



## Five Decades of LA BioMed Achievements

From creating the paramedic model to developing diagnostic tests that remain the standard today, LA BioMed researchers are constantly exploring advances in health care that can transform the lives and the health of all of us. Here's a look back at some of the most significant achievements.

### 1960s

LA BioMed scientists achieved successful pre-clinical fertilization through artificial implantation of the ovum, a breakthrough that would lead to the world's first ovum transfer birth some 20 years later. The Institute's investigators created the paramedic model for emergency care that is now a life-saving standard nationwide and identified the genetic basis for the skin disease, x-linked ichthyosis.

### 1970s

LA BioMed's renowned developmental biology research team discovered the key to stimulating human growth. Other teams of LA BioMed investigators pioneered diagnostic tests that remain the standard today, including the modern cholesterol test, a testing and outreach program that virtually eliminated new cases of Tay-Sachs disease in high-risk populations and a thyroid deficiency test for infants now used in most of the industrialized world to help prevent irreversible developmental disabilities. The Institute also patented an implant that helped surgeons reconstruct severely injured jaws.

### 1980s

Enormous technological advances and growth for the campus came in the 1980s, including the establishment of a Perinatal Clinical Research Center, one of eight in the United States dedicated to research involving mothers and infants. LA BioMed investigators helped develop refined synthetic surfactants that have saved the lives of thousands of premature babies, and they evaluated vaccines for influenza, herpes simplex and much more. They also performed the first human ovum transfer, laying the groundwork for a procedure that's resulted in more than 47,000 births to infertile couples in the U.S. alone.

### 1990s

Continuing to pioneer treatments and technologies to improve human health in the 1990s, LA BioMed advances included the use of new, non-invasive techniques for detecting breast cancer, the development an inexpensive treatment for eye diseases that's saved the sight of thousands of children in underdeveloped nations, the use of antiviral medications to treat HIV infections, stent technology to treat surgically devastating abdominal aneurysms and an enzyme replacement therapy to help young victims of a devastating genetic disorder, Hurler-Scheie disease. The Institute's scientists also played key roles in the development of innovative approaches to prenatal care which have virtually eliminated in this country maternal-fetal transmission of the virus which causes AIDS.

### 2000 & beyond

LA BioMed investigators developed new rehabilitation strategies for millions of sufferers of Chronic Obstructive Pulmonary Disease (COPD) and other disorders. The Institute spawned four new biotechnology startups, which are already generating \$6 million in economic activity in the region. As the Institute enters the next decade, its 150 researchers continue the quest for new treatments and cures. The Institute's investigators are engaged in more than 1,000 studies including a major effort to develop the next generation of antibiotics, new therapeutic and diagnostic approaches to lung disease, refining methods for earlier identification of Type II diabetes, studies in the relationship between cardiovascular and kidney diseases, development of enhanced breast cancer detection technology, a novel therapy to treat sickle cell disease and advances in male infertility treatments and male contraceptives and much more.