RUCHIKA
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EDUCATIONAL QUALIFICATION

Course	School/College/ University/Institute	Board/University	Completion year	%age/ CPGA
PhD	CSIR-Institute of Himalayan Bioresource Technology	Academy of Scientific and Innovative Research (AcSIR)	Pursuing (joined in Aug,2020)	-
Masters in science	Lovely Professional University, Jalandhar(H.P)-INDIA	Lovely Professional University	2020	9.45
Bachelors in science	Post Graduate Gov. College Dharamshala (H.P)-INDIA	Himachal Pradesh University	2018	8.90
Higher Secondary Education	C.R.C.G.S.S.S, Rehan, Nurpur (H.P)-INDIA	Himachal Pradesh University	2015	89.4 %
Matriculation	D.A.V Public school, Rehan, Nurpur (H.P)-INDIA	CBSE	2013	9.6

SCIENTIFIC SKILLS

- ✓ ***Formulation and drug delivery*:** Physico-chemical characterization of nutraceuticals including solubility, partition coefficient etc. Ameliorating bioavailability and therapeutic efficacy of nutraceuticals by employing novel formulation approaches such as polymeric conjugation approach, Self-emulsifying drug delivery system, solid dispersion, oral thin films, nanofiber technology, inclusion complexation etc.

- ✓ ***Characterization of formulations*:** Characterization of developed formulations via DLS, microscopy techniques (SEM and TEM), XRD and spectroscopy techniques (UV-Visible, NMR, MALDI-TOF MS, FT-IR). Enumeration of drug content, *in vitro* release and dissolution using UV-Visible and HPLC.

- ✓ ***In-vivo studies*:** Preliminary knowledge of animal handling, oral dosing and parameters of kinetics and protocol in rodent models. Familiar with *in vivo* studies using zebrafish model.

- ✓ **Molecular techniques:** SDS-PAGE, Western Blot, PCR, qRT-PCR.

AWARDS

- Awarded **IGSTC-PhD Industrial Exposure Fellowship (PIEF) 2022**, from IGSTC.
- Receiving fellowship as **Junior Research Fellow** from Council of Scientific and Industrial Research (CSIR), New Delhi.
- Qualified All India **CSIR-NET-JRF** (Life Science) December, 2019 (Rank: 138).
- Selected among 23 for Participation in Workshop sponsored by **DST-SERB** under 'KARYASHALA' of Mission ABHYAAS **"Hands-on Workshop on Advanced Techniques in Natural Products & Medicinal Chemistry"** on 15th-22nd March, 2022, organized by Natural Products & Medicinal Chemistry Division, **CSIR-Indian Institute of Integrative Medicine, Jammu.**

EXTRACURRICULAR ACTIVITIES

- Selected for Participation in Online Workshop On Basic Bio Methodology Of Laboratory Mice And Rats: Handling, Restraining, Identification methods, Injections, Blood Sampling, Anaesthesia/Analgesia and Euthanasia, on 6th-10th December, 2021 organised by **National Centre for Biological Science - Tata Institute of Fundamental Research, Bengaluru, INDIA**.
- Selected for poster presentation in **8th International Symposium on Current Trends in Drug Discovery Research "CTDDR-2022"** on 12th-14th March, 2022 held at **CSIR- Central Drug Research Institute, Lucknow, INDIA.**
- Selected for poster presentation in **International symposium on advances in drug delivery technologies (ADDT-2024)** on 16th-17th February, 2024 held at **Department of Pharmacy, BITS, Pilani, Pilani campus, India.**
- Selected for poster presentation in **6th International Conference on Nutraceuticals and Chronic Disease (INCD-2024)** on 22th-24th February, 2024 held at **Department of Biochemistry Punjab University, Chandigarh, India.**

PUBLICATIONS

- **Ruchika,** Bhardwaj, N., Saneja, A.* **(2024)**. Orally Fast Dissolving α-Lipoic acid Electrospun Nanofibers Mitigates Lipopolysaccharide Induced Inflammation in RAW 264.7 Macrophages. **International Journal of Biological Macromolecules**, 130623. https://doi.org/10.1016/j.ijbiomac.2024.130623 (**IF:7.7)**
- **Ruchika,** Khan, N., Dogra S. S., Saneja, A.* **(2024)**. The Dawning Era of Oral Thin Films for Nutraceutical Delivery: From Laboratory to Clinic. **Biotechnology Advances,** 108362. https://doi.org/10.1016/j.biotechadv.2024.108362 (**IF:16)**
- **Ruchika,** Bhardwaj, N., Yadav, S.K. and Saneja, A.* **(2024).** Recent advances in 3D bioprinting for cancer research: From precision models to personalized therapies. **Drug Discovery Today**, 103924. https://doi.org/10.1016/j.drudis.2024.103924 **(IF:6.5)**
- **Ruchika**, Kumari S., Dhiman P., Singh D., Saneja A.* **(2022).** *R-α*-Lipoic Acid Conjugated to *D-α*-Tocopherol Polyethylene Glycol 1000 Succinate: Synthesis, Characterization, and Effect on Antiseizure Activity. **Journal of Agricultural and Food Chemistry,** 70, 25, 7674–7682 https://doi.org/10.1021/acs.jafc.2c01685 **(IF:6.1)**

- **Ruchika**, Sharma A., Saneja A.* **(2022).** Zebrafish as A Powerful Alternative Model Organism for Preclinical Investigation of Nanomedicines, **Drug Discovery Today**, 27, 5, 1513 - 1522 https://doi.org/10.1016/j.drudis.2022.02.011 **(IF: 6.5)**

- Chhimwal, J., Dhritlahre, R.K., Anand, **Ruchika,** P., Patial, V., Saneja, A. and Padwad, Y.S., **(2023).** Amorphous solid dispersion augments the bioavailability of phloretin and its therapeutic efficacy via targeting mTOR/SREBP-1c axis in NAFLD mice. **Biomaterials Advances**, *154*, 213627. https://doi.org/10.1016/j.bioadv.2023.213627 **(IF: 7.9)**

- Dhritlahre R. K., **Ruchika**, Padwad Y., Saneja A.* **(2021).** Self-emulsifying formulations to augment therapeutic efficacy of nutraceuticals: From concepts to clinic. **Trends in Food Science & Technology**, 115, 347-365. https://doi.org/10.1016/j.tifs.2021.06.046 **(IF: 15.1)**

- Khan N., **Ruchika**, Dhritlahre R. K., Saneja A.* **(2022).** Recent advances in dual ligand targeted cancer therapy. **Drug Discovery Today,** 27, 2288-2299 https://doi.org/10.1016/j.drudis.2022.04.011 **(IF: 6.5)**

- Khan N., Bhardwaj V.K., **Ruchika**, Purohit R.*, and Saneja A.* **(2023).** Deciphering the interactions of genistein with β-cyclodextrin derivatives through experimental and microsecond timescale umbrella sampling simulations. **Journal of Molecular Liquids**, 374, 121295 https://doi.org/10.1016/j.molliq.2023.121295. **(IF: 5.3)**

- Sharma, P., **Ruchika,** Dhiman, P., Kumar, R., Saneja, A., & Singh, D. **(2023).** A solid dispersion of Citrus reticulata peel biowaste as an effective antiepileptic: Sustainable approach toward value addition and agro-industrial waste valorisation. **Journal of Drug Delivery Science and Technology**, 81, 104238 https://doi.org/10.1016/j.jddst.2023.104238 **(IF: 4.5)**

- **Ruchika,** Sharma, K.S., Kumar R., Yadav, S.K. and Saneja, A.* **(2024)**. Multifunctional Pterostilbene Nanoemulsion Incorporated Chitosan-Alginate Films for Food Preservation. **Food Packaging and Shelf-Life**. **(IF: 8.5) (Communicated)**

- Kaliya, K., Bhardwaj, N., **Ruchika,** Saneja, A.* **(2024).** Synthesis of a Gemcitabine Prodrug and its Encapsulation into Polymeric Nanoparticles for Improved Therapeutic Efficacy. **(Communicated)**

Book chapters

- **Ruchika**, Saneja A*. (2021). Valorization of Sitosterol from Agricultural Waste as Therapeutic Agent. In: Rana A., Saneja A., Kumar S., Lichtfouse E (eds) Sustainable Agriculture Reviews 56. **Sustainable Agriculture Reviews,** vol 56. Springer, Cham. https://doi.org/10.1007/978-3-030-84405-9_5

- **Ruchika**, Dhritlahre R. K., Saneja A*. (2021) Nano-delivery of Bioactive Constituents from Apple Pomace. In: Rana A., Saneja A., Kumar S., Lichtfouse E (eds) Sustainable Agriculture Reviews 56. **Sustainable Agriculture Reviews**, vol 56. Springer, Cham. https://doi.org/10.1007/978-3-030-84405-9_3

Declaration

I do hereby declare that the particulars of information and facts stated here in above are correct and complete to the best of my knowledge.

(Ruchika)