

Lok Ranjan BHATT, Ph.D.

Chief Scientific Officer

Nepal Academy of Science and Technology, Khumaltar, Lalitpur

E-mail: lokranjan2000@yahoo.com

Education

Ph.D. (Natural product development): Professional Graduate School of Oriental Medicine, Department of Herbal Resources, Wonkwang University, Korea, 2007

Dissertation: *Isolation and pharmacological activities of the constituents from selected medicinal plants.*

M.Sc. (Botany): Central Department of Botany, Tribhuvan University, Kathmandu, Nepal, 1996

Dissertation: *Physico-chemical characteristics and phytoplanktons of Taudaha Lake.*

B.Sc. (Biology, Chemistry), Tribhuvan University, Patan Multiple Campus, Lalitpur, Nepal 1993

Current research interests

Interdisciplinary research, linking natural products with biomaterials & related disciplines

- Wild food plants (Value addition and physicochemical, nutritional, sensory, analysis)
- Biomaterials/packaging materials (synthesis and characterization)

Professional experiences

2024 to date	Chief Scientific Officer , Nepal Academy of Science and Technology, Khumaltar, Lalitpur, Nepal.
2013 to 2024	Senior Scientific Officer , Nepal Academy of Science and Technology, Khumaltar, Lalitpur, Nepal.
2012 - 2013	Research fellow , Nepal Academy of Science and Technology, Khumaltar, Lalitpur, Nepal.
2010-2011	Instructor : Department of Bionanochemistry, Wonkwang University, Korea, September, 2010 to February, 2011. <u><i>Taught course</i></u> : Analysis of natural products.
2007-2011	Post doctoral researcher : Department of Bionanochemistry, Wonkwang University, Korea.
2004-2007	Doctoral Research Fellow : (Advisor: Prof. Seung Hwa Baek) Professional Graduate School of Oriental Medicine, Wonkwang University, Korea, Research Fellowship awarded from the Government of Korea through Brain Korea 21 program.

2000-2004	Research officer: Research Section, Institute of Medicine, Tribhuvan University, Maharajgunj, Kathmandu, Nepal.
1997-2000	Teaching assistant: Tribhuvan University (Patan Multiple Campus, Lalitpur and Siddhanath Science Campus, Mahendranagar).

Recent Publications

1. Achhami, H., Pachhai, B. B., Chaudhary, S., Manandhar, P., & **Bhatt, L. R.** (2025). Physicochemical, nutritional, antinutritional and antioxidant properties of juice and wines from *Rhododendron arboreum* Sm. petals. *Applied Food Research*, 100929.
2. Shahi, D. K., Awasthi, G. P., Rajendra Bahadur, G. C., Panthi, K. P., Chand, A. B., Shin, M., Kalauni, S. K., Bhattarai, N., **Bhatt, L. R.**, Yu, C., & Joshi, M. K. (2025). *Rhododendron arboreum* Sm. anthocyanin-infused starch, chitosan, and polyvinyl alcohol based composite films: Comparative analysis of physical, UV barrier, antioxidant and intelligent behavior. *International journal of biological macromolecules*, 302, 140532.
3. Shahi, D. K., Achhami, H., Karki, N., Pachhai, B. B., Rai, E., Gautam, D., ... **Bhatt, L. R.**, & Joshi, M. K. (2025). Phytochemical Properties, Antioxidant and Antimicrobial Activities, and Colorimetric pH Responsiveness of *Rhododendron arboreum* Sm. Flower Extract from Manma-Kalikot, Nepal. *Journal of Institute of Science and Technology*, 30(1), 115–123.
4. Rai, E., **Bhatt, L. R.**, & Joshi, G. P. (2025). Nutritional Composition, Antioxidant Potential, and Antimicrobial Activity of Selected Wild Edible Fruits from Champadevi Community Forest, Kathmandu, Nepal. *Nepal Journal of Botany*, 2(01), 1–11.
5. Karki, N., Achhami, H., Pachhai, B. B., Bhattarai, S., Shahi, D. K., **Bhatt, L. R.**, & Joshi, M. K. (2024). Evaluating citrus juice: A comparative study of physicochemical, nutraceutical, antioxidant, and antimicrobial properties of citrus juices from Nepal. *Heliyon*.
6. Bhattarai, S., Khanal, K., Karki, N., Shahi, D. K., GC, R. B., **Bhatt, L. R.**, Bhattarai, N., & Joshi, M. K. (2024). Synthesis and Characterization of Janus fenugreek Seed Gum-based Film for Food Packaging and Wound Dressing Applications. *Journal of Nepal Chemical Society*, 44(2), 52–62.
7. Dawadi, P., Siddiqui, M. A. ., Belbase, S. ., Syangtan, G. ., Kronenberg, B. ., Rana, K. ., Ercişli, S. ., Chaudhary, R. ., Joshi, D. R. ., & **Bhatt, L. R.** . (2023). Characterizing Nutritional, Antioxidant and Antimicrobial Values of *Diploknema butyracea* (Roxburgh) H. J. Lam from the Chepang Community, Makwanpur, Nepal. *Nepal Journal of Biotechnology*, 11(2), 65–74.
8. Shah D, **Bhatta LR**, Sharma RK, Pant B, Park M, Ojha GP, Pant HR (2023). Nonwoven Electrospun Membranes as Tissue Scaffolds: Practices, Problems, and Future Directions. *Journal of Composites Science*. 7(12):481.
9. Dawadi, P., Shyaula, M., Khadka, C., Raut, J. K., & **Bhatt, L. R.** (2023). Phytochemical analysis of *Schizophyllum commune* Fr. and *Microporus xanthopus* (Fr.) Kuntze from Phulchowki, central Nepal. *Scientific World*, 16(16), 100–105.

10. Pal KB, Pathak S , Miya TM , Darji TB, Pant G , Pant RR, **Bhatt LR** and Thapa LB
Chemical constituents of essential oil from leaves of an invasive weed *Ageratina adenophora* in Central Nepal, *Current Science*, 124(6), 2023.
11. Dawadi, P., Odari, R., Poudel, R. C., Pokhrel, L. R., & Bhatt, L. R. (2023). Isolation of *Lactococcus garvieae* NEP21 from raw cow (*Bos indicus*) milk in Nepal. *The Science of the total environment*, 861, 160641.
<https://doi.org/10.1016/j.scitotenv.2022.160641>
12. Dawadi P, Shrestha R, Mishra S, Bista S, Raut JK, Prasai Joshi T and **Bhatt LR**,
Nutritional value and antioxidant properties of *Viburnum mullaha* Buch. – Ham. ex D. Don fruit from central Nepal, *Turkish Journal of Agriculture and Forestry*, 46: 781-789, 2022.
13. Dawadi P, Syangtan G, Siddiqui MA, Lama B, Nepal K, Joshi DR and **Bhatt LR**,
Nutritional value and antioxidant properties of *cannabis* seeds from Makwanpur district of central Nepal, *Scientific World*, 15(15), 2022.
14. Bhandana P, Moussa MG, Malla R, Khadka D, Shrestha RK, Vista SP, **Bhatta LR**, Jay Kant Raut, Hu CX, Foliar Versus Soil Biofortification of Zn in Citrus (*Citrus Reticulata* Blanco) Effect on Mineral Nutrition and Fruit Yield and Quality, *Biomedical Journal of Scientific & Technical Research*, 41(3), 32755- 32768, 2022.
15. Shrestha R, Dawadi P, Bhusal S, **Bhatt LR**, Nutritional value and antioxidant properties of *Diospyros malabarica* (Desr.) Kostel., fruit from midhills of western Nepal, *Nepal Journal of Science and Technology*, 20(1): 113-125, 2021.
16. Raut JK, Adhikari M, Bhushal S, **Bhatt LR**, Antioxidant Potentials of morel mushroom (*Morchella conica* Pers.) from Nepal, *Journal of Natural History Museum*, 31:135-148, 2021.
17. Bhusal S, Pant DR, Joshi GP, Adhikari M, Raut JK, Pandey MR, **Bhatt LR**, Antioxidant Activity and Nutraceutical Potential of Selected Nepalese Wild Edible Fruits, *Scientific World*, 13(13):8-13, 2020.
18. Jha MK, Shah D, Dhital KS, **Bhatta LR**, Joshi S, Sharma RK, Pant HR, Electrospun Spider-net Structured Nanofibers Membrane from Homogeneous Solution of Nylon-6 and Poly (Ethylene oxide), *Journal of Nepal Chemical Society*, 40: 52-56, 2019.
19. Raut JK, Upadhyaya J, Raghavan V, Adhikari M, Bhushal S, Sainju PS, Gurmachhan CM, Giri A, **Bhatt LR**. Trade and Conservation of Morel Mushrooms in Nepal. *International Journal of Natural Resource Ecology and Management*, 4(6): 183-187, 2019.
20. Adhikari M, Bhusal S, Pandey MR, Raut JK and **Bhatt LR**, Mycochemical and Nutritional Analysis of Selected Wild Mushrooms from Gaurishankar Conservation Area, Nepal, *International Journal of Pharmacognosy and Chinese Medicine*, 3(3): 000169, 2019
21. **Bhatt LR**, Khanal S, Koirala AR, Pant HR, Preparation and surface morphology of herbal based polylactide microspheres, *Materials Letters*, 235:157–160, 2019.
22. **Bhatt LR**, Traditional herbal medicines: macro dosages form to nanoformulations, *Novel Approaches in Drug Designing & Development*, 4(3):001-004, 2018.
23. **Bhatt LR**, Wagle B, Adhikari M, Bhusal S, Giri A, Bhattarai S, Antioxidant activity, total phenolic and flavonoid content of *Berberis aristata* DC. and *Berberis thomsoniana* C.K. Schneid. from Sagarmatha National Park, Nepal, *Pharmacognosy Journal*, 10(6)Suppl:s167-s171, 2018.

Books

1. **Bhatt, LR.** (2021). *Wild Edible Fruits of Nepal*. Nepal Academy of Science and Technology, Khumaltar, Lalitpur, Nepal, pp 252.
2. Raut JK, Paudel RC, **Bhatt LR**, Sijapati J (2017). *Valuable Bioresource: Yarsagumba*. Nepal Academy of Science and Technology, Khumaltar, Lalitpur. p 12 (in Nepali)

Professional affiliations

Botanical Society of Nepal, Korean Pharmaceutical Society, Korean Chemical Society
Society of Cosmetics and Public Health, Korean Society of Chitin and Chitosan