals. (as of December, 2018)

- 187 citations in total in Web of Science (h-index 7)

- 513 citations in Google Scholar (h-index 9) (last 5 years: 473 citations, h-index 9)

## PUBLICATIONS:

1. **Raghuram Badmi**; Raja Payyavula; Garima Bali; Hao-Bo Guo; Sara Jawdy; Lee Gunter; Xiaohan Yang; Kimberly A Winkeler; Cassandra Collins; William H Rottmann; Kelsey Yee; Miguel Rodriguez; Robert Sykes; Steve Decker; Mark Davis; Arthur Ragauskas; Gerald Tuskan; Udaya C Kalluri. Downregulation of a novel calmodulin-binding protein results in greater cellulose content, biomass density and sugar release efficiency in *Populus*. *Frontiers in Plant Science*. (2018). 9:1669 doi: 10.3389/fpls.2018.01669 (without PhD supervisor as co-author)
2. **Raghuram Badmi\***, Arsheed H. Sheikh, Prakash K. Bhagat, Deepanjali Verma, Stanzin Noryang and Alok Krishna Sinha. Possible role of plant MAP Kinases in the biogenesis and transcription regulation of rice microRNA pathway factors. *Plant Physiology and Biochemistry*. (2018). 129: 238-243 (\*corresponding author)
3. Prakash Kumar Bhagat, Deepanjali Verma, **Raghuram Badmi**, Alok Krishna Sinha. Dynamic regulation of HYL1 provides new insights into its multifaceted role in Arabidopsis. bioRxiv 396861; doi: <https://doi.org/10.1101/396861>
4. Chandana Pandey, **Raghuram Badmi**, Alok Krishna Sinha, Meetu Gupta. miRNA plays a role in the antagonistic effect of selenium on arsenic stress in rice seedlings. *Metallomics*. (2015). 7: 857-866.
5. **Raghuram Badmi**, Arsheed H Sheikh, Yashika Rustagi, Alok Krishna Sinha. MicroRNA biogenesis factor DRB1 is a phosphorylation target of mitogen activated protein kinase, MPK3 in both rice and Arabidopsis. *FEBS Journal*. (2015). 282: 521–536.
6. **Raghuram Badmi**, Arsheed H Sheikh, Alok Krishna Sinha. Regulation of MAP kinase transcripts by microRNAs in *Oryza sativa*. *Plant Signaling and Behavior*. 9 (7), e29804.
7. Vismitha Sethi, **Raghuram Badmi**, Alok Krishna Sinha, Sudip Chattopadhyay. A Mitogen-Activated Protein Kinase Cascade Module, MKK3-MPK6 and MYC2, Is Involved in Blue Light-Mediated Seedling Development in Arabidopsis. *The Plant Cell*. 26 (8), 3343-3357.
8. Arsheed H Sheikh, **Raghuram Badmi**, Lennart Eschen-Lippold, Dierk Scheel, Justin Lee, Alok Krishna Sinha. Agroinfiltration by cytokinin producing Agrobacterium strain GV3101 primes the plant defense response in *Nicotiana tabacum*. *Molecular Plant-Microbe Interactions*. MPMI-04-14-0114-R.

9. Arsheed H Sheikh, **Raghuram Badmi**, Siddhi K Jalmi, Dhammaprakash P Wankhede, Pallavi Singh, Alok K Sinha. Interaction between two rice mitogen activated protein kinases and its possible role in plant defense. *BMC Plant Biology*. 13:121, (2013).
10. Susheel Kumar Raina, Dhammaprakash Pandhari Wankhede, Monika Jaggi, Pallavi Singh, Siddhi Kashinath Jalmi, **Raghuram Badmi**, Arsheed Hussain Sheikh and Alok Krishna Sinha. CrMPK3, a mitogen activated protein kinase from *Catharanthus roseus* and its possible role in stress induced biosynthesis of monoterpenoid indole alkaloids. *BMC Plant Biology*. (2012) 12:134.
11. Alok Krishna Sinha, Monika Jaggi, **Raghuram Badmi** and Narendra Tuteja. Mitogen-activated protein kinase signaling in plants under abiotic stress. *Plant Signaling & Behavior*. (2011) 6:2, 196-203.
12. Kudupudi Prabhakara Rao, Tambi Richa, Kundan Kumar, **Raghuram Badmi**, and Alok Krishna Sinha. In Silico Analysis Reveals 75 Members of Mitogen-Activated Protein Kinase Kinase Kinase Gene Family in Rice. *DNA Research*. 17, 139–153, (2010).

#### ACADEMIC PRESENTATIONS:

1. **Raghuram Badmi**, et al, 2015 (January 7). Regulation of MAP kinase signalling cascade by microRNAs in *Oryza sativa*. Plant Developmental Biology group. Wageningen University and Research, Netherlands. (Invited)
2. **Raghuram Badmi**, et al, 2017 (January 8). (a) Regulation of microRNA biogenesis and (b) Novel factors in cell-wall formation. Donald Danforth Plant Science Center. St. Louis, USA. (Invited)
3. **Raghuram Badmi**, et al, 2017 (June 21). Adaptive plasticity and memory in Strawberry - an epigenetics approach. 5th Norwegian Plant Biology Conference (NorPlantBio 2017), Norway.
4. **Raghuram Badmi**, et al, 2018 (March 7). Defense priming in Strawberry. NIBIO Workshops in Biotechnology, Part II, Norway.
5. **Raghuram Badmi**, et al, 2018 (May 31). Priming Strawberry for Defence Against *Botrytis cinerea*. 6th Norwegian Plant Biology Conference (NorPlantBio 2018), Norway.

#### OUTREACH AND SCIENCE COMMUNICATION

1. Biofuels from plants. 2016 (February 16). Undergraduate students of Ballari Institute of Technology and Management, Ballari, India (Invited).
2. Bioenergy and Biofuels. 2017 (March 3). Undergraduate students of Department of Chemistry, Veerashaiva College, Ballari, India (Invited).