

डा शशी बाला सिंह

पीएवडी, डी.एससी, एफएनएएससी, एफएएमएस, एफआईएएन विशिष्ट वैज्ञानिक निदेशक, नाइपर हैदराबाद

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राष्ट्रीय औषधीय शिक्षा एवं अनुसंधान संस्थान औषधीय विभाग, रसायन एवं उर्वरक मंत्रालय भारत सरकार बालानगर, हैदराबाद - ५०० ०३७

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TO WHOMSOEVER IT MAY CONCERN

I am pleased to write a reference letter for Dr. Partima Solanki. She is known to me since 2013, when she joined as an Assistant Professor at Special Centre for Nanoscience, Jawaharlal Nehru University, New Delhi. Based on my extensive interactions and observations, I take this opportunity to nominate her for **Sun Pharma Science Foundation Research Awards 2021.**

Currently she is working in developing sensors/biosensors for: 1) cancer biomarkers for early diagnosis; 2) vitamin D detection; 3) antibiotics detection in food and environmental samples; 4) mycotoxins detection in food samples and 5) gut microbiota-derived metabolites detection which are possible biomarkers for cancer and kidney diseases. She also has reported several nanostructured materials based biosensing platform for detection of cancer by non-invasive biomarkers including CYPRA-1 -21, IL-8 and Tumour Necrosis Factor-F in cancer patients with the collaboration of AIIMS, New Delhi. Validation of oral cancer patient's samples and 25-hydroxy Vitamin D3 are in the process for electrochemical devices fabrication.

Dr. Solanki has made several noteworthy contributions in the field of biosensor science. Her R&D work has led to the successful development of biosensors in the area of Vitamin D, oral cancer, antibiotics and cholesterol. She credits 16 patents as inventor for protecting the intellectual property of the developed sensors/biosensors; out of which 2 patents have been granted. Dr. Solanki is leading an active research group of 15 researchers involving Ph.D. students, project fellows and post-doctoral fellows. She is recipient of big R&D grants such as Nanomission grant from DST and Indo-Russia grant from DBT. She is also having number of grants from ICMR, UGC etc. as Principle Investigator.

Dr. Solanki has published more than 175 original research articles in high-impact journals. It is well reflected in high number of quality citations (7319) and H index - 46 (based on google scholar). Dr. Solanki's group has extensive collaborations with several research groups in Russia, Japan, USA, Singapore, South Korea and Sweden. For her extensive research and academic experience in the area of nanotechnology and sensors, she has been awarded the role associate editor or guest editor of various journals including focus issue on Women in Electrochemistry (IOP publisher); Women in Nanomedicine and Frontier in Nanotechnology: Biomedical Nanotechnology (Frontier). Her books proposal on nanotechnology application in biomedical sciences has been accepted by IOP publisher and Elsevier Inc. for books publication.

For her noteworthy contribution in the area of nanotechnology and biosensors, Dr. Partima Solanki had been awarded 'Visitor Award' from Honorable President of India in 2019.

In order to disseminate acquired knowledge in the area nanotechnology and biosensors, she has delivered more than 50 invited lectures in various International and National conferences. For understanding her scientific social responsibility, she has been a founder member in the formation of scientific societies like Indian Society of Nanomedicine, AIIMS. She also has been recognized as advisory committee member of DST- TDB (Technology Development Programme), DSIR. She has been the member in various committees including International/National conference organizing committees and in house event organizer as Science day, Jan Jan JNU, Women's day, Convocation etc.

She strongly believes in 'Atmanirbhar Bharat Abhiyaan' and 'Make in India' initiatives and in order to align her entrepreneurial dreams with these schemes, she recently created a start-up (3KNano) in the Atal Incubation Center of JNU. Her start up will be carrying out the BIG project under 'Biotechnology Ignition Grant Scheme (BIG), which is a highly competitive scheme at National level. Through her startup, she is incubating India's first indigenous sensor for detecting Vitamin D.

Considering her academic and entrepreneurial credentials, I strongly recommend her candidature for **Sun Pharma Science Foundation Research Awards 2021** which may motivate her to excel more in her forte.

(Shashi Bala Singh)