

CURRICULAM VITAE

Irshad Ahmad

E- mail: irshad003ahmad@gmail.com

Skype ID irshad.ahmad868

PRESENT ADDRESS: 107, Uttarakhand,
Jawaharlal Nehru University,
New Delhi - 110067, INDIA

CONTACT NUMBER: +91-9873635337, +91-8750283624

EDUCATION

Ph.D Biotechnology (2016)

International Centre For Genetic Engineering and Biotechnology , New Delhi

(Degree awarded by Maharishi Markandeshwar University, Mullana, Ambala, Haryana, India)

Ph.D topic-

“Characterization and Genetic Engineering of Green algae for Biodiesel Production”

M.Sc Biochemistry (2008), 70.8%,

Department of Biochemistry, Bundelkhand University, Jhansi, UP, India.

B.Sc. with Chemistry, Zoology and Botany (2002), 60.4%,

V.B.S. Purvanchal University, Jaunpur, UP, India.

PUBLICATIONS

- Irfan M, Kumar P, **Ahmad, I** and Datta, A. (2021) Unraveling the role of tomato Bcl-2-associated athanogene (BAG) proteins during abiotic stress response and fruit ripening. *Scientific reports*, **11**(1), 1-15.
- **Ahmad, I.** and Hoda, M. (2020) Molecular mechanisms of action of resveratrol in modulation of diabetic and non-diabetic cardiomyopathy. *Pharmacological Research* **161**, p. 105112.
- **Ahmad, I.** and Hoda, M. (2020) Attenuation of diabetic retinopathy and neuropathy by resveratrol: Review on its molecular mechanisms of actions. *Life sciences* **245**, p. 117350.
- **Ahmad, I.**, Sharma, A.K., Daniell, H. and Kumar, S. (2015) Altered lipid composition and enhanced lipid production in green microalga by introduction of brassica diacylglycerol acyltransferase 2. *Plant biotechnology journal* **13**, 540-550.

- **Ahmad, I.**, Fatma, Z., Yazdani, S.S. and Kumar, S. (2013) DNA barcode and lipid analysis of new marine algae potential for biofuel. *Algal Research* **2**, 10-15

SYMPOSIUM PROCEEDINGS

- **Ahmad, I.** and Kumar, S. (2014) GM Algae for Higher Biofuel Values and Environmental Biosafety. In: Recent Advances in Biotechnology for Food and Fuel. TERI IHC, New Delhi, pp 68-76.

RESEARCH EXPERIENCE

National Institute of Plant Genome Research, New Delhi.

- Worked as postdoctoral fellow on “Silencing of BAG family genes in tomato through Virus induced gene silencing”, under the supervision of Prof. Asis Datta, **National Institute of Plant Genome Research, New Delhi.** (From Nov 15, 2017- Aug 31, 2020)
- Worked as postdoctoral fellow on “Exploring transcriptome dynamics of chickpea development for candidate gene discovery and defining regulatory elements/modules”, under the supervision of Dr. Mukesh Jain, **National Institute of Plant Genome Research, New Delhi.** (From May 29, 2017- Aug 04, 2017)

International Centre For Genetic Engineering and Biotechnology, New Delhi.

- Worked as postdoctoral fellow on “Algal biofuel” under the supervision of **Dr. Shashi Kumar, Synthetic biology and Biofuels group, International Centre for Genetic Engineering and Biotechnology, New Delhi.** (From Aug 05, 2016- Sep 15, 2016)
- Worked as Senior Research Fellow on a project entitled “**Metabolic engineering of Algal cells to produce higher neutral lipid for biodiesel.**” under the supervision of **Dr. Shashi Kumar /Dr. Syed Shams Yazdani, Synthetic biology and Biofuels group, International Centre for Genetic Engineering and Biotechnology, New Delhi.** (From Feb 2010- Sep 2015)
- One week training on Algal culture in **IIT Madras.**
- **School of Life sciences, Jawaharlal Nehru University, New Delhi.**

Six months dissertation work under the guidance of **Dr. B.C. Tripathy**, School of life sciences, Jawaharlal Nehru university (**JNU**), **New Delhi** on -
“Cloning and characterization of red chlorophyll catabolites reductase (RCCR) gene of Arabidopsis thaliana”. (From Jan 2008-June2008)

EXPERIMENTAL EXPERTIS

- **Algal Cell & Cyanobacterial cell culturing**
Algal cell maintenances (chlorella and chlamydomonas).
Cynobacterial Culture (Spirulina, Synechocystis, Synechococcus)
Cryopreservation of algal cells.
Nile Red staining of algal cells to detect lipid.
- **Lipid Extraction**
Lipid extraction from different algal species.
Transesterification of algal lipid into **FAME** (Fatty acid methyl ester)-
“Biodiesel”
Analysis of **FAME** component through **GC** and **GC-MS**.
- **Plant Transformation**
Agrobacterium mediated transformation of “*Arabidopsis thaliana*”. **Through floral dip method.**
Agrobacterium mediated transformation of “Rice callus”.
Algal transformation through **Electroporation** and **Agrobacterium**
- **Plant Cell line handling**
Nagata cells and BY-2 cells (Tobacco)
- **Molecular Biology**
DNA, RNA isolation from different Tissue.
PCR and Real Time PCR based technique.
DNA sequencing.
Electrophoretic Techniques.
Southern Blot.
- **Immunology**
Western Blot.
Enzyme linked immunosorbent assay (ELISA).
Protein isolation and estimation from different tissue.

- **Biophysical Techniques**

Spectrophotometry: UV and Fluorescence

Chromatography: HPLC and TLC

GC and GC-MS

WORKSHOPS AND CONFERENCES

- Work shop attended on fluorescent microscopy in ICGEB New Delhi.
- Poster presented in International Seminar on Sustainable industrial algae production and related business opportunities, New Delhi.
- Hands on training of Gas chromatographic techniques at Agilent, Bangalore, India.

PERSONAL DETAILS

Father's name : Abdul Mannan

Date of Birth : 05-01-1981

Languages known : Hindi and English

Sex : Male

Marital status : Married

Nationality : Indian

Permanent address : Shahabuddinpur, Post: Bilariaganj,
Dist: Azamgarh,
State: Uttar Pradesh 276121, India

REFERENCES

Dr. Shashi Kumar

Group Leader,
Metabolic Engineering,
International Center for Genetic Engineering and Biotechnology,
(ICGEB), New Delhi, India
Mo-+919999950544
E-mail: skrhode@icgeb.res.in

Dr. Syed Shams Yazdani

Group Leader,
Microbial Engineering,
International Center for Genetic Engineering and Biotechnology,
(ICGEB), New Delhi, India
Mo-+919818992403
E-mail: shams@icgeb.res.in

Dr. Anil Kumar Sharma

Head of Department,
Department of Biotechnology,
Maharishi Markandeshwer University,
Ambala, Haryana, India
Mo-+918059777758
E-mail: anibiotech18@gmail.com