

Larner College of Medicine Department of Pediatrics
The University of Vermont Children's Hospital



2020 Annual Report

It gives me great pleasure to introduce this year's annual report for the Department of Pediatrics at the Robert Larner, M.D. College of Medicine and the University of Vermont Children's Hospital.



Lewis First, M.D.

ALBERT EINSTEIN IS CREDITED

with saying, "In the midst of crisis, lies opportunity." Never is a quotation so applicable to the challenging year our Department of Pediatrics and the University of Vermont Children's Hospital have experienced as we, like everyone else, dealt with the COVID-19 pandemic. Yet because of the dedication, commitment, and collaboration demonstrated by our faculty, staff, and trainees, we not only managed to survive over the past year, but as described in this year's annual report, we have managed to thrive in our clinical, academic, research, and advocacy missions.

This year's report marks the 70th anniversary since our first chair, Dr. R. James (Jim) McKay, established a pediatric department at our medical school. This report demonstrates our ongoing commitment to making a difference locally in ways that can then be shared statewide, nationally and internationally, the mission that Dr. McKay hoped to achieve back in 1950. It demonstrates our strategic

focus on quality improvement, patient and family-centered care, population health, integrating mental health into our core clinical work, addressing systemic racism, and reducing disparities in social determinants of health for children and their families. There are stories of our innovative work in medical education and clinical and health services research. It also reflects growth in key areas, including in our pediatric emergency medicine team, and it shows how we have handled the pandemic using evidence-based and quality improvement science to make sure our care is timely, efficient, effective, equitable, and patient-centered.

Our 2020 Annual Report would not be possible without the editorial assistance of Sue Victory, senior administrative coordinator for our children's hospital, who has once again done a terrific job capturing the highlights of the past year (and there were many). I want to close by sincerely thanking everyone who has contributed to the clinical and academic successes of our department and children's hospital.

The culture of "wellness" that we bring each and every day to our patients and to each other has given us the resilience and strength to get through the past year and make our department and children's hospital more mission-driven than it has ever been. As I enter my 27th year as department chair and children's hospital chief, I am honored to be part of our incredible team that continues to do extraordinary work improving the health of the children we serve. By reading and learning from our 2020 annual report, you will see just what I mean!

LEWIS FIRST, M.D.

The University of Vermont Department of Pediatrics, Chairman and Professor The University of Vermont Children's Hospital, Chief of Pediatrics Children's Health Care Service, The University of Vermont Children's Hospital, Physician Leader

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On the cover: Hillary Anderson, M.D.
Photography by David Seaver
All masking and social distancing guidelines have been followed in capturing images for this report. Some photography pre-dates the COVID-19 pandemic.



Celebrating Emeriti Faculty

The UVM Children's Hospital honors the faculty who have served patients and families in Vermont and upstate New York for decades. The following faculty have recently earned emerita status in recognition of their dedication to patient care, research and teaching.



Leah Burke, M.D.
Genetics
2000 to 2020



Richard Colletti, M.D.
Gastroenterology
1974 to 2020



Stephen Contompasis, M.D.
Child Development
1994 to 2016



Barbara Frankowski, M.D.
Primary Care
1985 to 2018



Janice Gallant, M.D.
Radiology
2003 to 2020



Ann Guillot, M.D.
Nephrology
1979 to 2017



Barry Heath, M.D.
Critical Care
1980 to 2020



C. Lawrence Kien, M.D., Ph.D.
Metabolism and Nutrition
2004 to 2019



Eliot Nelson, M.D.
Primary Care
1991 to 2018



Richard Wasserman, M.D.
Primary Care
1983 to 2019



Ann Wittpenn, M.D.
Primary Care
1997 to 2020

ADRIENNE PAHL, M.D. AND DELIA HORN, M.D.



FACTS & FIGURES

325
Admissions to the
Pediatric Intensive
Care Unit per year

2,200
Babies born at UVM
Children's Hospital
each year

150
Number of caregivers it takes to run 24/7
NICU care

25,000
Patient visits to the
Children's Specialty
Center per year
in 20+ specialty
programs



Metz and Team Work to Keep Every Child Safe

AS A NEW MEDICAL GRADUATE just starting a pediatric residency at Seattle Children’s Hospital in 2006, James Metz, M.D., never imagined that 12 years later, he’d return to his alma mater and home state as one of only two board-certified child abuse pediatricians in Vermont.

Now an assistant professor of pediatrics and the sole child abuse specialist at UVM Children’s Hospital, Metz, along with his team at the Child Safe Program, is making a positive impact on health care for mistreated children in the state.

Child maltreatment—including neglect and physical, sexual, and psychological abuse—is not new, nor is the need for trained medical professionals to treat these victims, says Metz’s mentor Joseph Hagan, M.D., a Vermont pediatrician, clinical professor of pediatrics and national pediat-

rics leader. A 1962 *Journal of the American Medical Association* article titled “The Battered-Child Syndrome” prompted the medical community to recognize the issue. At the time, this duty largely fell to primary care pediatricians.

It’s a duty that Hagan and Karyn Patno, M.D., Metz’s other role model, dove into early in their careers—Hagan in the early 80s and Patno in the early 90s. Over time, Hagan and Patno, who is Vermont’s only other board-certified child abuse pediatrician, became the “go-to” doctors for guidance in complex cases of suspected child abuse and neglect. Patno created Vermont’s Child Safe Program in 2008.

The creation of a child abuse pediatrics subspecialty in 2006 and relatively new availability of fellowship programs is one that Patno, Hagan, and Metz agree has pushed the field forward in necessary and ground-breaking

ways. Most important, the three say, is the increase in field-specific research and literature.

“One of the biggest values of having a subspecialty is that it supports and encourages research in the field,” says Patno. “Before, we knew how to evaluate injuries, but now we have so much more information—which leads to fewer mistakes in terms of under- or over-diagnosing of injuries.”

“It’s extremely high-stakes,” Metz says, “This is an area that should require additional specialized training, just like cardiology or gastroenterology.”

Unfortunately, child abuse cases have increased across the country and within the state over the last ten years, particularly among younger children, says Mary Ellen Rafuse, MSW, a member of the Child Safe Program team. Metz and his colleagues attribute the increase, in part, to the opioid crisis.

“We’re seeing many more

James Metz, M.D., Tracey Wagner, R.N., MScN, CPN, and Mary-Ellen Rafuse, MSW

children in care of relatives and increased cases of accidental ingestions and neglect,” says Rafuse.

It remains to be seen if the ongoing COVID-19 pandemic has contributed to the increase; the team at the Child Safe Program thinks that, based on the compelling evidence of the past, it probably will.

“We know that during times of economic stress, incidence of abuse goes up,” says Metz. “Unfortunately, there’s no reason to believe it will be different this time.” Still, it will probably be well into 2021 before reliable statistics show the true story of how COVID-19 has affected the field, says Patno.

Despite the disheartening upward trend in cases, Metz, Patno, Wagner, Hagan, and Rafuse all agree about the reason they were ultimately drawn to and remain committed to the field of child abuse medicine—hope.

“There are so many opportunities and ways to tackle the problem,” says Metz.

Hagan agrees and says that the formal creation of the subspecialty has contributed greatly to the current and future momentum of the field. “Now, we have a group of people whose full-time work is seeing these children and families, working with their peers around the country, developing policy, creating training programs, and actively advocating,” he says. He stresses, however, that it remains the responsibility of every clinician to identify and report suspected child abuse and neglect.

Wagner adds that the field is becoming increasingly multi-

New Partnerships for Patient and Family Care Program

The Patient and Family-Centered Care Program continues to develop innovative partnerships that improve care at UVM Children’s Hospital. In a first-of-its kind partnership, Patient/Family Advisors conducted approximately 120 interviews with applicants to the pediatric residency program, lending their wisdom and expertise to the process. In collaboration with the Vermont Oxford Network, Patient/Family Advisors involved in the NICU Advisory Council are working on improving discharge planning. As a result, advisors now provide peer support for NICU families. The Empower program has been rolled out in the inpatient pediatric unit. A multi-disciplinary team, including patients and families, developed a set of questions that will empower the care team and patients of differing abilities to work together. With special thanks to Children’s Miracle Network Hospitals, the Empower team purchased a variety of sensory tools to support patients of differing abilities during their inpatient stay.

Pediatric Emergency Medicine Expands

Three physicians trained in the subspecialty of Pediatric Emergency Medicine (PEM) have joined UVM, bringing with them innovative research agendas and a passion for education. With section chief Joseph Ravera, M.D., the team has grown from one to four members in the past two years, giving physicians across the UVM Health Network important support backed by significant clinical and academic experience when it comes to issues in the emergency care of children. The team serves as teaching faculty for the emergency medicine and pediatric residency programs. David Nelson, M.D., focuses on EMS education, pediatric emergency preparedness, and telehealth, while Christian Pulcini, M.D., brings interest and expertise in PEM clinical research, with a focus on children with medical complexity and special healthcare needs. Molly Stevens, M.D., comes to the team after serving as the PEM director of clinical research and PEM fellowship program director at Johns Hopkins.

disciplinary and collaborative, and Rafuse says the arrival of Metz has allowed the Child Safe Program to become a formal hub for consistent response and information delivery to child protective professionals.

“We are so fortunate to have James with us,” says Lewis First, M.D., M.Sc., professor and chair of pediatrics and UVM Children’s

Hospital chief. “He recognizes that we’ll only succeed if we continue to connect and build partnerships with state agencies, organizations, schools, and all those interested in advocating for the health, safety, and wellbeing of children. His efforts are helping our state become a national leader in child abuse prevention and treatment. ■



Partnership in a Pandemic

ON MARCH 7, 2020, VERMONT reported its first confirmed case of COVID-19. As day care centers and schools closed and pediatricians rapidly transitioned to telehealth, it quickly became apparent that medical professionals needed support during a rapidly changing situation.

A regular partner with the Vermont Department of Health, VCHIP representatives, including Executive Director Judy Shaw, Ed.D., M.P.H., R.N., Professor of Pediatrics Wendy Davis, M.D., and Associate Professor of Pediatrics Breena Holmes, M.D., realized they could leverage VCHIP's CHAMP (Child Health Advances Measured in Practice) program to help share just-in-time COVID-19 information with providers in their network and beyond.

The system they implemented has helped Vermont lead the way nationally when it comes to COVID-19 pandemic response.

"VCHIP is known for saying 'how can we help?'" says Shaw, a professor of pediatrics and nursing who has built VCHIP—founded in 1999—to nimbly rise and respond to the Vermont pediatrics community's needs.

On March 13, 2020, VCHIP and VDH leaders met, and a few days later, they tested their idea to hold the COVID edition of the CHAMP call to push out information, while Department of Health represen-

tatives listened. "What transpired was just magical," Shaw says.

"Integrating clinical medicine and public health was our pre-COVID approach, so it felt natural to be supportive and team up during this crisis," says Holmes, who is a physician advisor to the Division of Maternal Child Health at the VDH.

Founded on long-term partnerships with VDH, the Vermont Chapter of the American Academy of Pediatrics (AAP), and the Vermont Academy of Family Physicians, the CHAMP initiative was launched in 2012 by Sara Barry, M.P.H., now director of clinical and quality improvement for One-Care Vermont and a VCHIP senior advisor. Through regular webinar calls, CHAMP offers collaborative improvement activities to meet the evolving needs of health care professionals, children, and families.

Pre-pandemic, says Davis, the VCHIP CHAMP team would support efforts to "strengthen Vermont's system of high-performing pediatric medical homes." Then COVID-19 hit.

"We made a split-second decision to step up this activity on March 16 or 17," says Davis, who was health commissioner in 2009 during the H1N1 pandemic. "VCHIP felt there was a need to collate data focused on the pediatric population and extract the information most relevant to children and families."

Co-led by Davis and Holmes, the CHAMP webinar calls start with a brief situation update, with information the CHAMP team curates from the Governor's press conferences, critical updates from the AAP and Centers for Disease Control and Prevention, health advisories and alerts, and a segment called "practice issues." There are also expert guests to talk about emergent issues.

"We've leveraged the uniqueness of our programs, using the foundation of CHAMP and the credibility of VCHIP, and aligned all the people interested in children and families—including schools," says Shaw. "We are walking this path together, shoulder-to-shoulder."

She credits Davis—a former Vermont health commissioner—and Holmes—former director of Maternal Child Health at VDH—with possessing a unique blend of skills, perspectives and experience that have led to the CHAMP calls' success. The two were honored jointly with the Vermont AAP's 2020 Green Mountain Pediatrician award in recognition for their work on the CHAMP calls.

Davis is quick to add that the following VCHIP staff members play an integral role in ensuring each call's success: Project coordinators Avery Rasmussen and Angela Zinno, M.A.; Christine Pellegrino, quality improvement associate;



Alexandra Bannach, M.D., medical director (far right) and her staff at North Country Pediatrics in Newport, Vt.

Miki Beach, M.A., program administrator; and Jennifer Le, outreach and training associate.

Pediatricians, family medicine physicians, and a wide range of folks who work with children and families have embraced the sense of partnership the calls offer.

At a November 2020 Pediatrics Grand Rounds CHAMP COVID

presentation, Professor and Chair of Pediatrics Lewis First, M.D., lauded the pair, saying "What you have done is anchored all of us, allowed us to breathe and continue, and accomplish far more than we thought we could."

Pediatrician Alexandra Bannach, M.D., medical director of North Country Pediatrics in Newport,

Vt., is living proof of the calls' positive impact.

"Drs. Breena Holmes and Wendy Davis are my heroes!" she says. "The knowledge that I gain from the calls allows me to advocate and educate in our area, provide that information to other clinicians in my area and be a voice to the public." ■

VCHIP Improves Health Outcomes for Children

The Vermont Child Health Improvement Program (VCHIP) is dedicated to improving health outcomes for children and adolescents through evidence-based research and quality improvement, including:

Asthma-Related Emergency Department Use

Supported by a grant from the Agency for Healthcare Research and Quality as part of their Pediatric Quality Measures Program, the Vermont Child Health Improvement Program and two collaborating institutions conducted a study on the impact of an asthma-focused quality improvement (QI) learning collaborative on asthma-related Emergency Department (ED) visits. The paper, published in *Pediatrics*, concluded that participation in a QI collaborative that emphasized guideline-recommended asthma care processes was associated with a significant reduction in asthma-related ED visits.

Primary Care and Quality Improvement Efforts

Even as the focus of CHAMP (Child Health Advances Measured in Practice) network activity shifted to the COVID-19 pandemic, the VCHIP CHAMP team and participants completed data collection and analysis from the 2019-2020 project on improving care for attention deficit hyperactivity disorder and launched the 2020-2021 project on "Strengthening Vermont's System of High-Performing Medical Homes," with a special emphasis on provider wellness and addressing social determinants of health adversely affected by the COVID-19 pandemic.





Treating the Whole Child

Nick Bonenfant, M.D.

AS A NEW PEDIATRIC RESIDENT at UVM Children's Hospital, Nick Bonenfant, M.D., found himself struggling with how to best support adolescents with mental health issues.

"During my first year of residency, I inherited a panel of primarily adolescent male patients," he says. "While treating them I felt this disconnect—questioning my ability to connect with them about things like anxiety and depression, worrying about not using the right words, and feeling like I lacked a comfort level and expertise that I needed."

He's not alone in this challenge—the number of children presenting with mental health issues is on the rise, and pediatricians are often the first to assess how best to offer support. They can have trouble finding help, as the number of mental and behavioral health spe-

cialists hasn't kept pace with need. As the COVID-19 pandemic continues to rage on, experts see that gap widening even further. That's why it's crucial for primary care physicians and pediatricians to receive additional training in mental health, says Bonenfant, now chief resident for the UVM Department of Pediatrics Residency Program. Yet that type of training is not heavily highlighted in an already jam-packed and rigorous pediatric residency curricula.

Spurred by his own experience as a teen who suffered from anxiety and now, as a pediatrician-in-training treating patients, Bonenfant developed two new programs to enhance training for both pediatric and psychiatry residents.

Developed in collaboration with Assistant Professor and Director of the Child Psychiatry Fellowship Program Maya Strange,

M.D., and Elizabeth Forbes, M.D., an assistant professor of pediatrics and division chief of the UVM Children's Hospital Children's Specialty Center, an elective psychiatry rotation gives second- and third-year pediatric residents a foundation for understanding and assessing child and adolescent mental health. The four-week rotation focuses on shadowing child and adolescent psychiatric physicians and fellows and working with UVM's Vermont Center for Children, Youth, and Families and community organizations such as the Howard Center, a mental health agency in Burlington. Now, six out of seven third-year pediatrics residents are taking part in the optional elective.

The connections that Bonenfant made while creating and completing the elective, and his work with 2019-2020 UVM Pediatric Chief Resident Anna

Spurred by his own experience as a teen who suffered from anxiety...Bonenfant developed two new programs to enhance training for both pediatric and psychiatry residents.

Zuckerman, M.D., led to the creation of a second new offering, the Mind Body Buddy program.

Launched in October 2020, the program is the culmination of a joint effort between the UVM Department of Pediatrics and Department of Psychiatry, specifically Bonenfant, Zuckerman, Strange, Forbes, Associate Professor and Director of the Pediatric Residency Program Jill Rinehart, M.D., Assistant Professor of Psychiatry Haley McGowan, D.O., Clinical Professor of Pediatrics Marshall "Buzz" Land, M.D., Clinical Assistant Professor of Psychiatry Logan Hegg, M.D., and Clinical Instructor of Psychiatry and Child and Adolescent Psychiatry Fellow Aamani Chava, M.D.

Mind Body Buddy bolsters both the pediatric residency curriculum

and the child and adolescent psychiatry fellow training program with real-time peer-to-peer support, cross-specialty lectures, and the opportunity for occasional patient appointments during which both a pediatric resident and a child and adolescent psychiatry fellow are present—something that would rarely happen outside of this environment.

Now, each July, when child and adolescent psychiatry fellows and residents start their training, one fellow is partnered with one first year, one second year, and one third-year pediatric resident. The third-year pediatric resident acts as the liaison between their fellow residents and their assigned child and adolescent psychiatry fellow "buddy." At least once each month, the pediatric and psychiatric buddy

pairs meet to discuss cases and assessments. The buddies often text, call, or set up virtual meetings with one another for informal consults, sharing information to provide.

Pediatricians and child psychiatrists with this training are critical to the future health of children and adolescents in our community, says UVM Professor and Chair of Pediatrics and UVM Children's Hospital Chief Lewis First, M.D., "It's part of treating the 'whole child'—attending to their mental health along with their physical wellbeing," he says. "There are not enough cavalry coming into the world of mental health to meet the myriad psychological needs that society has placed on our next generation. This program is an important step in remedying that problem." ■

Global Health a Focus for Neonatal-Perinatal Fellowship

The UVM Medical Center Neonatal-Perinatal Medicine Fellowship Program combines clinical training in newborn intensive care with individualized research mentoring and experience to prepare fellows for careers in academic neonatology. Our faculty and fellows have created a research focus within the program around improving neonatal global health, with efforts aimed at improving access to care, education, and perinatal quality improvement work. Recent research includes investigation of prenatal ultrasound findings associated with adverse birth outcomes in Uganda, improved reporting of anthropometric measurements for optimal growth in the NICU, and implementation of non-pharmacological care for opioid-exposed newborns.

Pediatrics Faculty Lead the Way in Medical Education

Medical student education is a core mission of the Department of Pediatrics, with faculty participating in all levels of the Vermont Integrated Curriculum. In the Foundations level, faculty direct courses, lead active learning sessions, and facilitate groups in the Professionalism, Communication and Reflection course. The pediatric clerkship includes inpatient and outpatient experiences at UVM Children's Hospital, Champlain Valley Physician's Hospital, Norwalk General Hospital, and Danbury General Hospital. During Advanced Integration, the department offers one-month acting internships in neonatology, intensive care medicine, and pediatric hospital medicine. Other offerings include an innovative longitudinal skills-based preparation for residency course and a host of electives.



Reopening Schools Safely

IN THE SUMMER OF 2020, A commentary in *Pediatrics* by William Raszka, M.D., and Ben Lee, M.D., led to a flurry of interest around the globe. The duo of pediatric infectious disease experts found that “children are not significant drivers of the COVID-19 pandemic” based on an

analysis of early studies from Switzerland, China, France and Australia.

They wrote: “On the basis of these data, SARS-CoV-2 transmission in schools may be less important in community transmission than initially feared.” At a time when the world grappled with whether and how to reopen school safely, the response was immediate. Raszka and

Lee were interviewed for major media outlets including CNN, Fox News, the Associated Press and San Jose *Mercury News*. They fielded calls from school leaders and government officials seeking guidance, helping to steer decision-making during a crucial time.

What have we learned over the past year about how children factor into transmission of the SARS-CoV-2 virus?

Dr. Raszka: We have learned that schools have been able to open and that children are not driving transmission in schools. And

that, with appropriate mitigation strategies, even with pretty modest mitigation strategies in many states, schools have been able to open up. Around the nation, it’s been reassuring how few children are infected in schools and how little transmission there is between children in schools and between children and adults. School-based transmission has been very modest.

When the commentary in *Pediatrics* was published, the two of you fielded many inquiries from around the globe. What were some takeaways from that experience?

Dr. Lee: We were fortunate when it comes to timing. When the official publication went out, [reopening schools] was the most talked about topic in terms of how the pandemic was impacting kids, if not entire communities. One of the things that’s been fairly gratifying is that, from the beginning, our suspicion and our contention in looking at the data was that kids probably aren’t going to be the ones that are driving this. And we really do think that has been borne out through the global experience since we first wrote the commentary.

Dr. Raszka: It was a timely article. It was interesting using [the commentary] as a jumping-off point for what we did in

Vermont, just the tremendous amount of work that went into opening schools in Vermont, the multidisciplinary approach and how much time and effort we spent on looking at the data. The governor actually had us come to the press conference, and said “Present the data, please, because we’re going to act on this data.” That was really cool.

What are some thoughts on communicating nuanced public health data to the public? How did you approach that work?

Dr. Raszka: We would be very consistent in our messaging. We had three things to reinforce about kids: They’re less likely to transmit. We’re pretty confident they have less severe disease. Generally speaking, they seem to be underrepresented in terms of total number infections. Then we have to be humble about what we know and we don’t know. Things change. We would say this over and over and over again.

Dr. Lee: It’s a fine line between being authoritative in what you’re reporting, but also being cognizant of the limits of our knowledge and data. For a lay reader, who is not from a medical or scientific background, trying to delineate where that line is can be challenging. Also, it’s challenging to have a thoughtful public



Opposite, right:
William Raszka, M.D.
Opposite, left:
Ben Lee, M.D.

VT LEND Lauded for Culturally Responsive Practice

The Vermont Leadership Education on Neurodevelopmental Disabilities (VT LEND) program sets the standard nationally for how to train culturally responsive health professionals who are prepared to improve healthcare systems for children with autism spectrum disorder and developmental disabilities. VT LEND accepts 12 individuals annually for their nine month, 300-hour

program. VT LEND has received state and national recognition, both as one of the most diverse LEND programs in the country and as a leading program advancing culturally responsive practice and education. In 2020, VT LEND trainees represented 75 percent racial/ethnic diversity with trainees from Michigan, Minnesota, New Mexico, and the U.S. Virgin Islands. In the past year, VT LEND faculty and staff conducted over 120 continuing/

community education trainings, technical assistance sessions, and related activities. VT LEND Director Maria Mercedes Avila, Ph.D., received the Vermont Public Health Association 2020 Public Health Champion Award and VT LEND’s Health Disparities and Cultural Competence Advisory Council was recognized nationally by the *Diversity Journal* as one of the 2020 Diversity Team awardees.

Faculty Collaborate to Address Food Insecurity

As families navigate food insecurity during the COVID-19 pandemic, UVM Children’s Hospital has stepped in to help in myriad ways. The Everyone Eats program connects families in need with food prepared by local restaurants, with a goal to keep kids healthy while supporting local businesses. When a family indicates through the hospital’s food insecurity screening process that they’re struggling, it’s nice to be able to do “something right

in the moment,” says Elizabeth McDonald, PNP, who spearheads the hospital’s program. Vermont’s New American community has also been a focus throughout the pandemic, as “a fairly large proportion” of the primary care clinic’s patients fall into that category, says Stanley Weinberger, M.D. “That is certainly a group who as a whole tends to have lower socioeconomic status and is more risk for food insecurity, unstable housing and barriers to access to care.” Long-term relationships with

those families and with schools and community organizations has helped to fill gaps. Overall, the goal when it comes to addressing food insecurity is to meet short-term needs while not losing sight of more comprehensive solutions like reforms to government programs and changes to what insurance will cover, says Keith Robinson, M.D. “We can address it at the time of the visit and we can give both immediate resources and some longer-term resources,” he says. “But we’re also trying to advocate for system change.”

conversation in an era when every single aspect of the pandemic immediately becomes politicized.

What’s next for both of you?

Dr. Raszka: Ben and I wrote another commentary for *Pediatrics*. We reviewed the world’s literature on household transmission and children transmitting to adults and found that children can transmit

the disease. They don’t seem to do it as efficiently as adults, generally speaking. But it’s time to move on. We need to figure out the pathophysiology [of the disease] and think about ways to minimize transmission.

Dr. Lee: I’m in the process of performing a pediatric COVID-19 antibody serosurvey in conjunction

with Colchester School District with funding from Children’s Miracle Network Hospitals Fund. Since kids are often either mildly symptomatic or asymptotically infected, one of the questions that’s always been out there is are we underestimating the true infection rates in kids? Serosurveys would be one way to help improve our data. ■

All in for UVM Children's Hospital

The community continued to show up for UVM Children's Hospital in a big way this year despite the COVID-19 pandemic upending many traditional in-person events. The Big Change Round Up for Kids, RALLYTHON, the Extra Life Gaming Marathon and more all drew immense participation that translates into meaningful support for patients and their families.

An Extraordinary Year of Support

Extra Life Gaming Marathon

168 PARTICIPANTS, **\$69,771.78** RAISED

UVM's Miracle Network Dance Marathon

832 PARTICIPANTS, **\$143,447.43** RAISED

Big Change Roundup for Kids

230 PARTICIPANTS, **\$300,202.58** RAISED

In partnership with 98.9 WOKO. Sponsors included G Stone Motors, New England Federal Credit Union, Maplefields, Med Associates, Walmart

UVM Children's Hospital Golf Classic

\$52,000 RAISED

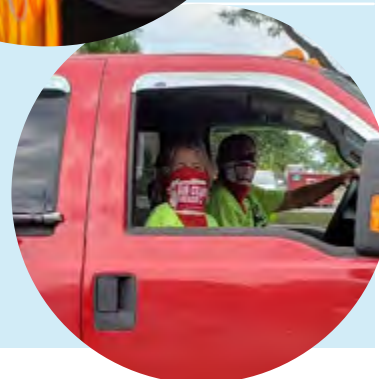
Although the tournament was cancelled, generous sponsors still contributed. They include Farrington Construction, Vermont Mechanical, LN Consulting, EchoStor, Farrell Distributing, Peoples United Bank, Hickok & Boardman Insurance Group & HR Intelligence, McSoley McCoy & Co, Amethyst

CMN Hospitals Corporate Partners

LOCAL PARTNERS RAISED **\$308,556**

Top Partners

- Walmart/Sams Club **\$130,495.08**
- Kinney Drugs **\$43,602.19**
- Credit Unions for Kids **\$33,017.05**
- Costco **\$30,231.14**
- Rite Aid **\$27,133.66**



Child Life Specialist
Sierra Scheller, M.S., CCLS,
supports a pediatric patient
in the pre-op area at
UVM Children's Hospital.
(Photo taken prior to
COVID-19 pandemic)



Partnership Creates School- Based Health Program

Through a three-year partnership with community partner Downs Rachlin Martin PLLC, UVM Children's Hospital has been offering school-based health programs at several locations. A team including Stanley Weinberger, M.D., Heather Link, M.D., and Elizabeth McDonald, PNP, have been organizing in-person and video visits in Winooski schools, and consultation and video visits at South Burlington

High School. School-based influenza vaccine clinics in Winooski and Burlington have been successful, as

have recent efforts to open lines of communication with families around COVID-19 vaccines.



Children's Miracle Network Hospitals Fund

As a Children's Miracle Network (CMN) Hospital, UVM Children's Hospital benefits from philanthropy supporting the CMN Hospitals Fund. Donors include patients and their families, community members, employees, and corporate partners. Through the funds raised, grants are awarded for innovative programs, new initiatives and critically needed equipment that can result in lives saved or helping a family in need. Recent projects include:

Car Seats for Low Birth Weight and Preterm Infants

PROJECT LEAD: MAUREEN JOHNSON, CSP, CPST-I, CHILD PASSENGER SAFETY SPECIALIST

Purchase of 22 car seats meant for babies as small as 3 pounds. They are available for NICU, Neonatal Transition Suite, and Mother Baby Unit for families who are being discharged but do not have a proper car seat due to having an unexpected low birth weight baby.

Child Life Specialist Supporting Pediatric Pre-Op

PROJECT LEAD: LAURA DATTILIO, RN, BSN, CPN, ASSISTANT NURSE MANAGER INPATIENT PEDIATRICS

Child Life position to cover pre-op but also available in PACU and overlap with Comfort Zone as needed. This was especially impactful this year because for a time, Child Life Specialists were the only approved support for children going into the OR as parents were not allowed due to COVID safety precautions.

Vermont Health Care Shares

PROJECT LEAD: LISA HOARE, GARDEN EDUCATOR AT UVM MEDICAL CENTER

The Health Care Shares program improves access to healthy food for low-to-moderate income patients. Families receive a free farm share, a novel nutrition curriculum patient notebook, vegetable and poultry prep demonstrations and a community connection.

For more information on the CMN Hospitals Fund, contact Shelby McGarry at Shelby.McGarry@UVMHealth.org

GENERAL PEDIATRICS DIVISIONS AND PROGRAMS

Pediatric Primary Care

PRIMARY CARE
DIVISION CHIEF
STANLEY
WEINBERGER, M.D.

Pediatric Primary Care is a comprehensive, family-centered medical home for a diverse population of children and adolescents. A faculty of 14 are situated across two sites. Services include medication-assisted therapy to adolescents with opiate use disorder and long acting reversible contraception. This past year, we welcomed Hillary Anderson, M.D., to our team.

Heather Link, M.D., and Elizabeth McDonald, PNP, direct care for children at six school-based health clinics across two districts. In addition to helping adapt school-based health to COVID-19, they are leading a partnership with Downs Rachlin Martin, PLLC, to innovate in school-based health.

The Pediatric New American Program, directed by Andrea Green, M.D., is a nationally recognized, equity-oriented medical home for new pediatric refugees. Dr. Green also continues providing and evaluating group well child care at the Building Strong Families Clinic in partnership with the Janet S. Munt Family Room, with funding from OneCare Vermont’s 2019 Innovation Fund grant.

Pediatric Primary Care is piloting an evidence-based Primary Care Mental Health Integration Program, with support from the UVM Health Network. This program, led by Logan Hegg, PsyD, Catherine Rude, M.D., and Michelle Streeter, R.N., will build on our comprehensive mental health services.



Quality Initiatives

- Stanley Weinberger, M.D. is the faculty lead for this year’s Vermont Child Health Improvement Program (VCHIP) Child Health Advances Measured in Practice project on “Strengthening Vermont’s System of High Performing Medical Homes.”
- Michelle Shepard, M.D., is the faculty lead for VCHIP’s Improving Care for Opioid-exposed Newborn project.

- Matt Saia, M.D., is the faculty lead for “Improving Blood Lead Screening” with VCHIP and the Vermont Department of Health.
- Pediatric Primary Care, led by Elizabeth McDonald, PNP and Cathy Kelley, LICSW, is participating in the Institute for Healthcare Improvement’s Improving Population Health Action Community.

Recent Awards

- Green A, Weinberger S, Harder V. The Strengths and Difficulties Questionnaire as a Mental Health Screening Tool for Newly Arrived Pediatric Refugees. *J Immigr Minor Health*, Sept 2020. doi: 10.1007/s10903-020-01082-7
- Wasserman RC. Baby and bathwater: a telehealth tale. *JAMA Pediatr*2020; 174:doi:10.1001/jamapediatrics.2020.2205
- Klein J, Gorzkowski J, Resnick E, Harris D, Kaseeska K, Pbert L, Prokhorov A, Wang T, Davis J, Gotlieb E, Wasserman R. Delivery and impact of a motivational intervention for smoking cessation: a PROS study. *Pediatrics* 2020; 146:e20200644
- Wasserman RC, Fiks AG. The future(s) of pediatric primary care. *Acad Pediatr* 2020; (in press) doi. org/10.1016/j.acap.2020.10.015

Adolescent Medicine

DIVISION CHIEF
ERICA GIBSON,
M.D.

Erica Gibson, M.D., continues to lead the expanding multidisciplinary Division of Adolescent Medicine. Care is now divided into three outpatient clinics: The Adolescent Eating Disorder Consult Clinic (EDCC), the Transgender Youth Program (TYP) and the general Adolescent Medicine Specialty Clinic focused on sexual and reproductive health care. The EDCC provides support for adolescent patients with mild to moderate eating disorders. The team also provides recommendations for access to higher levels of care out of state for more severe eating disorders. Aubrey Carpenter, Ph.D., joined the EDCC team this year. The TYP, which provides comprehensive gender care for people under 18, has doubled in size this year with the addition of Elizabeth McDonald, APRN. Wendy Bliss, R.N., also joined the team. Theresa Emery, LICSW, continues to support both the EDCC and the TYP. Marlene Maron, Ph.D., and Kimberlee Roy, Ph.D., continue to support the TYP. Dr. Gibson is funded to work with the Vermont Child Health Improvement Program, the Vermont Department of Health, and the American Academy of Pediatrics (AAP) Vermont chapter on a variety of adolescent health issues. She continues as an executive board member of the AAP Council on School Health and as a member of the Society for Adolescent Health and Medicine Sexual and Reproductive Health Committee.

Cardiology

DIVISION CHIEF
SCOTT YEAGER,
M.D.

The Division of Pediatric Cardiology has continued to provide a full range of inpatient and outpatient cardiology services while expanding quality initiatives, addressing teaching responsibilities, and pursuing clinical research. The division is preparing to launch a cholesterol screening project to increase compliance with current AHA and AAP recommendations for children and adolescents. Nancy Drucker, M.D., collaborates with the Vermont Child Health Improvement Program on projects addressing assessment, documentation and intervention in childhood obesity, and on programs for transitioning adolescents from pediatric to adult services. Niels Giddins, M.D., works with a regional group to support a New England-wide pacemaker registry and monitoring service. Jonathan Flyer, M.D., was co-recipient of a \$25,000 grant to establish a regional bicuspid aortopathy registry. He was also the recipient of a \$10,000 grant

from the Teaching Academy to create an active learning module for ECG interpretation. Caitlin Haxel, M.D., is a collaborator on a national study to identify and intervene in fetuses at high risk for congenital complete heart block. Scott Yeager, M.D., and Dr. Flyer are working with Elisabeth Runte, M.D., a recent pediatric residency graduate, on a study with the Vermont Oxford Network of national trends in patent ductus arteriosus management. Dr. Yeager serves as president of the New England Congenital Cardiology Research Foundation. Pediatric Cardiology has been involved in two regional clinical studies titled “A cross sectional study of dyslipidemia among adults with congenital heart disease,” and “Living With Congenital Aortic Stenosis: Exercise Restriction, Patterns of Adherence, and Quality of Life.” Both projects have resulted in manuscripts currently in preparation. Dr. Giddins is co-author of “Optimizing the Follow-Up of Pediatric Patients with Pacemakers or Defibrillators within the New England Community,” to be presented at the American Heart Association meetings in November of 2018. Dr. Flyer and Scott Yeager, M.D., are co-authors on an abstract titled “Ectopia Cordis: Survival and Outcomes of a Neonatal Multicenter Cohort” submitted to the American College of Cardiology annual meeting in 2019.

Publications

- Wehrman M, Patel SS, Haxel C, Cassidy C, Howley L, Cuneo B, Gien J, Kinsella JP. Implications of Atrial-Level Shunting by Echocardiography in Newborns with Congenital Diaphragmatic Hernia. *J Pediatr*. 2020 Apr;219:43-47
- Srinivasan R, Sambatakos P, Lane M, Krishnan U, Weller R, Flyer JN, Robinson KJ, Glickstein J. Successful Increase of Outpatient Continuity Clinic in a Fellowship Quality Improvement Project. *Pediatric Quality and Safety*. May/June 2020;5:e306 DOI:10.1097
- Frank BS, Schafer M, Thomas TM, Haxel C, Ivy DD, Jone PN. Right atrial conduit phase emptying predicts risk of adverse events in pediatric pulmonary arterial hypertension. *J Am Soc Echocardiogr*. 2020 Aug;33(8):1006-1013
- Wu FM, Mendelson M, Drucker NA, Moran A, Yeager SB, Huang Y, Palfrey H, Valente AM, De Ferranti S A Multicenter Cross-sectional Study of Dyslipidemia Among Adults in New England With Congenital Heart Disease *AHA Scientific Sessions*, Nov 2020

Children’s Developmental Evaluation Program

This collaborative program offers comprehensive diagnostic evaluations for children with a chief concern of developmental delay, autism spectrum disorder and/or intellectual disability. The program is a partnership between three clinical services: Developmental Behavioral Pediatrics; the Vermont Center for Children, Youth and Families’ Autism Assessment Clinic; and Neuropsychology at the Vermont Department of Health. Our team continues to develop clinical and training partnerships within the UVM Medical Center, University of Vermont, Vermont Department of Health, and treatment and service providers throughout the state. We are involved in advocacy efforts, medical training and community outreach. Our goal is to improve systems and access to care for children with developmental disabilities.

**DIVISION CHIEF
ELIZABETH
FORBES, M.D.**

**DIVISION CHIEF
JAMES METZ, M.D.,
M.P.H., FAAP**

Child Abuse Prevention/ChildSafe Program

The Child Safe Program is committed to improving the health and well-being of children by addressing all forms of child maltreatment. The COVID-19 pandemic has put enormous stress on families and communities. During these difficult times, we know that children are at higher risk for maltreatment. The Child Protection Team includes a board-certified child abuse pediatrician, James Metz, M.D., M.P.H., FAAP; a board-certified pediatric forensic nurse examiner, Tracey Wagner, R.N., SANE-P; and a social worker with expertise in child abuse and neglect, Mary-Ellen Rafuse, MSW. Our team is developing standardized protocols for the identification and evaluation of child maltreatment, with a goal to decrease bias when caring for children. Members of the Child Protection Team serve on the Vermont Citizen’s Advisory Board, VT SANE Board, Child Fatality Review Committee, Prevent Child Abuse Vermont Board, the Pediatric Trauma Council, Kidsnet Committee, and the Human Trafficking Task Force.

Publications

- Metz, JB, Otjen JP, Perez FA, Done SL, Brown ECB, Wiester RT, et al. Delays in care seeking for young children with accidental skull fractures are common. *Acta Ped*. Published online in advance. doi:10.1111/APA.15660
- Metz J, Burns R. Pediatric boot camp series: longitudinal care for a child with asthma—from the emergency department to outpatient clinic. *MedEdPORTAL*. 2020;16:10906. https://doi.org/10.15766/mep_2374-8265.10906
- Jenny C, Metz JB. Medical Child Abuse and Medical Neglect. *Pediatr Rev*. 2020;41(2)49-60
- Wright JN, Feyma TJ, Ishak GE, Abeshaus S, Metz J, et. al. Subdural hemorrhage in abused children: frequency, associations and clinical presentation. *Ped Rad*. 2019(49)1762-1772

Endocrinology

The Division of Pediatric Endocrinology provides ambulatory and inpatient care for patients with a variety of complex endocrine disorders. Using a family-centered approach, patients and their families receive the highest quality of care from a multidisciplinary team consisting of two physicians, three certified diabetes educators, an endocrine nurse, a pediatric dietician, a social worker, and a pediatric psychologist. The American Diabetes Association recognizes the Pediatric Diabetes Clinic as a center of diabetes education. Jennifer Todd, M.D., serves as co-medical director at the Barton Center for Diabetes Education, overseeing diabetes summer camp programs in Vermont and Massachusetts. P.J. Zimakas, M.D., serves as the pediatric endocrine consultant to the Vermont Department of Health Newborn Screening Advisory Committee, assisting with the development of guidelines for screening of congenital endocrine disorders. The division is also dedicated to providing clinical educational experiences for medical students, pediatric residents, and adult endocrinology fellows. Drs. Todd and Zimakas lecture in several courses in the Vermont Integrated Curriculum.

Publication

- Eswarakumar AS, Ma NS, Ward LM, Backeljauw P, Wasserman H, Weber DR, DiMeglio LA, Imel EA, Gagne J, Cody D, Zimakas P, Topor LS, Agrawal S, Calabria A, Tebben P, Faircloth RS, Gordon R, Casey L, Carpenter TO. Long-Term Follow-up of Hypophosphatemic Bone Disease Associated With Elemental Formula Use: Sustained Correction of Bone Disease After Formula Change or Phosphate Supplementation. *Clin Pediatr* (Phila). 2020 Oct;59(12):1080-1085. doi: 10.1177/0009922820941097. *Epub* 2020 Jul 15. PMID: 32666808

**DIVISION CHIEF
PAUL ZIMAKAS,
M.D.**

Gastroenterology, Hepatology and Nutrition

**DIVISION CHIEF
MICHAEL D'AMICO,
M.D.**

The Division of Pediatric Gastroenterology, Hepatology and Nutrition provides care to children and adolescents for disorders of the GI tract, liver and pancreas, as well as problems with feeding, nutrition and growth, obesity, and lipid disorders. Michael D'Amico, M.D., heads the Healthy Living Program, a weight management clinic for overweight children and adolescents. He co-directs the Pediatric AeroDigestive Program and is involved with the Pediatric Spina Bifida Program. Jill Sullivan, M.D., combines clinical practice with research in pediatric cystic fibrosis and inflammatory bowel disease. She co-directs the Pediatric Cystic Fibrosis Program and is the site leader for ImproveCareNow, an international, multi-centered collaborative chronic care network focusing on Crohn's disease and ulcerative colitis in children and adolescents. This award-winning program, founded and directed by Richard Colletti, M.D., is considered one of the premier quality improvement initiatives nationally. Nina Gluchowski, M.D., joined the division this year, bringing excellent clinical talent and research expertise in congenital diarrhea. Our exemplary nursing staff remains involved in high quality clinical care and nursing education, particularly with the Vermont School Nurses Association.



MICHAEL D'AMICO, M.D.

Genetics and Dysmorphology

**DIVISION CHIEF
LEAH BURKE, M.D.**

The Clinical Genetics Program provides genetic and metabolic services. Leah Burke, M.D., continues as chair of the Council on Genetics for the American Academy of Pediatrics and has been developing and revising the AAP Health Supervision Clinical Reports on genetic conditions. She is a core faculty member in Project ECHO on their Complex Integrated Pediatrics Program, through a collaboration between the Weitzmann Institute and the New England Regional Genetics Collaborative (NERGN). She serves on the NERGN management team and as a consultant. Her educational and leadership roles continue after her retirement in December. Robert Wildin, M.D., works with the Genomic Medicine Laboratory developing a pilot program in whole genome sequencing as a preventative health measure. He continues to direct and teach an online course in genetics and genomics for nursing students. New faculty member Katherine Anderson, M.D., brings an interest in inborn errors of

KATHERINE ANDERSON, M.D.



metabolism and biochemical genetics. She chaired a discussion group at the New England Metabolic Consortium meeting on treatment of metabolic disorders. Dr. Anderson plans to provide care for general genetics as well as metabolic disorders, filling a void of metabolic clinics especially in northern New York and New Hampshire.

Hematology/Oncology

**DIVISION CHIEF
HEATHER
BRADEEN, M.D.**

The Division of Pediatric Hematology/Oncology provides specialized care for children and adolescents with a wide range of blood disorders and cancers. The division is an active member of Children's Oncology Group, an international research consortium supported by the National Cancer Institute. With this collaboration, we are able to offer the latest national clinical trials to patients locally. Our team includes a dedicated staff of providers and senior level certified oncology nurses, nurse practitioners, a social worker, child life specialists and psychologists. Jessica Heath, M.D., continues to grow a translational research program studying the molecular biology of acute lymphoblastic leukemia and potential therapeutic targets. Alan Homans, M.D., continues to serve as executive chair of the Institutional Review Board.

Highlights

- Jessica Heath, M.D., was awarded the Larner College of Medicine New Investigator "Rising Star" Award.
- Dr. Heath's research was highlighted as one of two oral plenary paper presentations at the 2020 American Society of Pediatric Hematology Oncology Annual Meeting.
- Caroline Hesko, M.D., received the Children's Miracle Network Hospitals grant for Pediatric Oncology transition to BEACON (chemotherapy ordering in the electronic record).

Publications

- Fertal SA, Bradeen HA, Friesen E, Heath JL. Time Course and Management of Protracted Anaphylaxis Due to PEG-Asparaginase. *J Pediatr Hematol Oncol*. 2020 Aug 18
- Heath JL, Cohn GM, Zaidi SK, Stein GS. The role of cell adhesion in hematopoiesis and leukemogenesis. *J Cell Physiol*. 2019 Nov;234(11):19189-19198
- Aumann WK, Heath JL, Conway AE, Sze SK, Gupta VK, Kazi RR, Tope DR, Wechsler DS, Lavau CP. Fusion

of the CRM1 nuclear export receptor to AF10 causes leukemia and transcriptional activation of HOXA genes. *Leukemia*. 2020 Jul 30. doi: 10.1038/s41375-020-0998-3. Epub ahead of print. PMID: 32733011

- Thomas AA, Tucker SM, Nelson CJ, Nickerson JP, Durham SR, Homans AC. Anaplastic pleomorphic xanthoastrocytoma with leptomeningeal dissemination responsive to BRAF inhibition and bevacizumab. *Pediatr Blood Cancer*. 2019 Jan;66(1):e27465

Infectious Disease

DIVISION CHIEF
WILLIAM RASZKA,
M.D.

The Division of Pediatric Infectious Disease provides inpatient, outpatient, telephone, and telehealth consultation services for acute and chronic infectious disease issues, and travel medicine consults. The division participates in establishing and monitoring infection control policies, antibiotic stewardship programs, and clinical pathways across the UVM Health Network. The service provides advice and content expertise to the Vermont Child Health Improvement Program, the Vermont Department of Health, Agency of Education, and Agency of Commerce and Community Development, and to scientific advisory committees for the governor and health commissioner. Division members are active at all levels of undergraduate and graduate medical education. William Raszka, M.D., serves on governance committees for the Larner College of Medicine and UVM Health Network. Benjamin Lee, M.D., conducts vaccine research with the UVM Vaccine Testing Center and Translational Global Infectious Diseases Research Center, where he has an active research program studying rotavirus and other enteric viral infections. His work is supported by the Barbara Bailey Heinz and Gayl Bailey Heinz Fund, the Children's Miracle Network Hospitals Fund, and the National Institutes of Health.

Pediatric Critical Care Medicine

DIVISION CHIEF
AMELIA HOPKINS,
M.D.

The Pediatric Critical Care Medicine Division, staffed by five board-certified pediatric intensivists, provides care for children with life-threatening illnesses or injuries 24 hours a day. Amelia Hopkins, M.D., and Iris Toedt-Pingel, M.D., now share medical directorship of the Pediatric Intensive Care Unit (PICU). The Virtual PICU Systems, LLC (VPS) database has continued to demonstrate that for a PICU our size, we



consistently take excellent care of very ill children with a lower than expected mortality rate. In addition to clinical care, division members participate in multi-center research projects, engage in medical student and resident education, and present Continuing Medical Education sessions locally and nationally. Barry Heath, M.D., continues to work with ThinkMD to develop solutions for the shortage of healthcare professionals around the world. Dr. Toedt-Pingel continues to lead the division in the multi-center NEAR4kids trial that aims to improve safety and standardization of pediatric intubations. She also runs simulation programs. Elizabeth Ulano, M.D., draws on her expertise in neurocritical care and revises protocols and manuals for the division. Rebecca Bell, M.D., serves as vice president for the Vermont chapter of the American Academy of Pediatrics and is involved in advocacy efforts locally and nationally. Dr. Hopkins is the associate program director for the pediatric residency program.

Pediatric Hospital Medicine

DIVISION CHIEF
KAREN LEONARD,
M.D.

The Pediatric Hospitalist Program provides hospital-based care, seven days a week, 24 hours a day, for pediatric inpatients and newborns at the UVM Children's Hospital and at CVPH in Plattsburgh, N.Y. Over the past year, the 15 division members have been instrumental in improving care. Three of our pediatric hospitalists were part of the first national cohort of pediatric hospitalists to receive subspecialty certification in Pediatric Hospital Medicine from the American Board of Pediatrics. Members of our team have worked tirelessly during the COVID-19 pandemic on developing inpatient and newborn protocols and algorithms in order to keep our patients and teams safe. Pediatric hospitalists have created myriad educational innovations for medical students to ensure that their pediatric educational experience continues to be outstanding. Despite the many changes of the past year, we continue to be involved in research projects, quality improvement initiatives, and in the education of medical students and residents



Neonatology

DIVISION CHIEF
CHARLES
MERCIER, M.D.

The Division of Neonatal Perinatal Medicine (NPM) consists of attending physicians, NPM fellows, and advanced practice providers providing medical care to premature and sick newborns. In 2020, the division welcomed Delia Horn, M.D., Adrienne Pahl, M.D., and Aaron Wallman-Stokes, M.D., as NPM attending physicians, and Amara Heard, M.D., and Esther King, M.D., to our fellowship program. Our 29-bed NICU is the only level III unit

in Vermont. Our outcomes for very low birth weight infants consistently meet or exceed expectations on key clinical performance measures as calculated by the Vermont Oxford Network.

Highlights

- Aaron Wallman-Stokes, M.D., focuses his research on characterizing premature infants' oxygen exposure and the association between hypoxia and neonatal morbidities and mortality.
- Adrienne Pahl, M.D., is a 2020 recipient of the AAP/VON Scholar Award for ongoing quality improvement work focused on the care of opioid-exposed newborns.
- Delia Horn, M.D., has partnered with Imaging the World to examine the relationship between prenatal ultrasound findings and neonatal outcomes in rural Uganda, which was presented at the AAP National Conference and Exhibition in October 2020.
- Whitney Barkhuff, M.D., Ph.D., directs the pediatric resident and acting intern NICU rotations and curricula, chairs the Neonatal Resuscitation Committee, and produces the NICU Resource Handbook.
- Leslie Young, M.D., is a principal investigator for the “Eating, Sleeping, Consoling for Neonatal Opioid Withdrawal (ESC-NOW): a Function-Based Assessment and Management Approach” study, funded through the NIH's trans agency HEAL Initiative.
- Deirdre O'Reilly, M.D., M.P.H., is director of the NPM fellowship program and director of the neomedical follow-up program. She was awarded a Vermont INBRE Administrative Supplement from the NIH/NIGMS in 2020 to begin a translational research collaboration with Middlebury College neuroscientists to promote investigation of infant EEG biomarkers and subsequent neurodevelopment.
- Danielle Ehret, M.D. M.P.H., is director of global health at the VON, chair of the American Academy of Pediatrics (AAP) Section on Neonatal Perinatal Medicine Global Health Subcommittee and co-chair of the AAP Helping Babies Survive Planning Group. In 2019-2020, she was the invited North American representative to the International Pediatrics Association Child Health Emerging Leaders Program.
- Roger Soll, M.D., is the Wallace Professor of Pediatrics, vice president and director of clinical trials at the Vermont Oxford Network (VON) and editor in chief of the Cochrane Neonatal Collaborative Review Group.

Nephrology

The Division of Pediatric Nephrology treats children with kidney disease, hypertension, incontinence, genitourinary malformations, and acute kidney injury, and manages pediatric kidney transplant patients. We provide dialysis and apheresis services for children. Nationally, the division continues to participate in the North American Pediatric Renal Trials and Cooperative Studies group as well as the Pediatric Nephrology Research Consortium.

Palliative Medicine

The Division of Palliative Medicine team partners with the Department of Pediatrics to care for children and families, to train learners of all levels, and to advance the science of pediatric palliative care. TalkVermont Peds, a communication skills training program for pediatric serious illness conversations, was developed through a Frymoyer Scholarship. We successfully completed three TalkVermont Peds communication workshops under the leadership of Iris Toedt-Pingel, M.D., and Stephen Berns, M.D. For pediatric trainees, we implemented a ten-session, 18-month rotating curriculum of pediatric palliative care topics with leadership from Dr. Berns, Lisa-Anne Rasmussen, M.D., and John Wax, M.D. In collaboration with Kate Ostrander, M.D., and the interprofessional Pediatric ICU leadership team, we began providing a structured space to debrief and find meaning following the death of a child. Dr. Rasmussen is a standing member of the Vermont State Pediatric Palliative Care Committee.

Publications

- Neville B and Laramée A. Understanding Palliative Care: a Nursing Perspective. Vermont Nurse Connection. August 2020. p12-13.
- Lemmon ME, Wusthoff CJ, Boss RD, Rasmussen LA. Ethics in Therapeutic Hypothermia. Seminars in Fetal & Neonatal Medicine. 2021 (forthcoming)
- Gramling R, Javed A, Durieux, BN, Clarfeld LA, Matt JE, Rizzo DM, Wong A, Braddish T, Gramling C, Wills J, Arnoldy F, Straton J, Cheney N, Eppstein MJ, Gramling DJ. Uncertainty Stories: A Machine Learning Approach to Scalable Analysis of Uncertainty in Serious Illness Conversations. Patient, Education & Counseling. 2021 (forthcoming)

Pulmonology

The Pediatric Pulmonology Division provides outpatient, virtual and inpatient care to children with a variety of respiratory and airway disorders. Our cystic fibrosis (CF) program received full reaccreditation from the Cystic Fibrosis Foundation in 2019 and was the recipient of a Quality Care Award. The CF program continues to function as one of the top centers in the United States for pediatric lung function and for meeting recommended guidelines as reported in the national CF Foundation (CFF) Patient Registry. The division continues to participate in several multi-center CF clinical research trials as a Therapeutic Development Center as awarded by CFF Therapeutics, Inc.

Recent Highlights

- Kelly Cowan, M.D., is co-principal investigator for the NIH-funded ECHO IDeA States Clinical Trials Network. She is also collaborating with the Vermont Department of Health for asthma self-management education and with Efficiency VT for Healthy Home Referrals.
- LE Faricy, M.D., is the AAP-VT state chapter E-cigarette champion. She is also chair of the Larner College of Medicine Admissions Committee.
- Thomas Lahiri, M.D., is immediate past-president of the Pediatric Pulmonology Division Directors Association of the American Thoracic Society. He also serves on the Guidelines Steering Committee for the Cystic Fibrosis Foundation.
- Keith Robinson, M.D., worked with colleagues from the Vermont Child Health Improvement Program to test the usability of a quality measure through the Agency for Healthcare Research and Quality.

Publications

- Weinberger SJ, Cowan KJ, Robinson KJ, Pellegrino CA, Frankowski BL, Chmielewski MV, Shaw JS, Harder VS. A primary care learning collaborative to improve office systems and clinical management of pediatric asthma. *J Asthma*. 2019 Dec 14:1-10. doi: 10.1080/02770903.2019.1702199
- Lahiri T, Sullivan JS, Sartorelli KH, Murphy JJ. Delayed presentation of meconium ileus in an infant with cystic fibrosis. *Pediatrics 2020*: 146(4): e20193717. PMID 32978295
- Oermann CM, Lahiri T, Peterson-Carmichael S, Weiss P. The history of workforce concerns in pediatric pulmonary medicine. *Pediatr Pulmonol 2020*. PMID 32986316
- Srinivasan R, Sambatakos P, Lane M, Krishnan U, Weller R, Flyer JN, Robinson KJ, Glickstein J. Successful Increase of Outpatient Continuity Clinic in a Fellowship Quality Improvement Project. *Pediatric Quality and Safety*. May/June 2020;5:e306 DOI:10.1097

DIVISION CHIEF
LIZ HUNT, M.D.

DIVISION CHIEF
ROBERT
GRAMLING, M.D.

DIVISION CHIEF
THOMAS LAHIRI,
M.D.

Rheumatology

DIVISION CHIEF
MATTHEW
HOLLANDER, M.D.

The Division of Pediatric Rheumatology provides patient-centered subspecialty care to children and adolescents with a variety of rheumatic conditions. Our team includes a dedicated nurse, social worker and administrative support specialist. Current quality improvement efforts include ensuring our patients have the knowledge and confidence for a successful transition to an adult system of care. The division recruits patients for national study groups and cohorts. These activities help to develop effective treatments for childhood arthritis and advance collaboration with centers nationally. We also work with our regional primary and specialty care teams to deliver influenza vaccination. Matthew Hollander, M.D., MHA, serves on the Childhood Arthritis and Rheumatology Research Alliance Steering Committee and conducts research with the Vermont Child Health Improvement Program.

OTHER PEDIATRIC SPECIALTIES

Anesthesiology

DIVISION CHIEF
ANN LAWRENCE,
D.O.

The Department of Anesthesiology, Division of Pediatrics, provides anesthetic care to children of all ages and medical complexities. Although the COVID-19 pandemic has required restrictions on family members in the OR and perioperative area, our nurses, child life specialists, and providers strived to make children and their families feel welcomed. We develop individualized plans focusing on children’s emotional, behavioral, social and medical needs that combine technology, simple techniques in mindfulness, and calming medications when necessary.

Highlights

- Kevin Abnet, M.D., and Ann Lawrence, D.O., received IRB approval for a study on the cerebrospinal fluid of infants with pyloric stenosis.
- Melissa Davidson, M.D., was named interim chair of anesthesiology.



- Becky Evans, M.D., received the “Copper Kettle” award for outstanding resident teaching for the second year in a row.
- Monika Modlinski, M.D., worked tirelessly to streamline our MRI program for adults and special needs adults.
- Marion Murphy, D.O., led a problem-based learning discussion at SPA’s annual meeting.
- Emily Stebbins, M.D., helped run a workshop at the SPA 2020 meeting on how to start an infant spinal anesthesia program.
- Brian Waldschmidt, M.D., was published in *J Med Cases* for the use of spinal anesthesia for an infant MRI.
- Emmett Whitaker, M.D., was elected to the American Board of Anesthesiology Standard Setting Committee for Pediatric Anesthesiology Certification Exam.
- Robert Williams, M.D., has continued his role as co-course director of “Vermont Perspectives in Anesthesia,” which celebrated its 25th year in 2020.

Dermatology

DIVISION CHIEF
KEITH MORLEY,
M.D.

Pediatric Dermatology serves children with a variety of skin conditions ranging from common complaints of eczema, hemangiomas, moles and acne to rarer diseases such as ichthyoses, autoimmune skin disease, neurocutaneous disorders, and vascular malformations. The COVID-19 pandemic has led to rapid expansion of teledermatology. Procedural services offered in clinic include pulsed dye laser treatment of vascular birthmarks, simple excisions, and diagnostic skin biopsies with sedation in the Comfort Zone if needed. Regional presentations included Common Pediatric Skin Conditions at the 45th Annual Family Medicine Review Course and COVID-Related Perniosis in Children to the Vermont Child Health Improvement Program. Dr. Morley continues as a pediatric contributing editor for Visual Dx. He is a member of the Society of Pediatric Dermatology’s Education Committee and Certification & MOC Committee. He was appointed as an advisory board representative of the Vermont Dermatology Society to the American Academy of Dermatology (AAD). Participation in the AAD’s annual Camp Discovery for children with chronic skin conditions continues, this year through live Zoom activities.

Publications

- Johnston M, Benson P, Morley K. Linear morphea overlying site of previous lichen aureus in a pediatric patient. *Pediatr Dermatol.* 2019;36(4):e91-e92
- Haimes H, Morley KW, Song H, Okhovat JP, Schmidt B, Huang JT. Impact of skin biopsy on the management of acute graft-versus-host disease in a pediatric population. *Pediatr Dermatol.* 2019
- Robbins AB, Fischer A, Dewitt C, Morley KW. An adolescent girl with atrophic plaques on her trunk. *Pediatr Dermatol.* 2019;36(4):e86-e87

Emergency Medicine

DIVISION CHIEF
RAMSEY
HERRINGTON, M.D.

Pediatric Emergency Medicine (PEM) added two new faculty members in 2020. Christian Pulcini, M.D., recently finished his fellowship at Children’s Hospital of Pennsylvania and is already an accomplished researcher with over 40 publications and presentations. Molly Stevens, M.D., comes to us from Johns Hopkins. As a former fellowship director, she has a wealth of experience in research and academic pediatric emergency medicine. Dave Nelson, M.D., has been with us for almost two years. He serves on several local and regional committees focused on pediatric readiness throughout the state. Joe Ravera, M.D., continues as section chief and remains committed to resident and medical student education. The now four-person section plans to continue to provide high quality patient care while actively participating in PEM research and serving as a regional resource for PEM education.

Neurology

DIVISION CHIEF
PETER BINGHAM,
M.D.

Deborah Hirtz, M.D., Rodney Scott, M.D., Gregory Holmes, M.D., and Brad Clopton, CNP, provide family-centered care for children with known or suspected neurologic conditions. We were lucky to have started a telemedicine practice when the pandemic struck, and, like other specialists, have seen how remote visits can improve access and travel safety. Subspecialty work continues in the neuromuscular clinic, and we continue to provide integrative health coaching for children with chronic pain or neuropsychiatric disorders. We collaborate with child psychiatry to provide training for psychiatry residents, and continue to host developmental/behavioral pediatrics, pediatrics and neurology residents, and medical students in our outpatient clinic. Drs. Holmes and Hirtz collaborate with neonatologists on a clinical study of sleep EEG in infants with abstinence syndrome. Dr. Scott serves on the Basic Science Committee for the American Epilepsy Society and has an NIH grant to study the effect of brain stimulation on epileptogenesis. Dr. Hirtz advocates as part of the TENDR group (Targeting Environmental Neurodevelopmental Risks) on the Vermont State Concussion in Schools Task Force and is part of the Committee on Chemical Management.

Highlights

- Bingham P and others. Implementation of Pediatric Emergency Care Applied Research Network Guidelines for Traumatic Brain Injury in a Rural Tertiary Care Center. *Pediatric Emergency Care*, 2020.
- Hirtz D and others. Practice guideline: Treatment for insomnia and disrupted sleep behavior in children and adolescents with autism spectrum disorder. *Neurology*, 2020.
- Holmes GL and others. Drug Treatment of Epilepsy Neuropsychiatric Comorbidities in Children. *Pediatric Drugs*, 2020.
- Scott RC and others. Current understanding of febrile seizures and their long-term outcomes. *Dev Med Child Neurol*, 2020.

Pathology

DIVISION CHIEF
AMELIA SYBENGA,
D.O.

Approval has been granted to develop pediatric and perinatal pathology into a subdivision of the anatomic pathology department. This change will consolidate pediatric and perinatal pathology cases from across the subspecialties of anatomic pathology to ensure each pediatric case is reviewed by a pathologist specialized in pediatric pathology, while also ensuring quick identification of cases that require urgent reporting of diagnoses



AMELIA SYBENGA, D.O.

or need for genetic counseling. This subdivision will also include rotations in pediatric pathology for resident physicians and other trainees. Amelia Sybenga, D.O., has been approved as the pathologist investigator for Children's Oncology Group (COG) for UVM. She is responsible for tissue management and diagnosis of pediatric malignancies, and, in collaboration with the pediatric hematology-oncology team, she ensures children's access to clinical trials and appropriate treatment.

Psychiatry

DIVISION CHIEF
JAMES HUDZIAK,
M.D.

The Vermont Center for Children, Youth, and Families (VCCYF), an internationally known Division of Child and Adolescent Psychiatry, is home of the Vermont Family Based Approach, a health promotion, illness prevention, and family wellness approach to the care and well-being of all families. This year the VCCYF team partnered with Stanley Weinberger, M.D., and the outpatient team to perform a large clinical trial providing evidence that the Vermont Family Based Approach, applied in a pediatric office setting, can lead to better health outcomes for children and parents. The VCCYF has robust academic research programs in epigenetics and neuroplasticity of trauma, adverse childhood experience research (ACES), psychophysiology, neuroimaging, multicultural assessment, temperament, epidemiology, and public health. The UVM Wellness Environment, a health promotion and illness prevention program for transitional age youth (college students), has received national media attention, including a segment on *CBS This Morning*. William Copeland, Ph.D., joins us as director of research. He comes from Duke University and is a top one percent-cited research scientist in developmental psychopathology. We look forward to working with David Rettew, M.D., in his new position of medical director, Division of Child and Family Services, Vermont Department of Mental Health. Maya Strange, M.D., is now director of the VCCYF Child and Adolescent Psychiatry Fellowship. Micheal Hoffnung, M.D., has joined Jeremiah Dickerson, M.D., in the VCCYF Autism Center. The center had over 28 publications in peer-reviewed journals this past academic year.

Psychology

DIVISION CHIEF
MARLENE MARON,
PH.D.

In the past year, the Child and Adolescent Psychiatry and Psychology Consultation (CAPPCON) service became fully operational, with multidisciplinary coverage for pediatric inpatient units and child psychiatric support to the emergency department. Increased availability of child psychiatry attending physicians, child and adolescent psychiatry fellows, clinical psychologists and psychology interns have permitted us to serve many more children, adolescents and families. The Department of Psychological Services received full accreditation for its internship program, enabling us to continue to recruit excellent candidates, some of whom will contribute to our regional mental health community upon graduation. Equity, diversity and inclusion continues to be prioritized. Marissa Coleman, PsyD, and Courtney Fleisher, Ph.D., developed a highly regarded EDI seminar series. Dr. Fleisher is a member of the SPUR (Sustaining Progress toward Unlearning Racism) organizing committee and is co-leading monthly discussions about the 1619 Project. Department staff responded to requests from media and community partners to discuss resilience and coping with COVID-19.

Publications

- Reagan A., Mudd E., Fleisher C.L. (2020) Disruptive Behavior and Noncompliance. In: Carter B., Kullgren K. (eds) Clinical Handbook of Psychological Consultation in Pediatric Medical Settings. *Issues in Clinical Child Psychology*. Springer, Cham. https://doi.org/10.1007/978-3-030-35598-2_29
- Alvarado G, Hegg L, Rhodes K. Improving Psychiatric Access for Students in Crisis: An Alternative to the Emergency Department. *Psychiatr Serv*. 2020;71(8):864-867. doi:10.1176/appi.ps.201900195

Radiology

DIVISION CHIEF
TIMOTHY HIGGINS,
M.D.

Pediatric Radiology focuses on the unique needs of children who require medical imaging. Various imaging techniques are used, including ultrasound and regular x-rays, as well as advanced imaging studies such as MRI, CT scan, and nuclear medicine studies. Our department uses the most current ultrasound technology, including contrast enhanced ultrasound capabilities. Teaching of radiology residents and pediatric residents on elective continues to be central to the division’s mission. Outreach to Angkor Hospital for Children in Siem Reap, Cambodia, is ongoing through frequent online consultation with their pediatric radiologists. Quality improvement initiatives include shortened MRI protocols to decrease or eliminate sedation time. Pediatric Radiology participates in multiple oncology study and works closely with the Child Protection Team/Child Safe Program in cases of suspected physical abuse.

Pediatric Outpatient Services

PEDIATRIC
OUTPATIENT
SERVICES DIRECTOR
JASON REVOIR, M.S.

Pediatric outpatient services provide primary care and specialty services using a patient- and family- centered approach.

The Children’s Specialty Center

The Children’s Specialty Center provides outpatient care in 20 pediatric specialties and multi-disciplinary programs for approximately 100 patients per day. Our updated check-in and check-out process and patient welcome guide continue to serve families well. Televideo services are now available. We have expanded screening for social determinants of health and are working to expand a clinic-based food pantry.

Pediatric Primary Care – Burlington and Williston

Pediatric Primary Care services are located at 1 South Prospect Street in Burlington and in Blair Park in Williston. We also offer primary care services in Burlington and Winooski schools. We continue to enhance care services related to social determinants of health, developmental screenings, and behavioral health. Although the pandemic has posed challenges, we have made it our focus to continue to provide well-child care and vaccinations by implementing safety and social distancing guidelines. We continue a collaboration with the Janet S. Munt Family Room that brings Andrea Green, M.D., there one day per week to provide well-child services and family education to New American families.

Women’s Care and Pediatric Service

DIRECTOR
LAUREN
TRONSGARD-SCOTT,
R.N., BSN, MSOL

The Women’s Care and Pediatrics professional nursing service line provides patient- and family-centered care from birth to adolescence.

Inpatient Pediatric Unit

The Inpatient Pediatric Unit accepts patients from day of life to 18 years. This year, we received a beautiful hallway mural by artist Kathryn Wieggers. The eMpower Task Force, focused on compassionate collaboration between nurses, child life specialists, and families for children on the autism spectrum, created a sensory cart for the inpatient unit with funding from Children’s Miracle Network Hospitals. A Discharge Education Task Force brings together outpatient programs to develop consistent education for patients from pre- through post- surgery.

Comfort Zone

The Comfort Zone serves as an outpatient pediatric sedation home, providing outpatient pediatric procedural support. The Comfort Zone staff is helping to plan for changes related to perioperative transformation and for extending pediatric IV training throughout the hospital.

Mother Baby Unit

The Mother-Baby Unit provides individualized care to newborns, post-partum patients, and high-risk antepartum patients and families. Initiatives include:

- Lactation support, consultations and education by International Board-Certified Lactation Consultants.
- Specialty care to intra-uterine opioid-exposed newborns through the Eat, Sleep, Console and Cuddlers initiatives.
- Maintenance of our Gold Standard Safe Sleep Certification. Our Safe Sleep Champions secured a new grant through the Children’s Miracle Network Hospitals.
- New protocols to prevent, treat, and recognize post-partum hemorrhage.

Neonatal Intensive Care Unit

Our 20-bed Level III NICU and nine bed step-down unit is a regional referral center that provides a collaborative team approach to care for premature and critically ill newborns. The NICU is participating in the second of a two-year collaborative with the Vermont Oxford Network (VON) to improve the efficiency of and family satisfaction with the discharge process for very low birth weight babies. NICU Family Advisors have created a program to link current families with previous NICU families to provide support post discharge. Our team is presenting a poster virtually at the annual VON Quality Congress.

PEDIATRICS SURGICAL SPECIALTIES

General Surgery

DIVISION CHIEF
KENNETH
SARTORELLI, M.D.

The Division of Pediatric Surgery, staffed by two board-certified pediatric surgeons, James Murphy, M.D., and Kenneth Sartorelli, M.D., provide the full range of general and thoracic surgical care for children from the newborn period through early adolescence, including prenatal consultation. Conditions treated include congenital malformations, childhood malignancies, and acquired surgical conditions of the head and neck, chest, abdomen, and genitourinary system. We work with other pediatric medical and surgical subspecialties to provide multimodal care for children with complex conditions. The pediatric surgical team oversees trauma care in our regional American College of Surgeons-verified pediatric trauma center. We work closely with our pediatric anesthesia colleagues to provide surgical care for infants under regional anesthesia when appropriate, avoiding the need for general anesthesia.

Neurological Surgery

DIVISION CHIEF BRUCE TRANMER, M.D.

Pediatric Neurosurgery provides a comprehensive, patient- and family-centered care for conditions such as brain and spine tumors, epilepsy, craniosynostosis, tethered spinal cord, Chiari malformation, peripheral nerve injuries and tumors, hydrocephalus and spina bifida. Pediatric neurosurgery participates in multidisciplinary clinics for pediatric neuro-oncology, spina bifida, craniofacial disorders, and epilepsy. Katrina Ducis, M.D., joins the Division of Neurosurgery as the pediatric neurosurgeon. She will be working in the craniofacial clinic and in a combined clinic with pediatric neurologists. Topics for recent publications include a systematic review of the management of isolated skull fractures in children, clinical guidelines on the treatment of spina bifida, and pediatric neurosurgery fellowship training in the U.S. Recent presentations have focused on novel techniques for localization of scalp and skull lesions using intraoperative frameless navigation, and pediatric neurosurgical education in ACGME-accredited neurosurgery residency training programs.

Ophthalmology

DIVISION CHIEF SUJATA SINGH, M.D.

The UVM Pediatric Ophthalmology and Strabismus Clinic provides comprehensive ophthalmic evaluations, amblyopia therapy, and surgical treatment for pediatric ophthalmic diseases. The service was awarded UVM's Laurence H. Coffin Award for innovative research, quality improvement, and/or global health projects, which will be used to further our partnership with the eye health care service of the West African nation of The Gambia. During the pandemic, we have adapted to remote lectures and promotion of public awareness in The Gambia. We plan to create a mandated national vision screening program in that country. In Vermont, the Department of Pediatrics and Vermont Department of Health Division of Maternal and Child Health continue to support the effort to reduce the rate of amblyopia with a standardized vision screening program.



SUJATA SINGH, M.D.

Otolaryngology

DIVISION CHIEF HEATHER HERRINGTON, M.D.

Pediatric Otolaryngology provides comprehensive medical and surgical care to children with congenital and acquired ear, nose and throat conditions. Our team includes two fellowship-trained, board-certified pediatric otolaryngologists, Richard Hubbell, M.D., and Heather Herrington, M.D. We provide collaborative care through two multidisciplinary clinics: the Aerodigestive Clinic for children with complex airway, swallowing, and gastrointestinal concerns, and the Craniofacial Clinic for children with congenital craniofacial anomalies. Several quality projects are ongoing, including a multidisciplinary initiative to improve the care of children with tracheostomies in and out of the hospital. Our cytomegalovirus (CMV) screening program now encompasses UVM Medical Center and CVPH. Dr. Hubbell has initiated a research study evaluating the use of white noise machines and hearing loss in children. Dr. Herrington serves as president of the Pediatric Otolaryngology Committee for the American Academy of Otolaryngology, Head & Neck Surgery.

Publications

- Tami A, Gerges D, Herrington H. Stridor Related to Vagus Nerve Stimulator: A Case Report. *Laryngoscope*. 2020 Oct 3. doi: 10.1002/lary.29144. Epub ahead of print. PMID: 33009823

Pediatric Plastic Surgery

DIVISION CHIEF THOMAS WILLSON, M.D.

The Division of Plastic, Reconstructive, and Cosmetic Surgery provides life-changing care to children with congenital differences of the face and body, to children with traumatic injuries, and to children who need reconstructive surgery for other reasons including cancer care. We are proud to be home to an American Cleft Palate-Craniofacial Association-accredited cleft and craniofacial team. Our speech pathology team has applied for a pilot grant to study the interplay between different speech surgeries and post-surgical speech therapy. The Heads Up Clinic provides multidisciplinary care to children with skull shape differences. Thanks to collaboration with colleagues and support from the hospital, we have expanded services to allow children in our region to receive state-of-the-art reconstructive surgery care closer to home. We have had two papers accepted for publication: one discussing the implications of preaxial polydactyly and the other discussing the multidisciplinary management of pediatric orbital trauma.

Urology

DIVISION CHIEF GERALD MINGIN, M.D.

Pediatric Urology diagnoses and treats children with a wide range of congenital and acquired conditions involving the genitourinary tract. With two fellowship-trained, board-certified pediatric urologists, we have expanded clinical outreach at CVPH and Rutland Regional Medical Center. This expansion improves access to services, including a multi-specialty voiding dysfunction clinic with a special emphasis on children with developmental disabilities such as autism, a multidisciplinary myelomeningocele clinic, and robotic minimally invasive surgical treatment for routine problems and complex reconstructive procedures. We continue our relationship with pediatric urology at Children's Hospital of Philadelphia. This includes participation in clinical care conferences and access to world-class expertise for the most complex urologic conditions. Pediatric Urology maintains a robust basic science effort through NIH R01 funding to study the effect of stress on bladder function in children.

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