

Padmavati Manchikanti

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Rajiv Gandhi School of Intellectual Property Law
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My web page: http://www1.iitkgp.ac.in/faculty/profile/showprofile.php?empcode=bXmUR&depts_name=RG

Areas of Specialisation

1. Intellectual Property related: Trained in IP, familiar with various aspects of IP specifically patents, Patent search, mapping and landscapes, Drafting patents, Invention disclosure filing, imparted training in specific aspects of IP

Teaching/Taught subjects – Law of Patent-I, Law of Patent-II, IP management and Technology Transfer, Other Forms of IP Law (TS, GI and Semiconductor protection), Biodiversity Law, Traditional Knowledge Protection

Research – Biobased Drug – IP, Regulation, competition issues, Patent Landscaping, Biodiversity and Traditional Knowledge related, Drug Regulation Bioenergy inventions

2. Biodiversity related: Implementation of the Biological Diversity Act 2002 in India; Institutional mechanism, conservation objectives, Traditional knowledge and traditional medicine; international aspects of biodiversity protection; CBD implementation, policy measures, biodiversity governance

3. Plant Biology

Microbiological toxicity screening of plant secondary metabolites, HPLC analysis of plant tissue extracts; Enzyme analysis, Molecular analysis; Areas of specialisation: Flavonoid biosynthetic pathway,

Work Experience

Dean, Rajiv Gandhi School of IP Law

Professor, Rajiv Gandhi School of IP Law

Associate Professor, Rajiv Gandhi School of Intellectual Property Law, IIT Kharagpur

Assistant Professor, Rajiv Gandhi School of Intellectual Property Law, IIT Kharagpur

Associate Faculty- School of Energy Sciences, IIT Kharagpur

Senior Scientist, Monsanto Research Center, Bangalore

Education Qualifications

Masters in IP Law
PhD in Plant Sciences
Masters in Biotechnology

Scholarships

Award:

and Awards/projects

2009 Microsoft Outstanding Young Faculty Award in IP - Creation of Intellectual Property Resource with respect to Traditional Knowledge in India -

Projects awarded:

2020- Building awareness on IP Rights for MSMEs- IP facilitation Centre- Govt. of India - Co-PI

2018 –Herbal Biodegradable Therapeutic dressing for traumatic wound care – Department of Science and Technology, GOI, Co-PI

2018 – Evaluation of Basella species for its antioxidant potential and nutraceutical development. Higher Education, Science and Technology and Biotechnology, Govt. of West Bengal, Vigyan Chetana Bhavan - PI

2017- Tripura State Solar Policy, IEST Shibpur – Co PI

2016- IP enforcement in India: A study for the creation of a National IP Court/Centralised IP Court – Co PI

2016- Review of the Development of the Legal Framework for the ICT sector in Ethiopia, Grail Consulting Services

2015 – Development of the E-commerce strategy plan for Ethiopia, Grail Consultancy Services

2013 – Bioactive peptide synthesis from honey protein and its characterization- CSIR, Government of India – Co PI

2011 – Plant Metabolic Pathways Laboratory – MHRD, Government of India - PI

2010 – Legal and Policy Issues in Biodiversity – Capacity Building module for ASEAN countries. National Biodiversity Authority, Chennai- PI

Course Coordinator of DST-TIFAC Women Scientist Scholarship Scheme in IPR, Eastern Zone center, DST-TIFAC, New Delhi

2009 Study of drug price control mechanism in select countries – Department of Pharmaceuticals, Ministry of Chemicals, New Delhi - PI

2007 ISIRD fund for 'Agricultural Biotech Invention resource', IIT Kharagpur -PI

2005 DST Fast track fellowship- for the project titled 'Role of phenylpropanoids and flavonoids in defense response of maize against pathogens and pests' -PI

Research and Development experience

- Patent analytics, Claim analysis, IP commercialization, Invention disclosure filing, prior art search
- Extensive research experience in flavonoid biosynthetic pathway
- Participated in the development of plant specific databases, bioinformatics softwares, pathway databases, agriculture invention resource
- Biodiversity research

Ph.D and Masters Guidance

- 7 Ph.D students guidance completed; 5 ongoing
- 5 LL.M Guidance completed
- ~ 33 Masters level students guidance completed;

Publications, and presentations, certification, books

Journal publications:

- Bose D, Padmavati M, Banerjee R. Isolation, purification and characterization of protein from Litchi chinensis honey and generation of peptides. J Addict Recovery 2020 , 3 (1): 1016.
- Arun Prabhu Rameshbabu, Kamakshi Bankoti, Sayanti Datta, Elavarasan Subramani, Anupam Apoorva, Paulomi Ghosh, Priti Prasanna Maity, **Padmavati**

- Manchikanti**, Koel Choudhury, Santanu Dhara (2018). Silk Sponges ornamented with a placenta-derived extracellular matrix augment full-thickness cutaneous wound healing by stimulating neovascularization and cell migration. *ACS Appl. Mater. Interfaces*. 10 (20): 16977-16991.
- Anupam Apoorva, Arun Prabhu Rameshbabu, Swagata Dasgupta, Santanu Dhara, **Manchikanti Padmavati** (2020) Novel pH-sensitive alginate hydrogel delivery system reinforced with gum tragacanth for intestinal targeting of nutraceuticals. *International Journal of Biological Macromolecules* 147: 675-687.
 - Kumar, BR, Anupam A, **Manchikanti P**, Rameshbabu Ap, Dasgupta, S, Dhara, S (2018) Identification and characterization of bioactive phenolic constituents, antiproliferative and anti angiogenic activity of stem extracts of *Basella alba*. *Journal of Food Science and Technology* 55 (5): 1675-1684.
 - **Padmavati Manchikanti** (2018) Ensuring longevity of traditional knowledge associated with biodiversity to address climate change. *23 (1): 35-43*.
 - **Padmavati Manchikanti**, Shailaja Uppala, R Kumar Bonta (2017) Patents in Nanobiotechnology: A cross jurisdictional approach. *Recent Patents on Biotechnology* 11 (1): 52-70.
 - Padmavati Manchikanti 2017. *Nature Conservation: Natural Lands and Biological Diversity: B. Conservation of Biological Diversity (CBD). Yearbook of International Environmental Law* 28: 191-196.
 - Shova Devi, **Padmavati Manchikanti**, Biodiversity Monitoring: A pre-condition to Access and Benefit Sharing under the Indian Biological Diversity Act 2002, Vol. 21, September-November Issue 2016, pp 288-294, *Journal of Intellectual Property Rights (JIPR)*.
 - Padmavati Manchikanti 2016. *Nature Conservation: Natural Lands and Biological Diversity: B. Conservation of Biological Diversity (CBD). Yearbook of International Environmental Law* 27: 219-225.
 - B Ramesh Kumar, Vinay Kumar Singh, **Padmavati Manchikanti** (2016) Virtual Labs on Secondary Metabolic Pathways in Plants *International Journal of Biology Education* 5(2):50-68
 - Balashanmugam, S.K.Subramanian and **Padmavati M** (2016) South Asian Perspective on Institutional Mechanism for Introduction and Import of GM Crops *Biotechnology Law Report* 35(2): 73-79
 - S.K.Balashanmugam,**Padmavati Manchikanti**, S.R.Subramanian. Liability Aspects Related to Genetically Modified Food under the Food Safety Legislation in India. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering* Vol: 9, No: 12, 2015
 - Sneha Sharma, **Padmavati Manchikanti** Duty to Disclosure during patent prosecution in India (2015) *World Patent Information* 41: 31-37
 - Muthukrishnakumar Kandasamy, **Manchikanti Padmavati** (2014) Transgenic crop research and regulation in India: Whether legislation rightly drives the motion? *Journal of Commercial Biotechnology* 20 (4): 17-30
 - Ravikant Bhardwaj, K D Raju, **M Padmavati** Competition Regulation and Recombinant Drugs in India. *J of Commercial Biotechnology* **19 (4):** (2013)
 - Ravikant Bhardwaj, K D Raju, **M Padmavati** The Impact of Patent Linkage on Marketing of Generic Drugs. *Journal of Intellectual Property Rights*, 2013,
 - Niharika Sahoo **M.Padmavati** Herbal Drug Regulation and Commercialization: A Indian Industry Perspective" *Journal of Alternative and Complementary Medicine*, 2
 - Ravikant Bhardwaj, K. D. Raju, **M. Padmavati** Determining Unreasonable Use of Intellectual Property Rights in Anti-Competitive Agreements in India. *International Company and Commercial Law Review* Issue 6, 2013
 - Prerna Wardhan, **Padmavati Manchikanti**. A relook at inventor Rights *Journal of Intellectual Property Rights*. 18 (2): 2013
 - **Padmavati M** Traditional Knowledge Register of India: Techno-legal issues.

- International J of Intellectual Property Management 5 , 3/4 2012
- Niharika Sahoo **M.Padmavati**, S.H.Dey. Herbal drug patenting in India:IP potential. J of Ethnopharmacology 137 (1): 289-297, 2011
 - Anshu Pratap Singh, **Padmavati M.**, Chawla H.S. Sui Generis laws vis-a vis farmer rights in some Asian countries and their implications under the WTO. Journal of Intellectual Property Rights 16 (2): 107-116, 2011
 - **Padmavati M.**, Sengupta M. Agriculture Machinery in India: IPR potential. Journal of Intellectual Property Rights 16 (2): 163-169 2011
 - Niharika Sahoo, **M.Padmavati**. Recombinant drug development, regulation and commercialization: An Indian Industry perspective. *BioDrugs* 2010
 - Preethi Govindas, **M.Padmavati**, Current state of Intellectual Property of recombinant vaccines in India. Journal of Generic Medicine 7 (3), 262-269. 2010
 - Niharika Sahoo, **M.Padmavati**, S.H.Dey Herbal Drugs: Standards and Regulation. *Fitoterapia* 2010
 - **Padmavati M**, Tapas K. Bandopadhyay. Nanomaterials and Effects on Biological Systems: Development of effective regulatory norms. *NanoEthics* 2010
 - Rupsa Gupta, **M.Padmavati**. Analysis of trends of anti-fungal drugs in the product patent regime in India. *World Patent Information* 2009
 - Niharika Sahoo, Koel Choudhury, **M.Padmavati**. Biodrug manufacturing protocols: Need for harmonized regulatory framework. *Biodrugs* 24 (3): 2009
 - **Padmavati, M.**, Sakthivel, N., Thara, K.V. and Arjula R. Reddy. Differential sensitivity of rice pathogens to growth inhibition by flavonoids, **Phytochemistry** 46 (3) 499-502, 1998.
 - **Padmavati, M** and Arjula R. Reddy. Flavonoid pathway and cereal defense response: An emerging trend in crop biotechnology. Review article: **J. of Plant Biochemistry and Biotechnology**, 8 (1): 15-20.
 - Arjula R.Reddy, Vaka S. Reddy, G.Madhuri and **M.Padmavati** (1998) Ultraviolet-B responsive flavonoid pathway in rice: Molecular and biochemical analysis. **Proceedings of the International Workshop on Breeding and Biotechnology for environmental stress in rice, Sapporo, Japan**
 - Padmavati M., Reddy Arjula R. **Enhanced accumulation of flavonoids around the blast (*Pyricularia oryzae*) lesion site in rice (*Oryza sativa* L.). [2nd International Electronic Conference on Synthetic Organic Chemistry \(ECSOC-2\).](http://www.mdpi.org/ecsoc/) <http://www.mdpi.org/ecsoc/>, September 1-30, 1998**

Intellectual Property related

1. Title: Transgenic maize with Enhanced Phenotype
International Publication Number: WO2004053055A2
International Application Number: PCT/US2002/039314

Patents

2. Title: Methods of producing cold temperature tolerant plants, seeds and crops.
US Application # 11/ 728,976, Filed on March 27, 2007
WO 2007112122A8

3. Gene Sequences and Uses thereof in Plants
US Application No. 11/879785, Filed in 2008

Transgenic plants with enhanced agronomic traits
US20090100536A1

Agriculture Invention Resource (ARIP)
SW-5038/2012 7 June 2012

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Trademark

AGRIP (Device) Certificate No. 1083773

Book Chapters

- Padmavati Manchikanti. Bioavailability and environmental safety of nanobiopesticides pp 207-222. Chapter 8. In Nano-biopesticides Today and Future Perspectives. Ed. Opendar Koul 2019
- Suryamani Tripathi, Padmavati Manchikanti Legal Basis of Innovation Systems in India. 2010 S & T policy for India. NISTADS
- Padmavati Manchikanti. Biodrug innovations and commercialization in India. Knowledge Sharing and Intellectual Property Management: Status and Strategies ISBN:8-3-8383-2070-0. Publisher: Lambert Academic Publishers: 2010
- Padmavati M. Nag A. Bioinformatics in Agriculture. In: Textbook on Agricultural Biotechnology, 2008. PHI
- Padmavati M, A Nag 'Photosynthetic plants as renewable energy sources' Chapter In.: Biofuels refining and performance, 2008. McGrawHill

Professional memberships/Journal referee

- Member, Academic Council, National Law University Delhi
- Member, Association of Teachers and Researchers in IP (ATRIP)
- Member of International Trademark Association
- Member, World Bioenergy Association
- Member, **The International Patent Information User Group** (PIUG), USA
- **Pro-bono member**, Public Interest Intellectual Property Advisors (PIIPA), USA
- Member, Biotech Consortium India Limited (Membership No. 27A00782)
- **Advisor**, Scientific Advisory Council, Rishi Herbal Technologies Foundation, Bangalore
- Life Member for BRSI (Biotechnology Research Society of India), India
- **Editorial Board member** – Journal of Intellectual Property Rights
- **Editorial Board Member** – Journal of Integrative Medicine