

Indian Scientist

Gursaran Pran Talwar

Pioneer Who Turned Science into Service



(BORN IN OCT 2, 1926)

Imagine creating a vaccine that doesn't fight a disease—but prevents pregnancy safely by using the body's own immune system. Or discovering a cure that helps fight one of the world's oldest illnesses, leprosy. These aren't scenes from a science fiction novel—they are real breakthroughs by **Dr. Gursaran Pran Talwar**, one of India's most respected scientists and a global pioneer in **immunology and vaccine research**.

Born on **October 2, 1926**, in Hisar, Haryana, Dr. Talwar's journey in science began with a simple curiosity about how the human body protects itself. Immunology—the branch of science he mastered—is the study of our body's defense system, known as the immune system. It explores how our body recognizes and fights germs, infections, and even abnormal cells like cancer. Through this field, Dr. Talwar found ways to use the immune system itself as a tool to prevent and treat diseases.

Scientific Contributions

Dr. Talwar developed the **world's first birth control vaccine** based on the human chorionic gonadotropin (hCG) hormone. This immunological contraceptive was a revolutionary step in reproductive health—it was safe, reversible, and empowered women to make choices about their bodies. He also created **India's first leprosy vaccine** using a bacterium he discovered, *Mycobacterium indicus pranii* (MIP). This vaccine not only helped cure leprosy but also showed promise against tuberculosis, offering hope to millions.

Beyond his laboratory discoveries, Dr. Talwar transformed India's scientific landscape. He founded the **National Institute of Immunology (NII)** in 1981, shaping it into a hub of world-class research. As the **Director-General of the Indian Council of Medical Research (ICMR)**, he strengthened India's health research infrastructure and mentored generations of scientists. His leadership proved that excellence in science can thrive with passion, perseverance, and purpose.

Honors and Awards

Dr. Talwar's work has earned him prestigious honors, including the **Padma Bhushan (2001)**, the **Shanti Swarup Bhatnagar Prize**, and France's **Legion of Honour**. He has authored over **400 scientific papers and books**.

For students, Dr. Talwar's story is a shining example of how curiosity can change the world. He reminds us that every great discovery begins with a simple question—and that true innovation lies in using science to serve humanity.