



# DOCTOR'S DIGEST

A MONTHLY NEWSLETTER FOR ST. LOUIS CHILDREN'S HOSPITAL  
ATTENDING AND REFERRING MEDICAL STAFFS

JUNE 2016

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## **[CLINICAL FOCUS] | NEW GUIDELINES OPEN COMPETITIVE SPORTS TO SOME ATHLETES WITH HEART CONDITIONS**

*By Julia Evangelou Strait/Washington University School of Medicine*

New guidelines from the American Heart Association and the American College of Cardiology have loosened some restrictions placed on competitive athletes with certain heart conditions.

St. Louis Children's and Washington University Heart Center co-director George Van Hare, MD, and Alan Braverman, MD, the Alumni Endowed Professor in Cardiovascular Diseases in the Department of Medicine, led two of the task forces responsible for updating the guidelines that help doctors decide when it is safe for a heart patient to participate in competitive sports, from high school athletics to Olympic or professional-level competitions.

"We want people to be active, but we also want them to be safe," said Dr. Braverman, a co-author of the guidelines. "The good news is sudden death in athletes is thankfully very rare. But there are certain types of cardiovascular diseases associated with that risk. The goal of these guidelines is to help doctors recognize when someone has an increased risk of sudden cardiac death and help change activity levels to lower that risk."

The guidelines recently were published simultaneously in two leading heart journals: *Circulation* and the *Journal of the American College of Cardiology*. These recommendations apply to athletes with diagnosed heart conditions who participate in organized sports led by a coach, not recreational sports.

Dr. Braverman led the task force revising the guidelines for patients with disorders of the aorta, the large artery that carries blood from the heart to the body. Dr. Van Hare, the Louis Larrick Ward Professor of Pediatrics, led the task force updating the guidelines for patients with congenital heart disease—defects in the heart that are present at birth.

When a young athlete dies suddenly during play or practice, the cause is often cardiac arrest. Unlike a heart attack, when blood flow to the heart is blocked, in this case the heart stops because an undetected condition causes its electrical signals to misfire.

In general, the new guidelines allow participation for certain patients who would have been heavily restricted by earlier versions of the recommendations.

*continued on next page*



## SHARE YOUR IDEAS

Should you have ideas or suggestions you would like brought before the Children's Medical Executive Committee (CMEC), contact one of your CMEC private physician representatives:

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## DOCTOR'S DIGEST

Published for the attending and referring medical staffs of St. Louis Children's Hospital.

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## [CLINICAL FOCUS] ROBOTIC SURGERY AN OPTION FOR MANY PEDIATRIC UROLOGY PATIENTS

St. Louis Children's Hospital (SLCH) is one of only a few pediatric facilities in the country—and the only one in the St. Louis region—to offer robotic surgery for children needing urologic procedures. In most of these cases, the children experience less pain and heal faster; all benefit from greater cosmesis than can be afforded by open surgical techniques.

"We are fortunate to have our own da Vinci Surgical System and to have two pediatric urologists certified for its use," says Washington University physician Gino Vricella, MD, a pediatric urologist who leads the robotic pediatric surgery program at Children's Hospital. Paul Austin,

MD, Washington University pediatric urologist at SLCH, is also certified for performing robotic surgery. "Depending on the procedure needed, children as young as 1 year of age can benefit from this advanced technology."

The most common surgeries performed by Drs. Vricella and Austin are pyeloplasty to correct a ureteropelvic junction (UPJ) obstruction, correction of ureteral duplication anomalies and ureteral reimplantation for children with reflux disease. In addition, they have the ability to perform the complex appendicovesicostomy or Mitrofanoff procedure through robotic reconstruction.

[continued on next page](#)

## NEW GUIDELINES OPEN COMPETITIVE SPORTS [continued from page 1](#)

This includes patients with certain heart rhythm disorders such as long QT syndrome and patients with implanted pacemakers. The new guidelines acknowledge that the risk of death in these patients is lower than previously thought.

According to Drs. Braverman and Van Hare, the changes come from improved understanding of genetic mutations associated with high-risk heart conditions and better diagnostic and screening techniques. For high-risk patients, such as those with a weakened aorta due to Marfan syndrome or with a thickened heart wall due to a condition called hypertrophic cardiomyopathy, strict restrictions on participation remain in place.

"With exceptions for known high-risk conditions, these guidelines are more lenient than they have been in the past," Dr. Van Hare said. "The new recommendations were written in recognition of the fact that physical activity is incredibly important to a person's overall health, and even those with cardiovascular disease will benefit. The shift also recognizes the rarity of adverse events for patients with congenital heart disease."


He added, "While it is important to restrict some patients with specific conditions, we are encouraging the vast majority of our patients to avoid a sedentary lifestyle. And that's really new. That hasn't been in prior sets of recommendations."

Dr. Braverman, who treats patients with Marfan syndrome and other conditions associated with an enlarged aorta, said the new guidelines will help doctors decide whether patients whose aortas

are on the borderline of being too large are safe to participate in sports. Enlarged aortas can be a sign of an underlying disease and with intense physical exertion can be at increased risk of a life-threatening rupture or dissection.

"For patients with aortas that are clearly dilated, that's a red flag for avoiding high-intensity sports," Dr. Braverman said. "But there are healthy people out there, especially people who are very tall, whose aortic measurements are just above the normal range. In the past, we would have restricted these athletes from competing. Now we can perform genetic testing to evaluate for Marfan syndrome and other high-risk genetic conditions. We also have better techniques for measuring the aorta. In the appropriate setting, we will follow these apparently normal patients to ensure the aorta is not changing, and these athletes can continue to compete in their sports."

And even those patients with restrictions may not be excluded from sports entirely. The guidelines also classify sports according to how they place loads on the heart muscle. Weightlifting, for example, causes a large increase in blood pressure. Long-distance running, in contrast, increases the volume of blood the heart pumps. With many activities that fall between these extremes, doctors can help patients choose sports that are safe for them, depending on the disorder and the risks involved.

To speak with a member of the St. Louis Children's and Washington University Heart Center, call Children's Direct at 800.678.HELP (4357). 



“Ureteral reimplantation is one of the few procedures for which we require patients to be at least 4 or 5 years old. In children younger than this, the ureters are delicate and the bladder walls are thin, which increases the risk of complication,” says Dr. Vricella.


Dr. Vricella is among the pediatric urologists at the forefront of developing robotic surgery techniques for the pediatric population. The most complex surgery he has performed to date was for a child whose kidney disease caused polyps to develop throughout his ureter tube.

“The polyps obstructed his kidney, resulting in severe pain,” says Dr. Vricella. “Using robotic surgery, I removed his ureter and substituted for it a piece of his small intestine, connecting one end to his kidney and the other to his bladder. This removed the obstruction and allowed his kidney to drain properly.”

Dr. Vricella notes that robotic urologic surgery is superior even to laparoscopy because of the dexterity afforded by the robotic wrist. “Even though laparoscopy is minimally invasive, the need to maneuver through small ports means procedures like pyeloplasty take six to eight hours, about three times longer than if open surgery is performed,” he says. “Robotic surgery’s exceptional agility allows us to perform pyeloplasties in a time comparable to the open procedure. As a result, patients spend considerably less time under anesthesia.”

Currently, robotic surgery instrumentation is geared for adults, which means those using it for pediatric procedures need to take a creative approach to performing the surgeries.

“The smallest instruments available for the ports we use in children are 5 and 8 millimeters maximal diameter. Since children don’t have much intra-abdominal working space, to maneuver effectively you develop techniques like stitching the instruments to the abdominal wall so they are well anchored during the surgery,” says Dr. Vricella. “However, as new generations of pediatric surgeons receive training in this advanced technology, I am confident instrumentation will be developed to meet increasing demand. At this point, we are laying the groundwork for those who follow.”

To learn more about robotic procedures for urologic surgery, call Children’s Direct at 800.678.HELP (4357). 

## [SLCH NEWS] CHILDREN’S DIRECT REACHES MILESTONE OF 100,000 CALLS RECEIVED

Children’s Direct was established in 2007 to provide centralized communications and simplified access to St. Louis Children’s Hospital (SLCH) services and Washington University (WU) pediatric specialists. In February 2010, the service expanded its availability to 24 hours a day, seven days a week, and also added the new function of coordinating patient transfers.

Since 2010, Children’s Direct has steadily increased the services offered, and on March 24, 2016, at 7:13 p.m., its breadth of responsibility culminated in a significant milestone—the 100,000th call.

“That high number of calls is impressive, but for us it is a reminder of how much we’ve grown in the past six years,” says Julie Bruns, director of Children’s Direct. “Since 2010—with the exception of one single month—our call volume for every month has exceeded the same month in the previous year. In March 2016, our volume was 20 percent higher than March 2015.”

Two factors account for the ever-increasing volume. First, the mainstay services upon which Children’s Direct was built continue to flourish. In 2015 alone, Children’s Direct:


- Facilitated more than 7,000 telephone consults for referring pediatricians with WU specialists.
- Assisted community pediatricians in obtaining 3,700 appointments for their patients with WU specialists.
- Helped provide information to primary care physicians about their patients nearly 3,000 times.
- Coordinated more than 6,000 transfers from referring hospitals in Missouri, Illinois and other surrounding states.

The second factor contributing to growth is the number of service responsibilities that have been shifted to Children’s Direct representatives. Examples of services provided include serving as the communication hub for multiple-party clinical discussions, coordinating urgent after-hour imaging procedures, and handling patient placement throughout the hospital—which in turn frees-up administrative supervisors to focus on clinical duties.

“Most recently, we’ve been asked to assist with maternal-fetal transports, which entails working with the Children’s Hospital Transport Team and Barnes-Jewish/Washington University School of Medicine maternal-fetal medicine to bring high-risk moms to Barnes-Jewish Hospital,” says Bruns.

A 2015 survey of referring providers gives additional insight into why Children’s Direct has become an integral service for many physicians. For questions rating the courtesy, professionalism and helpfulness of both Children’s Direct staff members and Washington University physicians, the rating average was 4.7 or above on a scale of 1-5 given by 33 respondents. One hundred percent indicated Children’s Direct made it easier to obtain what was needed from SLCH and that they would use the service again.

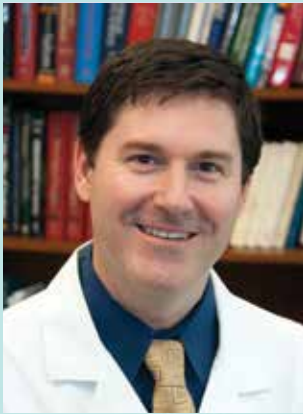
“In written comments, referring physicians praised our nurses for being personable and helpful, as well as the willingness of Washington University physicians to provide advice,” says Bruns. “We’ll continue to work on all aspects of the services we provide in order to ensure continued good experiences for everyone who contacts us.”

To reach Children’s Direct, call 800.678.HELP (4357). 

## [FACULTY UPDATE] LIMBRICK NAMED DIRECTOR OF PEDIATRIC NEUROSURGERY

David D. Limbrick Jr. to succeed Tae Sung Park, now vice chairman of the Department of Neurosurgery

By Tamara Bhandari/Washington University School of Medicine



David D. Limbrick, Jr., MD, PhD

David D. Limbrick Jr., MD, PhD, has been named neurosurgeon-in-chief at St. Louis Children's Hospital and director of the Division of Pediatric Neurosurgery at Washington University School of Medicine in St. Louis.

Dr. Limbrick succeeds Tae Sung Park, MD, who has served as director since 1989. Park has assumed the role of vice chairman of the Department of Neurosurgery.

"David is a great neurosurgeon-scientist," said Ralph G. Dacey Jr., MD, head of the Department of Neurosurgery. "He is also an outstanding surgeon, clinician and humanitarian. His research on hydrocephalus and a developmental abnormality called Chiari malformation holds great promise for

changing the way we take care of children with these conditions."

Dr. Limbrick joined the department in 2008 as an assistant professor of neurosurgery and pediatrics and was promoted to associate professor in 2014. His research focuses on surgical treatments and follow-up care for Chiari malformation, an abnormality in which the lowest portion of the brain descends through the base of the skull into the spinal canal in the neck. This results in fluid building up within the spinal cord, causing pain, weakness, loss of sensation and paralysis.

He earned his doctorate in 2000 in pharmacology and toxicology and his medical degree the following year, both from the Medical College of Virginia. In 2001, Limbrick came to St. Louis, where he completed a surgery internship, a neurosurgery residency and postdoctoral research, all at Washington University, before going on to a pediatric neurosurgery fellowship at St. Louis Children's Hospital.

To learn more about Dr. Limbrick's background, visit [StLouisChildrens.org/DD](http://StLouisChildrens.org/DD).

## [SLCH NEWS] KINGSHIGHWAY/FOREST PARK PARKWAY INTERSECTION RECONSTRUCTION BEGINS THIS SUMMER

A project to create a traditional intersection at Forest Park Parkway and Kingshighway Boulevard has gained the approvals needed to proceed.

Work is expected to begin in early July or August.

When the new BJH north and SLCH expansions open in August 2017, more patients will be traveling to the north end of the medical center, increasing traffic near Kingshighway/Forest Park Parkway. By creating a traditional four-way intersection, Forest Park Parkway will rise to the same level as Kingshighway to improve access and wayfinding, provide a more intuitive and safer route for patients and families and contribute to a more visually appealing streetscape.

The greatest impact is to Forest Park Parkway west of Kingshighway, when it closes to through traffic, however the following information should also be considered:

- Contractors will keep Kingshighway open in both directions.
- Most work will be completed during overnight hours, 7 p.m.-5 a.m.
- North/south lanes on Kingshighway will remain open during the day.
- Limited north/south Kingshighway lane closures will occur during overnight hours.
- East/west lanes on Forest Park Parkway between Kingshighway and Euclid will be limited to one lane in each direction.

The entire project will take about a year and will be completed before the new facilities open. For more information about the project, including suggested detours and campus renderings, visit [StLouisChildrens.org/DD](http://StLouisChildrens.org/DD).



## [FACULTY UPDATE] CHIEF RESIDENT AWARD



George Hoganson, MD

Each month, St. Louis Children's Hospital's chief residents honor a resident who shows exceptional dedication to his or her patients, colleagues or profession. In February, the SLCH Chief Resident Award was presented to George Hoganson, MD, a second-year pediatric resident. Dr. Hoganson was recognized for his hard work, dedication to family-centered patient care and his great teamwork skills during his 12th floor senior month.

In March, the award was presented to William Orr, MD, a third-year pediatric resident. Dr. Orr was recognized for his excellent clinical skills and for being a fantastic team member and co-resident. Dr. Orr will be staying at SLCH next year for his cardiology fellowship.



William Orr, MD



## [RESEARCH UPDATE] BRAIN TUMOR PROGRAM JOINS EXCLUSIVE PEDIATRIC NEURO-ONCOLOGY CONSORTIUM

*Expands treatment options for children with brain tumors*

By Kristina Sauerwein/Washington University School of Medicine

In less than a year, Madeline Thompson, 8, learned she had a brain tumor, underwent two surgeries and endured extensive chemotherapy.

“There was a point when it didn’t look good for Maddie, and I had to prepare for the worst,” said her mother, Katra Thompson. “But today she is as close to cancer-free as possible.”

Thompson, of Hannibal, Mo., credited the pediatric neuro-oncology staff at St. Louis Children’s Hospital (SLCH) and Washington University School of Medicine (WUSM).

“Everyone is so devoted to making Maddie better,” said Thompson, who shared popcorn with her daughter on a recent afternoon while Maddie received treatment. “I am so happy Maddie can go here because the doctors and staff are the best in the industry.”

Others agree. The Pediatric Brain Tumor Program recently joined a prestigious network of the nation’s top childhood cancer centers. It is the only program in the region to belong to this elite network, which widens treatment options for children whose brain tumors don’t respond to standard care.

The network, the Pacific Pediatric Neuro-Oncology Consortium (PNOC), provides physicians with access to the latest technologies as well as clinical trials at its 15 medical centers, thereby expanding overall treatment options, and, ideally, patient success rates.

Physicians and staff within the consortium can share data, expertise and resources regarding brain tumor biology and possible new treatments, said Joshua Rubin, MD, PhD, pediatric neuro-oncologist at SLCH and co-leader of the Solid Tumor Therapeutics Program for Washington University’s Siteman Cancer Center. “Being a part of the consortium brings cutting-edge brain tumor therapies to the children of St. Louis and the surrounding region.”

Added David Limbrick, MD, PhD, chief of pediatric neurosurgery at SLCH, “As part of the consortium, we are better able to offer our patients the option of participating in clinical trials for personalized treatments for their brain tumors and to be part of the larger movement to understand the molecular basis of brain tumors.”

The Pediatric Brain Tumor Program offers individualized treatment plans through a multi-disciplinary approach that involves pediatric neuro-oncologists, neurosurgeons, radiation oncologists, radiologists, pathologists, endocrinologists, psychologists, social work, nurses and other specialty staff. The team meets weekly to evaluate every child’s unique needs.

“The treatment of pediatric brain tumors is complex,” said Karen Gauvain, MD, Washington University pediatric oncologist at SLCH. “A child needs skilled, compassionate care from many medical specialties.”

“Our care also is long-term,” added Dr. Gauvain, who oversees and manages clinical trials as Washington University’s principal investigator for the consortium. “We are with a child from initial diagnosis to after-care rehabilitation, such as speech, occupational

and physical therapy, to follow up in both the home and school.”

The Pediatric Brain Tumor Program provides top-of-the-line imaging technology and neurosurgical approaches. SLCH is one of the few pediatric medical centers that offers intraoperative MRI, considered a major advance in the treatment of brain tumors because it allows neurosurgeons to remove tumors more precisely, thanks


to MRI images and computer guidance during surgery. The brain tumor program is also the first to ever evaluate laser ablation surgery for pediatric brain tumors in a clinical trial.

Pediatric brain tumor patients also benefit from state-of-the-art radiation therapy, including intensity-modulated radiation therapy (IMRT), proton beam radiation and radiosurgery. “We are so fortunate to be able to provide all of these radiation services for our pediatric brain tumor patients,” said Stephanie Perkins, MD, Washington University radiation oncologist at SLCH.

Research in the Pediatric Brain Tumor Program is supported by the pediatric brain tumor bank, which houses 5,300 tumor, 800 blood and a growing number of cerebrospinal fluid specimens. Each specimen is meticulously annotated with clinical data and available to scientists worldwide whose research is aimed at life-saving treatments for children with brain tumors. Past and ongoing clinical studies utilizing these specimens have contributed to, among other things, the definition of molecular subtypes of medulloblastoma, the most common childhood malignant brain tumor.

Patients and their families must provide consent before surgeons can collect tissue specimens. “Most families embrace it,” Dr. Rubin said. “Their children are helping to advance science. They see it as a way to turn something bad into something good.”

The tumor bank and The McDonnell Genome Institute, one of three large-scale genome sequencing centers funded by the National Institutes of Health (NIH), are working together to develop new insight and approaches for personalizing tumor treatments. The ultimate goal, researchers said, is to tailor an approach to interrupting the mutations and cellular pathways that drive each child’s unique cancer.

To learn more about the Pediatric Brain Tumor Program, call Children’s Direct at 800.678.HELP (4357). 



**“JOINING PNOC WIDENS TREATMENT OPTIONS FOR CHILDREN WHOSE BRAIN TUMORS DON’T RESPOND TO STANDARD CARE.”**

## [CASE STUDY] "CHIPS AHOY MATEY"

The following case study was used by Andrew J. White, MD, the James P. Keating, MD Professor of Pediatrics and division director of pediatric rheumatology, Washington University School of Medicine, and director of the St. Louis Children's Pediatric Residency Program, as part of the "Patient of the Week" (POW) series. Many of the POW case studies cover uncommon illnesses, or common illnesses with unusual symptoms that can be overlooked. If you would like to be added to the POW email distribution, send an email to [white@kids.wustl.edu](mailto:white@kids.wustl.edu).

**HPI:** 7-year-old boy with autism, with a CC: abdominal and extremity pain.

On 12/27/15 he began having trouble walking and would hold onto things like chairs or a railing. This progressed over two weeks to the point where he refused to walk at all. He complained of pain in his legs (all over), left wrist, ankle and toes, and he would occasionally point to his lower abdomen. Acetaminophen helps somewhat with the pain. There has been no trauma or injury. He has been receiving physical therapy without improvement. For the last two weeks has had increasingly loose stools and poor p.o. intake. He now is carried to the toilet, and when there, he appears flushed and has tremors and screams during attempts at defecation. He has also started picking at his gums, which is new for him; he normally picks at his earlobes and fingers, causing areas of excoriation and bleeding. He has not had fevers, cough or rhinorrhea, no nausea or vomiting, no dysuria.

He was seen by orthopedics three weeks before admission; X-rays taken were negative. When the refusal to walk continued, an MRI was performed; his lumbosacral spine and brain were normal. Physical therapy was initiated without improvement. A neurologist also evaluated him and prescribed baclofen and tizanidine, which have not improved his symptoms. He was seen by a second neurologist on the day of admission, who referred him here.

**PMH:** Autism, diagnosed at 2.5 years old. No CMA or Fragile X testing.

**Social history:** Limited diet. He eats only **Chips Ahoy** cookies, M&M's, crackers with peanut butter and eclairs.

**Developmental history:** Able to say a few phrases. Prior to the events leading to this admission, had been running and walking independently, able to ride a scooter.

**Physical Exam:** Temperature 37.6, heart rate 130, respiratory rate 20, blood pressure 121/80, SpO2 98 percent.

General – Distressed and repeating phrases but lying in bed comfortably.

Skin – Warm and dry. Capillary refill less than 2 seconds. Rash on cheeks and bilateral shins. Excoriated patches on right ear and several fingers.

HEENT – Normocephalic, atraumatic. Conjunctivae clear without injection or scleral icterus.

Mouth – Gums with beefy red, hypertrophied excoriations, without drainage.

Neck – Supple without lymphadenopathy.

Lungs – Clear to auscultation bilaterally.

Cardiovascular – Regular rate and rhythm.

Abdomen – Soft, nontender, nondistended, normoactive bowel sounds.

Neurologic – Awake, alert, anxious.

Extraocular movements intact. Face symmetric. Normal sensation and strength on face. Normal strength of shoulder shrug. Moves all extremities against resistance. Keeps left upper extremity held against body with minimal movement. Increased tone in lower extremities. Achilles contractures. Keeps knees flexed. Resists extension. Full sensation to light touch in all four extremities. Reflexes 2+.

### Course:

Vitamin D was 38, CK 131, CRP 39, ESR 68, CMP within normal limits, CBC with hemoglobin of 7.7mg/dL, microcytic.

Rheumatology was consulted and suspected vitamin C deficiency. Vitamin C level was drawn.

MRI of the lower extremities demonstrated abnormal signal enhancement in the lower extremity metaphyses and subperiosteal fluid in distal femurs; classic findings for scurvy. The white metaphyseal band visible on the plain film is also classic.

He was treated with IV vitamin C and had brisk and dramatic improvement in his pain. Resorption of the gum hypertrophy and hemorrhage was rapid. Pain resolved, and he had improved range of motion and use of his wrist. He had continued difficulty walking due to the flexion contractures of his knees.


Nutrition, speech and psychology were involved to help with his food aversion, and physical therapy to improve his range of motion.

### Discharge diagnoses:

1. Scurvy (Vitamin C aka ascorbic acid deficiency) ICD-10 = E54.
2. Autism spectrum disorder.
3. Flexion contractures, knees, ankles, secondary to disuse.
4. Anemia, iron deficiency.

### Discharge medications:

1. Ascorbic acid 150 mg p.o. two times daily.
2. Multivitamin with iron, one chewable tablet p.o. once daily.
3. Melatonin 6 mg p.o. once daily at bedtime.
4. MiraLAX 8.5 g p.o. once daily in the morning.

**Comments:** Scurvy is a rare disease in developed countries, but it continues to exist here in the United States. Lower extremity pain, limp and refusal to walk are the most common presenting complaints, and the diagnosis may be missed by most physicians not attuned to vitamin deficiency. Co-morbid conditions such as oral aversion, autism spectrum disorder, or any form of nutritional neglect, should be a big clue. Treatment includes not only vitamin C supplementation but also correction of underlying conditions in order to prevent recurrence. This particular patient will most likely have continued aversion to certain food products, and all options for providing the necessary nutrients should be entertained. 



## [SLCH NEWS] GRADUATING RESIDENTS MAKE PLANS FOR THE FUTURE

On June 23, residents practicing at St. Louis Children's Hospital moved into the next phase of their career—as community pediatricians, hospitalists, or by continuing subspecialty training.

Outgoing PGY 3 Residents	
Abebe, Samuel	Gen Peds Locum Tenens - Guam
Bashir, Amanda M. (Musto)	SLCH Chief Resident
Brice, Mary Elizabeth (Bernardin)	Fellow - Emergency Medicine - WUSM
Brossier, Nicole M. Pepstp PhD	Fellow - Hematology/Oncology - WUSM
Charron, Alexandra C. H1B	Fellow - Neonatology - WUSM
Devarajan, Veena G.	Fellow - Emergency Medicine - Boston Children's Hospital, Boston, MA
Edge, Colleen D. (Downs)	SLCH Chief Resident
Furman, Senta A. PhD	Fellow - Cardiology - Seattle Children's Hospital, Seattle, WA
Hendrixson, David Taylor	Fellow - Infectious Disease and Neonatology - WUSM
Hoover, Jeffery C.	Fellow - Neonatology - WUSM
Hu, June Y.	Fellow - Neonatology - WUSM
Huebner, Karl M.	Fellow - Critical Care - WUSM
Huff, Katie A.	Fellow - Neonatology - IU Health, Riley Children's Hospital, Indianapolis, IN
Lichtenfeld, Jana A.	Academic - pursuing MPH at Harvard
Lippa, Andrew M. Pepstp PhD	Fellow - Infectious Disease - Boston Children's Hospital, Boston, MA
Markus, Richard W.	Fellow - Cardiology - U Texas Southwestern, Dallas, TX
McGaughey, Steven D.	Hospitalist - WUSM/SLCH
Messer, Elizabeth S.	Hospitalist - WUSM/SLCH
Orr, Andrea K. (Cohron)	Primary Care - Northwest Pediatrics, St. Louis, MO
Orr, William B.	Fellow - Cardiology - WUSM
Patel, Anand G. PhD	Fellow - Hematology/Oncology - St. Jude Children's Research Hospital, Memphis, TN
Pitman, Ryan T.	Fellow - Gastroenterology - WUSM
Reddy, Kavya M.	Hospitalist - Children's Hospital of Philadelphia, PA
Sisk, Bryan A.	SLCH Chief Resident
Sloan, Patrick E.	Fellow - Neonatology - WUSM
Thé, Tama S.	Hospitalist - WUSM/SLCH
Whitehead, Halana V.	Fellow - Neonatology - WUSM
Willis, Daniel N.	Fellow - Hematology/Oncology - WUSM
Outgoing Chief Residents	
Ashworth, Rachel C.	Fellow - Critical Care Med - WUSM
Casey, Erin E.	Gen Peds Academic - Stony Brook Children's Hospital, Long Island, NY
Sonderman, David S.	Gen Peds - The Children's Clinic - St. Louis, MO
Outgoing PGY 2 Residents	
Kuschel, Alyssa E.	Adult/Child Neurology - BJH/SLCH
Lobanov, Oleg V. PhD	Adult/Child Neurology - BJH/SLCH
Rogers, Amanda B. (Brian)	Adult/Child Neurology - BJH/SLCH
Outgoing PGY 1 Residents	
Shmuylovich, Leonid PhD	Dermatology - WUSM
Wright-Jin, Elizabeth C. PhD	Child Neurology Physician Scientist - WUSM/SLCH

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**CONTINUING EDUCATION**

**Early Bird Rounds will resume in August!**

**Specialty Care Speaker Series**

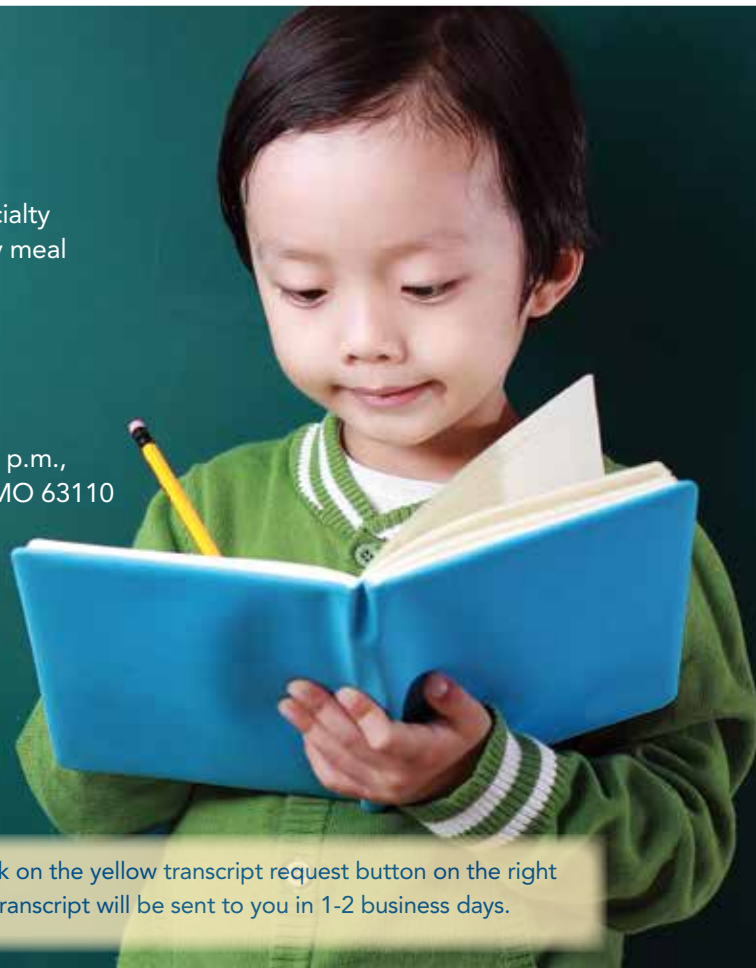
(Last Tuesday of every month, St. Louis Children's Hospital Specialty Care Center, I-64 and Mason Road. Enjoy a light complimentary meal at 5:30 p.m., one-hour presentation begins at 6 p.m.)

- **July 26** – Kate Bernabe, MD, Pediatric Surgery
- **Aug. 30** – Alysa Ellis, MD, Allergic Diseases

**Upcoming Conferences:**

- **Pediatric Coding Conference**, Friday, July 15, 8 a.m.-12:15 p.m., Eric P. Newman Education Center, 320 S. Euclid, St. Louis, MO 63110
- **Fall 2016 Clinical Pediatric Update**, Friday & Saturday, Sept. 23-24, Lake of the Ozarks, MO
- **Pediatric Trauma & Emergency Medicine Symposium**, Friday & Saturday, Sept. 23-24, St. Louis, MO

For additional information about these conferences, go to [StLouisChildrens.org/Med\\_Ed](http://StLouisChildrens.org/Med_Ed).



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