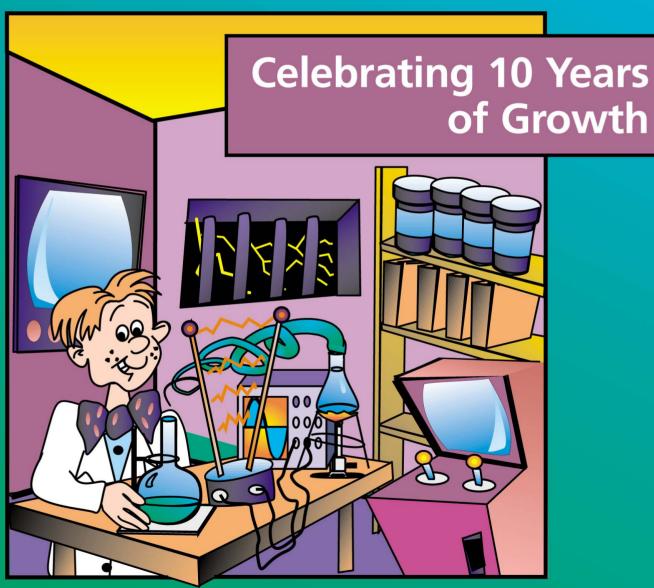
# STEELE MEMORIAL Children's Research Center





A Report Card to the Community 2003

### Report from Fayez K. Ghishan, MD

#### Director of the Steele Memorial Children's Research Center



This ten-year anniversary is an important milestone for the Steele Memorial Children's Research Center and for this community. This Center, which is now home to world-class researchers, exists because of the vision and generosity of people throughout the state. Little more than 10 years ago, it was just a good idea. But great things don't happen just because we want them to. They happen because we work hard to make them happen.

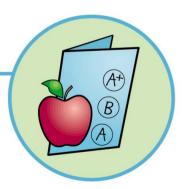
The citizens of Arizona have made an important investment in children's health. The building for the Center was complete in 1992. Now every lab is full with researchers working on all manner of children's diseases. We are making advances in pediatric cancer, learning more about babies' heart defects, investigating juvenile diabetes and working to improve the health of premature babies.

Although I am very proud of what we've accomplished here over the last 10 years, none of us is satisfied. That's because we still have too many children suffering from chronic diseases, too many children born too soon, too many children dying of cancer. With continued support from the community, we will grow to better meet the needs of Arizona's children. Our ultimate goal is to create a healthier future for all children.

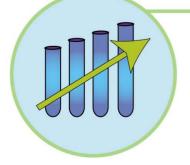
### A National Report Card

The National Institutes of Health (NIH), the major funder of all medical research, ranks academic pediatric departments across the country.

In 1995 the UA Department of Pediatrics/Steele Memorial Children's Research Center was ranked #60. In 2000, the Center was ranked #30!



### **Growth Spurt**



Funding is only one measure of a research center's success.

But it's an important one, no doubt.

In 10 years, the amount of grant funding to support important research projects at the Steele Memorial Children's Research Center has more than doubled.

1992 2002 \$3 million \$7.6 million

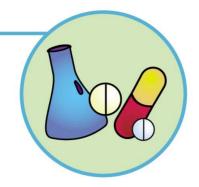
## Researchers Making Their Mark

#### **Breakthroughs in Cancer Treatment**

Researchers at the Steele Memorial Children's Research Center are primarily focused on an aggressive, pediatric cancer – neuroblastoma. It is one of the cancers that does not respond well to current therapies. Luke Whitesell, MD, is testing a new class of drugs that bind to a protein that is important in promoting the growth and survival of tumor cells.

Emanuel Katsanis, MD, and Michael Graner, PhD, are studying immunotherapy – using the body's own system to fight cancer. They are working to understand why the immune system does not halt the progress of cancer cells. They have developed a "vaccine" that binds to the proteins expressed by cancer cells, which appears to have promise in treating many types of cancer.

Ro Bagatell, MD, is working to offer children throughout the state access to new therapies. She and Jessica Boklan, MD, from Phoenix Children's Hospital have co-founded a partnership called ACTION (Arizona Children's Therapeutic & Investigational Oncology Network) so that for the first time, children with cancer in Arizona can benefit from new and innovative treatments.





#### **Improving Heart Health**

One in every 1,000 babies is born with a heart defect, which is why this is an area of priority for the Steele Memorial Children's Research Center.

Scott Klewer, MD, and Todd Camenisch, PhD, are working to understand the development of the human heart, to eventually determine at what point the heart begins to develop abnormally. (Dr. Camenisch's work is funded by a generous group in Phoenix called PANDA People Acting Now Discover Answers.)

Of particular concern are babies who are born with Down syndrome as nearly half of these babies also are born with significant heart defects.

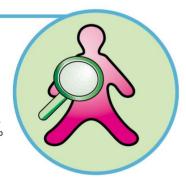
Rolando Zamora, MD, conducts clinical trials testing new devices that correct heart defects without surgery. Through his work and that of other researchers around the country, up to 90 percent of children born with heart defects can have their hearts mended without surgery.

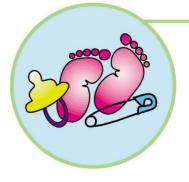
#### **Investigating Diabetes**

Diabetes is one of the most common chronic diseases of childhood. With the support of Scott & Laura Eller, Angel Charity for Children, Inc., the Father's Day Council Tucson, the Arizona Optimists, and the Pasqua Yaqui Tribe, the Steele Memorial Children's Research Center is developing a comprehensive program for children with diabetes.

With the opening of the *Angel Wing for Children with Diabetes*, we can provide comprehensive care including the services of a dietician and nurse educator. Endocrinologist, Naznin Dixit, MD, DM, will be conducting clinical research studies in the Angel Wing.

Sherman Garver, PhD, is investigating premature atherosclerosis, a common complication for children with diabetes. Liquin Bai, MD, is studying the gene that is responsible for triggering the body's response to low blood sugar, to help prevent hypoglycemia in children with diabetes.





#### **Taking Better Care of Premature Babies**

Nearly 5,000 babies are born prematurely in Arizona each year – some weighing less than 2 pounds. Researchers at the Steele Memorial Children's Research Center are trying to improve premature babies' ability to grow and develop.

Bohuslav Dvorak, PhD, has identified a growth factor (epidermal growth factor or EGF) that is present in very high concentrations in breast milk. He believes that it can speed the maturation of a premature baby's intestines, which could promote overall growth and development.

Lynn Edde, DO, is studying lactoferrin, another protein in breast milk. She believes that it gives a boost to the baby's immune system and may protect the baby from intestinal infections.

### Innovation + Support = Discoveries

Every major breakthrough, every major discovery begins as a creative thought. For a creative idea to become a discovery, it must be nurtured and developed. It must be fed with talent, commitment and money.

The Steele Memorial Children's Research Center is building a stronger base of financial support with Endowed Chairs. Endowments exist in perpetuity, providing researchers with more stability and more flexibility. Interest from endowments can fund fledgling research projects, provide bridge funding to projects in between grant cycles and create the ability to attract promising new researchers.

We are blessed to have community commitment for three new Endowed Chairs.

The Horace W. Steele Endowed Chair in Pediatric Research

will be held by the Center Director. It is being funded by the Steele Foundation, which also gave the lead gift to build the Steele Memorial Children's Research Center and will be held by Center Director Fayez Ghishan, MD. This Chair will give the director the ability to provide start-up funding to new researchers and plan for future growth of the Center.

The Arizona Elks Endowed Chair in Neonatology is being funded by members of Arizona Elks and their families all across the state. The first holder of this Chair will be Allen Erenberg, MD, Section Chief of Neonatology. In 1992, the Arizona Elks chose the Steele Memorial Children's Research Center as its Major Project. To date they have donated more than \$3 million to our research and clinical programs. This Chair will allow researchers to create new and better ways to care for premature babies.

To advance our cancer research, we have established the Louise Thomas Endowed Chair in Pediatric Cancer Research. Louise Thomas was the founding Chair of the Steele Memorial Children's Research Center. She was drawn to the Center through the personal tragedy of losing her son, Michael, to cancer when he was just 10-years-old. Eddie and Nadine Basha and Mel and Enid Zuckerman provided lead gifts to create this Chair in Louise's honor. Many other community supporters have joined them and you can too. If you are interested in supporting researchers who are developing new treatments for children with cancer, please call Jane Prescott-Smith, (520) 626-7799.



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