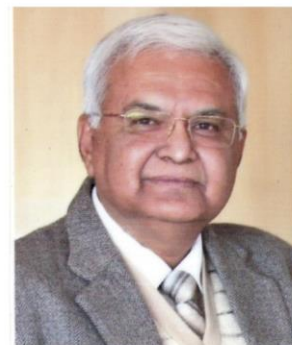


Brief CV of Dr. Sanjay Kumar, Director CSIR-IHBT, Palampur

Dr. Sanjay Kumar obtained Master's and Ph.D. degrees from **G.B. Pant University of Agriculture and Technology, Pantnagar** and **Indian Agricultural Research Institute, New Delhi**, respectively. Joined CSIR-IHBT as "Scientist B" in 1990; received post-doctoral training at **Texas Tech University (USA)**, **Rothamsted Research (UK)**, and **Kansas State University (USA)**.



Research: Major contributions include discovery of a **novel carbon fixation pathway** and its transplanted in a heterologous system to **reduce photorespiratory losses** leading to photosynthetic gain and yield enhancement (**work lauded by international fraternity**), **discovery of autoclavable superoxide dismutase** from high altitude plant, its **characterisation and modification**, plant adaptation mechanism at high altitude, cloning of genes for secondary metabolite synthesis and imparting stress tolerance, deciphering the mechanisms of **winter dormancy and drought stress in tea**, enumerating molecular aspects of **secondary metabolism in medicinal plants** for catechins, picrosides, steviosides, shikonins and podophyllotoxin biosynthesis. Significant contributions on **transcriptome and genome sequencing of Himalayan plants** and development of **nutraceuticals using traditional/Ayurvedic knowledge**.

Guided 25 MSc/PhD students, holds several international patents and has 146 peer reviewed research/review articles/edited book/book chapters etc. Some of his key contributions have percolated to major reviews and book also.

Recognition: Fellow of the **National Academy of Sciences, National Academy of Agricultural Sciences** and **Crop Improvement Society** of India. Bestowed with prestigious **VASVIK Industrial Research Award 2013 for Agricultural Science and Technology**; **R.D. Asana Endowment Lecture Award**; Professor **G.V. Joshi Memorial Lecture Award**; **Ultra International Team Award** for contribution in **Essential Oil Industry**; Certificate of Merit in **CSIR Leadership Programme**; and **Young Scientist Award** by **Indian National Science Academy**. He has been chairman/member of several Professional Committees and Task Forces, and has served Editorial Board of several international journals.

New initiatives for farmers: As Director of CSIR-IHBT since 11th June, 2015, vitalised several initiatives for empowering the farmers, which include successful procurement and introduction of **Heeng (asafoetida)** and **Monk fruit in the country**, and introduction of **saffron and apple in non-traditional** areas. Promoted **aromatics in mountain farming** to make **Himachal as the top state in country** for production of **essential oil** of wild marigold. **Coordinated multi-institutional projects of CSIR** as Director of Agri, Nutri and Biotech Theme, as well as Nutraceuticals and Nutritionals Missions, for delivery of envisaged outcomes.

Entrepreneurship development: With a keen focus on sustainable bioresource utilization for bioeconomy, a range of technologies were developed, patented and transferred on priority, for **products availability in the market**. These efforts lead to **brisk increase in MoUs/agreements/MTAs** signed by the institute with entrepreneurs (**from 9 during 2011- 2015 to 230 during 2015-2020**).

Dr Kumar **catalysed inclusive development of the institute** by mobilizing financial resources from varied agencies and linking with relevant state, national and international department(s)/ agency(ies)/ institute(s). With relentless approach for **quality science and technology** development, led CSIR-IHBT to attain **top position in the state and 9th ranking among 38 institutes of CSIR as per the SCImago rating**.