



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 6871

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di** _____

Scientist- in - charge: _____

[Name and surname]

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	TRIPATHI
Name	PANKAJ KUMAR

PRESENT OCCUPATION

Appointment	Structure
Agricultural Research Organization, Israel	<p>❖ Currently, I am working as a postdoctoral fellow at ARO, The Volcani center, Israel on the mutagenesis of <i>Pectobacterium</i>, a gram-negative bacterium responsible for causing soft rot diseases in plants such as potatoes and tomatoes. My work involves targeting and mutating specific genes that contribute to these diseases, using methods like electroporation and conjugation for gene transformation.</p> <p>In addition, I have been involved in a project focused on gene editing technologies in <i>Ornithogalum dubium</i>. I successfully established tissue culture and transformation procedures critical for the proliferation and transformation of <i>O. dubium</i>. Notably, I developed an efficient Agrobacterium-based transformation protocol for this species (Tripathi et al., 2023). Additionally, I performed histological and SEM analyses to understand shoot apical meristem formation in <i>O. dubium</i>. Our aim is to develop new varieties of <i>O. dubium</i> with different flower colors. To achieve this, we are identifying novel genes associated with flower color, synthesizing gRNA from the <i>O. dubium</i> genome, and implementing</p>



	CRISPR-Cas-mediated gene editing approaches. The resulting putative transformants will undergo molecular characterization and phenotypic analysis.
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EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree	B.Sc	Lucknow University, India	2005
Specialization	Biology		
PhD	Botany	Sikkim University, India	2019
Master	M.Sc in Biotechnology	Dr. RML Avadh University, India	2008
Degree of medical specialization			
Degree of European specialization			
Other			

REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date of registration	Association	City

FOREIGN LANGUAGES

Languages	level of knowledge
english	Fluent
Hindi	Native

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2008	BCIL trainee award sponsored by DBT, Govt. of India
2013	Poster Presentation award by NCMPR, Sikkim



TRAINING OR RESEARCH ACTIVITY

description of activity: Strong knowledge and experience in cloning, genetic engineering, CRISPR/Cas9, biochemistry, plant tissue culture, electroporation, conjugation, biochemical analysis, genetics and breeding, as well as proficiency in handling instruments such as HPLC, PCR, fluorescence microscope, confocal microscope, spectrophotometer, IVIS, histological analysis, and microtome.

PROJECT ACTIVITY

Year	Project

PATENTS

Patent

CONGRESSES AND SEMINARS

Date	Title	Place
08/11/2022	<i>"An efficient Agrobacterium-mediated genetic transformation of Ornithogalum dubium".</i>	ARO, Volcani Center, Israel
9-10/05/ 2020	<i>"Herbal plants and plant preparations as remedial approach for viral diseases' .</i>	Sunbeam Women's College Varuna, Varanasi
30-31/10/2017	<i>"Variability in Mucuna pruriens (L.) DC. germplasm for L-Dopa in North East region of India).</i>	Bineswar Brahma Engineering College, Chandrapara, Kokrajhar, Assam, India
11-12/05/2017	<i>"Genetic diversity and Population structure analysis of Mucuna pruriens (L.) DC. In North East India using AFLP and gene derived microsatellite markers".</i>	Himalayan Scientific Society for Fundamental and Applied Research and Kalimpong Science Centre, Kalimpong and UBKV

PUBLICATIONS

Books
❖ Tripathi P.K. , Rathaude S.K., Singh P.K., Tripathi M., Pathak N., Singh R.L. & Singh P. (2022). Phytochemistry, Nutritional and Pharmacological Significance of Underutilized Legume <i>Canavalia</i>



gladiata Plant - A Review. *Frontiers in Crop Improvement*. 10:3447-3452 (Special Issue-VII), Print ISSN: 2393-8234. Online ISSN: 2454-6011

- ❖ Singh P., **Tripathi P.K.** & Singh R.L. (2022). Biochemistry and photochemistry of triphala, three medicinal fruits, medicinal properties, bioactive compounds and therapeutic potential. UNESCO-EOLSS. (2022)

[title, place, publishing house, year ...]

Articles in reviews

- ❖ **Tripathi P.K.**, Ayzenshtat D., Kumar M., Yedidia I., & Bocobza S. (2023). An efficient and reproducible *Agrobacterium*-mediated genetic transformation method for an ornamental monocotyledonous plant *Ornithogalum dubium* Houtt. *Plant Growth Regulation*. 101:201-214 (I.F: 4.20; H index 116)
- ❖ Kumar M., **Tripathi P.K.**, Ayzenshtat D., Forotan Z. & Bocobza S. (2022). Increased rates of gene-editing events using a simplified RNAi configuration designed to reduce gene silencing. *Plant Cell Reports*. 41(10):1987-2003. (I.F: 6.2; H index: 114)
- ❖ Balkrishna A., Pandey J.K., **Tripathi P.K.**, Joshi R. & Arya V. (2021). Chemical Fertilizers and Pesticides in Indian Agriculture: Effect on Human Health and Environment. *Biological Forum - An International Journal*, 13(3): 407-422
- ❖ **Tripathi P.K.**, Jena S.N., Rana T.S & Sathyanarayana N. (2018). High levels of gene flow constraints population structure in *Mucuna pruriens* L. (DC.) of northeast India. *Plant Gene* 15, 6-14. (I.F: 2.31; H index: 17)
- ❖ Sathyanarayana N., Pittala R.K., **Tripathi P.K.**, Chopra R., Singh H.S., Belamkar V., Bhardwaj P.K., Doyle J.J & Egan A.N. (2017). Transcriptomic resources for the medicinal legume *Mucuna pruriens*: de novo transcriptome assembly, annotation, identification and validation of EST-SSR markers. *BMC Genomics*. 18:409, 1-18. (I.F: 4.547; H index: 167)
- ❖ Leelambika M., Mahesh S., Jaheer M., **Tripathi P.K.**, Pittala R.K. & Sathyanarayana N. (2016). Targeted Metabolic and Genomic Profiling Reveals Parents for L-Dopa Breeding in *M. pruriens* (L.) DC. *Tropical Plant Biol.* 9:239–251. (I.F: 2.09; H index: 24)
- ❖ **Tripathi P.K.**, Awasthi S., Kanojiya S., Tripathi V. & Mishra D.K. (2013). Callus culture and *in-vitro* biosynthesis of cardiac glycosides from *Calotropis gigantea* (L.), *In vitro cell Dev. Biol-Plant*. 49 (4) 455-460. (I.F:2.6; H index: 70)
- ❖ Rai A., Tripathi P., Dwivedi S., Dubey S., Shri M., Kumar S., **Tripathi P. K.**, Dave R., Kumar A., Singh R., Adhikari B., Bag M., Tripathi R. D., Trivedi P. K., Chakrabarty D. & Tuli R. (2010). Arsenic tolerances in rice (*Oryza sativa*) have a predominant role in transcriptional regulation of a set of genes including sulphur assimilation pathway and antioxidant system, *Chemosphere*. 82 (7): 986-995. (I.F: 8.943; H index: 248)

Congress proceedings

[title, structure, place, year]

[title, structure, place, year]

[title, structure, place, year]

OTHER INFORMATION



Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

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Place and date: Rehovot, Israel, 18/09/2024