Children's Mercy Kansas City
SHARE @ Children's Mercy

Research Annual Reports | Children's Mercy Research Institute

2006

Research Annual Report 2005

Children's Mercy Hospital

Let us know how access to this publication benefits you

Follow this and additional works at: https://scholarlyexchange.childrensmercy.org/research_annual_reports

 Part of the Pediatrics Commons, and the Translational Medical Research Commons

Recommended Citation

Children's Mercy Hospital, "Research Annual Report 2005" (2006). *Research Annual Reports*. 7.
https://scholarlyexchange.childrensmercy.org/research_annual_reports/7

This Book is brought to you for free and open access by the Children's Mercy Research Institute at SHARE @ Children's Mercy. It has been accepted for inclusion in Research Annual Reports by an authorized administrator of SHARE @ Children's Mercy. For more information, please contact hlsteel@cmh.edu.

2005 Research Annual Report

W
20.5
CMHC
2005

Children's Mercy
HOSPITALS & CLINICS
www.childrensmercy.org

Contents

Randall L. O'Donnell, PhD
President and CEO

Ralph E. Kauffman, MD
Chairman, Department of Medical Research

The Marion Merrell Dow/Missouri Chair in Pediatric Medical Research

Professor of Pediatrics and Pharmacology, University of Missouri-Kansas City School of Medicine

Kreamer Family Resource Center
Children's Mercy Hospital

Dear Friends,

"Vision" is a word that is frequently used by a wide variety of organizations, but nowhere is it more appropriate than in the field of pediatric medical research. This year's annual report is themed "Vision for the Future," and that phrase is apt indeed for the research program at Children's Mercy Hospitals and Clinics.

The first medical research at Children's Mercy was conducted by our founder, Dr. Katharine Berry Richardson, in the 1920s. In the early 1990s, our commitment to research was confirmed and expanded with the creation of our "research vision." Since that time, we have continued our steady growth toward becoming one of the leading pediatric research centers in the world -- and 2005 was no exception.

Please take a few moments to read through our annual report to learn more about the innovative physician scientists who joined our program during the past year, including the naming of Lanny Rosenwasser, MD, as the Dee Lyons/Missouri Chair in Pediatric Immunology Research. Read also about the marked increase we've experienced in technology transfer activity and the number of patents that were disclosed last year.

One thing that has not changed in the past year is our researchers' "vision" for finding better treatments and cures for childhood disease and their commitment to working toward that goal. Our Clinical Pharmacology and Pharmacogenetics research program is recognized as an international leader, and our research in Renal Disease, Neonatology, Cardiovascular Surgery, Allergy/Asthma, Immunology, Genetics, Endocrinology and other areas of translational research continues to draw national attention.

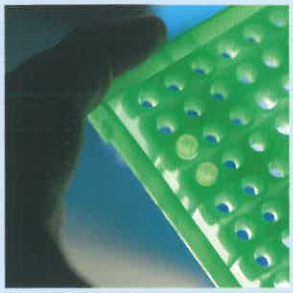
We know you share our vision for a brighter, healthier future for all children. Thank you for your continuing support.

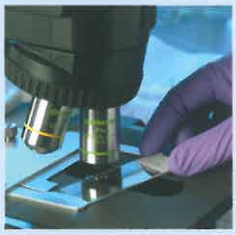
Fred and Dee Lyons

Endowed chairs are instrumental in helping Children's Mercy attract top caliber physicians and researchers, such as Lanny Rosenwasser, MD. Fred and Dee Lyons established the Dee Lyons/Missouri Endowed Chair in Pediatric Immunology Research as a tribute to Dee's years of work on behalf of children.

For more than 20 years, the Lyons have been staunch advocates for Children's Mercy. Their support of pediatric medical research continues to strengthen the hospital's clinical, educational and research capabilities.

Fred has worked to establish numerous chairs and awards for medical research at Children's Mercy Hospital, including the Marion Merrell Dow Clinical Scholar Awards program and the Marion Merrell Dow Chair in Pediatric Pharmacogenomics. From 1998 to 2001, Dee and Fred served as co-chairs for the Discovering Tomorrow campaign, which raised more than $50 million in philanthropic support for Children's Mercy's medical research programs.





New Endowed Chair Leads Immunology Research

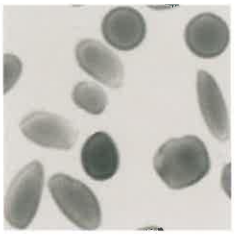
THE AMBITION OF RESEARCHERS IS TO DISCOVER INFORMATION which will impact future practice. Consistent with this vision, Lanny J. Rosenwasser, MD, Professor of Pediatrics, University of Missouri-Kansas City School of Medicine, was named the first Dee Lyons/Missouri Endowed Chair in Pediatric Immunology Research at Children's Mercy Hospitals and Clinics.

"I was drawn to Children's Mercy by its strong commitment (of resources) to research," says Dr. Rosenwasser. "Dr. Jay Portnoy's well-established Allergy/Asthma/Immunology research, Dr. Steve Leeder's work in pharmacology and research strengths in genetics augmented my admiration for this institution."

Dr. Rosenwasser's research encompasses the disciplines of Immunology, Pharmacology and Genetics in his studies of the interaction of genetics and the environment in determining the varying susceptibility of different individuals to asthma and other immunologic disorders and their response to treatment. Dr. Rosenwasser's vision is to develop new treatments for immune diseases and to understand how they interact with the genetic and environmental components.

Widely published and having served on the editorial boards of many prestigious journals including the Journal of Allergy and Clinical Immunology, Cellular Immunology, and the International Archive of Allergy and Immunology, Dr. Rosenwasser is a nationally and internationally renowned physician in immunology research.

The Dee Lyons/Missouri Endowed Chair in Pediatric Immunology Research is made possible by a generous gift from Fred and Dee Lyons in honor of Dee's service to Children's Mercy. The endowment gift from the Lyons is matched by the University of Missouri system to support this chair.



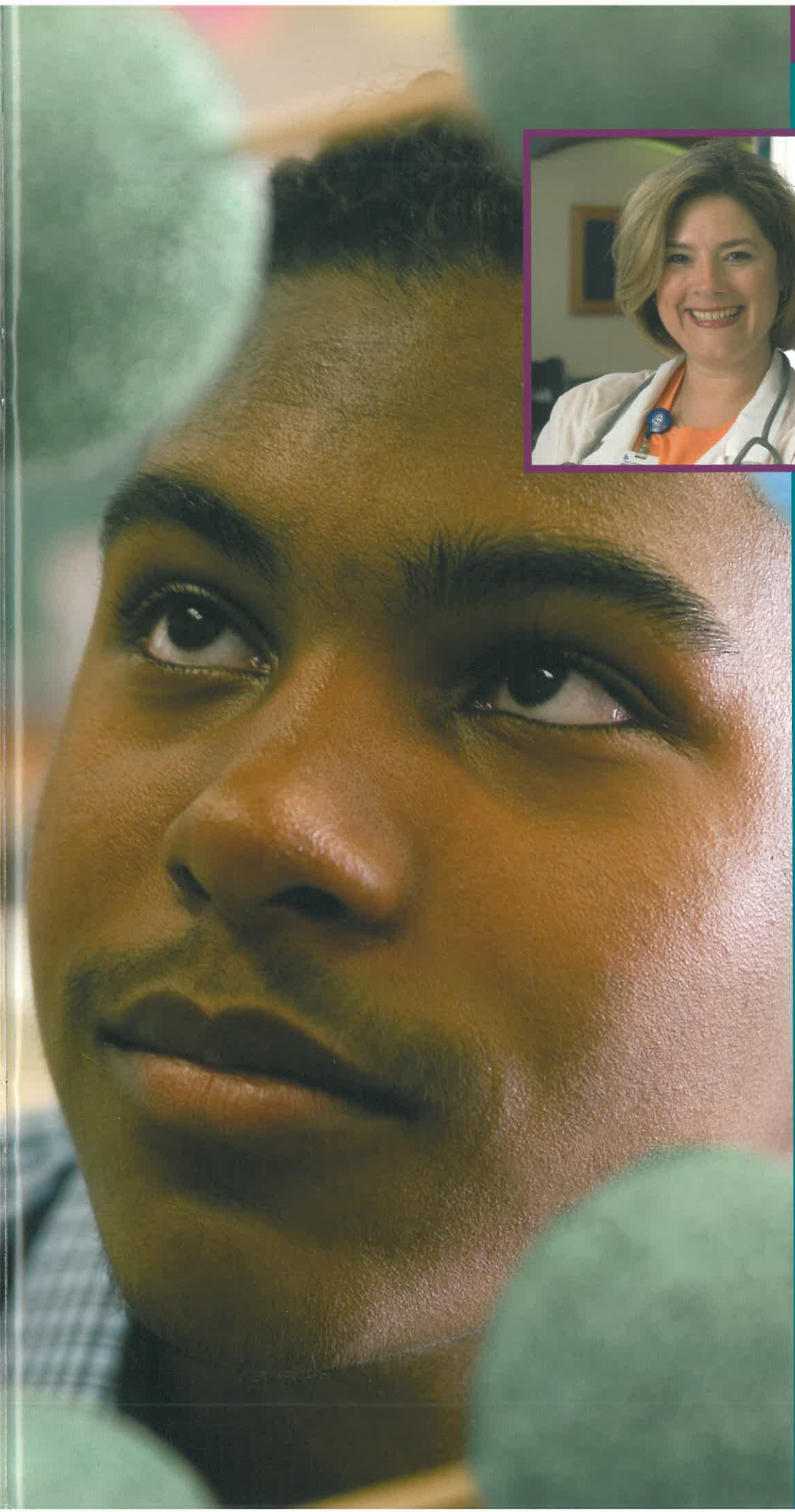
Searching for Sickle Cell Pain Relief

WHILE CHILDREN WITH SICKLE CELL DISEASE MAY LOOK NORMAL, they often experience severe pain crises leading to emergency room visits and hospitalizations. Medication can help reduce the frequency of pain for some children, but not everyone responds in the same way. If the children have the same hemoglobin trait, why does one child respond well to treatment and another experience severe crises such as stroke or acute chest syndrome?

That question sparked the interest of Kathleen A. Neville, MD, MS. Dr. Neville is studying whether genetic variations in the endothelial nitric oxide synthase gene (eNOS) affect blood flow in the body and therefore influence the severity of sickle cell disease. She is also looking at genetic variants that influence why children's bodies respond differently to sickle cell pain medications such as hydroxyurea and codeine.

Dr. Neville's research builds on work done by other Children's Mercy researchers in clinical pharmacology and hematology/oncology, and it complements other studies currently underway, such as the sickle cell work done by Efe Iyamu, PhD, Hematology/Oncology researcher at Children's Mercy and Assistant Professor of Pediatrics, University of Missouri-Kansas City School of Medicine.

"We are all chipping away at this problem. Further studies will be needed and most likely more than one gene is involved," says Dr. Neville. "Ultimately we want to develop a better way to characterize and treat pain in these children so that we can minimize their suffering."



As a researcher and a clinician, Kathleen A. Neville, MD, MS, Hematology/Oncology and Clinical Pharmacology and Assistant Professor of Pediatrics, University of Missouri-Kansas City School of Medicine, views herself as helping to bridge the gap between clinical practice and research in sickle cell disease.

Dr. Neville is one of only a handful of physicians in the country trained in both pediatric hematology/oncology and clinical pharmacology. She is also unique in that she holds a master's degree in clinical research. Dr. Neville believes that her background makes her ideally suited for translational research, for figuring out what the clinically important questions are and how to best answer those questions with focused research.

Dr. Neville was attracted to Children's Mercy because of the international reputation of the Pediatric Clinical Pharmacology Program and her experience in working with Gerald Woods, MD, Hematology/Oncology section chief, Professor of Pediatrics, University of Missouri-Kansas City School of Medicine, on clinical trials related to sickle cell disease.

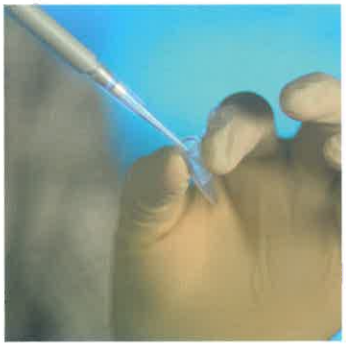
Christopher J. Harrison, MD

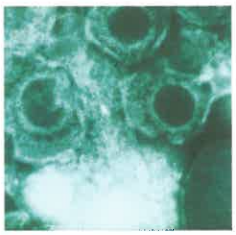
Christopher J. Harrison, MD, Infectious Disease, and Associate Professor of Pediatrics at University of Missouri-Kansas City School of Medicine, has long held an interest in pediatric infectious diseases and newborns.

Dr. Harrison has led or participated in pediatric infectious disease research at several children's hospitals. He has authored more than 70 journal articles, books and book chapters and is a frequent presenter at conferences.

It was the opportunity to interact with several burgeoning research initiatives that brought Dr. Harrison to Children's Mercy. He views his research as building on the strengths already in place at Children's Mercy, including projects in pharmacology, neonatology and infectious disease.

"Core investment in the same area allows for cross talk. The Clinical Pharmacology group, particularly Dr. Andrea Gaedigk, has already helped greatly in focusing my project; plus Dr. Rosenwasser, Dr. Truog and I have parallel interests. I can see synergies evolving."





Preventing Disease from Congenital Infection

CYTOMEGALOVIRUS (CMV) IS A "SILENT" VIRUS because there often are no immediate outward symptoms. Congenital CMV occurs when pregnant mothers acquire CMV, and it does most of its damage to the baby in utero. CMV infects one to two percent of newborns. It is the most common infectious cause of mental retardation, congenital hearing loss and other neurologic symptoms.

Christopher J. Harrison, MD, Infectious Disease, is studying toll-like receptors (TLR) 2, 3 and 9, which act as first lines of defense to send warning signals to the immune system to fight infection. By evaluating TLR, Dr. Harrison hopes to identify patterns of CMV-induced signaling pathways and why some mother/infant pairs successfully fight the disease while others do not. The first studies will be in established immune cell lines.

Later, Dr. Harrison will collaborate with other hospitals and research institutions to obtain blood samples from CMV-infected mothers as well as their babies so he can analyze their DNA and the signaling pathways.

"We have a five-year plan to look at the pathways and the difference in those who get sick from infection and those who do not. These data could show us how we can possibly improve the body's innate defense system," says Dr. Harrison. "And because parts of these same pathways are used by other viruses, our research may translate to other viral infections as well."

Award Winners

Chetanbabu Patel, MD
William Randolph Hearst Endowment

Kathleen A. Neville, MD, MS
William Randolph Hearst Endowment

Lanny J. Rosenwasser, MD
Henson Award

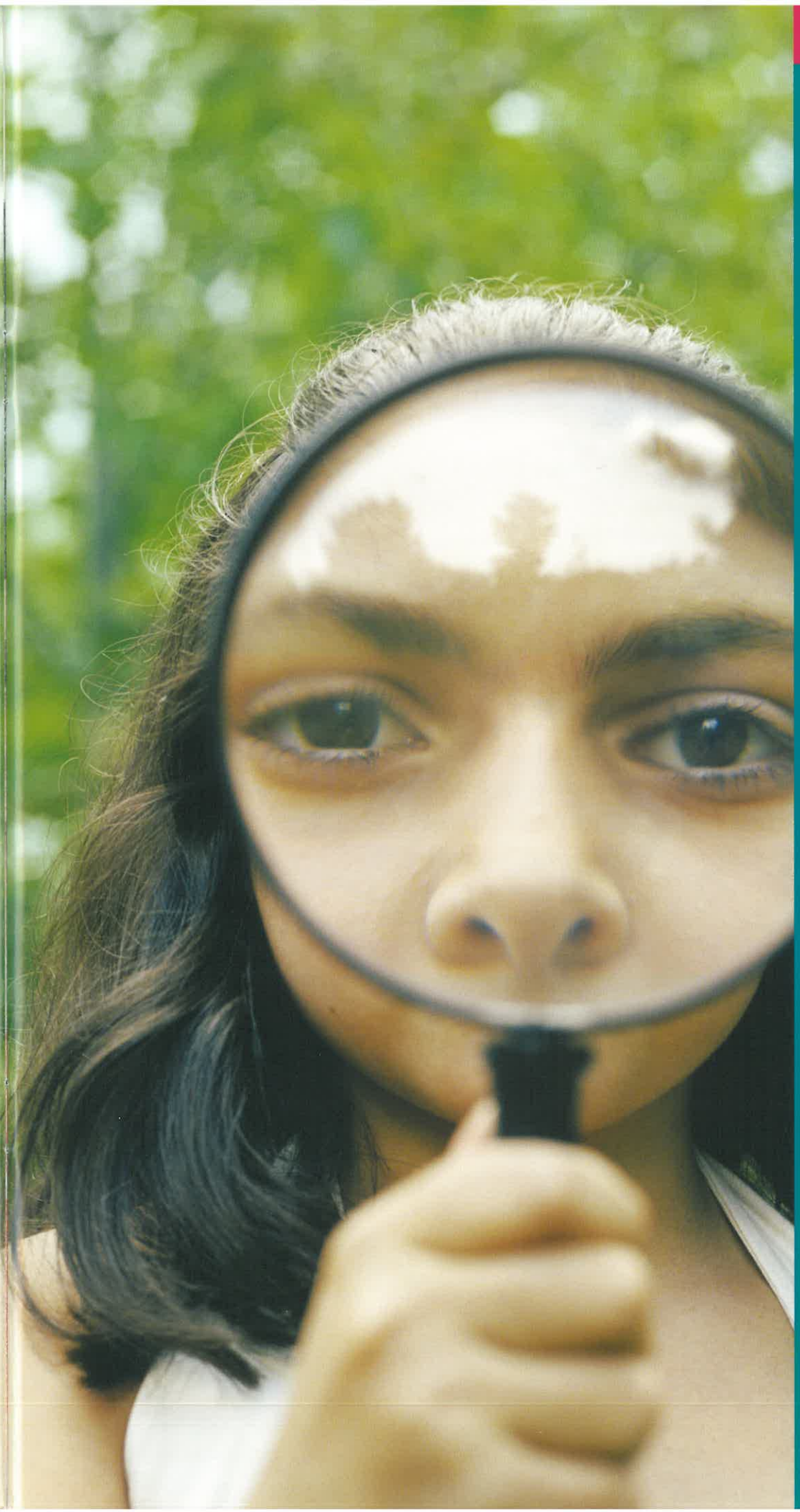
Honoring Research Excellence

Denise Dowd, MD, MPH, Injury Prevention Section Chief at Children's Mercy and Associate Professor of Pediatrics, University of Missouri-Kansas City School of Medicine, is the 2005 recipient of the Kreamer Research Excellence Award.

Dr. Dowd works to bridge the gap between medical evidence and practice, creating sustainable change in the behavior of those within the health care system, as well as the system itself. Dr. Dowd has led or participated in advocacy research into:

- **Domestic Violence** – Dr. Dowd's research on domestic violence screening with families in the Emergency Department led to a significant increase in contacts and shelter placements at Children's Mercy. The program is now a model for others nationwide.
- **Adolescent Suicide** – Partnering with Children's Memorial Hospital in Chicago, Dr. Dowd is conducting research to better understand how to predict and prevent adolescent suicide and develop interventions.
- **Adolescent Dating Violence** – In conjunction with Cincinnati Children's Hospital Medical Center, Dr. Dowd is studying the impact of adolescent dating violence.
- **Gun Safety** – Dr. Dowd led Children's Mercy participation in a three-year study with the University of Washington on the protective effects of securing a gun.

Dr. Dowd is also the principal investigator for an American Academy of Pediatrics-led project – funded by a Centers for Disease Control (CDC) grant – comparing four means of disseminating injury, violence and poison prevention information to community physician offices.



Henson Award

The Paul Henson Pediatric Immunology Research Award is presented yearly to a Children's Mercy researcher to further promising ongoing research in pediatric immunology. The 2005 Henson Award recipient was Lanny J. Rosenwasser, MD, recently appointed head of the new Pediatric Immunology Research Laboratory at Children's Mercy, and Professor of Pediatrics, University of Missouri-Kansas City School of Medicine.

William Randolph Hearst Endowment

The top-rated project in the hospital's internal competitive grants program each spring and fall is supported by the William Randolph Hearst Endowment at Children's Mercy. The 2005 William Randolph Hearst designees were Kathleen A. Neville, MD, MS, for her research on *The Pharmacogenetics (PG) of Pain Treatment in Pediatric Sickle Cell Disease* and Chetanbabu Patel, MD, for his work on *Prevalence of Hypoglycemia and/or Hyperinsulinism/Hyperammonemia Syndrome in Patients with Idiopathic Seizures.*

Kreamer Family Resource Center
Children's Mercy Hospital

Office of Research and Grants Administration

Institutional Review Board

Office of Research Integrity

Investigational Drug Pharmacy

Clinical Research Coordinators

Clinical Research Unit

Bioinformatics & Research

Computing

Internet II

Statistical Support and Education

Pediatric Research Center

- Microarray System
- DNA Sequencers
- Proteomics
- Specialized Microscopy
- Tissue/Cell Culture

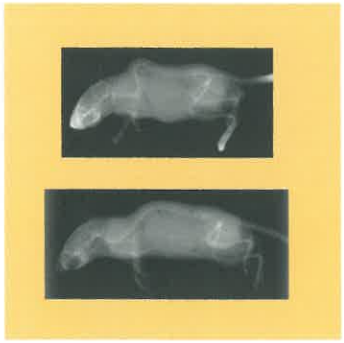
Chengpeng Bi, PhD
Research Scientist, Bioinformatics

Matt Williams
Research Data Analyst

Supporting Research Through Technology

HIGH-POWERED SUPER COMPUTERS, THE INTERNET AND SOFTWARE ADVANCES are part of the Children's Mercy research infrastructure which have fueled rapid growth in research methods and applications while improving our ability to effectively and efficiently conduct and share research.

- grantsERA™ tracks our awards and submissions and allows us to submit grant proposals electronically to any federal agency. In the near future, the NIH and other federal granting agencies will require electronic submission of all grants. Children's Mercy is at the forefront of this technology, successfully submitting our first grant proposal electronically in October 2001. In October 2005, we electronically submitted 10 percent of all nationally submitted proposals.
- An Apple Xserve-based bioinformatics computing cluster provides all components of the EMBOSS suite, a set of tools for working with genomic data, DNA sequences, pattern matching and searching, and proteins; NCBI BLAST for finding regions of sequence similarities within genomic data; and HMMER for performing HMM analysis of protein sequences.
- Two Linux clusters are used for genetics research and microscopy image analysis.
- Our scientists utilize a connection to high-speed internet2, an advanced network dedicated to research and academic centers, to further research and educational aims through the development and application of advanced technology, such as high-speed, low-latency networking and multicasting.



Envisioning a Cure for Muscular Dystrophy

DUCHENNE MUSCULAR DYSTROPHY, a neuromuscular disease in boys, results when a protein called dystrophin is absent or severely defective in muscle. The consequence is progressive muscle weakness, severe curvature of the spine (in many cases) and death by the age of 30.

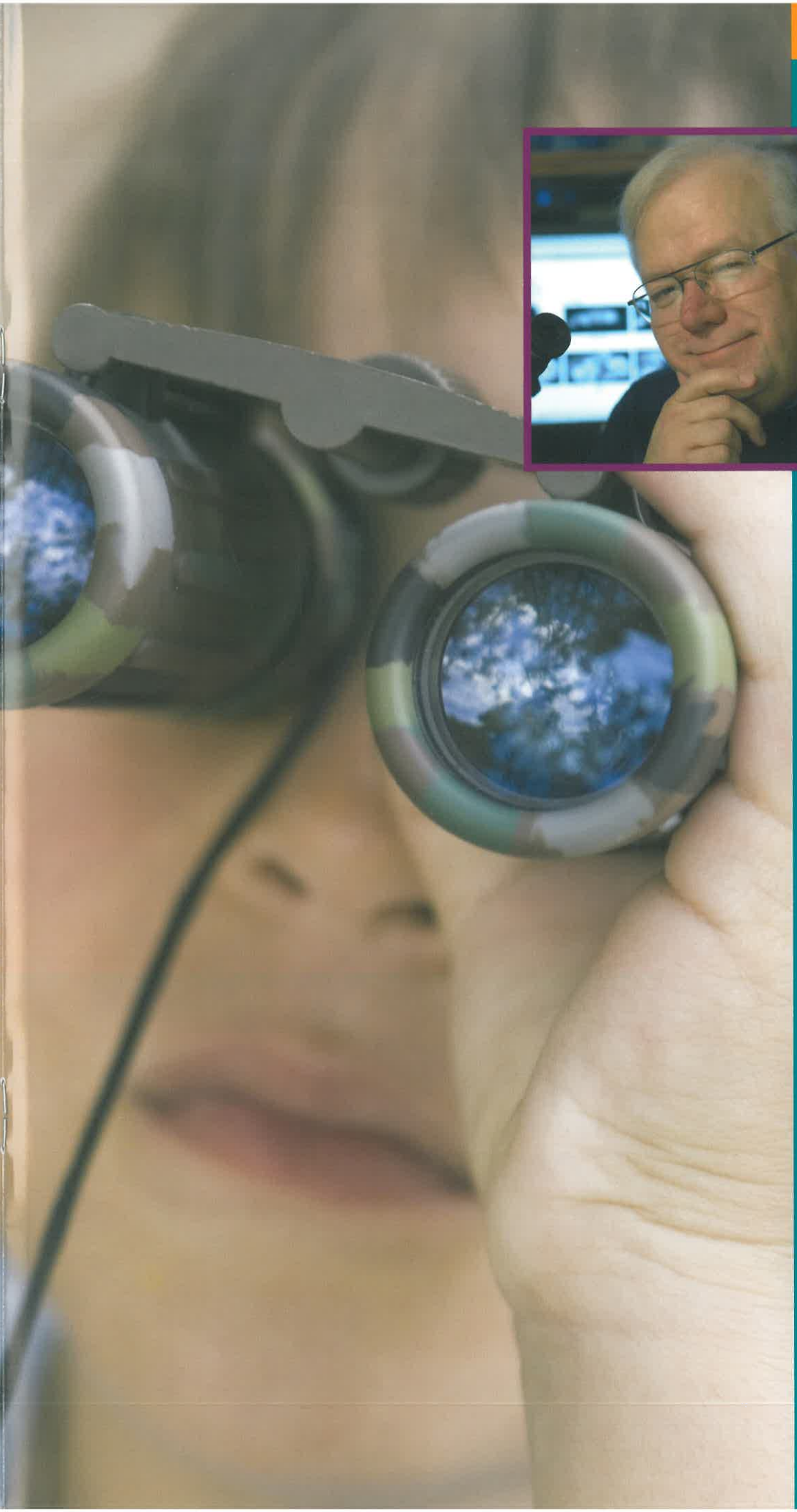
Robert White, PhD, and his associate, Roger Gaedigk, PhD, both Children's Mercy genetics researchers, have a patent pending for their development of a transgene for human retinal dystrophin, which has shown significant potential in the fight against muscular dystrophy.

Research led by Dr. White and colleagues from multiple institutions placed a human retinal dystrophin transgene in the genome of a mouse strain that is affected by severe muscular dystrophy resulting in early death. Having the transgene results in the muscular dystrophy model having normal life spans, with reduced defects in muscle and spine.

The research, recently published in Neuromuscular Disorders, used genetically engineered mice to show that gene therapy may eventually be able to prevent the lethal effects of muscular dystrophy.

"Basically, we were able to prevent lethal muscular dystrophy in this study," Dr. White says. "Other aspects of muscular dystrophy improved dramatically and were so mild, you might not even know the muscles were sick."

While the findings are quite promising, many more studies are necessary before the results can be applied to humans. Dr. White and his colleagues are already at work on the next phase, using experimental bone marrow transplants to introduce that same retinal dystrophin into the muscles of mice with muscular dystrophy.



A colleague's discovery of an abnormal signal in a patient with Duchenne muscular dystrophy while performing a routine eye exam gave Robert White, PhD, a vision for the future.

For the past five years, Dr. White, Children's Mercy Medical Researcher and Associate Professor of Pediatrics, University of Missouri-Kansas City School of Medicine, has been focused on gene therapy of muscular dystrophy, with the hope of finding a cure for the devastating disease. Most recently, that research has led to a patent application for a transgene for human retinal dystrophin and publication in the international peer-reviewed journal Neuromuscular Disorders.

Dr. White has led a team of researchers from around the country, including the University of Missouri-Kansas City, the University of Kansas and the University of Washington.

Dr. White received his PhD from Boston College and completed his postdoctoral fellowship at Harvard Medical School, Children's Hospital, Boston, Mass.

Envisioning future potential for research, Children's Mercy offers faculty members the opportunity to mentor future researchers in their pursuit of knowledge. Research Days is an annual competition at Children's Mercy during which residents and fellows present the results of their research projects conducted under the direction of faculty mentors. The presentations are 10 minutes followed by a five-minute question-and-answer period. Based on evaluations by faculty judges, the two best papers from residents and the two best papers from fellows receive awards.

The residents' awards are made possible by a gift from Uri Alon, MD, Nephrology, Professor of Pediatrics, University of Missouri-Kansas City School of Medicine, and his family in memory of his son, Saggie Alon, who was a pre-med student. The fellows' awards are made possible by gifts from Robert Hall, MD, Neonatology, Professor of Pediatrics, University of Missouri-Kansas City School of Medicine, and Greg Kearns, PharmD, PhD, Clinical Pharmacology and Medical Toxicology division chief, Professor of Pediatrics and Pharmacology, University of Missouri-Kansas City School of Medicine.

Sachin Baxi, MD

Ari Auron, MD

Darin Haug, DO

Training the Next Generation of Reseachers

As part of the hospital's commitment to training the next generation of researchers, each year Children's Mercy hosts Research Days presentations by residents and fellows. The best papers presented by fellows and residents receive awards in recognition of their excellence. The following individuals were the 2005 awardees:

Ari Auron, MD

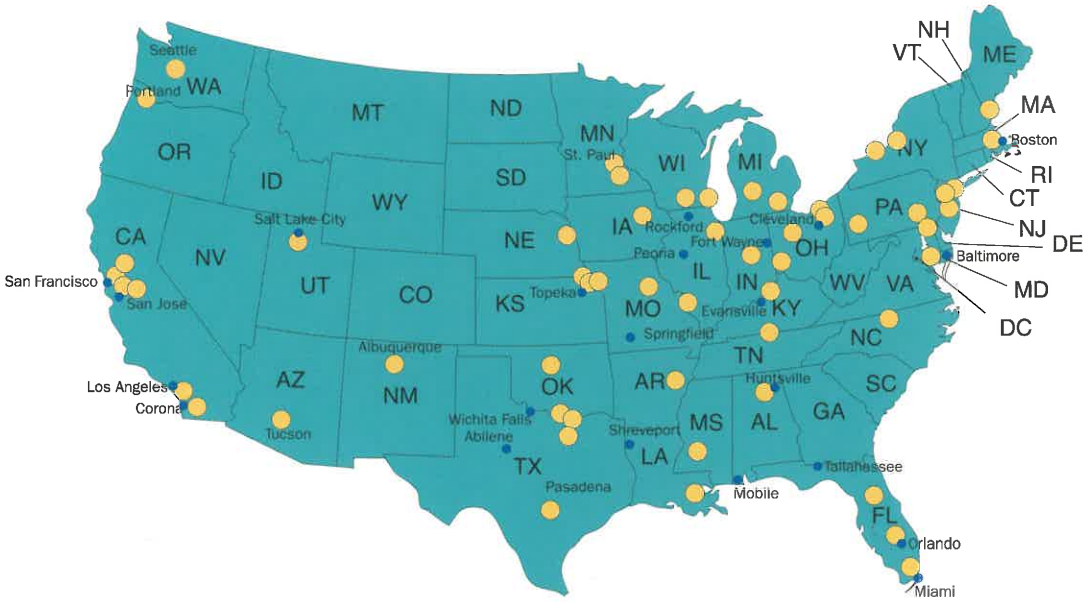
Successful pediatric acute peritoneal dialysis depends partly on the placement of a reliable catheter. Ari Auron, MD, Nephrology fellow, found that the Cook Multipurpose Drainage soft and flexible catheter presents increased longevity and a low incidence of complications compared with the commonly used rigid catheter. Based on Dr. Auron's results, the soft catheter has become the new standard of care for pediatric bedside acute peritoneal dialysis.

Sachin Baxi, MD

Gonadotropin-releasing hormone (GnRH) is a hypothalamic hormone that may suppress the body's immune response. Sachin Baxi, MD, Allergy/Immunology fellow, found that administering a GnRH antagonist decreased IgE levels. Dr. Baxi is continuing research into the potential uses of GnRh in the treatment of allergic diseases in patients with high IgE levels and as treatment for children with graft versus host disease.

Darin Haug, DO

Co-chief resident Darin Haug, DO, presented research suggesting that palliative care programs such as Children's Mercy Hospital's Patient's Advocates for Advanced Cancer Treatments (PAACT) reduce the emotional, psychosocial and financial burdens on the families of children with life-threatening illnesses.



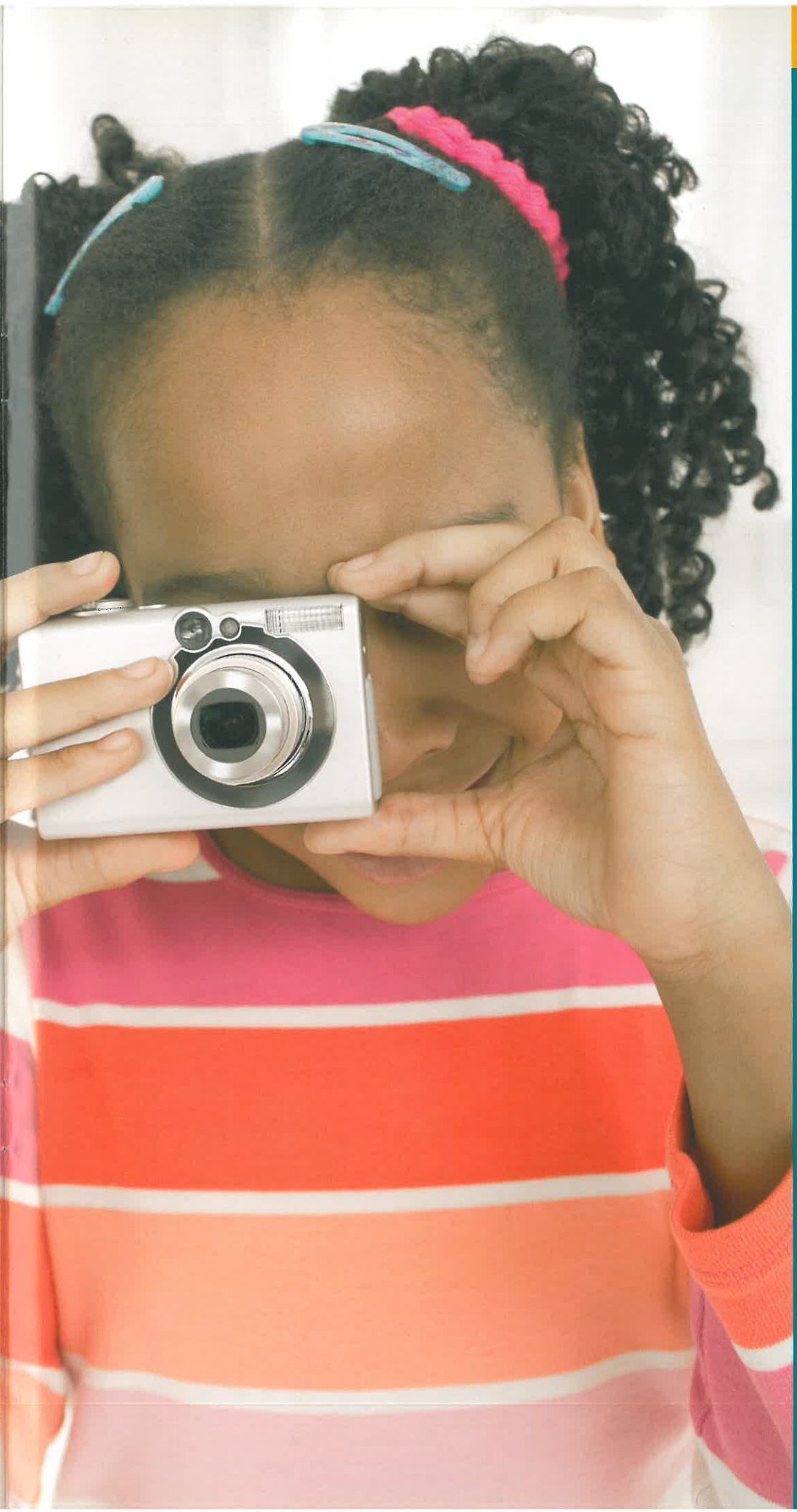
Sharing a Common Vision for a Healthier Future

WORKING TOWARD A COMMON GOAL — A HEALTHIER FUTURE FOR ALL CHILDREN -- researchers at Children's Mercy are involved in collaborative studies with their counterparts at research institutions around the world. Such collaborative projects include studies on birth defects, childhood cancer, diabetes, kidney diseases, genetics and pharmacology.

These collaborative projects provide more statistically significant patient populations, sharing of resources and expertise, and the opportunity for greater funding.

In 2005, Children's Mercy was involved in collaborative projects in 32 states. The extent of national collaborations is depicted graphically above. Locally, collaborative projects are underway with our academic affiliate, the University of Missouri-Kansas City, Stowers Institute for Medical Research, University of Kansas Medical Center and other partners of the Kansas City Area Life Sciences Institute.

Funding for the collaborative research projects comes from a variety of sources but largely from the National Institutes of Health. Three of these projects involve young investigators who are being mentored jointly by senior research personnel both at the Hospital and at the collaborating institution.



KCALSI Partners

Children's Mercy Hospitals and Clinics

Kansas City University of Medicine & Biosciences

Kansas State University

Kansas University Medical Center

Midwest Research Institute

Saint Luke's Hospital of Kansas City

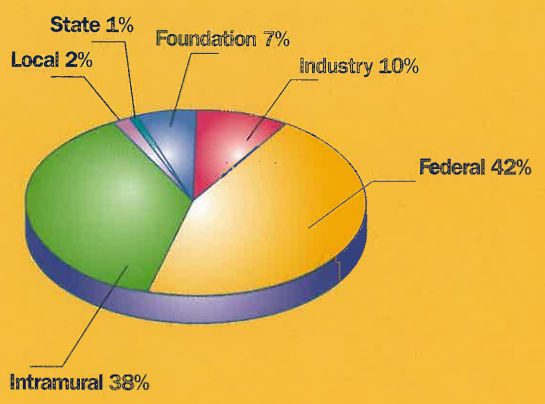
Stowers Institute for Medical Research

The University of Kansas

University of Missouri-Columbia

University of Missouri-Kansas City

Source Research Funds – 2005



Research Expenditures from Funding Sources

	CY2004	CY2005
Federal	4,840,459	5,348,013
Foundation	1,319,718	817,727
State	127,870	118,648
Local	46,265	202,275
Corporation	762,896	1,224,584
Total	7,097,208	7,711,247

Publications and Presentations

Abstract, Posters & Presentations	76
Books & Book Chapters	51
Journal Articles	175
Books & Book Chapters in Press	39
Journal Articles in Press	70
Other	9
Total Published	420
Unpublished	
Abstracts, Posters & Presentations	177

Visit our Web site at www.childrensmercy.org/research for additional information and complete listings of publications and presentations.

Areas of Clinical Research

Adolescent Health

Asthma/Allergy

Bone Marrow Transplantation

Childhood Safety and Injury Prevention

Children's Cancer

Clinical Pharmacology and Toxicology

Coagulation Disorders

Congenital Heart Disease

Cystic Fibrosis

Dermatologic Disorders

Diabetes

Domestic Violence

Endocrinology

Eye Diseases of Childhood

Gastrointestinal Diseases

Genetics

Growth Disorders

Health Services Research

Hearing and Speech Disorders

Human Genetics

Immunology

Infectious Diseases

Kidney Diseases, End Stage

Muscular Dystrophy

Neurologic Diseases

Newborn Lung Diseases

Pharmacogenomics

Psychiatric and Behavioral Disorders

Rheumatologic Diseases

Seizure Disorders

Sickle Cell Anemia

Vaccines

	CY2005
New Projects	171
Continuing Oversight	823
Total Reviews	994

Preserving Child Safety Now and in the Future

OUR VISION FOR CREATING A HEALTHIER FUTURE FOR ALL CHILDREN encompasses the health, safety and general welfare of every child we see at Children's Mercy. As we approach research with a view for improving and advancing care for all children, we are always respectful of the patient's and family's present needs and wishes.

To ensure that the safety and welfare of children are always at the forefront, all research studies involving the participation of children are reviewed, approved and monitored by our multidisciplinary Pediatric Institutional Review Board (IRB). In 2005, the IRB approved 171 new studies and conducted 823 actions pertaining to ongoing oversight of studies and other research-related activities.

Additional protection of patient privacy rights also is afforded by the Office for Research Integrity (ORI), which serves as the primary office on matters relating to the protection of human research subjects, education for the responsible conduct of research, research misconduct, laboratory animal welfare, radiation and bio-safety in research. The ORI functions to promote and ensure the ethical conduct of research in conformance with federal regulations and institutional policies.

Protecting Innovation Through Patents and Licenses

The translational research conducted at Children's Mercy Hospital has resulted in a number of novel discoveries resulting in a growing portfolio of inventions that have been patented, have patents pending or are protected by other appropriate means. The number of such new technologies is now more than 20 in the last five years.

Children's Mercy is working closely with three consulting firms to market these technologies to companies that will work with the inventors to introduce new products for diagnostics and therapeutics that will improve the health care of children. Companies with whom negotiations are underway include biotechnology companies, pharmaceutical companies, software companies and venture capital firms.

Often, the delay between the novel discoveries in the laboratory and availability of the new product is measured in years. But with active research and development involving both hospital scientists and scientists representing the companies, the delays can be minimized. And as the research program at Children's Mercy continues to grow, new patents and new industry collaborations are expected to grow as well.

The Joyce C. Hall Endowed Chair in Pediatrics
Kevin J. Kelly, MD
Est. 1967

The Katharine B. Richardson Chair in Pediatric Surgery
G. Whitfield Holcomb III, MD, MBA
Est. 1973

The Jerry A. Smith Chair in Pediatrics
Robert T. Hall, MD
Est. 1985

The Dr. Rex and Lillian Dively Chair in Pediatric Orthopaedic Surgery
Bradley Olney, MD
Est. 1989

The Ernest L. Glasscock, MD Chair in Pediatric Education and Research
Stanley Hellerstein, MD
Est. 1990

The Marion Merrell Dow/Missouri Chair in Pediatric Medical Research
Ralph E. Kauffman, MD
Est. 1995

The Marion Merrell Dow/Missouri Chair in Pediatric Clinical Pharmacology
Gregory L. Kearns, PharmD, PhD
Est. 1995

The Joseph Boon Gregg/Missouri Chair in Pediatric Cardiac Surgery
Gary Lofland, MD
Est. 1997

The William R. Brown/Missouri Chair in Medical Genetics and Molecular Medicine
Merlin G. Butler, MD, PhD
Est. 1997

The Dee Lyons/Missouri Chair in Pediatric Immunology Research
Lanny J. Rosenwasser, MD
Est. 1998

The Thomas Holder-Keith Ashcraft Chair in Pediatric Surgical Research
Vacant
Est. 2000

The Sosland Chair in Neonatal Research
William E. Truog, MD
Est. 2001

The Marion Merrell Dow Chair in Pediatric Pharmacogenomics
J. Steven Leeder, PharmD, PhD
Est. 2002

Research Council Members

V. Fred Burry, MD
Senior Vice President
Executive Medical Director
Professor of Pediatrics, UMKC

Ralph E. Kauffman, MD
Department Chair, Medical Research
The Marion Merrell Dow/Missouri Endowed Chair in Pediatric Medical Research
Professor, Pediatrics and Pharmacology, UMKC

Kim Brown
Director, Audit and Advisory Services

William H. Caskey, PhD
Director, Research and Grants Administration
Associate Professor of Pediatrics, UMKC

Karen Cox, RN, PhD
Senior Vice President, Patient Care Services
Assistant Dean for Clinical Partnerships, UMKC School of Nursing

Joe Galeazzi
Vice President, Medical Administration

Gregory L. Kearns, PharmD, PhD
Division Chief, Clinical Pharmacology and Medical Toxicology
The Marion Merrell Dow/Missouri Endowed Chair in Pediatric Clinical Pharmacology
Professor, Pediatrics and Pharmacology, UMKC

Karen Kover, PhD
Research Scientist
Chair, Basic Science Research Committee

Cathy Carroll, PhD
Director, Patient Care Services Research
Chair, Hospital Education and Research Committee

Kevin J. Kelly, MD, Pediatrician-in-Chief
The Joyce C. Hall Endowed Chair in Pediatrics
Professor and Chair, Department of Pediatrics
Associate Dean, UMKC School of Medicine

Leland McGinness
Administrative Chief of Staff

Michelle Munkirs
Vice President, Controller

Randall L. O'Donnell, PhD
President and Chief Executive Officer

Gary Pettett, MD
Chairman, Institutional Review Board
Director, Office of Research Integrity
Associate Dean, Academic Affairs, UMKC School of Medicine
Professor of Pediatrics, UMKC

William E. Truog, MD
The Sosland Endowed Chair in Neonatal Research
Director, Neonatology Fellowship Program
Chair, Medical Staff Research Committee
Professor of Pediatrics, UMKC

Bradley Warady, MD
Nephrology Section Chief
Director of Dialysis and Transplantation
Professor and Vice-Chair, Department of Pediatrics, UMKC

Children's Mercy Hospitals and Clinics Overview

Children's Mercy continues to grow in reputation and in service. During 2005, we provided 274,958 outpatient visits, 110,459 emergency and urgent care visits, 15,595 surgical procedures and 13,102 inpatient admissions.

Children's Mercy Hospital

- 260 licensed inpatient beds
- More than 40 pediatric subspecialty clinics
- Inpatient and outpatient surgery
- Area's only Level I Pediatric Trauma Center
- 60-bed Level IIIc intensive care nursery
- Pediatric intensive care unit
- Neonatal and pediatric critical care transport services
- Liver, kidney, and blood and marrow transplant programs
- More than 48,000 square feet of dedicated research space

Children's Mercy South

- Pediatric subspecialty clinics
- Outpatient surgery
- 54 beds (in 50 rooms) on two inpatient units
- Radiology
- Laboratory
- Urgent Care Center

Children's Mercy Northland

- Pediatric subspecialty clinics
- Urgent Care Center
- Radiology
- Laboratory

Other

- Children's Mercy Home Care is the region's only pediatric home care provider
- Our three primary care clinics offer routine medical care for tens of thousands of children and teens in the Kansas City metropolitan area
- More than 20 outreach clinics in 12 cities throughout Missouri and Kansas extend the reach of our services to children throughout the region

Acknowledgements

We would like to thank the following individuals and departments for their support of this project.

Children's Mercy Hospitals and Clinics
Randall L. O'Donnell, PhD, President and CEO

V. Fred Burry, MD, Executive Medical Director
Professor of Pediatrics, UMKC

Medical Research
Ralph E. Kauffman, MD, Department Chair
The Marion Merrell Dow/Missouri Chair in Pediatric Medical Research
Professor, Pediatrics and Pharmacology, UMKC

Research and Grants Administration
William H. Caskey, PhD, Director
Associate Professor of Pediatrics, UMKC

Matt Williams, Research Data Analyst

Stephanie Hafner, MA, Associate Director

Office of Research Integrity
Gary Pettett, MD, Director
Professor of Pediatrics, UMKC

Kathy Johnson, Manager

Department of Pediatrics
Kevin J. Kelly, MD, Pediatrician-in-Chief
The Joyce C. Hall Endowed Chair in Pediatrics
Professor and Chair, Department of Pediatrics
Associate Dean, UMKC School of Medicine

Amy Leavell, Administrative Assistant

Patient Care Services
Karen Cox, PhD, Senior Vice President
Assistant Dean for Clinical Partnerships,
UMKC School of Nursing

Cathy Carroll, PhD, Director of Patient Care Services Research

Sally Bailey, Administrative Assistant

Community Relations
Shawn Arni, Director of Marketing

Ruth Dubyel, Physician Marketing Coordinator

We also acknowledge the researchers, physicians, nurses, other health care professionals and staff of Children's Mercy Hospitals and Clinics for their support of a research environment and their commitment to providing world-class pediatric care to all children.

Special thanks also to the donors, corporations, government agencies and civic leaders that have demonstrated their support of our research and improving medical care for all children.

For more information, contact:
Community Relations: (816) 346-1370
Medical Research: (816) 234-3961
Web Site: www.childrensmercy.org/research

CHILDREN'S MERCY HOSPITAL
5 0790 01015903 1

Children's Mercy Hospitals
& Clinics. Medical
Research.
Vision for the future :
research annual report .

DATE DUE

BRODART, CO. Cat. No. 23-221-003

Kreamer Family Resource Center
Children's Mercy Hospital

Children's Mercy
HOSPITALS & CLINICS
www.childrensmercy.org

2401 Gillham Road
Kansas City, MO 64108
(816) 234-3961
www.childrensmercy.org/research

In Academic Affiliation with the University of Missouri-Kansas City School of Medicine.