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Dr.J.S.Yadav, FNA, FTWAS
(Former Director and Bhatnagar Fellow, CSIR-IICT)
Vice-Chancellor, Provost and Trustee

Date: 28th August, 2023

To
The Office of Sun Pharma Science Foundation,
Sarhaul, Sector-18, Gurgaon-122015, Haryana.

Sub: Nomination for the SUN PHARMA RESEARCH AWARDS-2023

Dear Sir/Madam,

I am very happy to nominate Dr. B. V. Subba Reddy, Chief Scientist, Department of Fluoro and Agrochemicals, CSIR-Indian Institute of Chemical Technology (IICT) for **SUN PHARMA RESEARCH AWARD 2023** in **Pharmaceutical Sciences**.

Dr. Reddy has made exceptional contributions in the field of green chemistry using sustainable solvents and reagents, which find important application in manufacturing drugs like calcium channel blockers. He has extensively worked in the area of natural products like camptothecin and luotonin A and a few derivatives of tryptanthrin was identified as a potential leads for tuberculosis under Open Source Drug Discovery (OSDD). He was actively involved in the development of innovative routes for novel anti-bacterial agents such as honokiol, magnolol and hinokitiol and produced in kilogram scale. He has made a new analogue of magnolol, which is more stable and highly active than parent natural product and therefore this molecule is under clinical evaluation for tooth paste application. These technologies were successfully transferred to industry. In addition, he has published more than **780** research papers in reputed international journals with an average citation per paper is 25.63 and h-index is 68. Being an organic chemist, he has sound knowledge and vast experience in pharma and agrochemicals which helps him to collaborate with both sectors. His expertise in asymmetric synthesis led to the development of efficient synthetic routes for chiral drugs following principles of green chemistry. Recently he has developed a highly efficient process for 2-DG and transferred the technology to 10 pharma companies and demonstrated to industry for bulk production. More recently he has also developed a novel four steps process for Molnupiravir (an orally active drug for COVID-19) starting from readily available D-ribose. His strategy for making these drugs is convergent, low cost, and environmentally benign.

His efforts on the development of novel chiral ligands for asymmetric synthesis resulted in the synthesis of enantiopure molecules such as β-nitro alcohols, which are building blocks for many anti-hypertensive drugs. He has developed 'green' synthetic methods and successfully utilized them for the synthesis of NCEs. He developed a domino Prins strategy, which has a wide application in the synthesis of tetrahydropyran containing drugs and natural products. For the past 5 years he was actively involved in the process development of agromolecules to develop indigenous technologies to fulfil the goal of Atma Nirbhar Bharat. In this context, his group has successfully developed a cost effective processes for 12 agro molecules under CSIR agro mission program.

His contributions helped him in receiving several awards and honours. Overall, the research interests of Dr. Reddy in the field of Synthetic Organic Chemistry are directly related to the Human Health Care. I have no hesitation in strongly recommending Dr.B V Subba Reddy, for the SUN PHARMA RESEARCH AWARD 2023 in Pharmaceutical Sciences.

Thanking You,

Yours Sincerely

(J S YADAV)