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Dr. Javed N Agrewala receives prestigious â??JC Bose Fellowshipâ??

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Dendritic cells play a cardinal and sentinel role in initiating the immunity against any infection

Dr. Javed N Agrewala, Professor, Centre for Biomedical Research, Indian Institute of Technology Ropar has been awarded the prestigious ‘JC Bose Fellowship’ for his work on the development of novel vaccination strategies against tuberculosis.

He with the help of his collaborator Prof David Jackson, University of Melbourne, Australia has engineered a chimeric vaccine by linking proteins of Mycobacterium tuberculosis with a unique lipid to target the vaccine to dendritic cells of the body.

Dendritic cells play a cardinal and sentinel role in initiating the immunity against any infection. This vaccine optimally activates the immunity and has been shown to protect against the disease better than the traditional BCG vaccine in the experimental model of tuberculosis.

It is totally synthetic and therefore can be used to vaccinate AIDS patients and immunocompromised individuals. In such people, BCG cannot be used because it can itself spread infection.

Dr. Agrewala developed this vaccine by carefully studying the snags associated with BCG failure to protect public living in TB-endemic regions. He believes that this vaccine may have potential in future to successfully protect against TB.

Earlier, he worked as a Chief Scientist at the CSIR-Institute of Microbial Technology, Chandigarh. In connection with this work, he has been granted United States patent and published several manuscripts in high impact journals like Trends in Molecular Medicine, Journal of Infectious Diseases, Journal of Proteome Research, Frontiers in Immunology, Critical Reviews of Microbiology, etc. Currently, he is searching an industrial partner, who can synthesize the vaccine under GLP condition for clinical trials.