University Hospitals

Rainbow Babies & Children's Hospital

CELEBRATING 125 YEARS

SCHOOL OF MEDICINE
CASE WESTERN RESERVE UNIVERSITY

Winter 2013

INNOVATIONS in Pediatrics

Improving Quality Through Advocacy and Policy

pg 4

Drug development effort holds promise for pediatric cancer patients pg 3

Using hypothermia to reduce brain injury in newborns pg 5

Physician-scientists lead the way in clinical, research advances pg 6

BEST CHILDREN'S HOSPITALS U.S.News & WORLD REPORT RANKED IN 10 SPECIALTIES 2012-13

BEST GRAD SCHOOLS U.S.News & WORLD REPORT MEDICAL RESEARCH 2013

UH Rainbow Babies & Children's Hospital and Case Western Reserve University School of Medicine are consistently recognized as two of the premier institutions in the nation, according to U.S.News & World Report's annual rankings.

Chairman's Message

Focusing on Patient Care, Teaching, Research

Welcome to this issue of Innovations in Pediatrics, which allows us to share the outstanding achievements of the clinicians and scientists at University Hospitals Rainbow Babies & Children's Hospital and Case Western Reserve University School of Medicine. Here, we highlight novel research and initiatives that contribute to UH Rainbow Babies & Children's Hospital consistently ranking among the nation's best children's hospitals.

Robin Norris, MD, MS, MPH, will move UH Rainbow Babies & Children's Hospital into a nationally significant Phase I clinical trials program for pediatric cancer, making us the only Northeast Ohio center providing these services for children with relapsed or refractory cancers. Pooling her efforts with colleagues at University Hospitals Seidman Cancer Center, Dr. Norris will focus on drug development and testing to find better treatments for these children.

Leona Cuttler, MD, continues to push policy and advocacy in her quality improvement efforts for children's health care and pediatric hospitals. These initiatives helped University Hospitals Case Medical Center earn the 2012 American Hospital Association-McKesson Quest for Quality Prize for leadership and innovation in quality improvement and safety.

Michele C. Walsh, MD, MS, is evaluating the use of systemic hypothermia in newborns to reduce brain injury caused by asphyxia. Neonatal encephalopathy is a life-threatening condition that can lead to significant long-term neurological issues. Dr. Walsh's work shows promise in using hypothermia as a neuroprotective therapy for these tiny patients.

Gregory E. Lakin, MD, published a paper on a 30-year definitive study of the Le Fort II osteotomy to address facial deformities. His work uncovered new techniques to address this type of facial fracture.

The pediatric orthopaedics team, led by **George H. Thompson, MD**, balances its clinical work with leading-edge research for a well-rounded program. The division is embarking on endeavors involving reducing intraoperative blood loss, improving pain control, investigating the use of a specialized external fixation device, improving function and decreasing spasticity in children with neuromuscular disorders, and investigating cartilage regrowth.

We welcome your comments, questions and suggestions at **Peds.Innovations@UHhospitals.org**.

Michael W. Konstan, MD
The Gertrude Lee Chandler Tucker Professor and Chairman
Department of Pediatrics
Case Western Reserve University School of Medicine
The Austin Ricci Chair in Pediatric Pulmonary Care and Research
UH Rainbow Babies & Children's Hospital

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The commitment to exceptional patient care begins with revolutionary discovery. University Hospitals Case Medical Center is the primary affiliate of Case Western Reserve University School of Medicine, a national leader in medical research and education and consistently ranked among the top research medical schools in the country by U.S.News & World Report. Through their faculty appointments at Case Western Reserve University School of Medicine, physicians at UH Case Medical Center are advancing medical care through innovative research and discovery that bring the latest treatment options to patients.

Situated on the campus of University Hospitals Case Medical Center in Cleveland, Ohio, University Hospitals Rainbow Babies & Children's Hospital is a 244-bed, full-service pediatric hospital and academic medical center, with a dedicated team that uses the most advanced treatments and latest innovations to deliver the complete range of pediatric specialty services. A trusted leader in children's health care for more than 125 years, UH Rainbow Babies & Children's Hospital consistently ranks among the top children's hospitals in the nation by U.S.News & World Report. Learn more at **RainbowBabies.org**.

Changing the Face of Cancer Care

Drug development effort holds promise for children with cancer

Robin Norris, MD, MS, MPH, Director of the Pediatric Developmental Therapeutics Program in the Division of Pediatric Hematology and Oncology at UH Rainbow Babies & Children's Hospital, and Assistant Professor of Pediatrics at Case Western Reserve University School of Medicine

Over the next five years, UH Rainbow Babies & Children's Hospital will establish a nationally significant Phase I clinical trials program focused on childhood, adolescent and young adult cancers.

Robin Norris, MD, MS, MPH, Director of the Pediatric Developmental Therapeutics Program in the Division of Pediatric Hematology and Oncology at UH Rainbow Babies & Children's Hospital, and Assistant Professor of Pediatrics at Case Western Reserve University School of Medicine, is developing a UH Rainbow Babies & Children's Hospital-based collaborative effort focused solely on the development and testing of more effective drugs for children with cancer. This effort will make UH Rainbow Babies & Children's Hospital the only Northeast Ohio center providing these services for children with relapsed or refractory cancers.

Dr. Norris came to UH Rainbow Babies & Children's Hospital from The Children's Hospital of Philadelphia, where she trained in pediatric hematology/oncology, pediatric clinical pharmacology and translational research.

On Strong Footing

UH Rainbow Babies & Children's Hospital works closely with the adult therapeutics developmental program at UH Seidman Cancer Center, part of the National Cancer Institute-designated Case Comprehensive Cancer Center at the School of Medicine.

"As the primary pediatric affiliate of the Case Comprehensive Cancer Center at Case Western Reserve University, we leverage the significant expertise and strength of this center's excellence in drug development," Dr. Norris says. "We plan to work closely with our colleagues at UH Seidman Cancer Center to increase eligibility of some of their trials to our adolescent population. We also plan to develop trials through partnership with industry and by participation in smaller, multi-institutional studies."

Dr. Norris says there is a need to provide collaborative drug development and testing for pediatric patients in Northeast Ohio. To that end, she was recruited to UH to expand services through the Angie Fowler Adolescent & Young Adult Cancer Institute at UH Rainbow Babies & Children's Hospital, a major referral center for children, adolescents and young adults with cancer and nonmalignant blood disorders. The institute is one of the only programs in the nation that will offer dedicated inpatient and outpatient facilities and services for adolescents and young adults. Integrated with UH Seidman Cancer Center, the institute will ensure patients have access to the most advanced therapies first. With a special focus on changing the face of cancer care and outcomes for an age group with very specific needs, UH Rainbow Babies & Children's Hospital's pediatric hematologists and oncologists serve as senior investigators on National Institutes of Health-funded clinical trials and are members of national committees on solid tumors, leukemia and bone marrow transplantation.

Toward Better, Safer Treatments

In the short-term, Dr. Norris' goal is to create more options for children with relapsed or refractory cancer living in Northeast Ohio through expansion of a portfolio of Phase I clinical trials. As a member of the Therapeutic Advances in Childhood Leukemia & Lymphoma (TACL) consortium, UH Rainbow Babies & Children's Hospital soon will open new trials to pediatric patients with relapsed or refractory leukemia and lymphoma. It also will offer Phase I trials for pediatric patients with relapsed solid tumors.

The capacity to increase the number of Phase I studies available to pediatric, adolescent and young adult patients offers hope to those patients and their families and is an important step in UH Rainbow Babies & Children's Hospital's effort to become a significant player in the early phase development of new drugs for children with cancer, Dr. Norris says.

"We've made great strides in our approach to treating children with cancer; however, we must continually push to find more effective therapies to improve outcomes for patients with aggressive, metastatic cancers and to overcome the significant toxicity associated with conventional chemotherapy agents commonly used today," she adds.

"The only way to move forward is to develop better drugs with fewer side effects and to participate in that scientific endeavor of finding better drugs for kids with cancer. It is our intent to work collaboratively with the hospitals in our region to create better and safer treatment options for the patients we serve."

The Next Frontier

Policy and advocacy are key to quality improvements on health care's horizon

Andrew Hertz, MD, and Leona Cuttler, MD, are leading an effort to create a "medical neighborhood" to improve health care access for children, which will include a telehealth hub system.

Leona Cuttler, MD, Division Chief and the William T. Dahms Chair of Pediatric Endocrinology, Diabetes & Metabolism, and Director of the Center for Child Health and Policy at UH Rainbow Babies & Children's Hospital, and Professor of Pediatrics and Bioethics at Case Western Reserve University School of Medicine

Andrew Hertz, MD, Medical Director, Rainbow Call Center and UH Rainbow Care Network, and Clinical Assistant Professor of Pediatrics at Case Western Reserve University School of Medicine

Taking projects from bench to bedside to improve the health of children is the basis for regional and national collaborative quality improvement efforts led by **Leona Cuttler, MD**, Division Chief and the William T. Dahms Chair of Pediatric Endocrinology, Diabetes & Metabolism, and Director of the Center for Child Health and Policy at UH Rainbow Babies & Children's Hospital, and Professor of Pediatrics and Bioethics at Case Western Reserve University School of Medicine. Dr. Cuttler is co-chair and a former director of the Policy Council of the Pediatric Endocrine Society. She is on the Pediatric Public Policy Council, representing the Society for Pediatric Research, and the American Academy of Pediatrics' Council on Federal Government Affairs, and has served on several national review, advisory and steering committees.

"Policy and advocacy are the next frontier in health care – a fourth-dimension translation of medical care to social medicine," says Dr. Cuttler, a nationally recognized expert in pediatric endocrinology and public health policy who conducts clinical research in growth, diabetes, obesity and pediatric health policy. Her research is supported by the National Institutes of Health through the School of Medicine, other government agencies and philanthropic organizations.

Under Dr. Cuttler's leadership, the Division of Pediatric Endocrinology, Diabetes & Metabolism has grown as a nationally recognized program. As Director of the Center for Child Health and Policy at UH Rainbow Babies & Children's Hospital, Dr. Cuttler and her team have made major contributions to advance the health of children and children's hospitals at the regional, state and federal levels. The center draws on UH Rainbow Babies & Children's Hospital's clinical strengths. Among its focus areas are chronic illness, including obesity, diabetes, asthma, dental decay, lead poisoning, cancer and sickle cell disease; maternal/newborn and early childhood health; health care quality and comparative effectiveness; and health care delivery systems.

Measuring Success

Among the quality improvement endeavors that Dr. Cuttler is leading under the Center for Child Health and Policy is work coordinated through Best Evidence for Advancement of Child Health in Ohio Now (BEACON). BEACON is a public/private partnership that supports initiatives that achieve measurable improvements in child and adolescent health care and outcomes through science and a quality improvement infrastructure. Dr. Cuttler has engaged several clinical faculty practices to participate in ongoing efforts to improve preventive health services, including fluoride varnish application to prevent dental decay, screening to detect lead toxicity, and the recognition and care of children with obesity.

Dr. Cuttler also is leading an effort with **Andrew Hertz, MD**, Medical Director of the Rainbow Call Center and UH Rainbow Care Network, and Clinical Assistant Professor of Pediatrics at Case Western Reserve University School of Medicine, to create a "medical neighborhood" that will decrease avoidable emergency room visits and hospitalizations, enhance care coordination, improve access and increase the quality of primary care.

To achieve these goals, the Rainbow Care Connection (RCC) program involves a multidisciplinary Physician Extension Team that comprises physicians, nurses, dietitians, behavioral specialists and family care advocates. Together, they will provide integrated behavioral health services, a 24/7 three-tiered telehealth system, heightened support services for children with complex chronic conditions and practice-tailored quality improvement programs.

Award-Winning Leadership, Innovation

RCC is funded by a $12.7 million award provided by the Center for Medicare & Medicaid Innovation and is expected to save more than $13 million over three years. RCC will hire several full-time employees and involve at least 120 primary care providers caring for 68,000 Medicaid-insured and more than 100,000 commercially insured children. Organizations partnering with UH Rainbow Babies & Children's Hospital on this effort include Ohio Medicaid, managed care organizations, community mental health agencies, Cuyahoga Community College, Health Spot, and many other community organizations.

These efforts further solidify UH Case Medical Center's recognition as a national model for quality care. UH Case Medical Center is the recipient of the 2012 American Hospital Association-McKesson Quest for Quality Prize. The prestigious award named UH Case Medical Center the top hospital in the nation for its leadership and innovation in quality improvement and safety.

Reducing Brain Injury in Newborns

Hypothermia in late-presenting encephalopathic infants may enhance development

Michele C. Walsh, MD, MS, the William and Lois Briggs Endowed Chair in Neonatology and Chief of the Division of Neonatology at UH Rainbow Babies & Children's Hospital, and Professor of Pediatrics at Case Western Reserve University School of Medicine

Neonatal encephalopathy (formerly called hypoxic-ischemic encephalopathy or HIE) is a rare, but life-threatening, condition characterized by acute or sub-acute brain injury from a number of different causes, including asphyxia and/or ischemia. A study evaluating the use of systemic hypothermia in newborns to reduce brain injury caused by asphyxia is being led by principal investigator **Michele C. Walsh, MD, MS**, the William and Lois Briggs Endowed Chair in Neonatology and Chief of the Division of Neonatology at UH Rainbow Babies & Children's Hospital, and Professor of Pediatrics at Case Western Reserve University School of Medicine.

In most cases, the underlying cause and timing of neonatal encephalopathy are unknown, although many cases are diagnosed at or shortly after birth. Between 50 and 75 percent of infants with severe Stage 3 encephalopathy will die, with 55 percent of these deaths occurring within the first month of life, according to the World Health Organization. Up to 80 percent of infants who survive Stage 3 encephalopathy develop significant long-term neurological disability, including mental retardation, epilepsy and cerebral palsy with hemiplegia, paraplegia or quadriplegia.

Animal models suggest brain injury from neonatal encephalopathy occurs over several hours to days after the initial acute or sub-acute brain injury due to asphyxia. Hypothermia shows promise as a neuroprotective therapy in encephalopathy patients.

Previous work, sponsored by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), has shown that whole body hypothermia reduces the incidence of death or disability at 18 to 24 months by 50 percent in full-term infants with neonatal encephalopathy when instituted in the first six hours of life. Further, these beneficial effects were still seen when the children were evaluated at age 6. Treatment with hypothermia is now the standard of care across the country when full-term newborns are diagnosed with moderate or severe encephalopathy at birth or within the first six hours of birth.

New Trials, New Promise

Sometimes, treatment cannot be administered within the first six hours of life. Neonates may not show evidence of injury immediately after birth. Furthermore, sometimes newborns are transported long distances and arrive at a Level III NICU after they are more than six hours old.

A new, randomized study is evaluating whether full-term infants diagnosed with encephalopathy beyond the first hours of life will also benefit from hypothermia. Full-term infants who present between six and 24 hours of age with encephalopathy will be randomized to whole-body hypothermia for 96 hours or to standard care. The infants will be assessed for neurodevelopmental outcomes at 2 years of age. Case Western Reserve University School of Medicine is one of 18 NICHD Neonatal Research Network sites conducting these potentially groundbreaking studies. A similar study in preterm newborns with encephalopathy is in the planning stages.

Dr. Walsh also was part of a study examining the relationship between brain injury and outcome following neonatal encephalopathy treated with hypothermia. Neonatal MRI scans were evaluated in the NICHD randomized trial of whole-body hypothermia to identify brain injury patterns as markers of death or disability at 18 to 22 months of age. Fewer areas of infarction and a trend toward more normal scans were noted in brain MRI following whole-body hypothermia. The presence of the NICHD pattern of brain injury is a marker of death or moderate to severe disability at 18 to 22 months following hypothermia for neonatal encephalopathy.

Referral and Enrollment

Physicians who wish to refer a neonate for therapeutic hypothermia within the first six hours of life or who wish to enroll a neonate in the late hypothermia trial between six and 24 hours of life may contact the UH Critical Care Transfer Referral Center at **216-844-1111**.

Earn CME Credit Online

Join us via live webcast for weekly Pediatric Grand Rounds, held Thursdays from 8 – 9 a.m. Learn more at **RainbowBabies.org/GrandRounds**.

Case Western Reserve University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to sponsor continuing medical education for physicians. Case Western Reserve University School of Medicine designates this continuing medical education activity as meeting the criteria for 1 *AMA PRA Category 1 Credit ™.* Physicians should only claim credit commensurate with the extent of their participation in the activity.

Setting the Standard in Pediatric Orthopaedics Care

Physician-scientists at UH Rainbow Babies & Children's Hospital are leading the way in research and therapeutic advances

George H. Thompson, MD, Chief of Pediatric Orthopaedics at UH Rainbow Babies & Children's Hospital and Professor of Pediatrics at Case Western Reserve University School of Medicine

Treating children who have complex musculoskeletal pathologies requires skill, expertise, technology and a clinical team working together to ensure optimal patient outcomes, says internationally recognized pediatric orthopaedics and spinal disorders expert **George H. Thompson, MD**, Chief of the Division of Pediatric Orthopaedics at UH Rainbow Babies & Children's Hospital and Professor of Pediatrics at Case Western Reserve University School of Medicine.

Ranked 10th in the nation in pediatric orthopaedics by U.S.News & World Report, UH Rainbow Babies & Children's Hospital's interdisciplinary pediatric orthopaedics team treats nearly 12,000 pediatric patients with musculoskeletal problems each year. Leaders in their field, the division's pediatric orthopaedic specialists often balance their clinical work with leading-edge research, giving them a well-rounded understanding of the complexities that can emerge in delivering excellent patient care.

"I think anyone can look on PubMed and see that our group is at the forefront in Northeast Ohio in terms of looking at our results and publishing them," says **Jochen Son-Hing, MD**, a pediatric orthopaedic surgeon at UH Rainbow Babies & Children's Hospital and Assistant Professor of Orthopaedics at Case Western Reserve University School of Medicine. Dr. Son-Hing specializes in treating pediatric spinal deformities such as scoliosis. "We think the best way to evaluate what you are doing is to make sure you check all your outcomes, follow your patients along, and put it in a publishable format to determine how successful you are."

Dr. Son-Hing pinpoints two areas of recent research interest that may improve the patient experience: reducing intraoperative blood loss and improving pain control. The division has been investigating a new bipolar sealing device, which is a cauterization-like tool that halts bleeding from injured vessels.

In terms of pain management, Dr. Son-Hing emphasizes the need to be proactive, rather than addressing pain once it arises. This involves a multimodel approach to pain control with regional anesthesia. "The more comfortable you keep kids, the happier the parents and kids are. They feel so much better if you are staying on top of pain control from the front end rather than rushing to get them comfortable when the pain breaks through."

Other endeavors involving the division's pediatric orthopaedic faculty include:

- The use of a specialized external fixation device consisting of two rings connected by six pivotable, expandable struts that surrounds a misshapen bone like a tube. Adjusting the struts utilizing computer navigation can shift the bone into better alignment, much like braces straighten teeth. This is being investigated by **Raymond Liu, MD**, Assistant Professor of Orthopaedics at Case Western Reserve University School of Medicine.
- Improving function and decreasing spasticity in the muscles of children with neuromuscular disorders, such as cerebral palsy, using pharmacologic treatments into the spinal cord. This is being investigated by **Christina Hardesty, MD**, Assistant Professor of Orthopaedics at Case Western Reserve University School of Medicine. Treating these muscle problems may reduce the need for major operations later in the child's life, Dr. Thompson says.
- Cartilage regrowth, which can help children with cartilage damage in the knee joint. Performed by **Allison Gilmore, MD**, Assistant Professor of Pediatrics at Case Western Reserve University School of Medicine, this involves the use of both autogenous stem cells and cartilage transplantation.

Given the leading-edge clinical and research work within the division, Dr. Thompson remains excited. "We take pride in our accomplishments as they lead to further improvement in musculoskeletal care," he says.

A New Approach to Spinal Deformities

At UH Rainbow Babies & Children's Hospital, clinical research will soon begin on a minimally invasive technique that could help children with spinal deformities avoid major spinal fusion procedures. For the study, **George H. Thompson, MD**, is seeking preadolescents with a relatively unusual type of right thoracic curve to undergo a novel stapling procedure. Through this procedure, staples are inserted in the top growth plate in one vertebra and the bottom growth plate in the adjacent vertebra, slowing growth in these areas while the bone continues to grow on the unstapled side. This provides a compensating mechanism that ideally will improve the curvature of the spine, Dr. Thompson says. For more information, contact Dr. Thompson's office at **216-844-5416**.

Learn More

To refer a patient to the experts in the Division of Pediatric Orthopaedics at UH Rainbow Babies & Children's Hospital, please call **216-844-7337** or email **OrthoInnovations@UHhospitals.org**.

Learning from the Past

New approaches to facial fracture surgery uncovered to address deformities

Gregory E. Lakin, MD, Chief of Pediatric Plastic Surgery at UH Rainbow Babies & Children's Hospital and Clinical Assistant Professor at Case Western Reserve University School of Medicine

A 30-year study on facial fracture surgery has uncovered previously unpublished techniques to fix deformities.

Gregory E. Lakin, MD, Chief of the Division of Pediatric Plastic Surgery and Director of the Craniofacial Center at UH Rainbow Babies & Children's Hospital and Clinical Assistant Professor of Plastic Surgery at Case Western Reserve University School of Medicine, led the review of patients who underwent the Le Fort II osteotomy. Le Fort II fractures are classic in facial trauma and involve the central nose and upper jaw. Surgery is required to repair the occlusion and restore function and balance to the face.

The Le Fort fracture was named after French surgeon Rene Le Fort, who studied break patterns of injuries of cadavers and discovered the fracture patterns. In the 1960s, the Le Fort II osteotomy was introduced in craniofacial surgery and was electively performed on children with birth deformities to fix the nose and upper jaw to correct deformities.

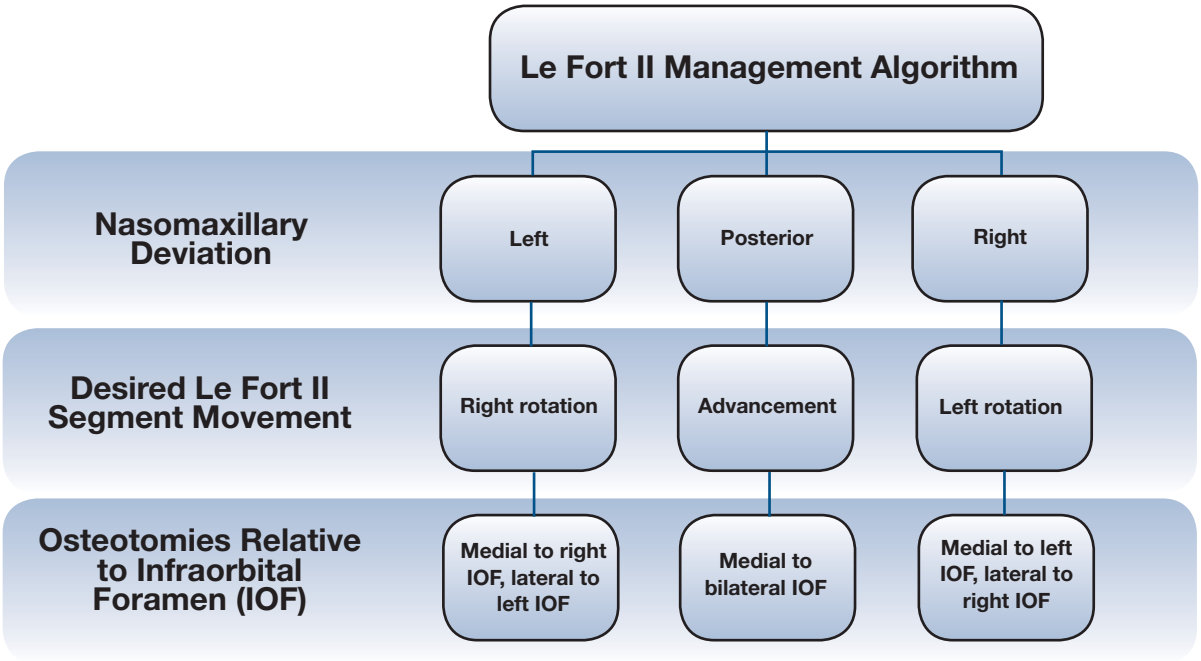
Dr. Lakin's study was the first to report the use of bilateral upper eyelid incisions to approach the nasion and medical orbital walls for a Le Fort II osteotomy. Dr. Lakin's research found that, over time, surgical techniques transitioned from coronal, lower eyelid crease and maxillary vestibular incisions to more minimally invasive techniques. And while surgeons previously advanced the nose and upper jaw by moving it forward in select patients, Dr. Lakin found it was sometimes necessary to move the nose and upper jaw side-to-side, as a swinging pendulum type movement. The study also defined where to perform osteotomies to achieve easier balance and whether to cut on the inside or outside of the infraorbital foramen.

The paper, which Dr. Lakin wrote with Henry Kawamoto Jr., DDS, MD, a UCLA craniofacial surgeon, was published in the December 2012 issue of the Journal of Craniofacial Surgery. Dr. Lakin also will present at the 12th International Congress on Cleft Lip/Palate and Related Craniofacial Anomalies in 2013.

Contact Dr. Lakin at **Peds.Innovations@UHhospitals.org**.

Learn More Online!

Find articles and video commentary from our clinician-scientists on the latest innovations and clinical advancements at **RainbowBabies.org/PedsInnovations**.



When the nasomaxillary deviation is to the left, the desired Le Fort II segment movement is to the right, and the osteotomies relative to the infraorbital foramen (IOF) are medial to the right IOF and lateral to the left IOF. Nasomaxillary deviations to the right require a left-sided Le Fort II segment movement, with osteotomies medial to the left IOF and lateral to the right IOF. Posteriorly displaced nasomaxillary deviations require a straightforward advancement with osteotomies made medial to the bilateral IOF.

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News Briefs

Gregory E. Lakin, MD, was appointed **Chief of the Division of Pediatric Plastic Surgery and Director of the Craniofacial Center** at UH Rainbow Babies & Children's Hospital and Assistant Professor at Case Western Reserve University School of Medicine. Dr. Lakin holds an undergraduate degree from Duke University and a medical degree with clinical distinction from Ponce School of Medicine in Ponce, Puerto Rico. He completed a plastic surgery residency at the University of Rochester in Rochester, New York, a craniofacial research fellowship at the University of Pennsylvania and Children's Hospital of Philadelphia, and a craniofacial surgery fellowship at the University of California, Los Angeles. Dr. Lakin has published numerous peer-reviewed articles and abstracts. His clinical interests include pediatric plastic surgery, craniofacial surgery (corrects skull and facial deformities caused by birth, trauma or disease), cleft lip and palate surgery, orthognathic (jaw) surgery and microtia (ear) reconstruction.

Benjamin Gaston, MD, was appointed **Chief of the Division of Pediatric Pulmonology, Allergy and Immunology** at UH Rainbow Babies & Children's Hospital and Professor at Case Western Reserve University School of Medicine. He is world-renowned for his research on nitric oxide metabolism and lung inflammation related to cystic fibrosis, asthma, pulmonary hypertension and apnea. Dr. Gaston has published more than 120 peer-reviewed journal articles and is a frequent guest lecturer at international and national conferences. He serves on several national editorial and advisory boards, and is a reviewer for numerous national journals, including Nature and the New England Journal of Medicine. Dr. Gaston holds a medical degree from University of Virginia School of Medicine. He completed residencies in pediatrics at Naval Regional Medical Center and University of the Health Sciences, both in Bethesda, Maryland, a fellowship in pulmonary medicine at Harvard Medical School and Children's Hospital in Boston and a clinical and research fellowship at Brigham and Women's Hospital in Boston. Dr. Gaston's areas of expertise include asthma, cystic fibrosis, general pulmonary diseases, lung diseases and primary ciliary dyskinesia.

Richard Martin, MD, the first Drusinsky-Fanaroff Chair in Neonatology at UH Rainbow Babies & Children's Hospital and Professor at Case Western Reserve University School of Medicine, received the **2012 National Education Award of the American Academy of Pediatrics, Perinatal Section**. This prestigious award is given to an individual who played a prominent role in the education of neonatologists worldwide. Dr. Martin, who specializes in developmental respiratory neurology, has lectured worldwide on apnea of prematurity and lung injury and maturation, and has authored more than 140 articles and 70 book chapters.

The Primary Ciliary Dyskinesia (PCD) Foundation has selected UH Rainbow Babies & Children's Hospital as one of the first PCD Clinical Center sites in the PCD Research Network. As a designated site, the hospital plans to participate in clinical trials that will help establish credible, evidence-based knowledge of PCD.

New Physicians

Virginia Baez-Socorro, MD, Pediatric Gastroenterology, Assistant Professor

Peter DeBlank, MD, Pediatric Hematology and Oncology, Assistant Professor

Florin Grigorian, MD, Pediatric Ophthalmology, Assistant Professor

Paula Grigorian, MD, Pediatric Ophthalmology, Assistant Professor

Robin Norris, MD, MS, MPH, Pediatric Hematology and Oncology, Assistant Professor

Zili Zhang, MD, PhD, Medical Director, Inflammatory Bowel Diseases Center, Pediatric Gastroenterology, Associate Professor

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Image courtesy of Apple

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Contributors: Michael W. Konstan, MD; Robin Norris, MD, MS, MPH; Leona Cuttler, MD; Jochen Son-Hing, MD; Gregory E. Lakin, MD; George H. Thompson, MD; Michele C. Walsh, MD, MS
Publication Coordinator: Kellie Crowe
Director of System Marketing: Donna Casey, RN, MBA

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