

डॉ. डी. श्रीनिवासा रेड्डी निदेशक

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## सीएसआईआर-भारतीय समवेत औषध संस्थान

(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्) केनाल रोड, जम्मू — 180 001 (भारत)

## CSIR-Indian Institute of Integrative Medicine

(Council of Scientific & Industrial Research)
Canal Road, Jammu - 180 001 (INDIA)

Dated: 23<sup>rd</sup> September, 2021

## Justification for sponsoring the nomination

A brief write-up by the Nominator justifying the suitability of the Applicant for the "Sun Pharma Science Foundation Research Award"

Prof. Dr. Rodney A. Fernandes is presently working as Professor in the Department of Chemistry at IIT-Bombay. He is actively involved in teaching and research in Organic Chemistry. He has developed new strategies in Organic Chemistry for total synthesis of bioactive molecules and natural products with emphasis on protecting-group-free synthesis and stepeconomy. The total synthesis of chatenaytrienins, muricadienins, obolactones, (45,55)-4,8-dihydroxy-3,4-dihydrovernoniyne, demethoxycardinalin, deoxyactinorhodin, arizonins, iso-crisamycin A, asteriscunolide-C, ancepsenolide, cephalosporolides, kalafungin, frenolicin, isagarin, Hagen's gland lactones, murolic acid, various paraconic acids, cardiobutanolide, topsentolide B2, phenatic acid, canadensolide, sporothriolide, posticlure, tonkinelins, etc are his significant research achievements. He has also synthesized a few drug molecules like tolterodine, GPR40 agonists, RORγ-inhibitors and analogues and several natural products analogues for antibacterial and antitubercular activity. Several of the total synthesis papers are published in highly reputed international journals like *Org. Lett., Chem. Commun., Chem. Eur. J. and J. Org. Chem.* 

He has also developed new methodologies including the investigation of new terminal oxidants for Wacker process, oxidative diene cleavage, Fischer carbene pentannulation and new catalysts for asymmetric allylations. His work on double arylation through  $\pi$ -allylpalladium intermediate is published in *J. Am. Chem. Soc.* He is author to over 126 research papers in international journals of high impact. In the last 10 years (2011-2021) he has contributed 96 peer reviewed research papers and has 4 patents granted. He has total 2120 citations with h-index = 25 and i10-index = 74 (scholar.google).

He is the recipient of INSA medal for Young Scientist 2004, elected Fellow of Maharashtra Academy of Sciences (2017) and received recently the "Departmental Excellence in Teaching" Award of IIT Bombay 2019 and Outstanding Reviewer Award by the *Chemical Communication* Journal of RSC in 2019. He has Edited a book "Protecting-Group-Free Organic Synthesis: Improving Efficiency and Economy," published by John Wiley & Sons (2018), in which I have contributed a chapter. He has served as Dean Academic Programme and Faculty Affairs at IIT Goa on deputation from IIT Bombay (August 2017-July 2018). He has been member of board of studies in Chemical Sciences at MS University of Baroda (2017-2020) and presently is member board of studies in Chemical Sciences (UG) at Goa University, Goa. He is also member of UGPC at IIT Bombay at present.

Prof. Fernandes has actively contributed to academic teaching, administration and high quality research in Organic Chemistry that is visible through high impact international journal publications (Total 126). He also has 8 patents and 1 book edited to his credit. I would highly recommend his application for the prestigious "Sun Pharma Science Foundation Research Award".

With best regards,

Yours sincerely.

(D.S. Reddy)

डॉo डीo श्रीनिवासा रेड्डी Dr. D. Srinivasa Reddy निदेशक/Director

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