

Steele Memorial Children's Research Center

2001 REPORT

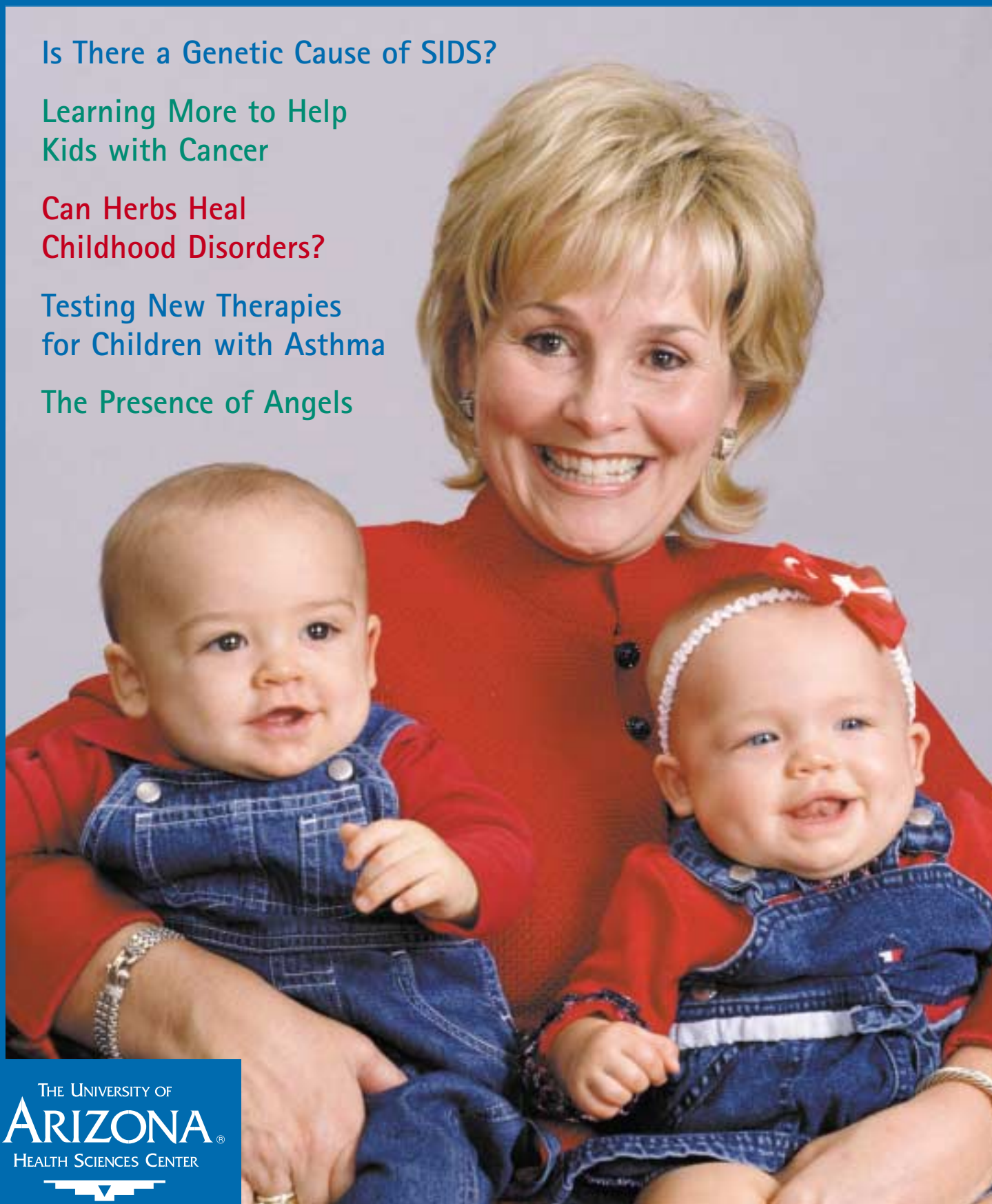
Is There a Genetic Cause of SIDS?

Learning More to Help
Kids with Cancer

Can Herbs Heal
Childhood Disorders?

Testing New Therapies
for Children with Asthma

The Presence of Angels





In Memory

This issue of the Children's Research Center annual report is dedicated to Christa Parseghian, who died in October from Niemann-Pick Type C, a rare and relentless genetic disease. She was 10 years old. Christa brought laughter and joy into the lives of those around her. Even when the disease robbed her ability to speak, she kept teaching us all about the true language of love. Our hearts are with her family and friends.

Steele Memorial Children's Research Center

The Steele Memorial Children's Research Center is a place where internationally recognized researchers work together to solve the medical problems that plague our children. Our pediatricians, who also are faculty members in the University of Arizona Department of Pediatrics, play a unique role in the community – as physicians, researchers and teachers. Dedicated in 1992, the Steele Memorial Children's Research Center was built with private funds to advance the health concerns of children. The Center was named in honor of the late Horace W. Steele of Phoenix. The Steele Foundation, Inc. donated \$2 million to help build the Children's Research Center. The Children's Research Center thrives with the support of the community. Last year only 14 percent of the CRC's budget was covered by State dollars. The rest came from clinical income, research grants and philanthropic support.

GREETING FROM FAYEZ K. GHISHAN, MD

Director of the Steele Memorial Children's Research Center

It's been an extraordinary year. As a research center we have experienced incredible success. As a nation, we have endured incredible sadness.

The tragedy we've lived through has shaken us. Along with the rest of the world, my colleagues and I have grieved for the loss of innocent lives. But our day-to-day work, taking care of sick children, keeps us grounded. We have constant reminders of how precious each life is. The events of September 11 have strengthened our resolve to continue to focus on what's right with the world.

We are making great strides to better understand the causes and eventually to develop new treatments and cures for childhood diseases. So many people are helping our researchers achieve their goals.

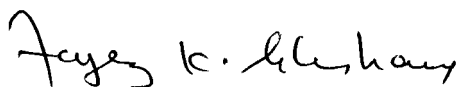
This year Angel Charity for Children, Inc. selected the Children's Research Center as its primary beneficiary. The Angels pledged \$750,000 to create the Angel Wing for Children with Diabetes. This wing will house a comprehensive program for children with diabetes including medical care, research to discover better treatments for diabetes and teaching programs so young pediatricians understand how to take care of diabetic children.

We feel blessed to have been selected by Angel Charity and are so grateful for their support. Along with Angel Charity, the Scott Eller family, Father's Day Council Tucson and the Optimists of Arizona, are helping us build this program, which will benefit children all over the state.

The entire Arizona Health Sciences Center will benefit this year and in years to come, from our new leadership – Raymond L. Woosley, MD, PhD, our new Vice President for Health Sciences and William S. Dalton, MD, PhD, our new Dean for the UA College of Medicine. We look forward to their expertise as we move through the challenging times that lie ahead for academic health centers.

They follow James Dalen, MD, who for the last 13 years artfully guided this organization to its current position of national prominence.

Great things are happening all across the nation and they are happening here. Our research is thriving with your support. As a community, we should all take comfort and pride, knowing that through the Children's Research Center, each one of us is helping to make the world a better and healthier place for kids. We hope and pray that we will pass on to our children a safer and saner world. Thank you for your kindness and generosity.



Director
Steele Memorial
Children's Research Center

Professor and Head
UA Department
of Pediatrics

"We are making great strides to better understand the causes and eventually to develop new treatments and cures for childhood diseases."





UNCOVERING THE MYSTERIES of a Deadly Genetic Disease

Research is an interesting but frustrating business, says Sherman Garver, PhD, Research Assistant Professor at the Children's Research Center (CRC). "It's like peeling back the layers of an onion. You learn one thing and then discover many more complexities that lie beneath."

Dr. Garver's primary pursuit is the study of Neimann-Pick Type C (NPC). It is a disease that most had never heard of, yet studies of NPC now are revealing information about the basic function of virtually every cell in the human body.

The gene that causes NPC was identified two years ago. Since then, research has turned to understanding the gene's function and the proteins expressed by the gene. This work is led by Randall Heidenreich, MD, UA Associate Professor of Medical and Molecular Genetics along with Dr. Garver and supported by research colleagues at the UA and across the country.

"Our research has shown that the NPC protein is in most tissues and cells of the human body," Dr. Heidenreich says. "This protein likely senses cholesterol and facilitates its movement to other parts of the cell."

When the NPC protein is defective, this process gets interrupted. For people affected with NPC, the consequences of this protein not moving cholesterol as it should are fatal.

"You can think of it as a housekeeping protein," Dr. Garver says. "We're not yet sure exactly how it works, but when it doesn't perform its duties, it's very obvious."

Completely understanding how this process occurs is the researchers' main goal and is crucial to the development of a cure. Their studies to date may change the way physicians and scientists characterize the disease. Drs. Heidenreich and Garver recently realized that it may not be the accumulation of cholesterol that causes the symptoms of NPC, but the inability of cholesterol to reach specific cellular compartments. This finding may shed important light on the hunt for a cure.

The work is funded by the National Institutes of Health (NIH), the Ara Parseghian Medical Research Foundation and generous donations from philanthropists including the Arizona Elks. The researchers are assisted by an outstanding student, Kumar Krishnan, who is finishing his last year as a UA undergrad and waiting to choose a medical school.

How does the fact that children are suffering from this disease affect these researchers?

"Research on NPC is complex, labor-intensive and emotionally draining," Dr. Heidenreich says. "Dr. Garver and I, as parents, feel deeply the anguish of the families affected by NPC and this is a strong driving force behind our efforts to understand this disease and find a treatment or cure."

"I don't sleep as well at night," Dr. Garver says. "And I can't stand to see time wasted. I am reminded daily of how precious life is and treasure my time with my own children."

An Earthy Approach to Research

A common worm measuring less than 1/16 inch long is helping researchers at the Children's Research Center learn more about anti-cancer drugs. *Caenorhabditis elegans* or *C. elegans* for short is becoming an increasingly important player in the drug discovery process.

"We learned about the properties of this particular worm from Dr. Harold Smith in the UA Department of Molecular and Cellular Biology," says Cynthia David, PhD, Assistant Research Scientist. "And we believed that it would provide a good model for us in our molecular oncology lab."

The connection between worms and anti-cancer drugs is dirt. Dr. David is studying an anti-cancer drug called Geldanamycin (GA), which is derived from bacteria in soil.

In human cells, GA binds to a molecule called heat shock protein 90 (hsp90) that researchers believe plays a major role in promoting the proliferation and survival of cancer cells.

The cells of the *C. elegans* worm also contain hsp90 but researchers have found that its hsp90 binds very weakly to GA. (Researchers think the worms may be acclimated to the bacteria-based drug because they eat bacteria in the soil). As a result, studying the effects of GA on these worms allows researchers to determine which effects of the drug depend on hsp90 and which are "side effects". The worms also provide a useful model in which to examine the mechanisms by which cancer cells can become resistant to GA.

As the first drug that targets hsp90, GA has great potential in preventing the growth and survival of cancer cells. The unique information provided by studying its effects

in worms will facilitate its evaluation in the five clinical trials in cancer patients that are going on now in the United States and England. Dr. David works with Luke Whitesell, MD, UA Associate Professor of Pediatrics in Hematology/Oncology, and is collaborating with David Smith, PhD of Mayo Research Center in Scottsdale.

"Using worms as a tool to find new and better anti-cancer drugs may seem farfetched to some, but many breakthroughs in science and medicine have come from unusual places," Dr. David says. "Our early research results have been very promising and we believe we can learn a lot from studying the biochemistry of this worm."

"Using worms as a tool to find better anti-cancer drugs may seem farfetched to some, but many breakthroughs in science and medicine have come from unusual places."



As one of the first Courtney Page Zillman Fellows, Jason Beliakoff is well on his way to what will hopefully be a long and productive scientific career in pediatric research.

A Well-Groomed Course to **CANCER RESEARCH**

Jason Beliakoff never thought that his love of golf would pay off in the lab. But last year, Tee Up For Tots, a non-profit organization that raises money with a golf tournament, provided funding for him to pursue a doctorate in Cancer Biology.

“It’s an honor, really,” Beliakoff says, “to be part of such a worthy project. And not having to worry about funding for two years allows me to concentrate on my research.”

Beliakoff is working under the supervision of Luke Whitesell, MD, Associate Professor of Pediatrics in Hematology/Oncology. Dr. Whitesell’s lab is focused on neuroblastoma, an aggressive pediatric cancer that spawned the creation of Tee Up For Tots.

In 1999, a little girl named Courtney Zillman, died of neuroblastoma at age 4.

Courtney’s parents, sister, aunts, uncles, grandparents and friends created Tee Up For Tots to raise money for pediatric cancer research. One of their funding priorities was to create research fellowships in Courtney’s name. So in the fall of 2000, Beliakoff became one of the first Courtney Page Zillman Fellows. Yi Zeng is the other Courtney Page Zillman Fellow, working in the lab of Emanuel Katsanis, MD.

Beliakoff is working on several research projects to better understand the molecular mechanisms that give rise to neuroblastoma. One project involves a protein called the type-1 Insulin-like Growth Factor Receptor (IGF-1R).

In a normal cell, this protein controls cell growth and cell death. In many cancer cells there is more IGF-1R than is appropriate and researchers believe that the excess causes cancer cells to grow out of control and not die when they should.

For years researchers have been trying to develop effective ways to inhibit the receptors in cancer cells that allow IGF to promote tumor growth. They are trying to develop smarter, more specific anti-cancer drugs that will target genetic changes, such as excessive IGF-1R function that lead to the development of cancer.

“Some researchers have had success with certain compounds,” Beliakoff says, “but only in a limited fashion and only in a petri dish. We are looking at a new family of drugs to see if they can bind to the receptor and prevent the cancer cells from forming tumors.”

The other project Beliakoff is pursuing is a direct complement to the first one. He is examining cells that are missing the IGF receptor.

“When we delete the IGF receptor from cells, we can observe what happens in its absence and gain clearer insights into the role of this receptor within a cell.”

Beliakoff’s work is progressing well and he is on target to receive his PhD in two years.

The training that he is receiving with the generous support of Tee Up For Tots is providing an essential foundation for what will hopefully be a long and productive scientific career in pediatric cancer research.

“Getting to know the Zillman family has helped me become more involved in the research and I feel fortunate to be working in the Children’s Research Center. Knowing what they’ve gone through has been a good dose of reality for me and reminds me daily of what we’re all working for.”



TUFT Fellows Yi Zeng and Jason Beliakoff

A Stealthy EPIDEMIC

There is a neurological disorder that is wreaking havoc on the world's toddlers. Ten years ago, it affected only about two of every 10,000 children. Now it is estimated that one in every 300 children born today will develop this debilitating disorder. It affects more children than cancer, cystic fibrosis or multiple sclerosis.

Autism. The cruel, inexplicable disorder that makes children strangers to their own families, lost in a world of their own. A disorder with no known cause, few effective treatments and no cure.

The increase of the incidence of autism has been well documented. With special reports by TIME, Newsweek and 60 Minutes, more Americans understand the plight of families of autistic children. Those families hope and pray that heightened understanding will lead to more funding for research into the causes and eventually to a cure for autism.

Research at the Children's Research Center is focusing on this important population. In partnership with the Southwest Autism Research Center (SARC), a collaborative network has been created to examine the spectrum of autism disorders in Arizona's children.

SARC was formed in 1996 to provide support to families and foster research related to autism.

"When we founded this organization, very little autism research was being conducted," says Cindy Schneider, MD, co-founder of SARC. "We saw a clear need for a centralized database of medical and psychological information on children with autism and related disorders."

"Autism is a very complex disorder," says Christopher Cunniff, MD, UA Professor of Pediatrics and Chief of the Section of Medical and Molecular Genetics. "And there is a wide range of other neurological and developmental disabilities in these autistic children. One of the first goals in our investigation is to find out how many children in Arizona meet the criteria for autism spectrum disorder (ASD)."

The Arizona Autism Spectrum Surveillance Program will gather information from the educational system and the medical system to determine the number of children with autism and their related features and diagnoses.



Photo from SARC annual report

"It's very important to have accurate information about the numbers of children with this disorder," Dr. Cunniff says. "This information is crucial for planning for schools and governmental services in our state."

SARC hopes to influence future autism research by funding pilot studies of promising research that may not be funded by governmental agencies. Some of the SARC-funded pilot projects have generated interest among those in more traditional research settings.

"Autistic spectrum disorders currently are classified by behaviors, which results in inappropriate generalization of treatment recommendations and limited efficacy," Dr. Schneider says. "The enhancement of our database through collaborations with other research institutes around the world will allow us to differentiate autistic spectrum disorders through medical history and biochemistry, rather than through behaviors. This will undoubtedly lead to improvements in the quality of research and the success of therapeutic interventions."

The Arizona Autism Spectrum Surveillance Program (AASSP) is funded by the Centers for Disease Control and Prevention – a total of \$1.35 million through the year 2005. Dr. Cunniff and John Meaney, PhD, Research Associate Professor in the Department of Pediatrics, are the co-principal investigators for this project.

Autism affects more children than cancer, cystic fibrosis or multiple sclerosis.



Boswellia



Turmeric

“This project will bring basic science closer to life.”

Moving Integrative Medicine into a RESEARCH LAB

Millions of Americans are using complementary and alternative medicine (CAM) to treat illnesses or maintain health. But physicians and researchers across the nation believe it is important to study CAM therapies so we truly understand what works, what doesn't and why.

UA Regents Professor Barbara Timmermann, PhD, has been studying botanicals from all over the world for years. Recently she received NIH funding to establish the Arizona Center for Phytomedicine Research in the UA College of Pharmacy.

A major focus of this Center is the study of three botanicals: boswellia, turmeric and ginger. These botanicals have been used for centuries in traditional Asian medicine and are believed to have anti-inflammatory properties that can alleviate the symptoms of illnesses such as arthritis and inflammatory bowel disease (IBD).

“I generally take care of at least 50 children each year with IBD – either Crohn's Disease or ulcerative colitis,” says Children's Research Center Director Fayez Ghishan, MD. “Both disorders are chronic and can include symptoms such as severe abdominal pain, diarrhea and even malnutrition.”

The children can be treated with various drugs, but each one has serious side effects. In addition, children in underdeveloped countries may have limited access to modern medicine.

“We thought it made sense to study the effect of these three botanicals in our research lab to determine exactly what effect they have on the intestinal tract,” Dr. Ghishan says.

The focus of Dr. Ghishan's research is to better understand intestinal transport function. For instance, researchers in Dr. Ghishan's lab study how sodium moves through the intestinal tract and how the intestinal tract absorbs phosphate.

“There's a real benefit to this type of research,” says Pawel Kiela, DVM, PhD, principal investigator of this study. “When you are testing botanicals on patients, it is much more difficult to control all the variables – the exact dosage, the concentration, the patient's diet, etc. In the research lab we can control every variable and obtain scientifically valid observations about these plants.”

Dr. Kiela says that it's possible that some day we will be able to recommend these botanicals as food supplements to prevent inflammatory bowel disease.

“This project will bring basic science closer to life,” Dr. Kiela says. “It's important to see how this research can one day help people around the world.”



Ginger

Is there a genetic cause of SIDS?

Research is almost never a straight line from one point to another. Sometimes new discoveries take a researcher in a new direction. Sometimes the study of one disease provides clues to an entirely different disease. That's what has happened in the lab of Murray Brilliant, PhD, the Lindholm Professor of Mammalian Genetics at the CRC.

One of Dr. Brilliant's main areas of research is understanding the function of genes associated with pigmentation disorders. But in the process of learning more about what causes people to have albinism, Dr. Brilliant is gaining knowledge that may increase our understanding of Sudden Infant Death Syndrome (SIDS).

SIDS is the leading causes of death for infants from one month to 1 year of age. The grief for families who lose a baby because of SIDS is intensified by the fact that SIDS is unpredictable and has no known cause. Dr. Brilliant believes it's possible there is a genetic link.

"We were working with a strain of mice that were selected because they had a mutated pigmentation gene," Dr. Brilliant says. "But we also discovered another interesting genetic mutation in these mice and noticed that the mice did not live very long – usually less than two weeks."

Dr. Brilliant and his research staff wondered if there was a connection between this mutated gene and SIDS.

"Since the mutated gene in question was on the same chromosome as the pigmentation gene, which we already knew about, we had the ability to characterize this gene as well," Dr. Brilliant says.

The gene in question is called Sox6, and it encodes a protein that is involved in the regulatory process of the cell.

"It's like a light switch. It turns things on and off. And when it is defective, it has a deleterious effect on the heart and skeletal muscle."

The mice with the Sox6 gene show some symptoms similar to children with muscular dystrophy. Their muscles degenerate and they experience heart block, which means their hearts beat in an uncoordinated way.

Dr. Brilliant believes that at least some infants who die from SIDS may have this underlying genetic mutation, but he has not proved that yet. He has received tissue samples of nearly 40 babies whose deaths were classified as SIDS, but so far none has had the genetic defect he is studying.

"Likely there are many different causes of SIDS. Eventually we may learn that this mutant gene is responsible for a fraction of them."

If Dr. Brilliant's work is successful, it's possible that some day when a family tragically loses a baby to SIDS, they may be able to discover a genetic defect.

"This information may bring some closure for the parents who spend their lives wondering why their baby died," Dr. Brilliant says. "If the parents have another baby after losing one to SIDS, they may choose to screen him or her for this genetic defect."

Dr. Brilliant's work is funded by the National Institutes of Health.

"The most important job I have today is being a grandmother. I cherish the time I spend with my beautiful, healthy grandchildren. Giving to the Steele Memorial Children's Research Center is my way of ensuring that other grandmothers will get the same opportunity to feel that same joy."

Sharon Ulrich
Member of Phoenix
Women's Board called
PANDA (People Acting
Now Discover Answers)

Better Medicine for Yuma Children

Even though it's the third-largest city in Arizona, the population in Yuma still isn't large enough to support most pediatric subspecialists. So when a child from Yuma needs to see a pediatric cardiologist, for instance, he or she can wait until a pediatric cardiologist from the UA Department of Pediatrics holds a clinic in Yuma or drive to Phoenix or Tucson for an appointment.

But with a few visionary leaders and some hard work, that soon will change. The Yuma community is working to establish a telemedicine link from the UA to Yuma Regional Medical Center. Pediatricians and other physicians in Yuma will be able to use the telemedicine link to quickly access specialists at Arizona Health Sciences Center.

Telemedicine specialists can provide Yuma physicians with a wide range of services such as primary diagnoses, second opinions or an expert opinion on a difficult case. It may even reduce the need to transfer children to a hospital out of town. It also will give Yuma pediatricians the opportunity to attend continuing medical education classes without leaving the office and offer patient education for those managing chronic diseases.

"There's no doubt that the telemedicine program will help us provide better medical care in Yuma," says Bob Cannell, MD, Yuma pediatrician and member of the Arizona House of Representatives. "As often as once a week we might get a very premature baby and we'll need to rule

out heart problems. Right now we do the scans and send the info by Fed Ex to the UA. It can be two days before we know exactly what we're dealing with."

With a telemedicine link, the diagnosis about a premature baby's heart could happen almost immediately. Funding for the program poured in from generous people in Yuma.

"Each year Clint and Donna Curry have a big party right before all the growers are ready to start preparing fields," says Howard Gwynn, Children's Research Center board member in Yuma. "We decided to make this year's event a fundraiser for the Arizona Telemedicine Program and named our fundraising group ChildLink."

Party organizers accepted donations at the door (lots of them) and held a crazy cake auction. Nearly 25 local women baked their special cake, with each one going for about \$400.

"This is a very giving community," Gwynn says. "We raised \$20,000 for ChildLink. We also made the community aware of the need for telemedicine and the value of connecting to the UA."

Rep. Cannell hopes to develop additional funding for the telemedicine program from the State. With State funding, we could expand this telemedicine link to our school-based clinics and in communities surrounding Yuma. This technology will help deal with the crisis in rural health care."



Telemedicine specialists can provide Yuma physicians with a wide range of services such as primary diagnoses, second opinions or an expert opinion on a difficult case.



Former patients surround Dr. Hutter – Fernando Espinosa, 20, Jose Ysea, 38 and Justin McClellan, 15

DR. JOHN HUTTER

Taking Care of Arizona's Children for 25 years

Every doctor feels great when he or she can help very sick children grow up to be strong healthy adults. Sometimes the little patients grow up and thank the doctor, but it's rare when the patients get together and throw a party for the doctor!

So imagine Dr. John Hutter's surprise when he walked into a roomful of former patients and their parents, colleagues and friends to celebrate his 25th year as a pediatric hematologist/oncologist at the University of Arizona. It was a day he will long remember.

Credit for the idea goes to Jose Ysea, a news executive at KVOA-TV. Ysea was a patient of Dr. Hutter's 25 years ago, diagnosed with lymphoma when he was just 13.

Ysea says the experience changed his life – for the better.

"No one wants to have cancer, but being faced with a life-threatening illness turned my life around," Ysea says. "I was starting to hang out with a bad crowd in Douglas, ditching school and getting into trouble."

All that changed when Ysea returned to Douglas after four months of treatment at University Medical Center. He decided to work hard in school and went on to college – something he hadn't even considered before.

"I knew that many of the kids I had befriended during my cancer treatment didn't make it. So I felt like one of the lucky ones. I wanted to make the most of my life."

When Dr. Hutter started working in the

UA Department of Pediatrics, he was the only pediatric oncologist and cancer therapies were not as sophisticated or effective as they are today.

"Part of the attraction of coming to Tucson in 1976 was to join the faculty at a relatively new medical school," Dr. Hutter says. The UA College of Medicine graduated its first class in 1971 and University Medical Center celebrated its fifth anniversary in 1976.

"It's easy to forget that chemotherapy to treat cancer didn't start until the mid-1960s when combination drug regimens were first developed to treat cancer," Dr. Hutter says. "The survival rate then for children with acute lymphocytic leukemia (ALL) was less than 5 percent. Now we are at 75 percent survival for children with ALL. To have been part of this progress has been truly rewarding."

The Section of Pediatric Oncology has had a lot of "firsts" since 1976, pioneering new treatments and programs for children with cancer and their families. The section has grown to include five pediatric oncologists who provide excellent care including bone marrow transplants for children, as well as conduct research to push the edge of scientific knowledge about this disease.

"Our philosophy always has been based on helping others, being willing to be innovative if it looked like patient care and/or educational goals would benefit from a new approach," Dr. Hutter says. "We've solved many problems but still have far to go."

"PICOR believes community involvement in both money and time is at the very core of its corporate responsibilities – as important as profitability."

Mike Hammond,
President and
Managing Partner,
PICOR

“After touring the CRC, I couldn’t help but contribute to the Arizona Elks Clinic for Children and Young Adults. The work I saw going on inspired me to dedicate an examination room to my late husband. What a wonderful facility.”

Sarah Napert
Arizona Elks

A Year's Worth of GOOD DEEDS

Hardly a month goes by without a special event to raise money for the Children’s Research Center. We are so fortunate to have friends in the community who show us extraordinary kindness. Here are some highlights of this year’s good works.

January

Arizona Elks Clinic Grand Re-Opening

For the past eight years, the Arizona Elks have been saving money to renovate the pediatric clinic at the Children’s Research Center. The renovated clinic now includes separate waiting areas for sick children and well children, more efficient space for doctors and nurses and more places for children to feel at home. The red carpet was rolled out as the Elks toured their new clinic and met the doctors and little patients who couldn’t wait

to thank them for making the clinic a beautiful, child-friendly place. Elk leadership and honored guests included Don King, Jack Zehr, Joan Klinger, Sarah Napert, Arthur Leaver, Jerry Kaphing, Frank and Eva Fieldhouse, Pete and Cheryl Gillespie, Lou Abney, Hugh Hall, Michael Bruce, Bob

Howell, Gene Hays, Cody Ryan, and Wayne and Cheryl Thompson.



Arizona Elks Jerry Kaphing, Arthur Leaver, Don King, Eva Fieldhouse and Joan Klinger.

February

Angel Charity for Children, Inc.

Angel Charity for Children, Inc. pledged \$750,000 to the Steele Memorial Children’s Research Center to establish the “Angel Wing for Children with Diabetes”. The funds will help renovate 3,300 square feet of laboratory space to create a comprehensive program for children with diabetes – including patient care, research and teaching. General Chairman, Jan Glynn, Vice Chairman Norma Levy, and Underwriting Chairman Laurie Wetterschneider are in the final stretch leading to the groundbreaking of the Angel Wing in March 2002.

The Pasqua Yaqui Tribe has made the generous \$75,000 leadership gift to the Angel Charity campaign. The incidence of diabetes in children of the Pasqua Yaqui tribe is disproportionately high compared to the general population in Arizona and so the need to find better treatments for the disease is great.

March

Reach Out and Read (ROAR)

In March, local celebrities converged on the Arizona Elks Clinic for Children and Young Adults for a special reading session with little patients. ROAR is a pediatric early literacy program that encourages literacy development in our young patients. Special readers included Richard and Stella Schaefer, Dave Sitton, Joe, Max, and Juliette Cristiani, and Michael Cohen, MD. Coaches and members of the UA Women’s Basketball team also enjoyed reading to the children. Maxine and Ralph Henig, Joan Kaye Cauthorn and the Joseph Stanley Leeds Foundation have generously sponsored ROAR. To volunteer to read to kids, call 694-6706.



Joe Cristiani reading to a new little pal.

Desert Valley Tournament

Betty Cameron and the ladies of the Desert Valley Golf Club in Green Valley raised \$2,000 for pediatric cancer research.

Catalina Foothills High School – Feet For The Future Walkathon

Shannon Morrison rallied Tucson teens to organize this March walkathon at Reid Park raising more than \$3,400 for pediatric cancer research at the Children’s Research Center.



April

PANDA

Led by Penny Gunning and Robyn DeBell, the Phoenix Women's Board of the Steele Memorial Children's Research Center raised more than \$120,000 from the annual "Children Helping Children" fashion show in

Phoenix. The funding was used to purchase a Virtek ChipWriter, which makes customized slides and will enhance the research capabilities of the Diamond Microarray Core Facility.

Optimists in Action Day Walkathon for Diabetes

Hundreds of Arizona Optimists statewide walked in April to raise money to establish computer stations in pediatricians' offices that will run software to help doctors more accurately and frequently monitor children's blood sugar levels. The Walkathons raised more than \$12,000.

June

Women's Active 20/30 Club of Southern Arizona

The annual Casino Night filled with gaming, auctions, raffles, music, dancing and food provided by Tucson's finest restaurants was a huge success. That meant a donation of \$10,000 to the CRC, one of the three beneficiaries of the event.

The 20/30 Club funded an important study of anemia in children and the Melody Luyties Memorial Active 20/30 Club Endowment.



Jennifer Wood, Past President Women's Active 20/30 Club of Southern Arizona.

Father's Day Council Tucson

The 7th annual Fathers of the Year awards event was a huge success. The dads honored this year were Darryl Dobras, Karl Eller, Jorgen Hansen, Don Luria, James Pignatelli, William Valenzuela and Bill Viner. Led by Susan Mannion, the Father's Day Council board, with the help of each honoree raised more than \$140,000 for the Children's Research Center. This money will be used to promote research in juvenile diabetes and to fund the salary of a pediatric nutritionist to help children with diabetes.



Kimberly Flack, Jerry and Kathy Zillman and Bill Walker – TUFT board.

August

Tee Up For Tots, Inc.

This three-year-old non-profit held its third annual golf tournament at the Golf Club at Vistoso. The sold-out tournament raised more than \$90,000 to target pediatric cancer research, specifically neuroblastoma, and to offer support services to families of children suffering from childhood cancers. The tournament, organized by Jerry and Kathy Zillman, Bill Walker and Kimberly Flack has become known as "the" tournament to play in, in Tucson.

September

Arizona Elks State Golf Tournament

The Wigwam Golf Club in Litchfield Park, AZ., played host to the tournament with more than 250 golfers participating. Dean Barr led the drive to collect \$20,000 benefiting core programs at the Children's Research Center.

Racing for a Cure

The 4th Annual "Raymond's Race" at the Southwestern International Raceway showcased the generosity of drag racers young and old who gained sponsorships to help children with cancer and other life-threatening illnesses. The race, which raised \$20,000, was inspired by a special young racer, Raymond Dixon, who succumbed to leukemia in 2000.

"Nothing we can do, no amount of money that we raise, will change our family's tragedy. But through giving, through helping children who in most cases we will never know, it does help to fill the void. There is a certain bliss in giving, in knowing that we are doing something to make a difference for humankind while we are on this earth, that is enormously comforting and rewarding."

Ross Robb
Chairman
Caitlin Robb Foundation



Nationally, one in 500 children suffers from diabetes. Among Native American communities, nearly one in 200 children has diabetes.

The Pasqua Yaqui Tribe Joins the **FIGHT AGAINST DIABETES**

More Native American children in Arizona have diabetes than children in any other ethnic group in the state. Nationally, one in 500 children suffers from diabetes. Among Native American communities, nearly one in 200 children has diabetes.

In response to these alarming statistics, the Pasqua Yaqui Tribe of Arizona recently pledged \$75,000 to Angel Charity for Children to help build the Angel Wing for Children with Diabetes. The funding will come from the events surrounding the opening of Casino Del Sol, the latest enterprise of the Pasqua Yaqui Tribe.

The new casino and entertainment complex, completed in October 2001, includes 500 slot machines, a live poker room, a 900-seat bingo hall, bowling alley, arcade, and several restaurants. Casino Del Sol is the first casino in Southern Arizona to install a ventilation system that constantly circulates 100 percent outside air.

"This expansion will aid in our tribe's goal of becoming more self-sufficient by helping us to continue expanding and upgrading health and social services, education programs, and housing in our Yaqui communities," said Robert Valencia, Chairman of the Pasqua Yaqui Tribe.

Also completed in October was the Anselmo Valencia Tri Amphitheater (AVA), the largest private concert venue in Southern Arizona. The open-air amphitheater contains six corporate boxes, 1,600 theater seats, and 2,800 festival-style lawn seats.

The AVA kicked off its grand opening with the AVA Red Carpet Tour 2001, which featured star-studded performers such as Alan Jackson, Styx, Michael Bolton, Los Lobos, and Earth, Wind and Fire.

"It is very important for us to continue to be a part of and contribute to the Tucson community," Valencia said. "This community has made a positive contribution in supporting the tribe and we are dedicated to giving back to help make a difference in Tucson."

In the 12 years since the Pasqua Yaqui tribe began gaming operations in Tucson, it has supported numerous Tucson charities, sports programs and the arts.

Pasqua Yaqui tribal lands are located on 222 acres in southeastern Arizona, 15 miles southwest of Tucson. Today, the tribe is more than 12,000 members strong.

WHY I GIVE

By Peter Likins, PhD,
University of Arizona President

For many years I have been dependent on “the kindness of strangers” and friends for success in meeting my professional obligations, so I have long understood in intellectual terms how important it is for philanthropic benefactors to keep charitable and cultural enterprises afloat in America. This is the American way of life, and I am proud to say that it works.

Often I have wondered what it must feel like to be on the giving side of this exchange. How does it feel to know that you have saved the lives of sick kids, or enriched the opportunities of impoverished students? I have come to know some of our most generous benefactors very well in recent years, and I know from their expressions of deep feelings that it feels good to be able to help.

I will never know the joy of giving millions of dollars to worthy causes, but in my own small way I have reached the point in life that permits me with my wife to share some of the benefits of our relative prosperity. I can contribute a few thousand here and there, and in the process taste in small measure the sweet fruits of generosity. The experience persuades me that the rewards of giving come also to those who can afford lesser gifts, as long as the giving involves some measure of sacrifice.



Peter and Pat Likins

“How does it feel to know that you have saved the lives of sick kids, or enriched the opportunities of impoverished students?”

The members of Angel Charity for Children, Inc. chose the Children's Research Center because they are deeply concerned about the number of children suffering from diabetes in Arizona.



Laurie Wetterschneider, Underwriting Chairman, Norma Levy, Vice Chairman and Jan Glynn, General Chairman

ANGELS Mean Business

The theoretical debate about the existence of angels is lost on Tucsonans. We know that year after year, a dedicated group of angels raises mountains of money for children's charities. Called Angel Charity for Children, Inc., the organization is in its 19th year of good works. This year, the Children's Research Center was blessed to become Angel Charity's main beneficiary.

The Angels are raising \$750,000 to renovate outdated lab space to house a comprehensive program for children with diabetes. The new space will be named the "Angel Wing for Children with Diabetes."

"This is a huge step forward for us," says Faye Ghishan, MD, Director of the Children's Research Center. "Diabetes affects so many children and families in this state and there is no comprehensive program to take care of these children." Dr. Ghishan is creating a program that will offer children with diabetes the very best clinical care - including the services of a pediatric endocrinologist, a nurse educator and a nutritionist - as well as research to discover better treatments and a teaching program to train young pediatricians to care for children with diabetes.

The members of Angel Charity for Children, Inc., chose the Children's Research Center because they are deeply concerned about the number of children suffering from diabetes in Arizona.

"We knew that this program would have an immense impact on hundreds of deserving children, not only in our own community, but statewide," says Jan Glynn, General Chairman of Angel Charity for Children. "And the research to better understand the disease and develop new treatments will have international implications."

This is not the first time that Angel Charity has helped the Children's Research Center. In 1990, Angel Charity supported the CRC when it was still on the drawing board. That year the Angels raised \$781,683 to build an Angel Wing for Genetic Research. Those laboratories have provided a home for important genetic research such as the study of the genetic cause of heart defects in children and research to understand the genetic disease, Niemann Pick Type C. The Children's Research Center is the first organization to have been chosen as Angel Charity's beneficiary twice.

Angel Charity for Children's success is due to a dedicated group of 150 volunteers, representing a cross section of the community. This year the organization is led by Jan Glynn, General Chairman, Norma Levy, Vice Chairman, and Laurie Wetterschneider, Underwriting Chairman. Since 1983, the Angels have raised \$13 million for 34 children's agencies.

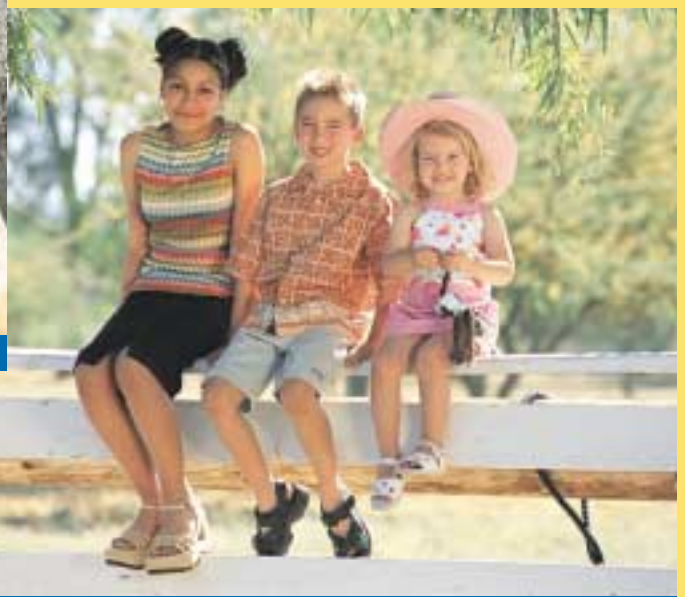
"We are so proud that all of those agencies are still in business, meeting the needs of Tucson's children," Glynn says. "More than 1 million children have benefited thanks to the generosity of our donors and continued support of the entire community."

"We feel so fortunate to have all the Angels on our side," Dr. Ghishan says. "It is an incredible organization. Laurie Wetterschneider is a dear friend to the CRC and has a real passion for raising money for children's causes."

The other Angel beneficiary this year is Therapeutic Riding of Tucson (TROT), which provides equine therapy for children with developmental disabilities. If you are interested in supporting the work of Angel Charity for Children, Inc., please call Laurie Wetterschneider at 326-3686.



Dr. Fayez Ghishan and Olivia Shaw



Amanda Halawani, Zachary Ricco and Olivia Shaw

“After examining many charitable organizations we could contribute to, we decided on the CRC. We knew that donating to the CRC would help the children of the world. When dollars are scarce it is comforting to know that your donations are being effectively used to help others, and especially our children.”

Frank & Eva Fieldhouse
Arizona Elks

Arizona Elks Helping to Create a Healthier Future for Kids

Each year the Arizona Elks remind us that you don't need a background in science or medicine to improve children's health. Since the Arizona Elks chose the Children's Research Center as its major project in 1992, the organization and individual Elks have donated nearly \$3 million to our research efforts. Their funding goes for educational programs, research support and has been used to renovate outdated medical facilities.

One of the most significant contributions from the Arizona Elks is their commitment to "seed grants." These grants are one- to two-year grants in amounts of approximately \$20,000.

"Seed grants give young researchers the support they need to develop strong preliminary data," says Fayez Ghishan, MD, Children's Research Center Director. "They are vital in fostering the careers of junior faculty members and expanding our research capabilities. The Elks are a remarkable group of individuals and we are so blessed to have them as our partners."

Here is just one of the seven research projects funded by the Arizona Elks this year.

Using Alternative Therapies to Treat Children with Asthma

Asthma is the most common chronic childhood illness. And even though methods and medicines to treat asthma have improved dramatically, hospitalization rates remain the same and the incidence of the disease is increasing.

John Mark, MD, Assistant Professor of Clinical Pediatrics, Pediatric Pulmonologist and the first graduate of the UA Pediatric Integrative Medicine Fellowship program, has a new idea that may help children with asthma control their disease and reduce their need for medications. He wants to teach children guided imagery to see if they can control their asthma, both the symptoms and the underlying airway inflammation.

"We know that there is a strong mind/body component associated with asthma," Dr. Mark says. "Some children's emotional state can either make their asthma better or much worse. If children could learn

techniques to control these emotional responses to asthma, it's possible they could help their asthma and reduce their dependence on medication. We also know that it's easy to teach children guided imagery, because they tend to be much more imaginative than adults."

Dr. Mark will study two groups of children ages 8 to 12 with moderate, persistent, but stable asthma (needing medications daily.) One group will receive training in guided imagery while tapering their use of inhaled steroids. The other group will also taper their inhaled steroids using a standard protocol. The study will last three months and the children will be closely followed with frequent measurements taken for lung function and airway inflammation.

This is the first study of its kind and if successful, may pave the way for larger studies of this type. "Eventually this type of self-regulation in a child's asthma care will be an important new tool that is not costly, invasive and has no side effects," Dr. Mark says.

To learn more about the other seed grants and the Arizona Elks, visit their website at www.elks4kids.org.



2001 GIFTS

Every gift made to the Children's Research Center is valued and appreciated.
We'd like to give special thanks to these donors who gave \$1,000 or more during the year.

Kathleen Kirk-Anderson
and Roger Anderson
Arizona Community Foundation
Arizona Elks Association State
Golf Tournament 2000
Arizona Elks Major Project, Inc.
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Betsy J. and Michael A. Boxer
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The University of Arizona Foundation
The University Physicians
Dr. James A. Weaver
Whiteman Foundation
Carol M. Williams
Women's Active 20/30 Club
of Southern Arizona



“Knowing that we are doing what we can to help researchers find a cure for the disease that took Courtney’s life is one way we can honor her memory. Raising public awareness of pediatric cancer and assisting these very special children and their families, helps us in our healing process.”

Kathy & Jerry Zillman
Tee Up for Tots, Inc.

ON GIVING

By Cele Peterson, CRC Board
Member since 1991

My parents taught us to be generous by being generous themselves. My mother used to say that attitude is everything. If you look at an empty lot that’s filled with weeds and old cars, look a little harder for the flowers that grow in between. When you focus on the flowers, you don’t see the weeds. It makes a difference in life what you look for. Attitude is what sculpts your life and I’ve always had a positive attitude.

My best reason for giving is the joy. There is a pleasure within when you can help others. It pays you back one hundred fold in ways you’d never expect.

We are very fortunate that we live in such a giving community. I’ve never seen a place where people are as generous as they are in Tucson. I’ve found that 99 percent of the people you ask for help are more than willing to give.

It’s good for all of us to remember that for some, a \$10 contribution can be as meaningful as a \$1,000 contribution. A donation of any amount can make a big difference in a child’s life.

Giving is fun. I like to give where I know it will make a difference. It’s exciting to see what can happen when we all give a little to those in need. If you expect life to be good to you, you have to be good – kind and understanding – to the people around you.



Cele Peterson

"The CRC is working every day to help kids live healthier lives and I want to make sure Phoenix and its neighbors support that effort."



Dick Whitney

Building Bridges in Phoenix

Dick Whitney remembered that there is “no free lunch” but not until after he attended a CRC luncheon at Phoenix Country Club five years ago. There, he heard the director of the Children’s Research Center, Faye Ghishan, MD, speak about how the Center would improve the health of Arizona’s children.

Whitney also learned that there was a Phoenix Advisory Board of the Children’s Research Center, and today, he is leading that board.

“I was delighted to take over for outgoing chair Robyn DeBell and help to build the board’s membership,” Whitney says.

Not only has Whitney increased the board’s membership, he has raised public awareness about the work of the Children’s Research Center in Phoenix.

“The board helps Phoenixians learn about the important medical research going on at the CRC and how valuable it is to every family in Arizona,” Whitney says. “The CRC is working every day to help kids live healthier lives and I want to make sure Phoenix and its neighbors support that effort.”

Whitney is an Arizona native, born in Phoenix and educated at the University of Arizona. He has been an active board member for the Arizona Community Foundation. He is an attorney with Gust Rosenfeld P.L.C. and is consistently recognized in The Best Lawyers in America.

He and his wife Linda, who is a member of the Phoenix Women’s Board of the Children’s Research Center, have two grown daughters and one very large dog – a 125 lb. Rottweiler named Fritz. But best of all, the Whitneys are the proud grandparents of 18-month-old Will Ray.

Steele Memorial Children’s Research Center Phoenix Advisory Board

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Susan Day, PhD
Robyn DeBell
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Kim Sterling
Dick Whitney, Chair

Remembering and Honoring a Friend

DR. MAURICE ZEE



Maurice Zee, M.D. 1913-2001

Maurice L. Zee, MD, a Life Member of the Children's Research Center Advisory Board, retired pediatrician and a long-time advocate for children, died in early June. Dr. Zee was 88 years old.

Dr. Zee was a pediatrician to many of Tucson's children from 1963 to 1982. After his retirement, Dr. Zee began a second career as a community activist, board member, fundraiser and advisor for

several significant children's charities.

Dr. Zee was born in Chicago in 1913 and received his education in the area's schools. He earned his undergraduate degree and medical degree from Northwestern University in Evanston, Ill. He completed residencies in Pediatrics at Chicago's Cook County Children's Hospital and Municipal Contagious Disease Hospital in Chicago.

Following his military service in World War II, Dr. Zee practiced pediatrics in Chicago until he moved his family to Tucson in 1963.

As a community leader, Dr. Zee served on the boards of many agencies to make the lives of children in our community better. He was a charter member of Angel Charity for Children, a long-time board member and adviser of the Ronald McDonald House, and a founder of the CRC Advisory Board. He also was involved with the Cerebral Palsy Foundation of Southern Arizona, Jewish Family Services and Temple Emanu-El.

"Dr. Zee was a well loved and respected member of our advisory board," says Fayez Ghishan, MD, Director of the Children's Research Center. "He was enthusiastic about our efforts to improve children's health. And even as his health declined, he worked hard to make it to board meetings. He will be sorely missed but not forgotten."

In his memory, the UA pediatricians have created a Maurice Zee Compassionate Pediatrician Award. It will be given to a second-year pediatric resident physician each year who exemplifies the qualities that made Dr. Zee so special.

"Maurice was a true gentleman," says Ziad Shehab, MD, UA Professor of Clinical Pediatrics. "He had such a kind and gentle way about him."

Of course the manner in which a pediatrician interacts with patients and their families is very important. But rarely are pediatric residents rewarded for excellence in compassion.

"The Maurice Zee Compassionate Pediatrician Award will be a wonderful way to remember Dr. Zee and to recognize a young pediatrician who understands the power of compassion in the healing process," Dr. Shehab says.

The award will include a small stipend for the winning pediatric resident.

Dr. Zee is survived by his wife, Mavis, his sister, Beatrice Trop, and his daughters Donna Zee, Linda DeVore and Dorothy Lanier.

Dr. Zee began a second career as a community activist, board member, fundraiser, and advisor for several significant children's charities.



Dr. Zee, early in his pediatric career.

When you have a sick child, it's obviously incredibly stressful. We do everything we can to help the families, but having more space and private rooms will be invaluable.

Better Spaces and Places for Sick Children

No one ever wants his or her child to be a patient in an intensive care unit. But if it happened, you would want the very best medical care for your child, a kind and caring medical staff, pleasant surroundings and a quiet place to think. For parents of children hospitalized in the Pediatric Intensive Care Unit (PICU) at University Medical Center, only the first two wishes were true. Until now.

The PICU is moving to the sixth floor of the hospital and will expand from 10 to 16 beds. Every room will be a private room.

"This will be a huge benefit for children who are critically ill and for their families," says Bob Berg, MD, UA Professor of Pediatrics and Chief of Pediatric Critical Care. "When you have a sick child, it's obviously incredibly stressful. We do everything we can to help the families, but having more space and private rooms will be invaluable."

In addition, UMC has built a Family Day Room to offer families a place to relax while their child is in the hospital. The Family Day Room has sitting areas, a kitchenette, laundry room, bathroom with shower, telephones and computer hook-ups.

"The goal of this room is to give families a small break from the hospital environment," says Vicki Began, RN, UMC Director of Women and Children's Services. "Sometimes parents need a break from the child's bedside, but they don't want to go too far away."

The Family Day Room has been built with funds from Raymond's Race - Racing for a Cure, a drag racing event that honors Raymond Dixon, who lost his battle to leukemia last year at the age of 13. UMC Friends, a group of generous hospital supporters, also raised money to help build this special room for families.

"It's absolutely great to be able to provide this new PICU and Family Room for our patients and their families. We are delighted to be able to improve the environment we offer the families of our patients," Dr. Berg says.



Teaching Toddlers the JOY OF READING

There's a new program at the Children's Research Center in which a little effort goes a long way to improve the life of a child. Called Reach Out and Read (ROAR), it is an early literacy program. Many children in our community grow up in homes without books and we're trying to change that.

ROAR has three parts. ROAR volunteers read to children while they are waiting to see their pediatrician. The kids enjoy this and it shows parents how much children enjoy being read to. Then our pediatricians give parents a colorful prescription for reading at each visit. And when a parent brings a child in for a well child check-up, the child receives a free book. So by the time the child is 5-years-old, he or she will have a personal collection of at least 10 books.

This wonderful program is completely supported by generous donations from the community. We're giving away 4,000 new books each year so we need lots of support. The cost of operating ROAR is about \$10,000 each year. There are some easy ways to help kids learn about the love of reading.

- Make a cash donation. Any amount is welcomed and appreciated. We buy books at a discount from major publishers and book wholesalers so we stretch your dollars. We thank Maxine and Ralph Henig, Joan Kaye Cauthorn and the Joseph Stanley Leeds Foundation for financial support.
- Donate books. If you see a sale, pick a few up. The children receive new books during the well child check-up, but we accept gently used books to share in our waiting room.
- Have a party. Some of our friends are asking their friends to buy children's books instead of birthday presents. One mom asked her friends to bring children's books to donate when she hosted a birthday party for her 3-year-old son. She figured that her son had all the toys he needed. Dian Lieberthal Rutin asked her friends to donate books in honor of her recent special birthday.



Maxine Henig reading to Annelis Voldengen and Kevin Johnson

It all adds up. And it adds up to happier, healthier, better-adjusted children. A special thanks for getting this program up and running goes to pediatric resident Donna Voldengen, MD.

If you'd like to learn more about donating to Reach Out and Read, call Keri Valdés, (520) 626-7051. If you'd like to volunteer as a reader, call Cynthia Rouw, Manager of Volunteer Services at University Medical Center, (520) 694-6706.

Many children in
our community
grow up in
homes without
books and
we're trying to
change that.



Supporting the Professionals Who **KEEP KIDS SAFE**

Arizona's
Child Abuse
InfoCenter
provides
professionals and
volunteers with
centralized,
easily accessible,
up-to-date
information to
help them do
their jobs better.

Each year more than 32,000 Arizona children are reported to Child Protective Services (CPS) as allegedly abused or neglected. That means that Arizona ranks 45th among all 50 states in the welfare of its children.

The reasons for this appalling abuse and neglect are complex and there are thousands of dedicated professionals in Arizona working to alleviate the suffering of children in their own homes. However, productive prevention and intervention requires a coordinated team approach. The National Clearinghouse on Child Abuse and Neglect recommends, “the roles of all the community professionals and agencies must mesh to form a complete child protection system.”

One service housed at the University of Arizona Department of Pediatrics fosters collaboration among professionals across the state. Called Arizona's Child Abuse InfoCenter, it is a clearinghouse of information, consultations and training for those working in the child abuse field. It provides professionals and volunteers with centralized, easily accessible, up-to-date information to help them do their jobs better.

On the Child Abuse InfoCenter website are protocols for investigating child abuse allegations, state mandatory reporting laws, conference and workshop opportunities, statistics and more than 100 links to additional child abuse resources. Child advocates can access this information by telephone, fax, email, U.S. mail and via the Internet at www.ahsc.arizona.edu/acainfo.

The Child Abuse InfoCenter is staffed by Jane Schorzman, MA, who has more than 20 years experience working with CPS, directing a children's crisis shelter, teaching parenting skills and counseling in a private practice. Schorzman is able to answer most calls and requests for information the same day she receives them. The Child Abuse InfoCenter website serves more than 4,000 visitors each month.

“We believe this is an incredibly valuable service to the professional community,” says Anna Binkiewicz, MD, UA Professor of Pediatrics and longtime advocate for abused children. “This clearinghouse saves professionals countless hours of research time – time that can be spent helping children.”

The Child Abuse InfoCenter initially was funded by the Governor's Office for Children, but now must find private funding to sustain its program. Its budget is small in the whole scheme of things – \$25,000 each year. If you know of a business, foundation or individual who might help maintain the success of the Child Abuse InfoCenter, please call Jane Prescott-Smith, (520) 626-7799.

“We've received such positive feedback from the child advocates using this service,” Dr. Binkiewicz says. “We provide it free and would like to continue to do so. This is a first important step to prevent the lifelong trauma that child abuse creates.”

Helping the Smallest Victims of Violence

The power one person has to bring change is enormous,” says Doris Sisk, MSW, UA pediatric social worker. She found that out first-hand as she screened the moms of little patients at the Arizona Elks Clinic for Children and Young Adults for signs of domestic violence.

One mother asked her, “Why are you talking to me about domestic violence in a pediatric clinic?” Sisk explained that violence against women always affects their kids. She said that since pediatricians are the professionals mothers see regularly, they are in a position to recognize abused women and offer help.

Domestic violence is physical, sexual, mental or verbal abuse by someone who has an intimate relationship with the victim. Sisk and other professionals know that children become victims of domestic violence just as much as the mother does. Research shows that if pediatricians look for signs of abuse in mothers, they can help protect children from the severe emotional and physical trauma domestic violence inflicts upon them.

“Many parents don’t realize that children who witness domestic violence are themselves victims of abuse,” Sisk says. Children who see or hear abuse may become depressed, have nightmares, and fall behind in school because they are worried about what is happening at home. Worse still, children who live in violent families learn to solve problems through violence and often believe it is normal to live with abuse and neglect.

Sisk decided to create a study and identify families at risk for domestic violence or those currently experiencing it. She developed a questionnaire, which a nurse asks a parent to complete. The pediatrician can read the questionnaire before the child’s exam to look for indications of past or present abuse.

Thus far, the study has produced alarming results. Last year, Sisk only had five referrals for possible abuse within a 60-day period. During that same period this year, after the study began, Sisk received 200 referrals. Sisk was becoming overwhelmed with the number of mothers needing assistance and decided she needed help.

She asked the Women’s Active 20/30 Club to fund a part-time social worker to help her sort through and respond to the questionnaires. The 20/30 Club was so impressed by Sisk’s study and its immediate results, that they funded the social worker with a unanimous vote by its membership.

With the help of the 20/30 Club, Sisk and her assistant can spend valuable time helping the smallest and most vulnerable victims of domestic violence.

“You just don’t know who you are going to touch with your work – that’s the exciting part of my job,” Sisk said, “I hope the members of the 20/30 Club realize how their funding is helping so many children in Southern Arizona.”

For more information about how you can help prevent domestic violence and child abuse, visit Arizona’s Child Abuse InfoCenter at www.ahsc.arizona.edu/acainfo/ or call the Statewide Child Abuse Hotline at 1-888-767-2445.

“I consider it an honor and a privilege, whenever I am asked to give time, talent or treasure to the CRC.”

Tom Regina
President, American
Openings



HIGHLIGHTS

of Faculty Awards, Honors, Grants

Cardiology

■ **Scott Klewer, MD**, Assistant Professor of Pediatrics, was awarded an American Heart Association (AHA) Grant to investigate the extracellular matrix in heart development and disease and has been named to the national planning committee for the AHA Cardiovascular Disease in the Young Council. Dr. Klewer and Jay Hoying, PhD, Assistant Professor of Biomechanical Engineering and Physiology, were appointed Co-Directors of the Diamond Microarray Facility.

Critical Care

■ **Bob Berg, MD**, Professor and Section Chief, received a grant from the Arizona Disease Control Research Commission to study the optimal treatment for prolonged cardiac arrest.

■ **Andreas Theodorou, MD**, Associate Professor of Clinical Pediatrics, received the Furrow Award for Excellence in Graduate Medical Education Teaching.

■ **Robyn Meyer, MD**, Assistant Professor for Clinical Pediatrics, received the Furrow Award for Innovation in Medical Education for co-creating a special program for residents, "When Children Die."

Gastroenterology

■ **Fayez Ghishan, MD**, Professor of Pediatrics and Physiology and Head of the UA Department of Pediatrics received a grant from the National Institutes of Health (NIH) for study of Intestinal Ion Transport – \$1.9 million, 2002-2007. The score of his grant was among the top one percent of grants submitted.

General Pediatrics

■ **Burris "Duke" Duncan, MD**, Professor of Pediatrics, was honored by the non-profit Roots and Wings for his work in establishing CommonUnity, an innovative program to benefit homeless teen parents. Dr. Duncan also received a grant from the Centers for Disease Control to evaluate an instrument he helped design, which measures night blindness in children, one of the first clinical signs of vitamin A deficiency.

■ **Bill Madden, MD**, Associate Professor of Clinical Pediatrics and Section Head of General Pediatrics, received the Furrow Award for Excellence in Clinical Science Teaching for Medical Students and the Dean's award for Excellence in Teaching in the Clinical Sciences.

Hematology/Oncology

■ **Rochelle Bagatell, MD**, Assistant Professor, received the Furrow Award for Innovation in Medical Education for co-creating a special program for residents, "When Children Die."

■ **Luke Whitesell, MD**, Associate Professor, received a grant from the Arizona Disease Control Research Commission to further his studies of the molecular mechanisms of a pediatric cancer, neuroblastoma.

Infectious Diseases

■ **Sean Elliott, MD**, Assistant Professor of Clinical Pediatrics, received the Dean's award for Excellence in Teaching in the Clinical Sciences.

■ **Ziad Shehab, MD**, Professor of Clinical Pediatrics and Section Chief of Pediatric Infectious Diseases, received the Dean's award for Excellence in Teaching in the Clinical Sciences.

Medical and Molecular Genetics

■ **John Meaney, PhD**, Research Associate Professor and **Chris Cunniff, MD**, Professor of Pediatrics and Section Chief of Pediatric Genetics, are Co-Principal Investigators for two grants from the Centers for Disease Control and Prevention. One is for Multiple Source Surveillance for Fetal Alcohol Syndrome in Arizona, and the other is for Surveillance of Autism Spectrum Disorders. The grant period for the first grant is 1997-2002, and the second is for 2000-2005.

Dr. Cunniff serves on two national groups: as Chair of the Committee on Genetics of the American Academy of Pediatrics and as Secretary of the American College of Medical Genetics. He also received the Dean's award for Excellence in Teaching in the Basic Sciences.

Neonatology and Developmental Biology

■ **Bohuslav Dvorak, PhD** was promoted to Research Associate Professor of Pediatrics, Cell Biology & Anatomy. Dr. Dvorak received a grant from the National Institute for Child Health and Human Development to further his studies of growth factors in the digestive system of premature babies. He also received a research contract from the Nestle Research Center, Lausanne, Switzerland to conduct laboratory experiments, testing the effect of adding new dietary substances to milk.

■ **Lynn Edde, DO**, Assistant Professor of Clinical Pediatrics, received the Dean's Physician-Scientist Career Development Award.

Nephrology

■ **Mehul Dixit, MD**, Assistant Professor of Clinical Pediatrics, received a grant from the Southern Arizona Kidney Foundation to develop a preventive model.

Otolaryngology

■ **Glen Green, MD**, Assistant Professor of Surgery in Otolaryngology and Assistant Professor of Clinical Pediatrics, received the Dean's Physician-Scientist Career Development Award.

Poison Control

■ **Leslie Boyer Hassen, MD**, Assistant Professor of Clinical Pediatrics, received the Dean's award for Excellence in Teaching in the Clinical Sciences.

Phoenix Program

■ **Sarah Richter Cox**, Pediatric Genetic Counselor, received the Region V Leadership award from the National Society of Genetic Counselors. Cox was instrumental in legislation to create funding for the state Teratogen Information Hotline. She was praised as "a behind-the-scenes unsung hero in the profession."

Pulmonary

■ **Theresa Guilbert, MD**, Assistant Professor of Pediatrics, received a Dean's Physician-Scientist Career Development Award and was accepted in the Arizona Clinical Research Training Program. She was nominated for a Pews Scholars Program in the Biomedical Sciences by the UA College of Medicine Research Office.

■ **John Mark, MD**, Assistant Professor of Clinical Pediatrics, is co-chairing a Postgraduate Education Course at the American Lung Association International Conference on Lung Health in Atlanta, May 2002 on integrative medicine approaches to lung disease.

■ **Wayne Morgan, MD**, Professor and Section Chief, was selected for a prestigious honor – to be the first George Polgar Visiting Professor in Pediatric Pulmonology at Children's Hospital of Philadelphia. (Dr. Polgar is one of the founders of the discipline of pediatric pulmonary medicine. He founded the journal *Pediatric Pulmonology* and

developed the first set of normal values for lung function in children, which is used by pediatric pulmonologists all over the world.)

■ **Anne Wright, PhD**, Research Professor, was co-organizer of the Tenth Annual International Conference of the International Society for Research on Human Milk and Lactation.

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There are never enough ways to thank the scores of volunteers who help make the work of the Children's Research Center possible. Our advisory board is an invaluable asset. With their guidance and their generosity, we can meet our goals of creating a healthier future for children.

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Jones, Catherine, MD, PhD
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Kling, Pamela, MD
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Nephrology

Dixit, Mehul, MD
Assistant Professor Clinical Pediatrics/Acting Section Chief

CREDITS

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Neurology

Kaemingk, Kristine, PhD
Assistant Professor Clinical Pediatrics

Lewis, Kara Stuart, MD
Assistant Professor Clinical Pediatrics/Acting Section Chief

Poison Control

Boyer, Leslie, MD
Associate Professor Clinical Pediatrics

Pulmonary

Brown, Mark, MD
Associate Professor Clinical Pediatrics

Guilbert, Theresa, MD
Assistant Professor

Holberg, Catharine, PhD
Research Associate Professor

Mark, John, MD
Assistant Professor Clinical Pediatrics

Martinez, Fernando, MD
Professor

Morgan, Wayne, MD
Professor/Section Chief

Wright, Anne, PhD
Research Professor

UAP

Meaney, F. John, PhD
Research Associate Professor

Phoenix Program

Aleck, Kirk, MD
Professor Clinical Pediatrics

Charlton, J. Kipp, MD
Clinical Associate Professor

Cole, Peter, MD
Clinical Associate Professor

Grebe, Theresa, MD
Associate Professor Clinical Pediatrics

Muhm, Robert Jr., MD
Clinical Assistant Professor

Shub, Mitchell, MD
Associate Professor Clinical Pediatrics

Editor/Writer

Kate Maguire Jensen, MPH
*Director of Community Affairs
Children's Research Center*

Contributing Writer

Keri Hiller Valdés, MPA
*Manager of Special Projects
Children's Research Center*

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George Humphrey, MA
*Director
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Jane Prescott-Smith, MBA
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Designer

Patte Lazarus
GroundZero Design

Photography

Margaret Hartshorn
UA Biomedical Communications

Martha Lochert
Martha Lochert Photography

Michael Paulson (cover photo)
Paulson Photography

Jeb Zirato
UA Biomedical Communications

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About the Cover

Cover model and proud grandmother, Penny Gunning (far right), with her daughter, Tori Heintzelman, her mother, Theo Craig and her grandchildren, Ashlyn and Brayden.

Penny is the co-founder of the Steele Memorial Children's Research Center Phoenix Women's Board.





STEELE MEMORIAL
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RESEARCH CENTER

The University of Arizona
Health Sciences Center
Department of Pediatrics
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