SANJEEV GUPTA, MBBS, MD, FRCP (London), FACP, FAASLD

The Eleazar and Feige Reicher Chair in Translational Medicine
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Sanjeev Gupta, Professor of medicine and of pathology at the Albert Einstein College of Medicine, holds the Eleazar and Feige Reicher Chair in Translational Medicine. He is an internationally prominent physician-scientist.

Dr. Gupta is a pioneer in the development of cell therapy – treating disease by introducing healthy cells into the liver or elsewhere in the body. He has discovered various mechanisms for coaxing transplanted cells to integrate in host tissue and to then proliferate. Also, he has discovered molecular mechanisms in cell injury and how those events and processes could be restored by transplantation of healthy cells, paving the way for treating major health conditions, such as high cholesterol levels, hemophilia, acute liver failure, and Wilson's disease. Dr. Gupta has successfully manipulated human stem cells to generate liver cells and defined some of the fundamental ways by which gene expression is regulated in liver stem or progenitor cells.

Dr. Gupta serves as an expert for the National Institutes of Health, U.S. Department of Veterans Affairs, U.S. Department of Defense, Wellcome Trust, and national scientific bodies in over ten countries. In the 1990s, Dr. Gupta contributed to the basis of the first ever clinical trial of a cell/gene therapy for familial hypercholesterolemia (high cholesterol), which results from a gene defect in LDL receptor. He also showed that hemophilia A (a genetic condition characterized by bleeding due to factor VIII deficiency) and Wilson's disease (a genetic condition characterized by excessive accumulation of copper in the liver and brain) could potentially be cured by use of cell therapy. Moreover, he showed how cell transplantation could be applied for rescue in liver failure. Similarly, he established how tissue engineering could be used to generate a new liver, such as with human placenta, for rescue in acute liver failure.