



Influencing Treatment and Improving Lives through Research

Conducting contemporary, meticulous and innovative research to improve patient care and enhance medical knowledge of injury and disease is one of the three parts of the overall mission of Shriners Hospitals for Children®.

What began as a small research effort with a budget of \$12,000 is now a multimillion-dollar sophisticated program that involves peer review of grant applications and is recognized around the world. Over the years, our researchers have made significant breakthroughs in all four of our service lines – orthopaedics, burns, spinal cord injury, and cleft lip and palate – improving the care and quality of life for countless children worldwide.

Shriners Hospitals for Children funds innovative research projects, special shared facilities, and training fellowships. The 2018 research budget is supporting a total of 148 grants (new, renewal, revision and continuation): 21 developmental research projects, 57 bench science projects, 24 clinical research projects, 24 Special Shared Facilities and 20 fellowships.

In addition to research grants, support is also provided for fellowships as a component of the organization's educational mission of training new researchers.

Research Emphasis and Direction

Today, our research efforts are focused on translational research, i.e. bench-to-bedside and bedside-to-bench research, and regenerative medicine. Although regenerative medicine is in its early stages, it has the potential to treat, reduce or eliminate the long-term causes of many of the conditions that affect our patients, including burns and other skin injuries, as well as orthopaedic and neuromuscular injury and disease. The field of regenerative medicine offers a unique chance for translational research, and a significant opportunity for personalized medicine for our patients.

We also continue to promote clinical research. We examine new treatment modalities, as well as outcomes associated with care, in order to continuously improve the clinical attention we give to our patients.

Partnerships Promote Our Goals

Our close affiliations with colleges and universities across the country allow us to enhance the quality and scope of our research. Relationships like those



with Massachusetts General Hospital, Harvard Medical School, Oregon Health Sciences University, Washington University-St. Louis, Temple University, the University of California-Davis, University of Cincinnati, University of Texas Medical Branch at Galveston, and many others help us meet our goals of improving clinical practice and pursuing fundamental scientific theories.

Research Projects

Examples of research underway throughout our health care system include projects in these areas:

- The genetics of metabolic bone disease
- The relationship between the ability to fight disease and genetic makeup
- The link between folate and spina bifida
- Effective strategies for repairing spinal cord injury
- The causes of cerebral palsy and effective therapies for its prevention and treatment
- Ways to grow new bone and cartilage using technology and therapies



Shriners Hospitals
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