

Dr. Shashi Bala Singh

Dr. Shashi Bala Singh is currently working as Director, National Institute of Pharmaceutical Education and Research, Hyderabad, Telangana from 2018. Previously, Dr. Singh held the positions of Distinguished Scientist & Director General (Life Sciences), DRDO from 2016 to 2018; Director and Scientist 'H', outstanding Scientist in DIPAS, New Delhi from 2010 to 2016; and Director, DIHAR, Leh from 2007 to 2010. Dr. Singh is the alumni of All India Institute of Medical Science, New Delhi.

With over 35 years of experience, 27 National and International Patents including 10 commercialized products, 45 National and International awards/recognitions; 30 book chapters/books; over 200 National and International Publications, several popular articles and invited lectures at conferences/ seminars in India and abroad to her credit. She is an active researcher in various facets of physiology and pharmacology and has completed 25+ research projects.

Dr Singh has established international collaboration with renowned scientists. She did collaboration with Airforce Research Laboratory (AFRL), Ohio, US in 2013 for carry out the toxicity study of nanomaterials in biological systems as well as identification of biomarkers for stress responses. In addition, Dr Singh was instrumental in setting Kyrgyzstan-Indian Mountain Biomedical Research Centre at Bishkek, Kyrgyzstan to study physiological markers of acclimatization in Indian and Krygyz population.

Recently, She was awarded with Prof. K.N Sharma Oration Award in 2021. In addition, FICCI award of excellence -Women in R&D by Centre for Innovation, Science & Technology commercialization for outstanding contribution as "Woman Scientist in Biological sciences" in 2019; Prof. R. C. Shukla Oration Award in 2016 by KG Medical University, Lucknow for outstanding contribution in Physiology; Prof. U.S. Srivastava Memorial Lecture Award of NASI in 2015 given by National Academy of Science, India for outstanding contribution in Physiology; Maj. Gen. SL Bhatia Oration Award in 2014 by APPICON at Puri, Bhubaneswar for contribution in Physiology and Pharmacology; Prof SC Mahalanobis Memorial Oration in 2014 by Physiology Society of India (PSI) for outstanding contribution in Physiology.

In addition, Dr Shashi Bala Singh was also awarded with "Titanium Trophy: DIPAS" by Hon'ble Prime Minister for Best R&D Lab in 2013 for outstanding contribution as Head of the Institute as well as "Scientist of the Year Award" by Hon'ble Prime Minister of India in 2010 for outstanding contribution in Life Science Cluster lab of DRDO; Titanium Trophy: DIHAR in 2009 by Hon'ble Prime Minister for best R&D Lab for outstanding contribution as Head of the Institute. Moreover, Technology Spin-off award by Hon'ble Prime Minister of India in 2008 for

“Technology useful for civil sector apart from armed forces” for outstanding contribution in Spinoff technology development.

She has also supervised 24 Ph.D. projects, in various fields of physiology and pharmacology. Presently, she is Fellow/Life member of more than 10 scientific societies worldwide including Fellow of National Academy of Medical Sciences (FAMS); President, Federation of Indian Physiological Societies (FIPS) from 2013 to till date; Fellow of Indian Association of Biomedical Scientists (FABMS) and Fellow of Indian Academy of Neurosciences-FIAN.

She also holds editorship of many journals including Journal of Biomedicine (Physiology section) and Annals of Neurosciences.

Dr. Shashi Bala Singh is actively engaged in quality translational research in Hypoxia and Neuroscience. She worked extensively in the area of High Altitude physiology and has made remarkable contributions in improving the quality of life of the soldiers deployed at high altitudes. She has identified novel mechanisms of hypophagia and cognitive impairment and several signaling pathways and molecular mechanisms underlying morbidities associated with high altitude hypoxia. She worked on various behavioral, biochemical and electrophysiological studies which proved that impairment in memory function is mainly due to the oxidative stress leading to neuro-degeneration in brain structures (hippocampus, cortex and striatum) involved in learning and memory. She also worked on development of supplements with antioxidant and cholinomimetic drugs to improve high altitude induced impairment in cognitive functions. She has been instrumental in guiding studies on understanding adaptation, maladaptation, performance enhancement and rapid acclimatization using intermittent hypoxia.

Using translational research for improving life of troops at high altitude, her endeavors have made the life of troops comfortable in the most difficult to inhabit terrains. During her tenure as Director in Leh, she created an innovative agricultural eco-system that has enabled the socio-economic development of Ladakh through science and technology. Her efforts resulted in increased fresh food productivity through introduction of new varieties, establishment of greater infrastructure and intensification of lab to land program.