


Curriculum Vitae

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|---|---|----------------------------|-----------|---|
| Full Name: | Dr. Charan Singh | | |  |
| Designation | Assistant Professor | | | |
| Department: | Department of Pharmaceutical Sciences | | | |
| Campus: | Srinagar/Chauras | | | |
| Communication Address | Department of Pharmaceutical Sciences HNB Garhwal University (A Central University), Chauras Campus, P.O. Kilkileshwar, Via Kirtinagar Distt. Tehri Garhwal, Pin-249161, Uttarakhand | | | |
| Mobile: | +91 9888184816 | | | |
| Email | c.singhniper009@gmail.com | | | |
| Educational Qualification: | M. Pharm., Ph.D. | | | |
| Postdoc Experience | National Postdoc: UIPS, Panjab University, Chandigarh, India IBRO Exchange Fellow: The University of Queensland, Brisbane, Australia SERB-SIRE Fellow: The University of Texas at Austin, Austin, USA | | | |
| Teaching Experience | 4 Years (UG and PG) | Research Experience | 6.5 Years | |
| Research Interest and Fields of Specialization: Nanomedicine, Lung and Brain Targeting | | | | |
| Administrative /Academic committees and responsibilities | | | | |
| a. Member, Placement Committee | | | | |
| Membership of Scientific Organizations | | | | |
| a. Haryana State Pharmacy Council b. Translational Biomedical Research Society, LM0026 c. Asian-Pacific Society for Neurochemistry, 18-7-IND-001 d. Indian Academy of Neuroscience, LS-292 e. Indian Pharmacy Graduate Association, 6220 f. AAPS NIPER Student Chapter-Vice Chair (2010-2011) g. Controlled Release Society-Indian Chapter, 2020-2025 | | | | |
| Research Supervision | | | | |
| B.Pharm. Guided-5 M.Pharm. Thesis Guided- 16; Ongoing-02 PhD Scholars Ongoing: 1 Co-Supervisor | | | | |
| Awards/Fellowships | | | | |
| <ul style="list-style-type: none"> • 2022-SERB International Research Experience (SIRE) Fellowship, Govt of India to work at University of Texas at Austin, USA • 2022-International Brain Research Organization (IBRO)-Associate School • 2021- International Brain Research Organization (IBRO)-Meetings Support Grant • 2020- International Brain Research Organization (IBRO)-Dana Brain Awareness Week Grant (1 among 5 awardees in Asia-Pacific countries) • 2019- Early Career Award, International Brain Research Organization (IBRO) France (1 among 9 awardees at international level) • 2019- 1st IBRO-APRC International Fellowship for attending Amarkantak School of Neurosciences, held at Indira Gandhi National Tribal University, Amarkantak, India • 2018- 3rd IBRO/APRC International Fellowship for attending Chandigarh Associate Neuroscience held at Panjab University, Chandigarh, India • 2018- IBRO-APRC Exchange Fellowship Award to work at The University of Queensland, Brisbane, Australia (1 among 4 awardees in Asia-Pacific countries) | | | | |

- **2017-** IBRO-SfN International Travel Award to attend the Society for Neuroscience (SfN) annual meeting held in Washington DC, USA
- **2017-1st** IBRO-APRC Travel Award for attending Banasthali School of Neurosciences held at Banasthali University, Jaipur, India
- **2017-**Best Poster Presentation Award at National Symposium held at Panjab University, Chandigarh, India
- **2016-**DST-SERB National Post Doctoral Fellowship under Start-Up Research Grant (Young Scientists) component (**INR 19.20 Lakh**)
- **2015-**2nd Prize in Oral presentation in 9th Chandigarh Science Congress held at Panjab University, Chandigarh, India
- **2013-**Institute (NIPER) Senior Research Fellowship for Ph.D. (Formulations) (2013-2015)
- **2011-**Institute (NIPER) Junior Research Fellowship for Ph.D. (Formulations) (2011-2013)
- **2009-**Institute Fellowship (NIPER) for M. Pharm. (Formulations) (2009-2011)
- **2008-**Pharmacy Quiz Award in B. Pharm., Maharishi Dayanand University, Rohtak, Haryana

Professional Achievements

- Bentham Ambassador 2019-2020 by Bentham Science Publisher
- Resource Person in AICTE, Govt of India, sponsored two weeks Faculty Development Programme at ISF College of Pharmacy, Moga from Jun 8th-22th, 2019.
- Resource Person (Session Chair)" in the International Conference, ICNAND2023 held at Department of Pharmacy, IGNTU, Amarkantak, India

Grants completed/ongoing (As Principle Investigator)

1. **2021:** Aerosolized Smart Nanocomposites for the Treatment of Drug Resistant Tuberculosis. Approved by DST-SERB, Govt of India (**INR 37.54 Lakh**) (**Ongoing 2021-2024**)
2. **2020:** Development of Nanocarriers for Brain Targeting by International Brain Research Organization (IBRO)/Dana Foundation, France (**USD 1250**) (**International Grant**)
3. **2019:** Development of Nanaocarriers for Brain Targeting funded by International Brain Research Organization (IBRO), France. **Early Career Award-IBRO (Euro 5000)** (**International Grant**)
4. **2016-2018:** Nanostructured Carriers Mediated Combination Therapy for Efficient Treatment of HIV-Associated Neurocognitive disorders (HANDs). **Start-Up Research Grant (Young Scientists)**. National Post-Doctoral Fellowship, **SERB-DST, (INR 19.20 Lakh)** (**Completed**)

Granted Patent

Charan Singh, Manjinder Singh Gill, Sarasija Suresh. Novel Nano-Formulations of Antitubercular Drugs.
IN Patent 333221

Selected publications during recent years

- Sanchit Arora, Vishal Kumar, Lakshay Kapil, Arti Singh, Ashish Kumar Agrawal, **Charan Singh.** Piperine Loaded Metal Organic Frameworks Reverse Doxorubicin Induced Chemobrain in Adult Zebrafish. Journal of Controlled Release (**Just Accepted**) **IF- 11.47 (as Corresponding author)**
- Vishal Kumar, **Charan Singh,** Arti Singh. Oral administration of hydroalcoholic extract of Centella asiatica ameliorates neurotoxicity and neurobehavioural deficits in 3-nitropropionic acid-induced Huntington's like symptoms in adult zebrafish. Rejuvenation Research (**Just Accepted**) **IF- 3.19**
- Deeksha Shukla, Nilay Kumar Nandi, Baljinder Singh, Arti Singh, Bhupinder Kumar, Raj Kumar Narang, **Charan Singh.** Ferulic acid-loaded drug delivery systems for biomedical applications. Journal of Drug Delivery Science and Technology (**Just Accepted**) **IF-5.06 (as Corresponding author)**
- Vishal Puri, Vishav Prabhjot Kaur, Arti Singh, and **Charan Singh.** Recent Advances on Drug Delivery Applications of Mucopenetrative/Mucoadhesive Particles: A Review. Journal of Drug Delivery Science and Technology (**Just Accepted**) **IF-5.06 (as Corresponding author)**
- Agrawal S, Singh V, **Singh C,** Singh A. A review on pathophysiological aspects of Sleep Deprivation. CNS Neurol Disord Drug Targets. 2022 May 12. **IF: 4.4.**
- Sima Kujur, Arti Singh, **Charan Singh.** Novel Metal Organic Frameworks Improves In Vitro Lung

Deposition and Efficacy of Rifampicin. J Aersol Med Pul Drug Del (**Just Accepted**) **IF-2.57** (*as Corresponding author*)

- Tania Bajaj, **Charan Singh**, Ghanshyam Das Gupta. Novel metal organic frameworks improves solubility and oral absorption of mebendazole: Physicochemical characterization and in vitro-in vivo evaluation. 2022, Pg 103264. Journal of Drug Delivery Science and Technology. **IF-5.06** (*as Corresponding author*)

Full list of publications available at:

<https://scholar.google.com/citations?user=N5qALfwAAAAJ&hl=en>

Book Chapters

- VP Kaur, SN Rai, T Bajaj, H Heer, V Puri, VK Chaturvedi, A Singh, Md Ashraf, MP Singh, **C Singh**. Impact of Common Natural Compound in the Treatment of Alzheimer's Disease in autism spectrum disorder and Alzheimer's Disease 1, 63-82. Published by Springer Nature (**Corresponding author**)
- Heer H, Kaur VP, Singh Arti, **Singh C***. Microbubbles in Drug Delivery Systems. Advanced Drug Delivery Systems, Wiley Publisher, USA, Pp 125-143. <https://doi.org/10.1002/9781119711698.ch6>. Print ISBN:9781119711667. Online ISBN:9781119711698 (**Corresponding author**)
- Heer H, Kaur VP, Bajaj T, Singh A, **Singh C***. Impact of nano-formulations of natural compounds in the management of neurodegenerative diseases. Recent Advances in the treatment of Neurodegenerative Disorders . Pp. 178-207 (30). ISBN: 978-1-68108-773-3 (Print) ISBN: 978-1-68108-772-6 (Online). Published by Bentham Science Publisher, U.A.E. (**Corresponding author**)
- Suresh S, **Singh C**, Jena SK, Bagri S, Ahuja BK. Nanocrystals: A Novel Approach for Drug Delivery. Nanotechnology: Novel Perspectives and Prospects, published by M/S McGraw Hill, USA. Pp 99-102. ISBN (13): 978-93-392-2109-6, ISBN (10): 93-392-2109-5
- Saini S, **Singh C**, Lohan S, Singh B. Nanotechnological Interventions for Neurodegenerative Disorders using Plant Bioactives: From Molecular Mechanisms to Clinical Translation. Nanobiomedicine Series, Published by Taylor and Francis, UK. Accepted, ISBN: 9780815348351
- Goyal AK, Bhandari S, **Singh C**, Rath G. Nanofibers for Delivery of Drugs and Bioactives. Nanobiomedicine Series, Published by Taylor and Francis, UK. Accepted, ISBN: 9780815348351
- Urvashi Langeh., Tania Bajaj. Priyanka Bajaj. Swati Kaushal. Diksha Saluja. Shelly Agarwal. Neelam Sharma, Bharti Verma, Meena Yadav, Rima Singh. **Charan Singh**, Arti Singh. COVID-19 Altered Brain Signaling Pathways. COVID-19: Current Challenges and Future Prospective, 2021, 76-100. Published by Bentham Science Publisher, U.A.E. ISBN: 978-981-14-9864-0
- **Singh C**, Kaur R, Kaur R, Bahal R, Bhoop BS. Multi-Dimensional Approaches For Targeted Drug Delivery Of Nanostructures. Nanobiomedicine Series, Published by Taylor and Francis, UK. Chapter 6. Pages21. eBook ISBN9781351138901