It includes all areas at The University of Vermont is a hospital within a hospital. The University of Vermont Children’s Hospital is a children’s hospital so special, and hope you feel similarly after our first year in our role as a key component of our integrated University of Vermont Health Network, focused on delivering high-quality cost-effective care to children and families throughout our state and upstate New York.

This report covers the period from January through December 2015, and captures the contributions, highlights, and achievements of the remarkable group of people that make up our department and children’s hospital. It tells the story of how each and every day we further our mission and vision to improve the health of children both here in our region and around the world through our clinical, educational, research and advocacy efforts.

Our report this year has more photographs and at the same time concisely highlights a quantitatively and qualitatively outstanding amount of activities, achievements and awards as garnered by the various medical, surgical, neurologic, radiologic, and psychiatric divisions and departments who care for the children and families we serve. If you have seen our prior reports, you cannot help but notice our ongoing growth in our department size as well as in our clinical, educational and research enterprise. Our programs focus on advocating for our patients and keeping care local as much as possible, while also contributing to pediatric care at a national and international level. In addition, our increased philanthropic efforts over the past year – also described in this report – have allowed us to expand programs and services in ways requested by our patients.

Most importantly, this report once again illustrates how we are all working together to further the legacy of Dr. R. James (Jim) McKay, whose vision continues to enable us to be the highest quality, collaborative patient and family-centered department and children’s hospital possible. I am delighted and honored to be a part of the extraordinary team that makes our department and children’s hospital so special, and hope you feel similarly after reading through this year’s comprehensive annual report.
Academic General Pediatrics

DIVISION DIRECTOR
Jerry Larrabee, M.D.

Primary Care

MEDICAL DIRECTOR
Stanley Weinberger, M.D.

University of Vermont Children’s Hospital Pediatric Primary Care is a comprehensive, family-centered medical home for a diverse population of children from all over Chittenden County and central Vermont. A faculty of fourteen is situated across two sites, the UHC campus in Burlington and the Blair Park campus in Williston. In addition to patient care, they precept the primary care continuity clinics for the UVM Pediatric Residency Program, and are active in community advocacy, academies and research.

Summary of Highlights

UVM Children’s Hospital Pediatric Primary Care is a recognized medical home providing comprehensive, family-centered care and patient outreach, including adolescent primary care and community referrals. The clinic partners with the Burlington School District to offer school-based clinics, and hosts Karyn Patno, M.D., in the ChildSafe clinic, which evaluates suspected child abuse. The clinic includes a Pediatric New Americas Clinic, directed by Andros Green, M.D., which provides care for all new refugees in Vermont through the Vermont Refugee Resettlement Program. Pediatric Primary Care is expanding the scope of interdisciplinary care it can offer through care coordination services and partnering with mental health providers, the community health team, and dieticians services.

In addition to the UVM Pediatric Residency, all faculty engage in teaching and hosting family medicine and psychiatry residents and UVM College of Medicine clerkship students. The clinic also works very closely with the Vermont Child Health Improvement Program (VCHIP) and is part of VCHIP’s CHAMP quality improvement network with focuses over the past year on healthy weight and activity, care of children with asthma, and HPV vaccination rates. Faculty are also active in research and advocacy. Eliot Nelson, M.D., continues to serve on the Vermont Child Fatality Review Board. Barbara Frankowski, M.D., currently serves as the president of the Vermont Chapter of the American Academy of Pediatrics (AAP), and Andros Green, M.D. was elected to the AAP Council on Community Pediatrics Executive Committee. Richard “Mort” Wasserman, M.D., continues to lead Pediatric Research in Office Settings (PROS), which is a subsidiary of the AAP. Finally, Mary Lee Ritter, N.P., received the UVM Medical Center’s 2015 Excellence in Advanced Practice Nursing Award.

Quality Initiatives

- UVM Children’s Hospital Pediatric Primary Care is currently participating in the VCHIP CHAMP quality improvement project around improving care for children with asthma. Barbara Frankowski, M.D., is the VCHIP faculty lead for this project. We have increased the percentage of children with up to date asthma action plans from 30 percent to over 80 percent, and have Vermont Department of Health grant funding to collaborate with the Burlington School District to improve the use of this tool.

- UVM Children’s Hospital Pediatric Primary Care is participating in a National Immunization Project with the Academic Pediatric Association, which is led nationally by Barbara Frankowski, M.D. and Erica Gibson, M.D. Through this, we are working to increase our HPV immunization rates, which are already significantly above national averages.

New Projects

- UVM Children’s Hospital Pediatric Primary Care is partnering with the Departments of Family Medicine and Primary Care Internal Medicine to expand weekend access in a joint clinic.

- UVM Children’s Hospital Pediatric Primary Care is partnering with the Burlington School District to open a new school-based clinic in Edmunds Middle and Elementary School, in addition to the three other clinics currently staffed by our faculty.

Publications & Presentations


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Publications & Presentations


Child Abuse Program

PROGRAM DIRECTOR
Joseph Hagan, M.D.

The Pediatric S.A.N.E. and ChildSafe programs at The University of Vermont Children’s Hospital coordinate to provide comprehensive medical services for child victims of physical abuse, sexual abuse, medical child abuse, emotional abuse and neglect. ChildSafe works closely with community partners including children’s advocacy centers, law enforcement, the Vermont Department for Children and Families, and others to provide high-quality, compassionate, and coordinated care to children who have been victims of abuse, and their families.

From medical treatment to injury documentation and mental rehabilitation and from investigation to prosecution, please know that the safety, mental and physical health, and security of child victims of abuse is our top priority.

The ChildSafe program is an office-based clinic, staffed by UVM Children’s Hospital pediatricians Karyn Patno, M.D., F.A.A.P, and Joseph Hagan, M.D., F.A.A.P. Children who need urgent care will be evaluated first in the emergency department by the Pediatric S.A.N.E. program and referred to the ChildSafe program if appropriate. The ChildSafe program and the S.A.N.E. program work together to provide high-quality care 24 hours per day.

The ChildSafe program evaluation includes taking a detailed history and a medical forensic exam. The medical exam allows providers to recognize injuries that are a direct result of the abuse, as well as diagnose and treat any related infections or conditions. The exam also helps ensure that the child gets the needed follow-up including mental health interventions.

The ChildSafe program is able to document any injuries with high-quality digital camera and video, and will do so when appropriate. Patient confidentiality is strictly adhered to in both the ChildSafe program and the S.A.N.E. program. The ChildSafe program welcomes children from all across Vermont and northern New York.
Cardiology

DIVISION CHIEF
Scott Yeager, M.D.

The Division of Pediatric Cardiology provides a full range of clinical services, including fetal diagnosis, outpatient and inpatient management of congenital and acquired heart abnormalities, outreach clinics, and both diagnostic and interventional catheterization. In addition, the division is active in quality initiatives, research projects, and the education of students and residents.

Summary of Highlights

The division is actively participating in the Boston Children’s Hospital-based Standardized Clinical Assessment and Management Plan (SCAMP) quality initiatives. Niels Giddens, M.D., has been involved in developing both syncope and long QT protocols, and the division is submitting data on eligible patients with the aim of improving outcomes and patient satisfaction while controlling resource utilization. Nancy Drucker, M.D., is working with the Vermont Child Health Improvement Program (VCHIP) on a project addressing assessment, documentation and intervention in childhood obesity. Additional VCHIP collaboration includes developing programs for transitioning adolescents from pediatric to adult services, increasing the utilization of the My Health patient portal, and tracking influenza vaccination in our high-risk patients. Our educational activities include clinical core students at outpatient clinics, students and residents participating in our month-long elective program, clinical core student lectures, monthly lectures to the house staff and cardiology fellows, quarterly reviews of activities include clinical core students at outpatient clinics, and tracking outreach education in community hospitals. A computer-based, comprehensive, multimedia examination has been developed to focus and evaluate students and residents through pre- and post-rotation assessment of core cardiology knowledge base.

Scott Yeager, M.D., is co-founder and president of the New England Congenital Cardiac Research Foundation, dedicated to supporting multi-institutional research and education programs based in the six New England states, and to providing seed money to help young investigators become more competitive for national funding.

Major Highlights

- Shwayder MH, Yeager SB. Practice Variation in the Management of Congenital Aortic Valve Disease in New England. Presented at the American College of Cardiology, San Diego, California, March 2015
- McLean K, Yeager SB. Prenatal Detection of Critical Congenital Heart Disease at the University of Vermont and surrounding community hospitals and clinics from 2012 to 2014. IRB-approved and in progress

New Projects/Quality Improvement

- Collaboration with the UVM Children’s Hospital interprofessional team to add a developmental behavioral pediatrics presence to the newly formed Spina Bifida Collaborative Care Program.
- Collaboration with the Vermont Department of Health, Children with Special Health Needs Program on a quality improvement project for nutrition services for CSHCN.

Leadership Training VT LEND

CO-DIRECTORS
Mercedes Maria Avila, Ph.D.
Jean Beaton, Ed.D., R.N.

The Vermont Leadership Education in Neurodevelopmental Disabilities (VT LEND) is one of 43 LEND Programs in 37 states. LEND programs are interdisciplinary leadership training aimed at improving the health of the nation’s children with special health needs and their families, funded through the Maternal Child Health Bureau. VT LEND is strategically focusing its efforts on issues of health disparities and inequities, providing distance technology outreach for leadership training, and placing social work and nursing leaders as care coordinators in Blueprint Medical Homes.

Major Highlights

- VT LEND has 15 trainees/fellows this year representing 12 disciplines. Eight are leadership fellows from the former refugee community working to reestablish their previous careers in medicine, health and education, serving children with special health needs populations.
- Dr. Avila was named vice chair of the AUCD Multicultural Council.
- Dr. Avila was named vice chair of the AUCD Multicultural Council.
- Dr. Avila received the 2015 Kroepsch-Maurice Excellence in Teaching Award.
- Dr. Avila was appointed to the Vermont Governor’s Workforce Diversity and Equity Council, is chair of the Disproportionate Minority Contact (DMC) committee under the Vermont Governor’s Children and Family Council for Prevention Programs, and is a member of the State Plan Steering Committee for Vermont’s State Implementation Grant for Enhancing the System of Services for Children and Youth with Special Health Care Needs through Systems Integration.
- Jay Ditz, J.D., VT LEND law/faculty member, published a white paper for the state titled “Kicked Out: What’s Happening, Why It Matters, and What We Can Do to Stop It.”
- Dr. Virginia Diambou, VT LEND medicine fellow, was named secretary of the Association of University Centers on Disability (AUCD) Multicultural Council.
- Winnie Looby, Ph.D. candidate and VT LEND education trainee, was named vice chair of the AUCD Multicultural Council.

Developmental Behavioral Pediatrics & Children with Special Health Needs

DIVISION CHIEF
Stephen Contompasis, M.D.

The division continues to collaborate with the Vermont Department of Health Children With Special Health Needs Program (MCH Child Health Division) to provide clinical services and leadership training through the Vermont Leadership Education in Neurodevelopmental Disabilities Professionals Program (LEND).

Clinical Services

The Vermont Department of Health Children with Special Health Needs Program provides statewide developmental pediatrics services through its Child Development Clinic, led by Carol Hasler, M.D., and also staffed by Steve Contompasis, M.D., and Johanna Brakely, M.D. The Child Development Clinic provides developmental pediatrics evaluation and follow-up for infants and toddlers who have received care in the Neonatal Intensive Care Unit (NICU) at the UVM Children’s Hospital. The program funds the Autism Assessment Clinic, led by Jeremiah Dickerson, M.D., child and adolescent psychiatrist, at the Vermont Center for Children, Youth, and Families at UVM, as a diagnostic clinic for Vermont children covered by Medicaid insurance.

Publications & Presentations


The University of Vermont Children’s Hospital | The University of Vermont Department of Pediatrics

2015 ANNUAL REPORT | WWW.UVMHEALTH.ORG/CHILDRENS
Paul Zimakas, M.D.

The Division of Pediatric Endocrinology provides outpatient care to children and adolescents from Vermont and northern New York State. Under the supervision of pediatric endocrinologists Paul Zimakas, M.D., and Martina Drawdy, M.D. (formerly Kacer), the service provides a comprehensive ambulatory care program for children with diabetes mellitus. Additionally, children with acute illnesses, such as those requiring hospitalization or critical care, are seen by endocrine nurse practitioners and physicians that are available to address individual patient questions and concerns, and to provide and maintain education materials regarding diabetes management in schools (including a formal presentation for school nurses biannually). Dedicated care is also provided to patients with cystic fibrosis-related diabetes in conjunction with the Division of Pediatric Pulmonology.

In continuing collaboration with the Vermont Child Health Improvement Program (VCHIP), this program has developed a comprehensive database registry for patients with diabetes mellitus. This registry ensures that quality of care standards for children with diabetes are being met. The collaboration has produced several quality improvement projects, such as improving influenza vaccination rates as well as adherence with the recommended complication-screening guidelines, and further improving the transition of patients from pediatric to adult endocrine care.

The division is also dedicated to providing clinical educational experiences for pediatric residents, adult endocrinology fellows, and reproductive-endocrinology fellows. Dr. Zimakas lectures in several courses in the Vermont Integrated Curriculum at the UVM College of Medicine. Dr. Drawdy is an instructor in the Doctoring Skills course for first-year medical students, and is on the Medical Student Admissions Committee.

Major Highlights
- The division hosts a series of patient education nights for children with Type 1 diabetes and their families. These interactive sessions are designed to educate and empower patients and their families.
- In continuing collaboration with the Vermont Child Health Improvement Program (VCHIP), the clinic is engaged in a quality improvement initiative designed to improve the transition of patients from pediatric to adult endocrine care.

Gastroenterology, Hepatology & Nutrition

Michael D’Amico, M.D.

The Division of Pediatric Gastroenterology, Hepatology and Nutrition offers consultation for a variety of disorders of nutrition and growth, the GI tract, the liver and pancreas, obesity, lipid disorders, and feeding problems. The division has continued to grow in recent years, and is comprised of pediatric gastroenterologists Richard Colletti, M.D., Michael D’Amico, M.D., Jillian Sullivan, M.D., and Pamela Puthoor, M.D., as well as nurse practitioner, Bridget Thabault, APRN.

Summary of Highlights
- Dr. Sullivan continues her work with her three-year grant from the Cystic Fibrosis Foundation as part of the Developing Innovative GastroEnterology Specialty Training (DIGEST) to help meet the gastroenterologic needs of patients with cystic fibrosis (CF) and to develop experts in CF-related gastrointestinal diseases. She is the Vermont Cystic Fibrosis Center Associate Pediatric Program Director, and is currently studying the use of probiotics in patients with cystic fibrosis. The UVM Children’s Hospital Pediatric Inflammatory Bowel Disease Program continues to participate in the ImproveCareNow Network, working to improve the care and outcomes of children and youth with Crohn’s disease and ulcerative colitis using improvement science, population management, pre-visit planning, and self-management support. Dr. Sullivan is the Vermont Physician Leader, and Dr. Colletti continues as the national executive network director of ImproveCareNow.

Pamela Puthoor, M.D.

Dr. Puthoor is involved in several educational committees at the College of Medicine, and is working with a consortium of providers and community leaders to improve the care of our local refugee population.

Major Highlights
- The multidisciplinary Aero Digestive Program, which won the prestigious UVM Medical Center “Becoming One” Award last year, continues to grow with the addition of Heather Herrington, M.D., from pediatric ENT. The Aero Digestive Program is a combined effort between pediatric GI, pulmonary, ENT, nutrition, and speech language pathology; providing high-level care to patients with a variety of special needs in one coordinat-ed, collaborative setting.
- In addition to the ongoing work in two large, funded grants, Dr. Colletti’s ImproveCareNow national consortium for pediatric inflammatory bowel disease and Dr. Sullivan’s DIGEST grant studying pediatric cystic fibrosis, the division is involved in a multi-national clinical trial of a novel medication, lubiprostone, for the treatment of functional constipation in infants and children.
- Quality improvement initiatives remain a priority in the division. Pre-visit planning, which has been shown to greatly improve patient outcomes in IBD care, is being measured in a quantitative way to monitor improvements in utilization and administration. Dr. D’Amico continues his work with the UVM Children’s Hospital Quality Council.
Hematology/Oncology

DIVISION CHIEF

Alan Homans, M.D.

The Pediatric Hematology/Oncology Program serves all referred patients with hematological or oncologic problems. We are very happy to announce the addition of a third full-time attending physician this year, Jessica Heath, M.D., who comes to us from Duke University. She joins our physicians, two pediatric nurse practitioners, two clinical research associates, and a full complement of staff.

Our program has been recognized for having Association of Pediatric Hematology/Oncology Nurses (APHON) certification for all chemotherapy nurses. The Pediatric Oncology Program is an active member of the Children’s Oncology Group (COG), an international consortium of over 200 pediatric oncology centers providing patients with access to state-of-the-art tumor biology testing and clinical treatment regimens. We successfully completed a routine periodic audit by COG this last year.

Clinical research is a focus, with the majority of our patients receiving their therapy in the context of front line COG investigational treatment protocols. New initiatives include an infusion program for patients needing chronic transfusion therapy, a pediatric oncology brain tumor clinic, and participation in a regional telemedicine tumor board.

With the changing patient demographics of the Burlington area, we are providing an expanded chronic transfusion program for patients with severe hemoglobinopathies. We continue our children’s neuro-oncology clinic with pediatric neurosurgery neuroimaging, and also offer expanded neuro-oncology services for older adolescents and young adults. The Pediatric Oncology Program participates in the Consortium for New England Childhood Cancer Survivors. We are also a member of the Vermont Regional Hemophilia Center, and participate in the activities of Region I/II in providing hemophilia care.

Research

We continue to improve childhood cancer care through research. The majority of pediatric oncology patients are enrolled in front line clinical investigations through COG. Nearly all are also enrolled in epidemiology, tumor biology, or late effects studies as well. Our oncologists have participated in publications for COG and CONNECIS in the last year.

With the addition of Dr. Heath, we are expanding our local laboratory research in collaboration with the University of Vermont Cancer Center. Dr. Heath investigates molecular factors contributing to the development of leukemia cells. While some types of leukemia respond very well to current treatment, others continue to have unacceptably low cure rates of 40 to 50 percent. A better understanding of the way leukemia evolves is necessary to develop new treatments. Using an animal model, Dr. Heath’s research tests drugs that may target these genetic changes in a mouse model of pediatric leukemias.

Quality

The Pediatric Hematology/Oncology Program includes a dedicated quality assurance committee to ensure the safe delivery of childhood cancer chemotherapy and biotherapy. Several ongoing projects study chemotherapy administration and patient and family education regarding the safe delivery of these complicated and potentially toxic therapies in both the inpatient and outpatient settings.

Education

Medical students and pediatric residents have the options to participate in our pediatric hematology/oncology rotation. In addition, students attend one of our clinics as part of their clinical outpatient rotations. Our staff is actively engaged in teaching medical students in the Professionalism, Communication and Reflection course, and through a number of other lecture opportunities. Our nurses and practitioners provide lectures and preceptorships for nursing students. They also provide American Society of Pediatric Oncology Nursing (APON) chemotherapy courses for staff nurses. Pediatric oncology staff serve on UVM’s Committees for Human Research in the Medical Sciences and the Faculty Standards Committee.
Immunology and Infectious Disease

DIVISION CHIEF
William Raszka, M.D.

The Division of Pediatric Immunology and Infectious Disease has seen dramatic changes over the past few years. Screening of pregnant mothers and effective anti-retroviral therapy has dramatically reduced the incidence of perinatally acquired HIV infection. Expanded use of vaccines has made previously common bacterial and viral infections less frequent. However, the service sees many children with infections caused by antibiotic-resistant bacteria or opportunistic infections, children with hereditary immune deficiencies or periodic fever syndromes, children with persistent or unexplained fevers, or those seeking pre-exposure advice before traveling.

The service provides inpatient, outpatient, and telephone consultation services for acute and chronic infectious disease issues. Working with the pediatric hospitalist team, the service gives advice regarding central catheter placement and home intravenous antibiotic use. The service works with the adult infectious disease service and pharmacy to practice antibiotic stewardship. Additionally, the service runs a travel clinic for adults traveling with children to give pre-travel advice and prophylaxis, with roughly 400 travelers seen each year. Benjamin Lee, M.D., a new member of the division, focuses primarily on research. His interests include prevention of rotavirus disease in resource-limited areas.

Education
The service is very active at all levels of medical student and resident education. William Raszka, M.D., is the course director for the Foundations level Attacks and Defenses course, and the Pediatric Clerkship. The service regularly facilitates small group and flipped classroom learning sessions for students and residents. The Pediatric Infectious Disease elective remains one of the most popular electives for medical students in the department. While on the pediatric infectious disease service, medical students and residents participate in all aspect of patient care.

Quality
The service is very active in infection control policy design, surveillance, and resource utilization. Working with The University of Vermont Medical Center Infection Control Team, Department of Pathology, and nursing staff, the service recommends infection control policies, implementation of routine testing, and outbreak control. The service provides consultation to the Vermont Department of Health for the management of outbreaks, epidemiologic investigations, and vaccine issues. Faculty have won numerous teaching awards, and most recently the Vermont Medical Society Distinguished Service Award.

Inpatient and Critical Care

DIVISION CHIEF CRITICAL CARE
Barry Heath, M.D.

INPATIENT PEDIATRICS MEDICAL DIRECTOR
Karen Leonard, M.D.

THE PEDIATRIC HOSPITALIST PROGRAM
The Pediatric Hospitalist Program at The University of Vermont Children’s Hospital provides inpatient care to children from Vermont and northern New York. There are nine full- and part-time pediatric hospitalists who are available 24 hours a day, seven days a week to provide care for pediatric inpatients, newborns in the newborn nursery, pediatric patients in the emergency room, and inpatient consultations for surgical and sub-specialists. In addition, pediatric hospitalists offer conscious sedation for inpatients, neonatal circumcision, and lactation consultation/breastfeeding education.

Summary of Highlights
In the past year, members of the pediatric hospitalist group continued to be active in many areas of the medical group, medical school and graduate medical education. Members of the group chair both the Newborn Nursery Committee and Inpatient Pediatric Quality Assurance Committee, and are active in other UVM Medical Group, UVM College of Medicine, and residency committees.

The pediatric hospitalist group has collaborated with the orthopedic spine service and pediatric anesthesia to develop and implement a protocol for managing pediatric patients who have undergone surgery for scoliosis. Data presented at Pediatric Grand Rounds showed that this protocol has led to improved hospital stays for these patients. Other accomplishments over the past year include the development of a global health curriculum for the College of Medicine, poster presentations on quality improvement work at both national and regional meetings, and the election of one of our team, Molly Moore, M.D., by the pediatric housestaff as “Attending of the Year.”

THE PEDIATRIC CRITICAL CARE MEDICINE DIVISION

The Pediatric Critical Care Medicine Division at The University of Vermont Children’s Hospital provides care for children with life-threatening illnesses or injuries. It is staffed by four board-certified pediatric intensivists, available 24 hours a day.

Summary of Highlights
Division members participate in multi-center research projects including NEAR 4 kids, a trial by the Pediatric Acute Lung Injury & Sepsis Investigators (PALISI) investigating documentation of intubation, with the goal to improve the safety and standardization of the procedure. Research posters were presented at the national Accreditation Council for Graduate Medical Education (ACGME) and Association of Pediatric Program Directors (APPD) meetings.

Pediatric Intensive Care Unit (PICU) attendings engage in medical student and resident education, as well as Continuing Medical Education in local, national, and international venues. Medical simulation and resuscitation training are provided by the Critical Care service. PICU staff are involved in a palliative care initiative to introduce cystic fibrosis patients early in disease course. Members of the PICU staff serve on the Pediatric Residency Education Committee, Clinical Competency Committee, and Residency Program Evaluation Committee. A PICU attending serves as associate residency director for the pediatric residency program.

Rebecca Bell, M.D., was actively engaged in patient advocacy with the Vermont State Legislature and National Public Radio regarding school vaccine policy. Barry Heath, M.D., is involved in a global health project currently being tested by UNICEF in western Africa designed to improve access to pediatric care to patients in resource-poor areas using a smart phone technology. Amelia Hopkins, M.D., is involved with the State of Vermont in producing an infant safe-sleep video.

Quality improvement projects are many and on-going, including a central line-associated blood stream infection (CLABSI) initiative to improve documentation of proper technique for central line insertion and maintenance to decrease central line infection risk. The division is also involved with Virtual PICU Systems, LLC (VPS), a national organization with over 115 hospital members and over 600,000 patient admission records. The database is the largest collaborative for quality improvement based on severity of illness adjusted comparisons of actual, detailed patient records in critical care. The PICU service also participates in the North East Pediatric Intensive Care Collaborative (NEPICC) to discuss quality, administrative and logistical issues common among non-fellowship PICUs in the Northeast.
Neonatology

DIVISION CHIEF
Charles Mercier, M.D.

The Division of Newborn Medicine provides medical care to premature and sick newborns, including inpatient intensive and convalescent care, acute patient transport, and outpatient medical follow-up and developmental surveillance. Neonatal care at The University of Vermont Children’s Hospital serves Vermont, northern New York and New Hampshire. Neonatal care units have an average daily census of 20 infants.

Education

The division actively supports graduate and post graduate medical education, including a subspecialty fellowship training program currently directed by Marie Berg, M.D. For the College of Medicine, Charles Mercier, M.D., is the medical director of the Vermont Regional Perinatal Health Project, providing continuing education activities to physicians and hospital-based perinatal staff throughout our referral area.

Research

Division research is principally based in clinical and translational science and quality improvement. Jeffrey Horbar, M.D., the Jerold F. Lucey Professor of Neonatal Medicine, is the Chief Executive Officer and Scientific Officer of Vermont Oxford Network (VON), a scientific and quality improvement. Jeffrey Horbar, M.D., the Jerold F. Lucey Professor of Neonatal Medicine, is the Chief Executive Officer and Scientific Officer of Vermont Oxford Network (VON), a working collaboration of over 900 NICUs worldwide dedicated to improving the quality and safety of medical care for newborns. Roger Soll, M.D., the H. Wallace Professor of Neonatology and president of VON, serves as the VON Director of Clinical Trials and Research. Danielle Ehret, M.D., M.P.H., who joined our division in 2015, is the VON Director of Global Health, and is the VON lead for the Addis Ababa University/VON/Tikur Anbessa NICU initiative.

Innovation

Support of evidence-based medicine and medical decision making is complex. The Neonatal Cochrane Review Group, directed by Dr. Soll, is an international effort focused on producing and disseminating systematic review of evidence for neonatal healthcare interventions. The care of opioid exposed infants is challenging and resource intensive: Anne Johnston, M.D., is currently a co-investigator of a National Institute on Drug Abuse-funded study addressing issues of health care management for this population of newborns.

Quality

Leslie Young, M.D., and Marilyn Benis, NNP, co-chair our resuscitation committee aiming to promote high reliability methods and collaborative team work during emergency care for our sickest infants.

Dr. Mercier chairs our VON NICQ quality collaborative work group aiming to reduce the incidence of chronic lung disease through the use of non-invasive modes of respiratory support. The group also focuses on improving the experience of families of infants requiring NICU care.

Nephrology

DIVISION CHIEF
Ann Guillot, M.D.

The Division of Pediatric Nephrology at The University of Vermont Children’s Hospital includes many members of several different departments and multiple disciplines, as caring for children with Kidney disease requires a multi-specialty and collaborative approach.

Children and families come to the division for management of a wide variety of problems ranging from the acute and fairly straightforward to the life-long and complex. These include hypertension of all causes, prenatal management and counseling about genitourinary anomalies, bladder dysfunction, all forms of chronic kidney disease, and acute kidney injury.

We have a close working relationship with the Pediatric Urology Division and the Transplant Division in the Department of Surgery, with whom we co-manage many patients. We also work closely with the Transplant Nephrology Division in the Department of Medicine.

We offer dialysis modalities to patients from birth to early adulthood and renal transplantation to older children and adolescents, as well as pediatric apheresis. Our pediatric dialysis team includes some of the best pediatric dialysis nurses around.

Our division has been a participant for over 25 years in the North American Pediatric Renal Trials and Cooperative Studies group, which includes almost all of the pediatric renal transplants in the country. This allows for both participation in multi-center trials and for benchmarking our performance against that of the other participating centers. Our transplant team includes a dedicated pediatric transplant coordinator and close collaboration with The University of Vermont Medical Center renal transplant surgeons and transplant nephrologists.

Our core pediatric nephrology team includes two pediatric nephrologists, a nurse clinician, a dietician, and a social worker. We coordinate care with our patients’ medical homes and with the school nurses in the patients’ towns, allowing complex chronic disease management to be carried out, as well as to optimize school participation.
Palliative Care

INTERIM MEDICAL DIRECTOR
Diana Barnard, M.D.

The goal of palliative care is to improve quality of life for patients living with serious illness and their families. This past year, we have focused on building trusting relationships with referring providers and other team members – for example, registered nurses, child life specialists, and social workers – to increase awareness about our services and their many benefits.

Our team of pediatric palliative care providers continues to expand and foster new collaborations throughout The University of Vermont Children’s Hospital. This year, pediatric and adult palliative care services were combined under one department, Diana Barnard, M.D., is currently serving as interim director as we actively recruit a new division chief. We have continued to offer both inpatient and outpatient consults, with growing numbers of patients and families served.

We hired a new provider, Patty Whitney, M.D., who is now available for both adult and pediatric consults. Laurel Audy, R.N., attended the Annual North American Cystic Fibrosis conference and will be working with Iris Toedt-Pingel, M.D., to enhance the care of children and families living with this illness. Palliative care team members are actively engaged with the “AYA with CF Transition Project,” a hospital-wide initiative focusing on optimizing care for adolescent and young adults transitioning from pediatric to adult medicine.

Our Pediatric Advanced Care Team (PACT), led by Robert Macauley, M.D., meets monthly for interdisciplinary rounds. In addition to discussing new and established consults, we are increasing educational opportunities by regularly inviting guest speakers from our staff and the community to join us. Anyone interested in pediatric palliative care is welcome to attend the second Monday of each month at 2 p.m. in the Wainer Room on Baird 5.

Dr. Macauley continued his work with the American Academy of Hospice and Palliative Medicine as co-chair of the Annual Assembly planning committee.

Our hospital is now a member of the Center to Advance Palliative Care. Any staff member with a University of Vermont email address can register for free at www.capc.org/ and access a variety of educational materials produced by leaders in the field of palliative medicine.

Major Highlights

- Increasing collaboration and deepening clinical involvement by combining into one department, and recruiting for a permanent division chief.
- Continued educational efforts for staff and providers.

Pulmonology

DIVISION CHIEF
Thomas Lahiri, M.D.

The Pediatric Pulmonology Division provides outpatient and inpatient care to children with a variety of respiratory and airway disorders. Our cystic fibrosis (CF) program is accredited by the CF Foundation. The division participates in several multidisciplinary clinics for infants and children to treat aerodigestive disorders, neuromuscular diseases, and patients with tracheostomies and those who require both non-invasive and invasive assisted mechanical ventilation.

Summary of Highlights

The Pediatric Pulmonology Division has again achieved upper quartile metrics for lung function, nutritional status and for meeting recommended guidelines as reported in the national CF Foundation (CFF) Patient Registry. Thomas Lahiri, M.D., has led an expert panel in the development of CFF Preschool Clinical Guidelines. There has been continued evolution of a comprehensive severe asthma program as well as initiatives to standardize pediatric tracheostomy care. The division continues to be actively involved in medical student and resident education.

The division continues to participate in CF clinical research trials as a Therapeutic Development Center as awarded by CFF Therapeutics, Inc. as well as in asthma trials through the American Lung Association in conjunction with the Vermont Lung Center. The CF Center continues to be a member of the Northern New England CF Consortium. Quality improvement continues to be a focus of the division.

Major Highlights

- Development of CF preschool care guidelines
- Participation and leadership in the CHAMP asthma learning project
- Keith Robinson, M.D., was named Champion for the Vermont American Academy of Pediatrics (AAP) Chapter section on Asthma, Allergy and Anaphylaxis Medical Home

Conditions We Treat:

- Asthma
- Cystic fibrosis (CF)
- Chronic lung disease of prematurity
- Complicated pneumonia
- Neuromuscular disorders
- Airway and pulmonary malformations
- Immune mediated lung disease
- Recurrent aspiration
- Interstitial lung diseases
- Pulmonary hypertension
- Chronic home invasive and non-invasive assisted ventilation management
- Sleep disordered breathing

Procedures Include:

- Sweat chloride testing
- Pulmonary function testing
- Flexible laryngoscopy and bronchoscopy

ROBERT MACAULEY, M.D.

THOMAS LAHIRI, M.D.
The Division of Pediatric Rheumatology provides subspecialty care to children with a variety of rheumatic diseases. Division Chief Leslie Abramson, M.D., is a board-certified pediatric rheumatologist working with a pediatric nurse coordinator to evaluate and treat children with a variety of autoimmune disorders that often involve the musculoskeletal system as well as multiple body systems. The diseases we treat include juvenile idiopathic arthritis, juvenile dermatomyositis, lupus, scleroderma, vasculitis and a variety of other autoimmune disorders.

Dr. Abramson is actively involved at the national level in clinical research activities aimed at improving the care of children with rheumatic disease. She is a participating member of the Childhood Arthritis and Rheumatism Disease Research Alliance (CARRA) and the Pediatric Rheumatology Collaborative Study Group (PRCSG), two leading national organizations in collaborative research amongst pediatric rheumatology centers in North America. She is a primary investigator in CARRA registry, a national registry for children with rheumatic diseases, and also participates in a variety of investigations through the PRCSG, looking at efficacy as well as adverse events related to the use of biologic medications in the treatment of pediatric rheumatic diseases. Dr. Abramson has been involved in ARCHIVE, a U.S./Canadian registry for children with vasculitis, and has been involved in a variety of other investigations through the University of Vermont Health Network.

Some Recent Publications


As the University of Vermont Medical Center continues to grow and build its statewide campuses, the Pediatric Division of Rheumatology will diversify and grow to provide the utmost care for young patients throughout Northwestern New England and upstate New York.

Major Highlights

- Two new members joined the pediatric rheumatology team in 2015: Kevin Alnet, M.D., who recently became board-certified in pediatric rheumatology, and Shelly Stelzer, M.D., who is fellowship-trained in pediatric rheumatology.
- Ann Lawrence, D.O., Emily Stebbins, M.D., and Robert Williams, M.D., spoke or presented at several local and national conferences in 2015.

As The University of Vermont Medical Center continues to grow and build its statewide campuses, the Pediatric Division of Rheumatology will diversify and grow to provide the utmost care for young patients throughout Northwestern New England and upstate New York.

Other Pediatric Specialties

Anesthesiology

DIVISION CHIEF
Ann Lawrence, M.D.

The Department of Anesthesiology. Division of Pediatrics provides anesthetic care to children of all ages and medical complexities. Our department is composed of many anesthesiologists with pediatric expertise, as well as specialty trained pediatric anesthesiologists qualified to handle more complex pediatric populations. Our physicians provide safe and exceptional care in locations throughout the University of Vermont Health Network.

The Comfort Zone has continued to provide exemplary care to our patients receiving elective, outpatient procedures. The amazing nursing staff, along with the help of our Child Life Specialist (CLS), help put families and patients at ease during some of the most anxiety provoking situations. Our Comfort Zone team continually strives to make the best possible plans to make every child’s visit the best it can be. In addition to our Child-life Specialist in the “Zone”, we also have fabulous Child-life Specialists in our preoperative area. Our team meets to formulate perioperative plans focusing on emotional, behavioral and social needs. Our goal is to make each child’s visit to the operating room the most positive experience possible.

The year 2015 brought much cooperation with our colleagues throughout the medical center. We continue to enjoy our close partnership with the Pediatric Intensive Care Unit (PICU). This unique collaboration provides seamless care to some of our most critically ill patients. We are currently working to adopt this same strength of care with our colleagues in the Neonatal Intensive Care Unit (NICU). The creation of a NICU/OR handoff tool is one of the continued improvements to streamline our pediatric care.

Research continues to delineate the effects of anesthesia on the developing brain. A definitive answer will not be available for several years. It remains our goal to provide the safest care based on current empirical evidence. In this spirit, we continue to join with our radiology colleagues to reduce MRI scan times without compromising imaging results. Due to our shortened scanning times and our amazing MRI technologists, we have enjoyed a very successful infant “Feed and Sleep” program, as well as a non-anesthesia MRI program for children five and up. We hope that these programs continue to thrive in the coming year.

As a division, we remain focused on research and education. Our professionals strive to provide the best education, not only to anesthesia residents but also to pediatric residents, medical students and emergency medical technicians. Our division continues to contribute research to the Vermont Infant Spinal Registry, and maintains an on-going partnership with Columbia University. We also continue as a group to publish book chapters as well as articles in many prominent journals.

The University of Vermont Children’s Hospital | The University of Vermont Department of Pediatrics

2015 ANNUAL REPORT | WWW.UVMHEALTH.ORG/CHILDRENS

LESLIE ABRAMSON, M.D.

ANN LAWRENCE, M.D.
Neurology

DIVISION CHIEF

Peter Bingham, M.D.

Peter Bingham, M.D., Rodney Scott, M.D., Ph.D., Gregory Holmes, M.D., and Bradley Clepton, APRN, continue to see children at the Children’s Specialty Center and at the Clinical Neurophysiology Laboratory of The University of Vermont Medical Center. Deborah Hirtz, M.D., has joined us from the National Institute of Neurological Diseases and Stroke. A range of trainees and students may sometimes be seen working with us — regional high school students, UVM undergraduate students and post-bacc, as well as medical students and residents. Research on the use of video games to improve breath awareness, on brain mechanisms of epilepsy, and on the impact of epilepsy on cognition continues in our laboratories. In 2015, we welcomed neuroscience graduate students into our clinic to promote bench-to-bedside collaborations and translational research. Outreach education included a forum at the Vermont chapter of the American Academy of Pediatrics in Stowe. The neuromuscular clinic continues to serve over 70 children in northern New York with muscular dystrophy and other neuromuscular conditions, and we salute the dedication of Jackie Swartz, R.N., who has been instrumental in the success of this clinic. Dozens of publications regarding epilepsy mechanisms were co-authored by Drs. Scott and Holmes in medical journals in 2015. We were delighted to anticipate the arrival of Lisa Anne Rasmussen, M.D., to our group in the spring of 2016.

Orthopedics

DIVISION CHIEF

Jennifer Listle, M.D.

Bone, joint, and muscle problems in children require specialized, expert care to ensure a child’s healthy growth and development. At The University of Vermont Children’s Hospital, a team of experienced pediatric orthopedic specialists are trained to provide the full range of treatments, with family-centered care that brings a personal approach to every child and family we see. Pediatric Orthopedic Services provides advanced care for children and adolescents with all types of musculoskeletal problems, including scoliosis, bone tumors, upper and lower extremity problems, neuromuscular disorders and other orthopedic conditions. We also treat children with cerebral palsy, myelomeningocele, muscular dystrophy and other neuromuscular disorders through the Vermont Department of Health. As a university hospital, our treatments are backed by research-based expertise, and patients have access to the latest pediatric orthopedic treatments and therapies available. Our physicians are board-certified orthopedic surgeons with additional specialty training in pediatrics. They’re also University of Vermont faculty members and are involved in research and in the education of University of Vermont College of Medicine students and orthopedic surgery residents.

Psychology

DIVISION CHIEF

Marc Dr. Maron, Ph.D.

The Pediatric Psychology Service, a division of Psychological Services at The University of Vermont Medical Center, is committed to providing the highest quality psychological services, staff consultation, and clinical training. We serve children, adolescents, adults and families referred through pediatric specialty clinics, inpatient general and intensive care pediatric units, and community providers. We serve patients from all over the region and treat a wide variety of conditions. We serve as a primary referral and resource for primary care providers throughout Vermont and northern New York.

All of our psychologists have specialized training and experience in the care of children, adolescents, adults and families faced with medical challenges. In addition, we provide outpatient psychotherapy in our general outpatient clinic and primary care settings. We provide cognitive-behavioral therapies, trauma focused, interpersonal, family, and psychodynamically informed interventions, parent training and guidance, parent-child interaction therapy, mindfulness-based interventions, and psychological intervention for pain management.

Two of our department members have completed the first two phases of application for board certification as specialists in clinical child and adolescent psychology. Courtney Fleisher, Ph.D., and Kimberly Roy, Ph.D., aspire to be recognized as two of fewer than 200 board-certified clinical child and adolescent psychologists in the country. Marlene Maron, M.D., is applying for certification in clinical psychology as a Senior Psychologist.

Highlights of Organizational, Statewide and National Service

The 15th annual Children’s Memorial Service was held on November 1. This service is planned by a committee of UVM Children’s Hospital members and organized largely by members of the Pediatric Psychology Service. Families expressed profound appreciation for the opportunity to be with others who share their experience and honor their cherished children.

Dr. Maron continues to serve as the psychiatry representative to The University of Vermont Children’s Hospital Quality Council and as chair of the Psychiatry Health Care Service Medical Staff Credentialing Committee.

Dr. Fleisher represents UVM Medical Center on the Child Family Trauma Work Group, a state-wide collaborative. She is also an affiliate with the National Child Traumatic Stress Network, and is a member of the Integrated Care Work Group of that organization. Dr. Fleisher is serving a two-year term as co-chair of the Consultation Liaison Special Interest Group for the Society of Pediatric Psychology, Division 54 of the American Psychological Association.

Dr. Roy joined the Vermont Collaborative Care Board, a group convened by Blue Cross Blue Shield of Vermont to develop and assess best practices for mental health care.

Education

Our department continues to provide clinical training for child psychiatry fellows and clinical psychology practicum students. Trainees are supervised by Drs. Maron and Fleisher in the areas of clinical consultation and psychotherapy. Dr. Fleisher presented at Pediatric Grand Rounds on Medically Unexplained Physical Symptoms. Dr. Maron presented an annual lecture on Psychological Care of Children and Adolescents with Chronic and Life Threatening Illnesses in the College of Medicine Generations course as well as for child psychiatry fellowship seminars.

Innovation

In an effort to improve the functional outcomes of patients with somatic symptoms, particularly when medical explanations are elusive, Dr. Fleisher has been collaborating with psychologists across the nation and with physicians at The University of Vermont Children’s Hospital on effective methods of involving behavioral health specialists earlier in the child’s care, in a fashion that is acceptable to patients and families. This group completed data collection from physician surveys about attitudes and practices related to medically unexplained physical symptoms. Additionally, mental health screening of children and adolescents with cystic fibrosis and their parents have continued, with referrals offered to our department as well as local providers.

This year, Dr. Maron became involved in the planning of new initiatives with Department of Pediatrics colleagues, including screening for postpartum depression in mothers of premature babies, and coordination of services for transgendered and questioning youth. We expect comprehensive programming for these populations to commence in the coming year. Dr. Maron is working with others across the organization to develop programming to address psychological factors in addiction in medically hospitalized patients.
Radiology

DIVISION CHIEF
James Hudziak, M.D.

The Department of Pediatric Radiology at The University of Vermont Medical Center uses state of the art imaging technology to obtain the highest possible image quality, while maintaining safety for the child. Whenever possible, ultrasound and magnetic resonance imaging are used. Education of radiology residents, medical students and residents from other specialties is an important function of the department, as is collaboration in research with other specialties.

Global outreach has become a focus of the department in the past year. Pediatric Radiology Division Chief Timothy Higgins, M.D., spent two weeks volunteering at the Angkor Hospital for Children in Siem Reap, Cambodia, this past fall. The Angkor Hospital for Children is a non-profit, free hospital catering to the children of Cambodia. Teleradiology support for the hospital continues.

Psychiatry

DIVISION CHIEF
Timothy Higgins, M.D.

Pediatric Radiology deals with infants and children who present unique imaging challenges and risks compared to adults. The spectrum of disease processes and congenital abnormalities of children are quite different than those seen in older populations, requiring an approach tailored to the individual child rather than a one size fits all approach.

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PLASTIC SURGERY DIVISION CHIEF Donald Laub, M.D.
The Division of Pediatric Plastic Surgery treats children with craniofacial congenital anomalies, upper extremity congenital anomalies and spasticity from cerebral palsy, as well as skin lesions such as congenital nevi, and the treatment of traumatic injuries such as facial fractures and burn/wound injuries.

Donald Laub, M.D. is medical director of the Vermont State Children with Special Health Needs (CSHN) Cleft Palate/Craniofacial Center, and the University of Vermont Children’s Upper Extremity Center. The Vermont State CSHN Cleft Palate/Craniofacial Clinic is officially certified by the American Cleft Palate-Craniofacial Association. Leah Burke, M.D., Thomas Connelly, D.M.D., and Barrett Peterson, D.M.D., are also members of this center. Susannah Olfenbuttel, R.N., is the nurse coordinator of the Cleft Palate/Craniofacial Center.

The University of Vermont Children’s Upper Extremity Center was recently founded for the treatment of children with congenital anomalies and cerebral palsy. Scott Benjamin, M.D., Peter Bingham, M.D., and Dr. Burke are also members of this center. Elizabeth St. James, R.N., is the nurse coordinator of the Children’s Upper Extremity Center.


Recent Publications


Donna Laub, M.D.

MEANDER STUDENT EDUCATION

Medical student education is a core mission of the Department of Pediatrics. Faculty members participate in all aspects of the Vermont Integrated Curriculum. In the Foundations level of the curriculum, pediatric faculty direct courses, lead small group discussions and flipped classroom exercises, facilitate small groups in the year-long course Professionalism, Communication and Reflection, and precept new students during their first clinical experiences. Pediatric faculty have been awarded Basic Science Teacher of the Year and The Golden Apple for excellence teaching the basic sciences.

The Pediatric Clerkship is seven-weeks long with inpatient and outpatient experiences at The University of Vermont Children’s Hospital or at one of four affiliate sites: St. Mary’s Hospital in West Palm Beach, Florida; Eastern Maine Medical Center in Bangor; Maine; Norwalk Hospital in Norwalk, Connecticut; or Danbury Hospital in Danbury Connecticut. Sharing the same curriculum across the sites, the clerkship is consistently one of the highest ranked clerkships in the Clerkship Year. The department has selected Clinical Department of the Year on multiple occasions by graduating medical students. Each year, almost all the residents have been nominated by students for the Resident Teacher of the Year award.

During Advanced Integration, the department offers one-month acting internships at The University of Vermont Children’s Hospital in neonatology and general inpatient pediatric medicine. These have been much sought after as the acting internships are integrated into the resident team. A host of electives in primary care, pediatric subspecialties, research, medical journalism, and teaching are also available.

Faculty work with the student-directed Pediatric Student Interest Group, hosting a variety of events and activities related to pediatrics and child health.

Pediatrics remains a very popular field at the College of Medicine, with more students consistently matching in pediatrics than most other specialties.

PEDiatric RESIDENCY PROGRAM

The University of Vermont Pediatric Residency Program provides our residents with superb training in general pediatrics through the collaborative efforts of full-time faculty and community pediatricians. Our residents come to Vermont from all over the United States to be a part of our diverse and talented pediatric community.

Making a Difference

Our residents have continued to contribute to our pediatric community through their scholarly work in advocacy and quality improvement, including projects on literary promotion and enhancing medical homes for LGBTQ youth. Our residents also lobbied at the Vermont State House in support of House Bill H.98, “Elimination of philosophical exemption to vaccination,” which was passed by the Vermont State Legislature.

Other Highlights

We have made some exciting changes to our curriculum this year, including an enhanced emergency medicine rotation. Over the past year, pediatric residents have presented scholarly work at multiple national meetings, including the annual meetings of the American Academy of Pediatrics (AAP), Pediatric Acedemic Society, Association of Pediatric Program Directors, and Pediatric Hospitalist Medicine.

NEONATAL-PERINATAL MEDICINE FELLOWSHIP PROGRAM

The Neonatal-Perinatal Medicine Fellowship Program is an integrated part of the Pediatric Residency Program at The University of Vermont Children’s Hospital/University of Vermont Medical Center. Our goal is to foster the development of neonatologists for academic and clinical practice through an outstanding, evidence-based clinical education. To that end, we believe in an apprenticeship model, with supported fellow immersion in attending-level teaching and clinical activities, as well as active mentoring.

Our fellowship provides a broad scope of training coupled with exceptional educational and research opportunities. Fellows obtain experience with critical patients, including those requiring high frequency ventilation, nitric oxide, therapeutic hypothermia, transport stabilization, and surgical and subspecialty care. Experience with cardiac surgery and ECMO is provided during a one month Cardiac Intensive Care Unit (ICU) rotation at Boston Children’s Hospital. Fellows are involved in follow-up for high-risk patients as well as prenatal consultation.

We hope to foster research projects that contribute to long-term academic careers. As such, fellows tailor research interests to career goals, and recent efforts have included clinical and outcomes research and quality improvement, as well as environmental, educational, and family-centered care-based research. Fellows have the opportunity to be involved with efforts such as the Vermont Oxford Network and the Cochrane Collaboration. Recent fellows have published in high-impact journals and have presented at national conferences, including the Vermont Oxford Network Annual Meeting and the Pediatric Academic Society.

Fellows attend a regular series of core lectures as well as mock codes and interdisciplinary meetings such as perinatal confer- ences and ethics conferences. We maintain a 100 percent pass rate for Neonatal-Perinatal Medicine board certification. Our fellows have successfully applied for competitive attending positions nationwide.
Research

Metabolism, Obesity, and Type 2 Diabetes
DIRECTOR C. Lawrence Kien, M.D., Ph.D.
Although Lawrence Kien, M.D., Ph.D., continues to devote time to the Admissions Committee and to teaching in the Foundations level Nutrition, Metabolism and Gastrointestinal Systems course at the College of Medicine, the focus of his efforts is nutritional and metabolic research. Over the last 20 years, our labs have focused on the biological and clinical importance of dietary fatty acids. During the past year, our lab was involved in studies funded by NIH, industry (Dairy Research Institute), and the UVM Center on Aging (Armin Grams Memorial Research Award). Recently, two papers were published online, prior to print, which showed that the habitual intake of palmitic acid, the principal saturated fat in the diet and its metabolites, promote inflammation. With Julie Dumas, Ph.D., and Matthew Poynter, Ph.D., we have now completed the clinical aspects of a study in young women and have presented at an October 2015 neuroscience meeting. The study shows that dietary palmitic acid and oleic acid have opposite and reversible effects on activation of brain networks involved with executive functioning, and confirms that a high saturated fat diet is pro-inflammatory. An NIH grant has been submitted examining the effects of these fatty acids on cognitive aging. In collaboration with Jana Kraft, Ph.D., from the UVM Department of Animal Science, we are exploring if bacteria-derived fatty acids produced in the rumen and found in dairy products improve insulin sensitivity and/or affect the gut microbiome. An abstract will be submitted to the Experimental Biology meetings.

Recent Publications

The Vermont Oxford Network
DIRECTOR Jeffrey Horbar, M.D.
The Vermont Oxford Network is a collaboration of health professionals from over 1,000 hospitals around the world dedicated to improving the quality and safety of health care for newborn infants and their families. In support of this mission, the network maintains a database for infants receiving neonatal intensive care for use in research and quality improvement.

The network database, which includes two million records and over 69 million patient days, now enrolls 90 percent of all very low birth weight infants born each year in the United States, as well as a growing proportion worldwide. The database has been an important resource for research leading to numerous peer reviewed publications. The Vermont Oxford Network NICQ and InNICQ quality improvement collaboratives have served NICU teams from over 500 hospitals since their inception in the mid-1990s, resulting in measurable improvements in quality, safety, and cost. An important innovation of these collaboratives has been the intense focus on engaging families. The Vermont Oxford Network improvement collaboratives include parents of NICU infants as working team members and as paid faculty members.

The Vermont Oxford Network is actively engaged in global health. Volunteer teams of physicians and nurses from Vermont Oxford Network hospitals have supported improvements in the NICU at the Tikur Anbessa Hospital, the major teaching hospital for Addis Ababa University in Addis Ababa, Ethiopia, including training the first three neonatologists in that country. An important milestone for the global health programs at the Vermont Oxford Network was the appointment in 2015 of Danielle Ehret, M.D., M.P.H., as its first director of global health.

Highlights
- The appointment of Danielle Ehret, M.D., M.P.H., as Vermont Oxford Network Director of Global Health.
- The network database is now enrolling 90 percent of all very low birth weight infants born each year in the U.S.

ImproveCareNow
EXECUTIVE NETWORK DIRECTOR Richard Colletti, M.D.
Richard Colletti, M.D., founder of ImproveCareNow, is in his tenth year as executive network director of this international rapidly-growing network of 84 centers working to improve the care and outcomes of children and youth with Crohn’s disease and ulcerative colitis. During that time, the remission rate of children at these centers has increased from 55 percent to 79 percent.

In the past year, ImproveCareNow participated in two grants from the Patient-Centered Outcomes Research Institute (PCORI) to create a Patient-Powered Research Network and a Clinical Data Research Network. In addition, ImproveCareNow received a five-year, $7.9 million grant award to perform a Clinical Data Research Network. In addition, ImproveCareNow (PCORI) to create a Patient-Powered Research Network and improve interventional services if needed. Funded by Project LAUNCH, Vermont Birth to Five/The Permanent Fund for Vermont’s Children, and the Vermont Department of Health, 50 percent of eligible children have received screening in their medical home to date, and over 2,600 children have been impacted by enhanced collaboration and communication in their early care and education setting. Further, 205 early care and education professionals have received training and support to implement structured developmental screening tools using the Ages and Stages Questionnaire.

Recent Publications
- Dotson JL, Crandall WV, Zhang P, Forrest CB, Bailey CJ. Colletti RB, Kappelman MD. Feasibility and validity of the pe... 2015;60:200-4

 Vermont System for Universal Developmental Screening
Through an innovative multidisciplinary (health, public health, education) partnership, VCHIP is providing technical assistance and quality improvement training to medical homes and early care and education programs statewide to ensure all young children receive timely and appropriate developmental and behavioral health screening in support of early identification of developmental concerns and appropriate linkages to evaluation and intervention services if needed. Funded by Project LAUNCH, Vermont Birth to Five/The Permanent Fund for Vermont’s Children, and the Vermont Department of Health, 50 percent of eligible children have received screening in their medical home to date, and over 2,600 children have been impacted by enhanced collaboration and communication in their early care and education setting. Further, 205 early care and education professionals have received training and support to implement structured developmental screening tools using the Ages and Stages Questionnaire.

System Integration Grant with the Maternal and Child Health Bureau
Vermont is one of 16 states receiving Maternal and Child Health Bureau (MCHB) funding and technical assistance to increase the proportion of children and youth with special health care needs (CYSHCN) with a shared plan of care and families connected to needed services, and to establish an agency-level agreement to ensure timely communication with the medical home about outcomes of referrals. VCHIP led a learning collaborative to improve care coordination for CYSHCN at five Vermont pediatric practices in year one and will expand to include nine pediatric and family medicine practices in years two and three. VCHIP is leading the Vermont QJ effort as well as providing technical assistance through NIPN to all 16 states receiving MCHB funding in quality improvement methods and processes.
Pediatric Philanthropic Giving 2015

At the University of Vermont Children's Hospital, patients and their families receive state-of-the-art care backed by the groundbreaking research happening every day at the UVM College of Medicine and College of Nursing and Health Sciences. Move Mountains: The Campaign for the University of Vermont raised more than $1.6 million throughout the past year to help further these important goals, and propel the children's hospital forward into the next era of patient care. This is where innovation and compassion combine to improve the health and well-being of children across Vermont, northern New York and beyond.

Big Change Roundup

Participants in the annual Big Change Roundup for Kids Radiothon collected change and emptied their piggy banks, netting a record-breaking $330,000.

Children's Miracle Network

Children's Miracle Network Hospitals (CMNH) is an international non-profit organization that saves the lives of children by raising money for more than 170 children's hospitals, including The University of Vermont Children's Hospital. Their support purchased a Panda Warmer for our newest citizens. Pictured are members of the Vermont State Aeries from Jeffersonville, Milton, Vergennes and Burlington.

Gift from Eagles Purchases a New Panda

The National Fraternal Order of Eagles presented a check to Dr. Lewis First on September 16, 2015, to support the new Mother-Baby Unit at The University of Vermont Medical Center. Their support purchased a Panda Warmer for our newest citizens. Pictured are members of the Vermont State Aeries from Jeffersonville, Milton, Vergennes and Burlington.

KEEGAN BRADLEY CHARITY GOLF CLASSIC

Vermont native Keggan Bradley, the 2011 PGA Tour Rookie of the Year and a star of the 2012 U.S. Ryder Cup team, again returned to the Woodstock Inn & Resort in Woodstock, Vermont, in August with fellow PGA Tour winner Brendan Steele to host the third annual Keggan Bradley Charity Golf Classic.

The event, benefitting the Pediatric Cancer Research Foundation in its support of the University of Vermont Cancer Center and the UVM Children's Hospital, raised more than $60,000 to support pediatric cancer research.

"We're proud to support Vermont causes and children's cancer is an important one," said Bradley. "Our outing last year was a great success and we hope to have as much fun and raise even more money for children's cancer research next year."

 Miracle Network Dance Marathon

Middlebury College, Saint Michael's College and University of Vermont Miracle Network Dance Marathon events raised nearly $50,000. Students danced all night to raise funds in support of our youngest patients.

Extra Life

Gaming enthusiasts "gamed for good" through Extra Life, a 24-hour gaming marathon raising more than $67,000—including a whopping $42,000 raised by our 2015 Children's Miracle Network Hospitals Champion, Noah Cohen.

Noah was born with a rare condition that has required more than 25 surgeries making him a frequent visitor to our children's hospital. During a long recovery where he couldn't move for six weeks, Noah discovered video games. He has since become an avid gamer and quickly became involved in Extra Life. Noah turned his passion for gaming into a fun way to make a difference. He put tremendous effort into creating his own fundraising page and started asking for donations, sharing his own experiences at the UVM Children's Hospital, and reminding others how important it is to help other patients who have to visit our children's hospital. He is never shy about reminding others "it's for the kids."

Community Supports New Mother-Baby Unit

More than 800 individuals and many organizations raised more than $3 million to support the creation of a new state-of-the-art "Glen and Rosemarie Wright Mother-Baby Unit" at the UVM Medical Center. The $15.8 million unit, which was unveiled in July of 2015, includes 32 private rooms, three double rooms, and 44 percent more space per room for patients, families and caregivers. "I'm very proud of our community for once again showing such strong support for providing the very best quality of health care for this region," said Jessica Brumsted, who co-chaired the Mother-Baby Steering Committee with Jan Carroll, R.N., administrative director of nursing at the UVM Medical Center. Local businesses and organizations providing major financial support include: Party City, the Pizazzali Foundation, The University of Vermont Medical Center Auxiliary, The Klisia Club, Fraternal Order of Eagles Jonny Durante Children's Fund, Affiliates in Obstetrics & Gynecologic Care, The Mervyn L. Brenner Foundation, Children's Miracle Network, Healthy Living Market & Cafe, Kinney Drugs Foundation, New England Federal Credit Union, Paul, Frank + Collins PC., People's United Bank, Ronald McDonald House Charities, Sevenths Generation, Inc., Comcast, Devonwood Industries, LLC, and The Zurn Family Foundation.

You Too Can Help Move Mountains

For more information regarding current endowments or if you are interested in supporting the Department of Pediatrics or The University of Vermont Children's Hospital, please contact: Ruth Henry, Director of Major Gifts, University of Vermont College of Medicine, at Ruth.Henry@uvm.edu (802-656-3225) or Jackie Woodwell, Events Specialist, at Jackie.Woodwell@uvmhealth.org (802-656-4393).
### Faculty

#### ON CAMPUS

**ADOLESCENT MEDICINE**
Erica Gibson, M.D.

**ANESTHESIOLOGY**
Melissa Davidson, M.D.  Eva Fraser-Harris, M.D.  Joseph Keutz, M.D.  Ann Lawrence, M.D.  Monika Modlinski, M.D.  Emily Stebbins, M.D.  Robert Williams, M.D.

**CARDIOLOGY**
Nancy Drucker, M.D.  Niels Giddins, M.D.  Scott Yeager, M.D.  Niels Giddins, M.D.

**CHILD DEVELOPMENT**
Mercedes Maria Avila, Ph.D.  Stephen Contompasis, M.D.

**CHILD PSYCHIATRY**
Robert Althoff, M.D.  Ph.D.  Jeremiah Dickerson, M.D.  Allison Hall, M.D.  James Hudziak, M.D.  Paul Maron, M.D.

**CRITICAL CARE**
Marlene Maron, Ph.D.

**ENDOCRINOLOGY**
Katherine Nacca, M.D.

**EMERGENCY MEDICINE**
Amelia Hopkins, M.D.  Rebecca Bell, M.D.  Scott Yeager, M.D.

**HEMATOLOGY/ONCOLOGY**
Heather Braden, M.D.  Joseph Dickerman, M.D.  Jessica Health, M.D.  Alan Homani, M.D.  Jillian Sullivan, M.D.

**HOSPITALISTS**
Abigail Adair, M.D.  Barry Finette, M.D.  Ph.D.  Lewis First, M.D.  Karin Gray, M.D.  Karen Leonard, M.D.  Molly Moore, M.D.  Marianne Rideout, M.D.  Paul Rosenau, M.D.  Christa Zeha, M.D.

**INFECTIOUS DISEASE**
Ben Lee, M.D.  William Raszk, J.R.

**METABOLISM AND NUTRITION**
C. Lawrence Kien, M.D.  Ph.D.

**NEONATOLOGY**
Marie Berg, M.D.  Danielle Ehnet, M.D.  Jeffrey Horbar, M.D.  Anne Johnston, M.D.  Charles Mercier, M.D.  Roger Soll, M.D.  Leslie Young, M.D.

**NEUROLOGY**
Lori Racht, M.D.  Mary Lee Ritter, P.N.P.

**NEPHROLOGY**
Ann Guillot, M.D.  Liz Hunt, M.D.

**NEUROSURGERY**
Susan Durham, M.D.

**ORTHOPEDICS**
David Aronsson, M.D.  Timothy Higgins, M.D.

**PEDIATRICS AND PHYSIOLOGY**
Frederick Morin, III, M.D.

**PLASTIC SURGERY**
Donald Laub, M.D.

**PALLIATIVE CARE**
Diana Barnard, M.D.  Robert Macauley, M.D.

**PALLIATIVE CARE FELLOWS**
Michelle Yang, M.D.  Charles Williams, M.D.  Rebecca Staub, M.D.

**NEUROLOGY**
Gerald Mingin, M.D.

**VERMONT CHILD HEALTH IMPROVEMENT PROGRAM**

**RESIDENTS**
Allison Fairchild, M.D.  Chief Pediatric Resident

**VERMONT CHILD HEALTH IMPROVEMENT PROGRAM**
Katherine Anderson, M.D.  Jordan Blessing, M.D.  Aaron Burley, M.D.  Calista Campbell, M.D.  Daniela Chan, M.D.  Ross Cleveland, M.D.  Jennifer Covino, M.D.  Ellen Diego, M.D.  Debra Hartswick, M.D.

**PULMONOLOGY**
Kelly Cowan, M.D.  Thomas Lahiri, M.D.  Keith Robinson, M.D.

**RHEUMATOLOGY**
Leslie Abramson, M.D.

**SURGERY**
Kathleen Sartorelli, M.D.

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### Community Faculty

Community faculty play a key role in our department's and children's hospital's clinical, teaching, research and advocacy missions. The wonderful work they do educating our trainees and caring for patients and families in our region enhances the excellence of our academic and clinical missions and helps make us the outstanding department and children's hospital we strive to be each and every day.
