


## Curriculum Vitae

<b>Full Name</b>	Dr. Babita Patni		
<b>Designation</b>	Assistant Professor		
<b>Department</b>	HAPPRC		
<b>Campus</b>	Birla campus		
<b>Telephone</b>	7895630389		
<b>Mobile</b>	+917895630389		
<b>Email</b>	<a href="mailto:babita28patni@gmail.com">babita28patni@gmail.com</a>		
<b>Education Qualification</b>	Ph.D (2011), G. B. Pant University of Agriculture and Technology, Pantnagar		
<b>Teaching Experience</b>	10 Years	<b>Research Experience</b>	__13__ Years
<b>Areas of Interest/ Specialization</b>			
<ol style="list-style-type: none"> <li>1. Plant Tissue Culture</li> <li>2. Plant Nutrition</li> <li>3. Allelopathy</li> <li>4. Biochemical Methods</li> <li>5. Conservation and promotion of medicinal plants</li> </ol>			
<b>Honours &amp; Awards</b>			
<ol style="list-style-type: none"> <li>1. Teaching Assistantship in M.Sc for three semesters.</li> <li>2. Topper in B.Sc (Kumaon University )in batch 2006.</li> <li>3. First rank holder in M.Sc Plant Physiology and Biotechnology (81%)</li> <li>4. First rank holder in Ph.D Plant Physiology and Biotechnology (88%)</li> <li>5. Qualified <b>GATE-2008</b> with percentile of 86.67</li> <li>6. Qualified <b>ICAR-SRF- 2008</b> with fellowship (<b>All India Rank-4</b>)</li> <li>7. Qualified <b>ARS-NET 2009</b>, in Plant physiology and plant biochemistry</li> <li>8. Qualified <b>ARS-NET 2010</b> in Basic plant sciences</li> <li>9. Qualified <b>CSIR-NET-JRF 2010</b> in Life sciences (<b>All India Rank-164</b>)</li> </ol>			
<b>Member of Academic Institutions</b>			
1.NIL			
<b>Membership of Scientific Organization</b>			
NIL.			
<b>Research Supervision (No. of Ph.D. Degree Awarded/ Registered)</b>			
<b>02</b>			
<b>Research Projects/ MoU undertaken</b>			
1.			
SL.No.	Title of project	Funding Agency	Amount

1.	<b>BIOFORTIFICATION OF RICE GRAINS WITH ZINC BY THE APPLICATION OF PLANT GROWTH PROMOTING RHIZOBACTERIA AS ZINC SOLUBILIZING AGENTS</b>	UGC UNIVERSITY GRANT COMMISSION (completed)	06 lakhs
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#### **Administrative Experience**

- (02 )years in **Admission and Counselling committee** in Lovely professional university punjab
- (02 )years in **Teachers association committee** in Srinagar ,Garhwal
- (01) years in **Election committee Board in Srinagar**, Garhwal
- (08) year as **warden** in Alaknanda girls hostel,Srinagar ,Garhwal
- **06 )years in Admission and Counselling committee** in HAPPRC HNB garhwal university ,Srinagar ,Garhwal.

#### **Scientific Visits Abroad/International Collaboration**

NII

#### **Conference/Symposium/Workshop Attended during last five years (2014-2019).**

##### **National**

- Participated in Advance Training Program on SPSS organized by Department of Statistic, H.N.B.Garhwal University, Srinagar, Garhwal (30<sup>th</sup> -31<sup>st</sup> Jan 2014)
- Participated and presented paper in **National Conference on Recent Advances in Biosciences and Drug discovery** organized by Department of Pharmaceutical Sciences held Gurukul Kangri University, Haridwar (3-4 March 2014) .
- Participated in **National Conference on Contemporary Issues In Biotechnology Programs And Future Applications** at Amity university Haryana(2/4/2014).
- Participated in **UGC sponsored 28 days Orientation Training Program** in Laxmi Bai National institute of physical education college at Gwalior from(2/09/14 - 29/09/2014)
- Attended **15 days Hands on training** in Bose Institute ,kolkotta in “Diagonistic of Medicinal potential and DNA Fingerprinting In plants” from 1-15 November 2016
- Participated in **UGC sponsored 21 days Refresher course Program** in University of Calcutta at Kolkotta from (23/12/2016 – 13/01/ 2017)

- Participated in National Conference in Uttarakhand university at Dehradun in (27/02/17-28/02/2017)
- Participated in **Rajasthan Science Congress** on Science & Technology for Sustainable Development of State of Rajasthan at Rajasthan in 13/10/17 -15/10/17.
- Participated in **Short Term course** on Open Educational Resources in higher Education. in H.N.B Garhwal University. (04/09/2017 – 09/09/ 2017).
- Participated in **Short Term course** on Moocs and E-content Development in University of Jammu held on (22/10/2018 – 27/10/ 2018).
- Participated in **Short Term course** on Research methodology in H.N.B Garhwal University held on (10/12/2018 – 16/12/ 2018).
- Participated in National conference on **Innovative approaches in microbial Technology(IAMT-2019)** in Gurukul kangri Haridwar held on (08/03/2019 – 09/03/2019).
- Participated in National conference on **Challenges and opportunities in research and development in pharmaceutical and Biological sciences** in IDPL Rishikesh. held on 07/11/19.
- Participated in **Refresher course Program** on Multidisciplinary Approaches to address environmental issues:Emerging Trends in physical ,Biological and social sciences in H.N.B Garhwal University held on (12/09/2019 – 25/09/ 2019).

#### Conference/Symposium/Workshop Organized during last five years (2012-2017)

1. NIL

#### Total Number of Research Publications:

Chandra,H, **Patni,B** ,Srivastava,J Nautiyal,A.R and Nautiyal M.C. **2014** . 16s RNA gene sequencing *Bacillus cereus* HAPPRC B4 was done and gene sequencing was submitted to Gene bank, NCBI, USA (Submission ID 1734312) (Accession number KM036215)

Chandra,H.,**Patni,B.**, Srivastava,J., Nautiyal,A.R and Nautiyal M.C. **2014**. 16s RNA gene sequencing of *Achromobacter xylosoxidans* HAPPRC K4 was done and sequence is submitted to Gene bank, NCBI, USA (Submission ID 1734319) (**Accession**

number KM036216)

Sharma,A.,**Patni, B.**, Shankhdhar,D and Shankhdhar,SC. **2015**. Evaluation of different PGPR strains for yield enhancement and higher Zn content in different genotypes of rice (*Oryza sativa*.L).*Journal of plant nutrition*. 38(3):456-472 (**Impact factor 0.59**)

**Patni,B** and Chandra,H. **2016**. Identification of phytochemical contents and antimicrobial activity in saraca asoka leaf extract leaves *Environment conservation journal*.17(3):17-24.

Chandra,H.,Dobhal,P.,**Patni,B** and AR nautiyal **2016**.Antagonistic effect of *Pseudomonas spp.* isolated from rhizospheric soil of *Picrorhiza kurrooa* (kutki) against phytopathogenic fungi Medicinal Plants - *International Journal of Phytomedicines and Related Industries*. : 8(4)

Chandra,H.,Bishnoi,P.,Yadav,A.,**Patni,B.**,Mishra,A.P.andNautiyal,A.R.**2017**.Antimicrobial Resistance and the Alternative Resources with special Emphasis on Plant-Based Antimicrobials—A Review. *Plants* 10(2):1-11.(**Impact factor 2.6**)

Agarwal,C, Guru,S.K and **Patni,B.** **2017**. Bioefficacy of herbicides and eucalyptus oil for weed Management and their effect on crop growth in rice (*oryza sativa* L.) *J of plant development sciences* .9(11):991-997.

Chandra,H, Negi,L **Patni,B.**, Maurya,V.K and Pandey,I.P.**2017**. Phytochemical Evaluation and Antimicrobial Activity of *Zanthoxylum armatum* DC, *Solanum nigrum* and *Coriandum Sativum* *UJPAH*. 2(23):24-28.

Chandra,H .,Yadav,A., Prasad,R and **Patni,B.** **2017**. Assessment of microbiological quality of raw medicinal plants used for the preparation of Ayurvedic drugs *Medicinal Plants* .9 (4) :296-300.

Thakur,A., Agarwal,C., Rana,K .,Singh,M and **Patni,B.****2017**. In vitro antimicrobial activity and phytochemical analysis of two species of *Saraca asoca*. *J. Mountain Res.* 12(1) :119-127.

**Patni,B** Panwar,A,S., Negi,P. and Joshi G.K. **2018**. Plant growth promoting traits of psychrotolerant bacteria: A boon for agriculture in hilly terrains. *Plant Science Today* 5(1): 24-28.

**Patni,B** Chandra,H .,Mishra,A,P., Guru,S.K., Vitalini,S., and Iriti,M. **2018**. Rice allelopathy in weed management-An integrated approach. *Cellular and molecular biology*.64(8) :84-93.(**Impact factor 1.3**)

**Patni ,B.**, Guru,S.K., Iriti,M and Vitalini,S. **2019**. Elicitation of the Allelopathic Potential of Rice by Methyl Salicylate Treatment.. *Applied science*. 9, 4881;doi:10.3390/app9224881.( **Impact factor 2.2**)

Singh, P.Bhattacharyya,M. and **Patni,B.** **2020** In-vitro exploration of significance of salinity stress in enhancing the antioxidant capacity of Rauwolfia serpentina(L). *Plant cell biotechnology and molecular biology* 21(15 -16) ,89 -97

Thapliyal,J.,**Patni,B.** **2020**.Environmental change and health impact associated with covid - 19 in India. *Bioinfolet ,A Quarterly Journal of Life Sciences*. 17,(2) ,240 – 245

Singh.P and **Patni.B.****2020**. Elucidating the effect of salinity stress in enhancing the phenolic acid content in Rauwolfia Serpentina in vitro. *Journal of stress physiology and Biochemistry*. 16,(3), 103 – 110.

Kumar,S.,Singh,K.,Joshi,A.,Gautam,A.S.,**Patni,B** andPanwar.M.S.**2020**.A review of studies on coronavirus (COVID – 19) and its transmission. *Journal of science and technological researches*. 2(1).

Patni.B. **2020**. Rice allelopathy: Potential power for weed suppression. *Bioinfolet-A Quarterly Journal of Life Sciences*. 17(2) 284-289.

Bhattacharyya,M and **Patni,B.** **2020**. Plant lectins have antagonististic effect against corona virus family :natural products can control coronaviral infections :A review. *International journal of agricultural technology*.16(5):1077-1088.

**Patni,B.** **2020**. Elucidating the Significance of Nitrogen requirements in Rice Cultivation: Review. *Jour Pl Sci Res* **36 (1-2)** 1-9 2020

Bhattacharyya,M and **Patni,B.** **2020**.Effect of salinity stress on growth performances cellular responses and antioxidant production capacity of medicinal plants . *Jour Pl Sci Res* 36 (1-2), 285-291.

**Patni,B.**,Thapliyal,J and Gautam A.S. **2020**. Elucidating The Effect Of Aerosol Particles On Plants.*International Journal of Disaster Recovery and Business Continuity* 11(1):3054–3074.

Singh,D., Gautam, A,S.,Patni, B and Nautiyal,A. **2020**. Impact Assessment of COVID-19 Outbreak on Higher Education in India. *International Journal of Management (IJM)* 11 (9). 429-434

**Patni,B.** **2020**. Effect of Foliar Application of Methyl Salicylate (MeSA) on Antioxidant Ability Depicting the Role in Allelopathic Potential of Rice Genotypes. *Journal of stress*

*physiology and Biochemistry* 16 (4):49-53.

Ansari,S., **Patni,B** and Bains,G. **2020**. Quantitative Evaluation of Rice (*Oryza sativa* L.) Under High Temperature Stress .*Journal of stress physiology and Biochemistry*. 16 (4):5-12

Tamta,P and **Patni,B**. **2020**. Elucidating the Role of Secondary Metabolite and Reactive Oxygen Species in High-Temperature Stress on Medicinal Plants. *Journal of stress physiology and Biochemistry*. 16 (4):13-21

Singh.P and **Patni.B**.**2020**. Comprehensive study on Role of Allelopathic potential in Medicinal plants. *Bioinfolet-A Quarterly Journal of Life Sciences*. 176(4):533-539.

Rana, B., Bhattacharyya M., **Patni B**. and Joshi GK .**2021**. The Realm of Microbial Pigments in the Food Color Market. *Frontiers in Sustainable Food Systems*. DOI: 10.3389/fsufs.2021.603892.

**PATNI,B.**, SAKLANI,K., and CHANDOLA.P. **2021**. Suitable traits responsible for competitive ability in rice: An overview. *Plant Cell Biotechnology and Molecular Biology* 22(39-40):1-8; 20.

Ansari.S and **Patni,B**. **2021**. Effect of Salicylic Acid on *Valeriana wallichii* DC syn *Valeriana jatamansi* Jones under Drought Stress. *Research Journal of Agricultural Sciences An International Journal*. 12: 733–738.

Jamloki, A., Bhattacharyya, M., Nautiyal, M. C., & **Patni, B.** (2021). Elucidating the relevance of high temperature and elevated CO<sub>2</sub> in plant secondary metabolites (PSMs) production. *Heliyon*, 7(8), e07709. <https://doi.org/10.1016/j.heliyon.2021.e07709>

**(Impact factor-2.8)**

**Patni B.** Bhattacharyya M., kumari A. and Purohit V.K. (2021) .Alarming influence of climate change and compromising quality of medicinal plants. *Plant Physiology Reports*. (Accepted) **(Impact factor-1.0)**

Bhattacharyya, & **Patni, B.** (2021). Prediction of Future World on The Basis of High Heat conditions on Plant Metabolism. *Journal of Stress Physiology & Biochemistry*, 17(4).72-76.

Bhattacharyya, M., Jamloki, A., & **Patni, B.** (2022). Exploring the effects of elevated Carbon dioxide mediated global warming phenomenon in photosynthesis: Challenges and future direction. *International Journal of Global Warming*. (Accepted) **(Impact factor-0.8)**

**Kumar,P., Patni,B and Singh,M. (2022)** Wheat Genome Sequence opens new opportunities to understand the genetic basis of frost tolerance (FT) and marker-assisted breeding in wheat (*Triticum aestivum* L.) *Journal of Stress Physiology & Biochemistry*.18(1)17-27.

Thapliyal,J., Bhattacharyya,M., Prakash,S., **Patni,B** • Gautam,S • Gautam.A.S. (2022).Addressing the relevance of COVID–19 pandemic in nature and human socio-economic fate. *Stochastic Environmental Research and Risk Assessment* <https://doi.org/10.1007/s00477-022-02191-5> .

**Impact factor-3.8)**

SNawaz ,S., Kaur,P., Konjengbam , M.,Kumar ,V .,Gupta,R.C., Dwivedi ,P., **Patni ,B** .,Pandey ,B., Dey,A., Pandey,D.K. **2022** Screening of elite germplasms for industrially valuable medicinal crop *Stevia rebaudiana* for stevioside and rebaudioside A production: An HPTLC-linked chemotaxonomic assessment. *South African journal of botany* .150(1) 1159-1167

**Impact factor-3.0)**

**Kumari.A., Lakshmi.L.K., Krishna,G.K .,Patni,B. Prakash,S., Bhattacharyya,M.,Singh,S,K and Verma.K. K.2022** .Climate Change and Its Impact on Crops: A Comprehensive Investigation for Sustainable Agriculture. *Agronomy* 12(12)

**Impact factor-3.9)**

Verma,R.K., Prakash,S and **Patni ,B** . **2023**. Role of liquid PGPR in *Rosmarinus officinalis* L. *Bioinfolet* .19(4) 367-370.

### **BOOK chapter in proceedings/conference**

Malini Bhattacharyya , Nirjhar Bhattacharyya, Krishnendu Debnath , Ambika Kandpal , Abhishek Jamloki , A.R. Nautiyal , **Babita Patni. 2021** .Role of Survey Research for The Assessment of Medicinal Usage of Four Economically Important Plants in The Garhwal Himalaya, Uttarakhand.

Santosh kumar singh,Aradhana Kumari and **Babita patni.2020**.Seaweed as alternative organic fertilizer for crop nutrition: mode on agri entrepreneurship.Published in **Souvenir** on Motivation of youth towards Agri-entrepreneurship and innovative farming on July **2020** **from** Jawaharlal Nehru krishi Vishwa Vidyalaya,Jabalpur **M.P.**

**Book chapters in edited book**

<b>AUTHOR NAME</b>	<b>Title of the Book</b>	<b>Title of Book Chapter</b>	<b>Page Number</b>	<b>ISBN</b>	<b>Name of publisher</b>	<b>Year</b>
Dr. S.K. Singh, Dr. Krishan Pal, Dr. Hari Om Sharma, Dr. Jai Pal and <b>Babita Patni</b>	Green initiative and sustainable development	CLIMATE CHANGE : IMPACT & SOLUTION	<b>58-60</b>	978-81-942503-2-6	Learning Media Publication Meerut	2020
Himanshu Kumar, Ashwani Jangra, Jai Prakash Kadian, and <b>Babita Patni.</b>	Green initiative and sustainable development	TOXICOLOGICAL EVALUATIONS OF RARE EARTHS ELEMENTS AND THEIR HEALTH IMPACTS TO WORKERS	<b>233-245</b>	978-81-942503-2-6	Learning Media Publication Meerut	2020
<b>Babita Patni,</b> Machiavelli Singh, S.K. Singh, Ashwani Kumar and Vijay Kant Purohit	Recent Advancements in Sciences with Special Reference to Himalaya	Nitrogen: A Key Nutrient for Rice Production	<b>155-163</b>	978-93-84866	Ancient publishing house ,New delhi	2019
Megha mittal, <b>Babita patni,</b> manju Sharma, Machiavelli Singh	Trends in Technology, for Agriculture ,Food ,environment and health. ( <b>Agrobios International</b> )	Role of endophytes in development ,Nutrient acquisition ,and tolerance to Abiotic stress in host plant )	<b>417-432</b>	978-93-81191-22-4	Agrobios International	2020
Soban Prakash, Malini Bhattacharyya	Immunity a weapon for Viral and	Herbal preparations for boosting				2021



and <b>Babita Patni</b>	microbial illness	Immunity.				
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