


Curriculum Vitae

Full Name:	DR. M. C. NAUTIYAL			
Designation:	Professor			
Department:	H.A.P.P.R.C.			
Campus:	Birla Campus			
Telephone:	01346 252172	Fax	01346 252070	
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Education Qualification:	Degree: Ph.D., University: HNB Garhwal University, Year: 1986			
Teaching Experience:	29 Years	Research Experience:	32 Years	
Research Interest and Fields of Specialization				
<ol style="list-style-type: none"> 1. Phenological studies on some important alpine medicinal plant species. 2. Development of agrotechnology of endangered high altitude medicinal plants. 3. Attempts on the farmer's field cultivation of endangered medicinal plants at relatively lower altitudes. 4. Development of gene bank and large-scale multiplication of some endangered alpine medicinal plant species. 5. Biochemical evaluation of different populations of high altitude medicinal plants. 				
Honours & Awards				
Member of Academic Institutions				
<ol style="list-style-type: none"> 1. Chairman- Project screening and evaluation committee, State Medicinal Plants Board, Uttarakhand (since, April 2016) 2. Member of the State Medicinal Plant Board of Himachal Pradesh (2010) 3. Member of Research Advisory Committee, Herbal Research and Development Institute, Gopeshwar, Uttaranchal (since 2013) 4. Member- Expert Panel on Herbal, NRDC, DSIR, DST, GOI (2016) 				
Membership of Scientific Organizations				
<ol style="list-style-type: none"> 1. Member - The National Academy of Sciences, Allahabad 2. Life member, Indian Society for Plant Physiology, New Delhi 3. Indian Society of Seed Technology, New Delhi 4. The Alpine Garden Society, Pershore, UK. 				
Research Supervision (No. of Ph.D. Degree Awarded/SubMITTED/Registered)				
No. of Ph.D. Degree Awarded: 14				
Submitted: Nil				
Registered: 02				
Research Projects/ MoU undertaken (Title, Funding Agency, Total Cost, Completed/Ongoing)				
<ol style="list-style-type: none"> 1. Characterizing Patterns and Processes of Alpine Ecosystem in Indian Himalaya with Special Emphasis to Garhwal, Uttarakhand , Principal Investigator, Rs. 29 lakh, February 2019 (Ongoing). 2. Establishment of Gene Pool, Propagation and EX-Situ Conservation of 				

selected sensitive high altitude Medicinal and Aromatic plant species and Nature Interpretation Site (NIS) for creating Awareness among the various stakeholders. GBPIHED (Ministry of Environment & Forests, GOI), Kosi, Katarmal, Almora. Principal Investigator, Rs. 2.07Cr., March, 2016 (Ongoing).

3. Development of a model nursery of *Hippophae salicifolia* and *Picrorhiza kurrooa* through scientific method. Herbal Research and Development Institute, Gopeshwar (Uttarakhand), Rs. 20 Lakh, 2 years, April 2015 (Ongoing) .

4. Alpine ecosystem dynamics and impact of climate change in Indian Himalaya (*PRACRITI-II*). Space Applications Centre, ISRO, Ahmedabad, Principal Investigator, Rs. 23.87 lakh, 3 years, October, 2013 (Completed).

5. Improvement of infrastructural facilities in Alpine Garden at Tungnath. Principal Investigator, sponsored by MoEF, Govt. of India. F. No. 10/04/08-CS/BG/67 dt. 2/12/2008, Rs. 21,96,200/-, December 2008 (Completed).

6. Genetic variability and chemical and molecular determinants of *Aconitum balfourii* including eco-profiling under micro/macro environment of root growth and development of transgenic roots for higher aconite content. Co-ordinator & Principal Investigator. Z18017/187/Pr.GO/UA-02/2007-08-NMP Board dt. 10/12/2007, Rs. 62,47,000/-, National Medicinal Plants Board, GOI, New Delhi (Completed).

7. Research Project entitled " Vulnerability Assessment, Nutrient Pool and Vegetation Response of Alpine Ecosystem to Climate Change in Himalaya, India. Principal Investigator, sponsored by MoEF, Govt. of India. No. 14/3/2006-ERS/RE dt. 9/11/2006, Rs. 34,87,378/-, March 2007 (Completed).

8. Status multiplication and conservation of some high altitude medicinal herbs used in *Asthaverga*. Principal Investigator. GBPI/IERP/UA/04-05/12/305 dt. 31/10/2007, Rs. 7,90,900/-, GBPIHED, Kosi-Katarmal, Almora, Uttarakhand (Completed).

9. Genetic diversity, multiplication and conservation of some herbs used in ayurvedic medicine group '*Asthaverga*'. Principal Investigator. BT/PR2862/PBD/17/163/2002 dt. 15/03/02, Rs. 20,06,000/-, Deptt. of Biotechnology, GOI, New Delhi (Completed).

9. Agrotechnology, cultivation and demonstration of some high altitude medicinal plants in Garhwal Himalaya. Principal Investigator. A 11019/1/2001-MP Board, 133/2002 dt. 31/3/02, Rs. 16,00,000/- Medicinal Plants Board, Ministry of Health & Family Welfare, GOI, New Delhi (Completed).

10. Development of Agrotechnology and cultivation of some medicinal plant species. Principal Investigator. Z. 18017/23/97-MP Cell dt. 08/08/1997, Rs. 19,54,000/, Ministry of Health & Family Welfare, GOI, New Delhi. (Completed)

11. Multiplication and cultivation of some high altitude medicinal herbs. Principal Investigator. Z. 18017/23/96-MP Cell dt. 08/08/1997, Rs. 8,00,000/, Ministry of Health & Family Welfare, GOI, New Delhi. (Completed)

12. Multiplication and conservation of some endangered/threatened high altitude medicinal herbs. Principal Investigator. GBP/IERP/92-93/26/877 dt. 05/02/1994, Rs. 6,03,000/-, GB Pant Institute of Himalayan Environment & Development, Almora (UP). (Completed)

13. Application of biotechnology for conservation and multiplication of some high altitude threatened species. Co-Investigator. BT/R&D/19/02/9Z dt. 23/11/93, Rs. 66,36,000/-, Department of Biotechnology, GOI, New Delhi. (Completed)

Administrative Experience

1. Member, Executive Council, HNB Garhwal University since 26th October 2019 (for three years).
2. Member, Academic Committee, HNB Garhwal University since 26th January 2017 to January 25, 2020.
3. Dean, School of Agriculture, HNB Garhwal University since 26th January 2017 to January 25, 2020.
4. Director, High Altitude Plant Physiology Research Centre, HNB Garhwal University, Srinagar Garhwal since 15th January 2011 to January 2014.
5. Dean of Faculty of Agriculture of HNB Garhwal University since April 2010 to January 25, 2011.
6. Supervising all the research and developmental activities of Alpine Field Station of HAPPRC at Tungnath.

Scientific Visits Abroad/ International Collaboration

Centre for climate change adaptation Technologies, Grabenweg, Innsbruck, Austria. November 2011.

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

1. National workshop on High Altitude Medicinal Plants– paper presented on ‘Case study of successful cultivation of high altitude medicinal plants Uttarakhand’. Organised by ICFRE, New Forest, Dehradun. March 21-22, 2016.
2. National workshop on Agrotechnology and profit enhancing marketing strategy for medicinal plants- paper presented on ‘Important issues associated with cultivation of high altitude medicinal plants’. Organised by NMPB, SMP and HAPPRC at Doon University, Dehradun. June 2-3, 2016.
3. National conference on traditional and modern concepts in Ayurveda. Invited lecture on ‘Status of conservation and cultivation of high altitude medicinal herbs in Uttarakhand Himalaya’. Organised by Uttarakhand Ayurved University, Dehradun. 15th -16th September, 2017.
4. NMHS workshop, GBPNIHESD, Kosi-Katarmal, Almora. 13th-14th October 2017.
5. NMHS workshop, “National Seminar-cum-Monitoring & Evaluation (M&E) Workshop”-2019, 4-7 February 2019, GBPNIHESD HQs, Kosi-Katarmal, Almora, Uttarakhand (2019).
6. Workshop-cum-Brainstorming on “Promoting Medicinal and Aromatic Plant (MAP) Sector for Conservation of Snow Leopard Habitats in the Himalaya” during Sept. 8-9, 2019 at GBPNIHESD, Kosi-Katarmal, Almora (2019).

Conference/Symposium/Workshop Organized during last five years (2014-2019)

1. Chairman/Convener/Organizing Secretary, Title of event, place, date, year

Publications during last five years (2014-2019)

1. R. K. Vashishtha, A.K. Chaturvedi, Neelam Rawat, B. P. Nautiyal and **M. C. Nautiyal** (2014). Need of conservation and cultivation of medicinal and aromatic plants (MAPs). In ‘Advances of medicinal and Aromatic Plants’. Editor: Amritesh Shukla, Pg. 3-24. Published by Agrobios (India), Jodhpur.
2. A.K. Chaturvedi, R. K. Vashishtha, Neelam Rawat, P. Prasad, B. P. Nautiyal and **M. C. Nautiyal** (2014). Strategies needed to anticipate climate change. In ‘Advances of medicinal and Aromatic Plants’. Editor: Amritesh Shukla, Pg. 229-243. Published by Agrobios (India), Jodhpur.

3. U.C. Maithani, M. Belwal and **M. C. Nautiyal** (2014). Variability in isoenzyme esterases and acid phosphatases pattern in different populations of both the Rheum species from Garhwal Himalaya. International Journal of current microbiology and applied Sciences. ISSN:2319-7706, Vol. 3(10). **IN; ISSN: 2319-7706, PP. 345-348**
4. Anurag Dhyania, Gunjan Sharmaa, Bhagwati Prasad Nautiyal, **Mohan Chandra Nautiyal** (2014). Propagation and conservation of *Lilium polyphyllum* D. Don ex Royle. Journal of applied research on medicinal and aromatic plants. 1(2014), 144-147. **IF:1.96; IN; ISSN: 2214-7861; Citation-3**
5. Rajendra S. Chauhan, **M. C. Nautiyal** and Aldo Tava (2014). Variability in essential oil composition of *Selinum vaginatum* C. B. Clarke. (Apiaceae) in North-West Himalaya, India. JEOP 17 (5) 2014, pp 906-910. **(IN) IF: 0.306; ISSN: 0976-6026; Citation-1**
6. Ashish.K. Chaturvedi and **M. C. Nautiyal** (2014). Cross talk between climate change impact, adaptation and sustainable development in Indian Himalaya. In 'Uttarakhand Disaster- contemporary issues of climate change and development with holistic approach'. Editors: U.S. Rawat and V.P. Semwal, Pg.107-114. Published by Winsar Publishing Co. Dehradun- Uttarakhand (India).
7. Rajendra Singh Chauhan, **Mohan Chandra Nautiyal** and Aldo Tava (2016). Volatile Composition of Underground Parts of *Tanacetum longifolium* Wallich ex DC., Journal of Essential Oil Bearing Plants, 19:2, 506-509, DOI: 10.1080/0972060X.2014.1001144. **(IN) IF: 0.493; ISSN: 0976-6026**
8. Dharam Chand, Zubair A Malik and **MC Nautiyal** (2016). Conservation of *Picrorhiza kurrooa* through cultivation in Garhwal Himalaya: A review. International Journal of Herbal Medicine (IJHM); 4(1): 64-69, **ISSN: 2321-2187, (IN) NAAS rating: 3.20**
9. **M.C. Nautiyal** and Dharam Chand (2016). Conservation and sustainable utilization of high altitude medicinal plants in Indian Himalayan region. Science and Technology, Vol. 4(1), 14-22. **ISSN: 2321-3388.**
10. Rajendra S Chauhan, **Mohan C Nautiyal**, Roberto Cecotti, Mariella Mella and Aldo Tava (2016). Variation in the essential oil composition of *Angelica archangelica* from three different altitudes in Western Himalaya, India. Industrial Crops and Products, 94, 401-404 **ISSN: 0926-6690. (IN) IF: 3.181; Citation-11**
11. Malik ZA & **Nautiyal MC** (2016) Species richness and diversity along the altitudinal gradient in Tungnath, the Himalayan benchmark site of HIMADRI. *Tropical Plant Research* 3(2): 396-407. **(IN); ISSN: 2349-1183; Citation-5. NAAS rating- 4.06**
12. V. K. Purohit, **M. C. Nautiyal**, A. R. Nautiyal and K. C. Gairola (2016). Successful cultivation of highly valued and endangered medicinal herb Kutki (*Picrorhiza kurrooa*): A case study from Ghesh village of Uttarakhand, Himalaya. International Journal of Phytomedicines and

related industries. 8 (3): 207. **IN; ISSN: 0975-6892**

13. Dharam Chand, Vijay Laxmi, Jyoti Sati and **M. C. Nautiyal** (2016). Status of priority based subsidized MAP species for cultivation and conservation in Chamoli district, Uttarakhand Himalaya. *Journal of Non-timber Forest Products*, 23(4), 181-189, 2016. **National; ISSN: 0971-9415**
14. Rajendra S. Chauhan, **M.C. Nautiyal**, Y.M. Bahuguna, Gilles Figueredo & Pierre Chalard (2017). 3, 5-Nonadiyne Rich Accession of *Selinum tenuifolium* Wall. from Dayara, Uttarakhand, Himalaya. *Journal of Essential Oil Bearing Plants*. 20(3) 2017 pp 878-882. **IF: 0.493; ISSN: 0976-6026**
16. Rajendra S. Chauhan, **M.C. Nautiyal**, Y.M. Bahuguna, and Aldo Tava (2017). Volatile composition of underground parts of *Angelica glauca* dgew, from two distant populations of India. *Journal of Essential Oil Bearing Plants*. 20(3) 2017 pp 851-854: **IF: 0.493; ISSN: 0976-6026**
17. Ankit Singh, **Mohan C. Nautiyal**, Ripu M. Kunwar and Rainer W. Bussmann (2017). Ethnomedicinal plants used by local inhabitants of Jakholi block, Rudraprayag district, western Himalaya, India. *Journal of Ethnobiology and Ethnomedicine* (2017) 13:49 DOI 10.1186/s13002-017-0178-3. **IF: 1.903; ISSN: 1746-4269**
18. Rajendra s. Chauhan, M. C. Nautiyal, Gilles Figueredo and V. S. Rana (2017). Effect of post harvest drying methods on the essential oil composition of *Nardostachys jatamansi* DC. *Journal of essential oil bearing plants*. ISSN Print: 0972-060X, ISSN Online: 0976-6026. **IF: 0.493; ISSN: 0976-6026, PP. 1090-1096.**
19. Rajendra S. Chauhan, **M. C. Nautiyal**, A. Dhyani, Y.M. Bahuguna, Sanskrita Rawat, Aldo Tava and R. Cecotti (2017). Variability in volatile composition of *Skimmia anquetilia* N.P. Taylor & Airshaw. *TEOP* 20(4) 2017, pp 1167-1171. **IF: 0.493; ISSN: 0976-6026**
20. Purohit V. K., Chauhan R.S., Andola H.C., Prasad P., **Nautiyal M.C.** and Nautiyal A.R. (2012) A life – saving herb, *Nardostachys jatamansi* DC. is at risk in the Himalayan region. *Current Science*, Vol 103 (3): 251-252, **Impact Factor : 0.782, ISSN : 0011-3891.**
21. Purohit V.K., **Nautiyal M. C.**, Nautiyal A. R. and Gairola K. C. (2016) Successful cultivation of highly valued and endangered medicinal herb Kutki (*Picrorrhiza kurooa*): A Case study from Ghesh village of Uttarakhand Himalaya. *Medicinal Plants - International Journal of Phytomedicines and Related Industries*. Vol. 8 (3): 207-212 (Print ISSN : 0975-4261, Online ISSN : 0975-6892).
22. Chand, D., Laxmi, V., Sati, J and **Nautiyal M.C.** (2016). Status of Priority based Subsidized MAP Species for Cultivation and Conservation in Chamoli District, Uttarakhand Himalaya. *Journal of Non-Timber Forest Products* 23(4) 181-189.
23. Jyoti Sati, Vijay Laxmi Dharam Chand and **M. C. Nautiyal** (2017). "Evaluation of Antioxidant Activity of Rhizome Extract of *Paris polyphylla* Smith". *Journal of Non-Timber Forest Products* 24 (3) 147-151

24. Vijay Laxmi, Jyoti Sati, Dharam Chand and **M. C. Nautiyal** (2017). "Antioxidant Potential of Herbal Tea from *Rhododendron anthopogon* D. Don and *Hippophae salcifolia* D. Don". *Non-Timber Forest Products* (3)131-135.
25. Chauhan R. S., Bahuguna Y. M., **Nautiyal M. C.** and Sanchez J. H. C. (2018). First account of vivipary in *Saussurea lappa* (Decne.) Sch. Bip. *Brazilian Journal of Botany*, 41(2): 507-514. **ISSN:0100-8404(Print) 1806-9959 (Online), SCI IF 0.779**
26. Anurag Dhyani, Bhagwati Prasad Nautiyal & **Mohan Chandra Nautiyal** (2018). Distribution, status and conservation of *Lilium polyphyllum* (Liliaceae), a critically endangered medicinal plant from India. *Plant Biosystems*, Vol 152 (4), pp. 608-611. **IF: 1.390; ISSN: 1724-5575**
27. Chandra Sudeep, Singh Ankit, Singh C.P., **Nautiyal M.C.** and Rawat L.S (2018). Vascular plants distribution in relation to topography and environmental variables in alpine zone of Kedarnath Wild Life Sanctuary, West Himalaya. *Journal of Mountain Science*, 15(9): 1936-1949. **ISSN:1672-6316 (print) 1993-0321 (Online), SCI IF 1.135.**
28. Rajendra S. Chauhan, **M.C. Nautiyal**, Sanskrita Rawat, A. Tava & R. Cecotti (2018). Essential Oil Composition of Roots of *Heracleum candicans* Wall. Cultivated in Nursery. *Journal of Essential Oil Bearing Plants*, Vol. 21 (4), 1056-1061 | **DOI: 10.1080/0972060X.2018.1511384, SCI IF 0.493**
29. Ankit Singh, **M. C. Nautiyal** and A. K. Gautam (2019). *Podosphaera fuliginea* (Schltld.) U. Braun & S. Takam. Causes powdery mildew on an important medicinal herb, *Picrorhiza kurrooa* Royle ex. Benth. in India. *Current Science*, vol. 116, no. 6, 25 March 2019, 877, **IF: 0.756**
30. Anurag Dhyani, Carol C. Baskin, Bhagwati Prasad Nautiyal, and **Mohan Chandra Nautiyal** (2019). Overcoming root dormancy and identifying the storage behaviour of *Lilium polyphyllum* seeds. *Botany (Earlier 'Canadian Journal of Botany')*, January, 2019. PP: 161-166, **IF: 1.178**
31. Vijay Laxmi Trivedi, Dharam Chand Attri, Jyoti Sati, **Mohan Chandra Nautiyal** (2019). Phenological variations of primary biochemicals in male and female plants of *Hippophae salcifolia* D. Don. *Journal of Plant Biochemistry and biotechnology*. <http://doi.org/10.1007/s13562-019-00527>. **IF: 1.038**
32. Dharam Chand, Vijay Laxmi, Jyoti Sati and **M. C. Nautiyal**. 'Policies & Schemes of Medicinal Plants Farming: An Innovative Effort towards Livelihood Security in Indian Himalayan Region' has been accepted for publication in the second edited book entitled 'Dynamics of Socio-Economic Development' *Bharti Publication, New Delhi* ISBN: 978-93-86608-31-4.
33. Vijay Laxmi, Dharam Chand, Joti sati and **M. C. Nautiyal**. '*Hippophae salcifolia* (Seabuckthorn): Source of Economic Development in Higher Himalayan Region' has been accepted for publication in the second edited

book entitled 'Dynamics of Socio-Economic Development' Bharti
Publication, New Delhi ISBN: 978-93-86608-31-4.

34. Vijay Laxmi Trivedi, **Mohan Chandra Nautiyal**, Jyoti Sati & Dharam Chand Attri (2019). In vitro propagation of male and female *Hippophae salicifolia* D. Don. In *Vitro Cellular & Development Biology – Plant*. DOI 10.1007/s11627-019-10020-

Proceedings: Title of Paper, All Authors (Surname First), Name of conference, Date & Year

35. Purohit, V.K., Prasad, P., **Nautiyal, M.C.**, Nautiyal, A.R (2013). Propagation of highly important life saving herbs *Nardostachys Jatamansi/grandiflora* DC. via conventional and biotechnological approaches. In *Proceedings of the 3rd Annual International Conference on Advances in Biotechnology (BioTech 13)*, SK Verma (eds), Global Science and Technology Forum (GSTF), pp. 1-6 (ISSN 2251-2489).

Books

1. Compiled a booklet entitled '**Alpine Garden at a Glance**' giving information about important alpine plants, 1996.
2. Edited a book '**Harvesting Herbs-2000**', 1997.
3. Wrote a book on '**Agrotechniques of High Altitude Medicinal Herbs**', 2004.

Total Number of Research Publications: 145