

**JUSTIFICATION LETTER FOR DR. KALPANA NAGPAL- SUN PHARMA SCIENCE FOUNDATION
RESEARCH AWARD 2021**

I am delighted to recommend Dr. Kalpana Nagpal, Assistant Professor-III, Amity Institute of Pharmacy for Sun Pharma Research Award 2021 under category Pharmaceutical Sciences. She has completed her Ph.D. degree in 2013 and M. Pharm in 2009 from Guru Jambheshwar University of Science and Technology, Hisar (Haryana), India.

Dr. Nagpal is an optimistic, young, and dynamic women scientist who works in the utilization of nanoparticulate drug delivery systems for targeted drug delivery. She has excellent academic record being the GOLD MEDALIST in B. Pharm (2003-07) as well as M.Pharm (2007-09) and have qualified various national examinations, like GATE. She has supervised 08 M.Pharm students and supervising 02 M. Pharm students and 03 PhD candidates at Amity University, Noida. Recently, Dr. Nagpal has won International Award (Second Position) in Learning I3 (Ideas, Innovation, Inspiration) Symposium Competition organized by the School of Therapeutic Sciences, University of the Witwatersrand, Johannesburg in August 2021.

She has eleven years of extensive research experience in the area nanotechnology-based formulation development for phytoconstituents for the treatment of neurological disorders, psoriasis as well as breast cancer. She has won 07 National Awards in various conferences for her research work. She has published 38 International publications, three books and 05 book chapters with International publisher. The cumulative impact factor of her publications is above 100, with 1533 citations, an h index of 17 and i10 index of 25.

Dr. Nagpal is also member of editorial board for Journals like Critical Reviews in Therapeutic Drug Carrier System (IF: 4.889) and reviewer of several peer reviewed international journals like, Drug Discovery Today, Colloids and Surfaces B: Biointerfaces, 3Biotech, AAPS Pharm Sci Tech, Phytotherapy Research and International Journal of Biological Macromolecules.

Dr. Nagpal works on the development of surfactant coated nanoparticles for improved the drug brain uptake of synthetic molecules (like minocycline, rivastigmine) and phytoconstituents (like gallic acid, rutin etc). The polymer which is mainly utilized is chitosan which is the second most abundant polysaccharide after cellulose. It is biocompatible, biodegradable, safe and very economical to be procured in India. The approach can improvise not only the efficacy, but also the safety which is reflected by the improvised maximum tolerable dose of the drug which is encapsulated and is reported in Journals of repute. The dose can also be minimized which will ultimately decrease the side effects of drug. This approach was found suitable not only for neurological disorders but was further extended and proved to be effective in the treatment of liver disorders, breast cancer as well as psoriasis which got published in journals of repute. Their potent pharmacological activity and good

safety profile make them a promising candidate for further evaluation to be taken to market.

It is worth mentioning that till date, Dr. Nagpal has been awarded following Awards and Professional Recognitions:

- Sir C V Raman Scholarship (2010-13).
- Elsevier's outstanding Reviewer Award (June 2017)
- Elsevier's outstanding Reviewer Award (July 2017)
- American Association of Pharmaceutical Scientists (AAPS) outstanding contribution in reviewing (2018)
- International Travel Grant by DST SERB for attending AAPS 2019 PharmSci 360 held at San Antonio, Texas, USA
- Second Position in the Learning I3 (Ideas, Innovation, Inspiration) Symposium Competition organized by the School of Therapeutic Sciences, University of the Witwatersrand, Johannesburg

Considering the outstanding scientific contributions and accomplishments of Dr. Kalpana Nagpal in cutting edge innovative research in Pharmaceutical Sciences, I strongly recommend Dr. Kalpana Nagpal for the prestigious Sun Pharma Award 2021.

Professor (Dr) Bhudev C. Das

Chairman & H. G. Khorana Chair Professor

Amity Institute of Molecular Medicine & Stem Cell Research (AIMMSCR)

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