WASHINGTON, March 2 - Fifteen years after experiments with human gene therapy began in earnest, a federal drug advisory panel on Friday will discuss the death of a French child in one such experiment and why, after so many years of hope, the technology has been such a disappointment.

Three major gene therapy trials in the United States have been suspended pending the outcome of the meeting. Dr. Donald Kohn, the principal investigator in one of those trials, said, "I'm going to tell the committee that there is a significant difference between the French trial and ours."

Dr. Kohn, a professor of pediatrics and microbiology at the University of Southern California Keck School of Medicine, said that the type of immune deficiency in his trial's patients was different from that in the French research and that the genes that were made the target of the therapies were therefore also different.

What the Food and Drug Administration wants to know is whether those differences are significant enough, said the advisory committee's chairman, Dr. Mahendra S. Rao, a researcher at the National Institute on Aging.

If there is a concern with gene therapy, Dr. Rao said, "is it a general concern, or should it be limited?"

The French study was once hailed as one of the first breakthroughs in gene therapy: 10 children suffering from a rare immune disorder were largely cured. But three of those children have since developed leukemia, and one of the three has died.

For years, gene therapy was heralded as a technology that would soon yield blockbuster drug innovations. The National Institutes of Health issued thousands of grants to pursue the research, hundreds of patents have been granted on the technology, and more than 150 biotechnology companies have been created in the last 15 years to exploit it. In 1997 alone, the peak year, 24 such companies were created, said Dr. Sheldon Krimsky, a professor at Tufts University.

Then, in 1999, a teenager, Jesse Gelsinger, died in a gene therapy experiment conducted by researchers at the University of Pennsylvania. The death cast a pall over
the entire field, and last month the university agreed to pay the government more than $500,000 to settle fraud allegations related to the case.

Gene therapy's disappointing history is mirrored in other medical technologies once highly promoted, like high-throughput chemical screening and the decoding of the human genome. Reaping the fruits of such technological advances is taking much longer than executives in biotechnology and pharmaceuticals once suggested. As a result, the industries are suffering a drought of new products and are trying to explain why their laboratories have burned through so much money in recent years with so little to show for it.

Many of the companies established since 1990 to pursue gene therapy work have since shifted to other technologies. Cell Genesys, in South San Francisco, Calif., once focused entirely on gene therapy, but in 2001 it spun off much such research into privately held Ceregene, based in San Diego.

"We're just a cancer company now," said Ina Cu, a Cell Genesys spokeswoman.

Despite the problems, gene therapy is still routinely heralded as the next big thing, and the field's researchers get a bit defensive when discussing the many problems that have plagued it. But several top researchers agreed in interviews that much of the early optimism had been wrongheaded and that marketable cures were years away.

"Still, I would like to think that we can solve these problems," said Dr. Katherine High, a professor of pediatrics at the University of Pennsylvania.

Dr. High said she was dismayed that so many biotechnology and pharmaceutical companies had abandoned gene therapy in recent years.

"The problem with biotech companies is that they don't have years and years of money," she said. "They need a product within a few years, and the timelines involved in bringing cell and gene therapy to fruition are far too long."

Dr. Kohn, the principal researcher in one of the three trials now suspended, suggested that gene therapy could follow the same path as monoclonal antibodies, which took nearly 30 years to evolve from discovery to marketed therapies.

"This is much more of an academic venture than a commercial one at this point," Dr. Kohn said.

The lesson of gene therapy, Dr. Krimsky said, is that investors and journalists should react more skeptically to claims of imminent breakthroughs.

"It's always that very simple model that brings in a lot of venture capital and the hope of a simple cure around the corner," he said. "People tend to underestimate the complexity of the human body."

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