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On My Mind



Thank you for taking the time to read about us. I am Dr. Joe Neglia, a professor in the Department of Pediatrics and section chief of hematology and oncology in our Division of Hematology/Oncology/Blood and Marrow Transplantation. I have been honored to work as interim department head for the last several months and have welcomed the opportunity to serve such an exceptional department and community.

Transitions are part of any organization and provide a tremendous opportunity for growth. The department is continuing to realize its research, teaching, and clinical care missions as the national search for our department's new head continues. The selection committee, under the leadership of Department of Surgery head Dr. Selwyn Vickers, has met with multiple candidates, all with impressive credentials.

And, speaking of transition, this winter we will be breaking ground on a state-of-the-art, new home for the University of Minnesota Children's Hospital, Fairview. This 6-story, 185,000-square-foot facility

on our Riverside campus will bring together pediatric and maternal services in one location.

We truly believe this new facility will give us the best possible environment for providing innovative, family-centered care for children. It will also provide a superb learning community for our residents and fellows, where they can experience fully the many roles of the modern pediatrician: clinician, educator, consultant, family advocate, and investigator of new knowledge. Finally, but just as important, this new facility will be the space where our research efforts most directly benefit the children we care for. That direct translation of work from the lab to the bedside is the bedrock of our mission.

This is an exciting time to be at the University of Minnesota. We in the Department of Pediatrics are grateful for your continued support while we forge ahead with our efforts to create a healthier future for children everywhere.

Sincerely,
Joseph P. Neglia, M.D., M.P.H.
Interim Head, Department of Pediatrics
Albert D. and Eva J. Corniea Chair

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children's health

A publication for those who support the University of Minnesota Department of Pediatrics

Teaming up against autism

Children with Autism Spectrum Disorders suffer from a myriad of health issues. Now the University of Minnesota is taking first steps on an initiative to consolidate and streamline care while searching for causes of the disorders.

Jack Sullivan had just turned 2 when his parents, Caryn and Ted, began to worry. Jack's language development stopped after he had learned about 20 words; then it seemed that he was always moving. But when they voiced their concerns, they were simply told that children acquire skills at different rates.

One day Caryn and Ted left Jack with his grandparents to make a simple trip to the store.

"When we returned, Ted's parents were distraught," Caryn recalls. "They said they were calling Jack's name over and over, but he didn't turn around and respond. They have 7 children and 16 grandchildren, and they knew something wasn't right."

Now it has been more than 14 years since Jack was diagnosed with autism. During those years, the Sullivans have visited more than 40 health-care professionals in several states to address Jack's many developmental and medical concerns. He has struggled with food sensitivities all of his life, as well as with frequent vomiting, chronic constipation, and trouble falling asleep.

Since Jack's diagnosis, Caryn has devoted much of her life to being his researcher, scheduler, and advocate. She quit her job as an attorney to devote all of her time to Jack and his three siblings.

So Caryn was eager to help when she met professor of pediatrics Scott Selleck, M.D., Ph.D., earlier this year and learned about the University of Minnesota's new Autism Spectrum Disorders (ASD) Initiative.

Photo by Scott Strebbe



16-year-old Jack Sullivan and his mother, Caryn Sullivan

Continued on page 2



Autism Continued from cover

“If I can help people have an easier time dealing with this disorder than we have,” Caryn says, “I’m happy to do it.”

Searching for answers

Through the ASD Initiative, a diverse group of University experts—from pediatrics, developmental biology, genetics, neurobehavioral development, and clinical services—is coming together to find better ways of treating children with autism and related disorders. Initiative leaders are seeking start-up funding to begin establishing a comprehensive medical care site for children with autism. In the future, they envision offering the best evidence-based evaluation and treatment to patients in an environment where research can flourish.

Scott Selleck, M.D., Ph.D., is spearheading the ASD Initiative’s basic science research component.

Photo by Scott Strebbe



And the need has never been greater. The diagnosis rate for ASDs has skyrocketed in the last several decades—rising from 1 in 2,500 children in the early 1970s to 1 in 150 children today—making autism the most common developmental disability in the world.

ASDs haven’t received much attention from researchers in the past. In fact, clinicians are just now beginning to realize that autism is not a single disorder: it’s a family of related syndromes with different causes and, potentially, different cures. (See below.)

Selleck, who directs the University’s Developmental Biology Center, is spearheading the ASD Initiative’s basic science research component, which includes collecting DNA samples from children with ASDs and their siblings. “I think this will eventually lead to earlier diagnosis, which is critical for success,” Selleck says.

Meanwhile, associate professor of pediatrics Michael Reiff, M.D., will oversee the Autism Spectrum Disorders Program, providing medical care and referrals. And Michael Georgieff, M.D., professor of pediatrics and child psychology and director of the Center for Neurobehavioral Development, will help manage the collaboration between scientists, physicians, and other health-care practitioners.

Their immediate goal is to provide more accessible and more seamless health care for families facing autism spectrum disorders.

“Children with autism often have an array

What are Autism Spectrum Disorders?

Autism Spectrum Disorders (ASDs) are a set of related developmental disabilities including autism, Asperger syndrome, and pervasive development disorder “not otherwise specified” (also called PDD-NOS). These disorders cause impairments in social interaction, communication, sensory processing, and behavior.

The cognitive functioning of individuals with ASDs ranges from severely delayed to intellectually gifted. However, nearly all of those on the spectrum suffer from deficits

in day-to-day functioning.

Children with autism and related disorders also are often afflicted by gastrointestinal, neurological, and respiratory problems.

Researchers currently don’t know what causes the majority of autism spectrum disorders. A very small percentage of ASD cases have a clear genetic cause or are related to medical conditions such as tuberous sclerosis or Fragile X syndrome.

Source: Centers for Disease Control and Prevention

A challenge to make a difference

Generous donors have established a \$1 million challenge fund in support of the University of Minnesota's Autism Spectrum Disorders (ASD) Initiative.

Through the challenge, Alfred and Ingrid Lenz Harrison have agreed to match every dollar raised for the initiative, up to \$1 million, by December 31.

The Harrisons became interested in the project when Scott Selleck, M.D., Ph.D.—holder of the Martin Lenz Harrison Land-Grant Chair in Pediatrics, an endowed chair the Harrisons established in memory of their son Martin—told them he was going to be involved.

“Scott Selleck and his team are clearly tackling a problem that’s unbelievably widespread,” says Alfred Harrison. “So it was natural for us to support this, but my wife and I decided to do it in a way that would also encourage others to engage in this project.”

And that it has. So far, other individuals, foundations, and corporations have committed an

additional \$350,000 toward the effort, including a \$100,000 gift from the 1923 Fund. Ted Sullivan, whose son Jack has autism, serves on the organization’s board (see cover).

“The Harrisons’ gift is huge,” says Michael Georgieff, M.D., a partner in the ASD Initiative. “It’s an example to the community that these people are willing to invest in a very complex health issue.”

The Harrisons say they wish to help in the quest to understand this puzzling group of disorders.

“This is one of the major diseases in our society,” says Alfred Harrison, “and it’s up to all of us to find the answers.”

To learn more about supporting the Autism Spectrum Disorders Initiative, visit www.mmf.umn.edu/autism or contact Elizabeth Patty at 612-625-6136 or e.patty@mmf.umn.edu.



Alfred and Ingrid Lenz Harrison

of medical complaints,” Reiff says. “The clinical part of this program is being established with the expectation that by coordinating care, we’ll be able to serve families better.”

In the long term, those involved with the ASD Initiative hope to crack autism’s genetic code and halt its rapid growth.

“People with autism are a very eclectic group,” says Robin Rumsey, Ph.D., L.P., assistant professor of pediatrics and a pediatric neuropsychologist. “We’re going to collect data on how different kids respond to specific therapies and treatments. Then we’ll build a database that looks specifically at outcomes.”

A critical need

For families like the Sullivans, the treatment piece is critical. They have been frustrated—and exhausted—by the lack of available care options for Jack.

Three years ago, Jack’s younger sister, Julia, was diagnosed with a rare blood disease that

required a bone marrow transplant.

But that was a completely different experience, Caryn says. With Jack as her donor, Julia received a bone marrow transplant at the University of Minnesota Children’s Hospital, Fairview that saved her life.

“I am struck by this irony,” Caryn says. “Julia was cured of a rare blood disease, yet her brother, who has autism, with a 1 in 150 incidence, will likely never be cured. I know that it’s because the autism mystery is as yet unsolved.”

That’s why the Sullivans have become proponents of the University’s ASD Initiative, which is still in its early planning stages. “My dream is that researchers at the U will find some answers,” Caryn says. “My dream is that families who receive an ASD diagnosis will, in the foreseeable future, be able to take their children to the University and receive comprehensive medical care.

“Having a place like that 14 years ago would have changed our lives.”

Pediatrics researcher develops vaccine that protects against CMV

Mark Schleiss, M.D., has worked for the past 15 years to create an effective CMV vaccine.



A vaccine developed by a University of Minnesota researcher and tested in animals offers promise for preventing a common cause of mental retardation and deafness in humans.

Mark Schleiss, M.D., director of the Division of Pediatric Infectious Diseases, led a research team that found that the experimental vaccine protected the offspring of guinea pigs infected with cytomegalovirus (CMV). They hope to conduct clinical trials in the next year to test whether the vaccine will have the same protective effect in humans.

CMV is the second most common cause of mental retardation after Down syndrome. It is also a leading cause of deafness and may play a role in cerebral palsy, seizure disorders, and other neurological problems.

Up to 40,000 babies in the U.S. each year are born with CMV, which is transmitted to the fetus through the mother's placenta. There is currently no treatment or vaccine licensed to prevent it.

"Most adults will be infected with CMV sometime in their lives, and most do not even realize they have it," Schleiss says. "Finding an effective vaccine for women before they become pregnant could go a long way in preventing often devastating long-term disabilities that result from CMV infection."

Schleiss, who holds the Minnesota American Legion and Auxiliary Heart Research Foundation Chair, has worked for the past 15 years to create an effective CMV vaccine. His study was funded by the National Institutes of Health and appeared in the *Journal of Infectious Disease*.

Other research news at a glance



Anna Petryk, M.D., assistant professor of pediatric endocrinology, received a grant from the NIH to study the genetic blueprint that leads to craniofacial birth defects.

Cheryl Gale, M.D., assistant professor of neonatology, received a grant from the National Institutes of Health (NIH) to study the way fungal infections develop in premature babies.

Chandy John, M.D., M.S., associate professor of pediatric infectious diseases, received NIH funding to study how malaria damages children's brain development.

Logan Spector, Ph.D., assistant professor of pediatric epidemiology, received a grant from the National Cancer Institute to lead the largest and most comprehensive study to date on the causes of pediatric osteosarcoma.

Julia Steinberger, M.D., M.S., associate professor of pediatric cardiology, received two grants from the NIH: one to study the cardiovascular risk associated with insulin resistance and the other to study metabolic syndrome in childhood cancer survivors.

Points of Pride

The Department of Pediatrics at the University of Minnesota Medical School has a long and impressive tradition of providing leading-edge care to children in Minnesota and throughout the nation through research, education, and service. Here are just a few noteworthy accomplishments that make us proud to be a part of that tradition today.

Our physician-scientists have pioneered numerous medical breakthroughs, including the world's first successful pediatric blood and marrow transplant, first pediatric kidney biopsy, and first pediatric open heart surgery.

Almost two-thirds of pediatricians practicing in Minnesota have trained in the University of Minnesota Department of Pediatrics's residency program.

This year 74 pediatricians in our Pediatrics Residency Program and another 45 physicians in our combined Internal Medicine/Pediatrics Residency Program are receiving world-class training at the University of Minnesota.

The 23 interns—or first-year residents—in the Department of Pediatrics this year come from 15 different medical schools across the country.

Pediatricians affiliated with our department treat more than 26,000 kids from around the world every year at the University of Minnesota Children's Hospital, Fairview.

Faculty members in the Department of Pediatrics received more than \$18.5 million in federal funding for 51 research projects in fiscal year 2007.



The Department of Pediatrics welcomes the following faculty members who joined the team this year:

- Bryce Binstadt, M.D., Ph.D., assistant professor of pediatric rheumatology
- Emily Borman-Shoap, M.D., instructor of pediatric graduate medical education
- Caroline George, M.D., associate professor of pediatric critical care
- Thomas George, M.D., professor of pediatric neonatology
- Timothy Hallstrom, Ph.D., assistant professor of pediatric hematology and oncology
- Anne Jurek, Ph.D., assistant professor of pediatric epidemiology
- Neil Kooy, M.D., professor and division director of pediatric critical care
- Christopher Moertel, M.D., professor of pediatric hematology and oncology
- James Phillips, M.D., assistant professor of pediatric pulmonology
- Steven Rothman, M.D., professor and division director of pediatric clinical neuroscience
- Boris Sudel, M.D., assistant professor of pediatric gastroenterology
- Sing Sing Way, M.D., Ph.D., assistant professor of pediatric infectious diseases
- Xiao-Feng Yang, Ph.D., associate professor of pediatric clinical neuroscience

A prosperous partnership

The Viking Children's Fund has long supported promising research into childhood diseases



Vikings guard Jimmy Martin holds 3-month-old Faith Johnson, who was being treated at the University of Minnesota Children's Hospital, Fairview. Vikings players bring smiles to children's faces on their regular visits to the hospital.

A cheering crowd. The thud of an opposing team's player hitting the field. These are sounds the Minnesota Vikings love to hear.

So too is the sound of children's laughter. Through the football team's official charity, the Viking Children's Fund (VCF), the organization has been helping to keep kids happy and healthy for nearly three decades by supporting innovative research in the Department of Pediatrics at the University of Minnesota.

Since 1978, VCF has donated more than \$4 million to the University for pediatrics research, education, and service. Last year alone, VCF gave \$160,000 to those efforts.

"We very enthusiastically support the mission of the Department of Pediatrics," says Lester Bagley, Vikings vice president of public affairs. "Our players really appreciate the opportunity to support the department, whether by raising money, visiting kids in the hospital, or just creating awareness for a particular issue or illness."

VCF funding is primarily used for research seed grants—money that allows promising junior investigators to test new ideas, in hopes that they'll gather enough preliminary data to make strong cases for larger federal funding

from the National Institutes of Health (NIH) and other granting agencies.

"Our faculty members believe it's not enough to just recognize, diagnose, and treat the disease," says Mark Schleiss, M.D., associate chair for research in the Department of Pediatrics. "They then take it back into the lab to ask, 'Why did this happen in the first place? What can we do better to prevent this from happening to other children?'"

Molecular virologist Yeon Choi, Ph.D., and geneticist Lisa Schimmenti, M.D., for example, collaborated on a VCF-funded research project that involved screening newborns for congenital cytomegalovirus, a leading cause of mental retardation and deafness that affects up to 40,000 babies in the United States each year. The two faculty members used the data they had collected in that study to leverage additional research funding from the March of Dimes.

Neonatologist Raghavendra Rau, M.D., used seed money from the Vikings to study the relationship between nutrition and brain development in newborns. The information he gathered during that study was enough to make a successful case for an NIH grant.

"Support from the Viking Children's Fund allows our investigators to take their questions to the next level, all with an eye toward improving the health of children," Schleiss says. "The work they do ultimately helps us take better care of our patients."



Why give?

We live in an extraordinary time in the history of medicine. An explosion of biomedical research is enabling physicians and scientists at the University of Minnesota to do things that were unimaginable only a few short years ago.

The importance of private financial support has never been greater. Through philanthropy, experimental research projects can get the start-up funding needed to eventually attract federal grant money. Donor support also helps attract the best faculty to our campus to educate our students, conduct leading-edge research, and deliver state-of-the-art care to our patients.

Please consider making a gift to the Department of Pediatrics at the University of Minnesota. There are many ways you can support our efforts in children's health research, education, and care.

For more information, visit the University Pediatrics Foundation Web site at www.upf.umn.edu or contact Stephanie Borchardt at 612-626-2928 or s.borchardt@mmf.umn.edu.



WineFest No. 12 wins with ZAP's wine and winemasters

WineFest No. 12

A TOAST TO CHILDREN'S HEALTH

Good wine, good food, great cause. More than 2,000 people attended WineFest No. 12, the Midwest's premier wine charity event, hosted by the University Pediatrics Foundation.

The two-day celebration was held May 11 and 12 and raised net proceeds of nearly \$475,000 for the University of Minnesota's Department of Pediatrics. This year's silent auction raised a record \$110,000, while sponsorship amounts also reached record levels.

On behalf of children in Minnesota and beyond, the Department of Pediatrics thanks WineFest No. 12's sponsors, which include Zinfandel Advocates and Producers (ZAP), BioScrip, Clear Channel Outdoor, Fairview Health Services, Northwest Airlines, and Hoffman Communications, Inc. Cheers to event chair Peggy Reagan and all of our outstanding volunteers, vendors, and guests who made WineFest No. 12 a success!

Save the date

We hope you can join us for WineFest No. 13—an Australian Wine Adventure—on May 9 and 10, 2008, at the Depot in Minneapolis. For information about corporate sponsorships, auction donations, and volunteer opportunities, call 612-626-5720 or watch for updates at www.thewinefest.com.



(Left) The WineFest No. 12 Grand Tasting drew more than 1,200 guests who sampled exclusive wines and delectable cuisine while raising money for the Department of Pediatrics. (Far left) Guests at the Fine Wine Dinner enjoyed the menu and the company.



Nickelodeon Universe grand-opening party will benefit Department of Pediatrics

Mall of America's signature amusement park has had a longstanding relationship with the Department of Pediatrics, donating an evening of rides and entertainment for our annual family benefit, Party in the Park, and contributing unique auction items for our fund-raising events.

This spring the mall's park is reopening with a new theme and new name. Nickelodeon Universe will feature exciting new rides and attractions inspired by Nickelodeon's most popular shows and characters, including SpongeBob SquarePants and Dora the Explorer.

Mall of America has generously offered to donate the first \$100,000 raised by the park's

grand-opening party to the University Pediatrics Foundation (UPF), an affiliate of the Minnesota Medical Foundation.

Nickelodeon Universe's grand-opening party will replace Party in the Park this year.

The Nickelodeon Universe celebration is tentatively slated for March 1, 2008, and will feature unique food stations, interactions with Nickelodeon characters and celebrities, sliming, gift bags, and more. Tickets are \$50 for children and \$100 for adults.

It's a great night for kids of all ages—and a wonderful way to support children's health through the Department of Pediatrics. Visit www.upf.umn.edu for further information.

Help create a 'home-away-from-home' for sick children

Adopt a Room's 3rd Annual Golf Event & Gourmet Experience

Monday, September 24, 2007, Dellwood Hills Golf Club, Dellwood

Proceeds support the creation of "home-away-from-home" hospital rooms for seriously ill children and their families at the University of Minnesota Children's Hospital, Fairview.

For more information, please visit www.adoptaroom.com.