Abstract (summary)

Dr. G. Pran Talwar, director of India's National Institute of Immunology in New Delhi, described his vaccine quest here yesterday to the annual meeting of the American Association for the Advancement of Science. "We are tackling a most critical problem by using the most modern methods of biology that would have been impossible 10 years ago," Talwar said.

The basis of the birth control vaccine, Talwar said in an interview, is a portion of the potent hormone known as human chorionic gonadotropin, or hCG. The hormone can ordinarily be retrieved only in small quantities from the urine of pregnant women, but now that Talwar and his colleagues have cloned the material by genetic engineering techniques, they can mass-produce it in unlimited quantities.

The vaccines now being tested, however, trigger the production of antibodies that destroy the hCG, so the fertilized egg cannot send out its essential hormonal signal. The egg then is unable to attach itself to the uterine lining, and it is shed just as if it had never been fertilized at all, Talwar said.