

The Chart

News & Notes from the Department of Medicine at the University of Vermont • Fall 2016



Supporting Collaborative Science

ALSO FEATURED: College Named for Alumnus Dr. Robert Larner

Letter from the Chair

September 23rd, 2016, was an exciting day for the college community: When the UVM College of Medicine was named for Robert Larner, M.D.'42, in a special event attended by hundreds from across the university, it became the first in the nation to be named for an alumnus physician donor. I can't think of a better way to honor Dr. Larner as well as reinforce our already strong commitment to innovative medical education that puts the patient at the center of everything we do.



As Dean Morin said, we now have an "awesome responsibility" to be at the forefront of educating the next generation of physicians. I am confident that The Robert Larner, M.D. College of Medicine at The University of Vermont will live up to that promise.

Here in the Department of Medicine, there's no shortage of innovation in the name of leading-edge teaching and research. In this issue, I invite you to learn more about our four vice chairs, and some of the initiatives they're working on in the realms of education, academic affairs, research and quality. They've already accomplished a great deal, and with their continued leadership I am sure we're going to be seeing many exciting developments ahead. I'm also proud of the hard work that's gone into reorganizing our clinical trials infrastructure, which is giving researchers the support they need to focus more of their attention on their work in the lab. As our research portfolio continues to grow, this infrastructure will allow us to meet future challenges and excel.

With physician wellness a topic often covered in the national news, we're lucky to have faculty who have taken the lead on making sure department members feel supported in their work, as well as have opportunities for a little fun with their colleagues. As we welcome new faculty and residents to our ranks this fall, this issue of *The Chart* highlights our faculty engagement committee – led by Julie Lin, M.D. – and an important program led by Shaden Eldakar-Hein, M.D., and Mark Pasanen, M.D., that connects our residents to each other and the broader community.

POLLY E. PARSONS, M.D.

Professor and E.L. Amidon, M.D.'32 Chair of Medicine

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Submissions to the newsletter, as well as address corrections may be sent to: thechart@med.uvm.edu or

THE CHART, UVM DEPARTMENT OF MEDICINE

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THE
University of Vermont
MEDICAL CENTER

 The Robert Larner, M.D.
College of Medicine
THE UNIVERSITY OF VERMONT

Cover: Professor of Cardiovascular Medicine Harold Dauerman, M.D., leads clinical trials, and investigator-initiated studies. Photo by David Seaver.

In this Issue

1 New and Notable

4 Supporting
Collaborative Science

6 Department Leadership

8 Research News

10 Education News

12 Faculty Notes,
In the Media,
Who Knew?



New and Notable

Celebrating University Distinguished Professor Ralph Budd, M.D.

At UVM's Commencement Ceremony in May, **RALPH BUDD, M.D.**, professor in the Division of Immunobiology, was honored as a University Distinguished Professor, the highest academic honor the university bestows on a member of the faculty. Larner College of Medicine leaders including Dean **RICK MORIN, M.D.**, Department of Medicine Chair **POLLY PARSONS, M.D.**, and fellow University Distinguished Professors from the college celebrated Budd's accomplishments during an evening reception at Shelburne Farms in July.

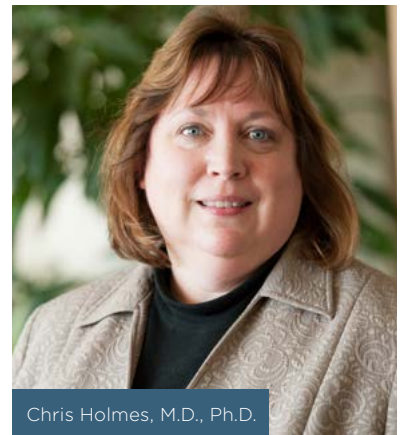
Budd has served in a variety of leadership roles at UVM. He was the chief architect of what is today the university's highly successful immunobiology program, and is director of a Center of Biomedical Excellence — the Vermont Center for Immunology and Infectious Diseases. A dedicated mentor and role model to countless junior faculty and students, he is a visionary leader who has gained the admiration of his peers.



Hemophilia Treatment Center Provides Comprehensive Care, Launches Quality Improvement Project

The Vermont Regional Hemophilia Treatment Center serves as a comprehensive medical home and critical resource for patients suffering from bleeding disorders. A recent system-wide quality improvement project - focused on preventing bleeding for patients with bleeding disorders undergoing invasive procedures – has improved communication and care coordination, says **CHRIS HOLMES, M.D., PH.D.**, associate professor in the Division of Hematology/Oncology and director of the Vermont Regional Hemophilia Treatment Center. With support from the Jeffords Quality Institute, a multidisciplinary team worked to identify patients across the institution with major bleeding disorders, and add a new banner for these patients in their electronic health record. The effort, which involved a variety of teams from across the medical center

and took more than one year to complete, ensures that all health professionals have easy access to the patient's hemostasis action plan, and simplifies communication between hematology and the departments planning a procedure. Follow-up is planned to measure outcomes as the project moves forward. Holmes says “personalized service” is key to the center's overall success. As one of 140 federally funded centers nationwide, the Vermont Regional Hemophilia Treatment Center uses a comprehensive care model to provide access to psychosocial support, occupational therapy, consults with dentists and other health professionals, and home visits for families who have children with bleeding disorders. This wrap-around support is important as these life-threatening, complex diseases are relatively rare – Holmes estimates that there are roughly



Chris Holmes, M.D., Ph.D.

250 to 300 patients in the UVM Medical Center's catchment area with major bleeding disorders. With the center participating in several national surveillance programs and, for the first time this year, a national patient experience survey on the transition for pediatric patients to adult services, Holmes says that the center's “local expertise is recognized at the national level.” As new, long-acting drugs continue to be developed, Holmes says the center will likely lend more of its expertise in this area as well.

New and Notable



Transforming Medical Education: The Robert Larner, M.D. College of Medicine

On September 23, 2016, at an event attended by UVM faculty, staff, members of the local media, and more than 140 medical students, university leadership announced an estate commitment with an estimated current market value of \$66 million from UVM dual-degree alum and Vermont native Robert Larner '39, M.D.'42, and his wife, Helen. The college's new name, **THE ROBERT LARNER, M.D. COLLEGE OF MEDICINE AT THE UNIVERSITY**

OF VERMONT, also announced at the September 23 event, honors Dr. Larner's lifetime of giving, which will likely reach \$100 million. The Larners' gift marks the first occasion in the United States for which a medical school is named to honor an alumnus physician and donor. The event attracted widespread media attention, including stories in the *New York Times*, *Washington Post*, *Boston Globe*, *Inside Higher Ed*, and the *Chronicle of Philanthropy*.

UVM Clinical Trials Lead to First FDA Approved Cholera Vaccine in U.S.

The Vaccine Testing Center, led by **BETH KIRKPATRICK, M.D.**, professor in the Division of Infectious Disease, played a major role in testing a groundbreaking new vaccine to protect against cholera infection. The vaccine – called Vaxchora – became the first cholera vaccine to be approved by the Food and Drug Administration in June of 2016, after human challenge trials at UVM and two other national sites: the University of Maryland and University of Cincinnati.



Beth Kirkpatrick, M.D.

Journal Names Lamantia Article as One of Top 20 in Field

An article co-authored by **MICHAEL LAMANTIA, M.D.**, associate professor in the Division of General Internal Medicine/Geriatrics and section head for geriatrics, has been selected by the *Journal of the American Geriatrics Society* as one of the 20 articles that shaped the field of geriatrics from 2000 to 2015. The article discusses the Optimizing Patient Transfers, Impacting Medical Quality, and Improving Symptoms: Transforming Institutional Care (OPTIMISTIC) project. This clinical demonstration project, funded by the Centers for Medicare and Medicaid Services, placed a registered nurse in 19 nursing facilities across Indiana to implement an evidence-based quality improvement program with clinical support from nurse practitioners. The goal was to test interventions to reduce avoidable hospitalizations of long-stay nursing facility residents.



Michael LaMantia, M.D.

New Faculty

Division of Cardiovascular Medicine

ADERONKE ADENIYI, M.D.

Fellowships: Allegheny General Hospital and Tulane University.

Residency: Cleveland Clinic.

Medical School: Wake Forest University School of Medicine.

DANIEL CORREA DE SA, M.D.

Fellowship: UVM Medical Center.

Residency: Mayo Clinic.

Medical School: Universidade Federal Do Rio De Janeiro.

Division of Hematology/Oncology

ELVIRA UMYAROVA, M.D.

Fellowship: Medical University of South Carolina.

Residencies: Texas Tech University Health Sciences Center and Russian State Medical University.
Medical School: Russian National Research Medical University.

Division of General Internal Medicine/Geriatrics

ALBERTO GUTIERREZ, M.D.

Residency: University of Texas-Galveston.

Medical School: UVM College of Medicine.

MICHAEL LAMANTIA, M.D., M.P.H.

Fellowship: University of North Carolina Hospitals.

Residency: University of North Carolina Hospitals.

Medical School: Albert Einstein College of Medicine, Yeshiva University.

Division of Hospital Medicine

MARIA BURNETT, M.D.

Residency: University of Vermont Medical Center.

Medical School: UVM College of Medicine.

THANH-THI DANG, M.D.

Residency: Drexel University.

Medical School: Drexel University College of Medicine.

EMILY GREENBERGER, M.D.

Residency: University of Washington School of Medicine.

Medical School: Geisel School of Medicine at Dartmouth.

NAOMI HODDE, M.D.

Residency: University of Washington School of Medicine.

Medical School: Temple University School of Medicine.

RACHEL MCENTEE, M.D.

Residency: University of Vermont Medical Center.

Medical School: UVM College of Medicine.

DAVID RAND, D.O.

Residency: Drexel University and UVM Medical Center.

Medical School: Philadelphia College of Osteopathic Medicine.

Division of Gastroenterology

MARIO VELEZ, M.D.

Fellowship: UVM Medical Center.

Residency: University of Illinois College of Medicine.

Medical School: Icahn School of Medicine at Mount Sinai.

Division of Infectious Disease

KRYSTINE SPIESS, D.O.

Fellowship: UVM Medical Center. *Residency:* UVM Medical Center. *Medical School:* Kansas City University of Medicine and Biosciences.

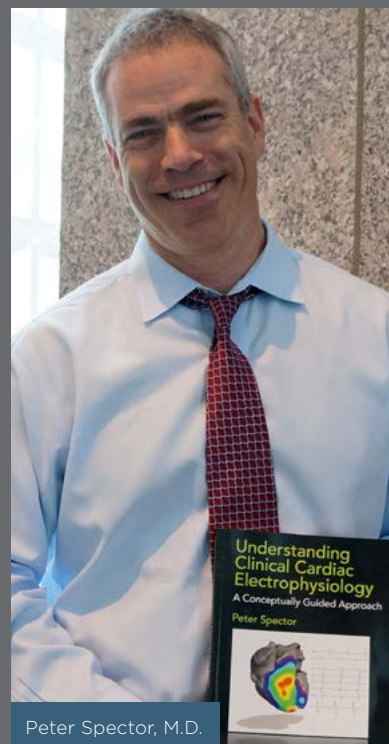
Division of Pulmonary Disease and Critical Care Medicine

MARYELLEN ANTKOWIAK, M.D.

Residency: UVM Medical Center.

Medical School: UVM College of Medicine.

Spector Publishes New Book on Clinical Cardiac Electrophysiology



Peter Spector, M.D.

PETER SPECTOR, M.D., professor in the Division of Cardiovascular Medicine, has written a new book, titled *Understanding Clinical Cardiac Electrophysiology: A Conceptually Guided Approach*. Published in May of 2016 by Wiley-Blackwell, it is a key component of Spector's two-day intensive course, "Foundations of Electrophysiology," which he launched about eight years ago. The course also includes a three-dimensional computer model of the heart's electrical system, which he developed in collaboration with **JASON BATES, PH.D.**, professor in the Division of Pulmonary Disease and Critical Care Medicine. Spector teaches all over the world, primarily to cardiology fellows training to become electrophysiologists.

Supporting Collaborative Science

New Staff Infrastructure Supports Department's Leading-Edge Research

Behind every brilliant researcher, there's a team of people who make their breakthroughs possible. For the Department of Medicine, that team includes a cadre of financial specialists, research coordinators, technicians and nurses who ensure that clinical trials are safe for patients, and cost-effective for the medical center. A recent reorganization of the clinical trials infrastructure into five research units has meant additional support for researchers, including dedicated personnel for financial and regulatory issues. Each of the five units, which include Cardiology and Endocrinology; the Vermont Lung Center; Hematology/Oncology; Infectious Diseases and the Vaccine Testing Center; and a unit that includes Dermatology, Nephrology, GI, and Rheumatology, now have two

staff members each who handle grant and contract support, regulatory filings, financial and legal issues, and patient protocols and support.

ERIC GAGNON, business manager for the Department of Medicine, says the new structure more adequately supports the department's large research portfolio, which currently includes over 400 studies.

"We have a structure that allows the faculty member to focus on the science," he says.

Since clinical trials run by department faculty account for approximately 70 percent of the medical center's total, that means increased efficiency and a more robust research enterprise. Investigators appreciate the expertise the staff offers, Gagnon says, as it

allows them clear communication channels for the complex demands of a clinical trial. **MICHAELANNE ROWEN, R.N.**, research manager, has taken the lead on organizing training for staff on many aspects of research administration, including patient enrollment and safety procedures, as well as ensuring protocols are followed and documented. Overall, approximately 300 faculty, fellows, residents, medical students, graduate students, and staff support the department's extensive clinical trials, translational, and basic science work.

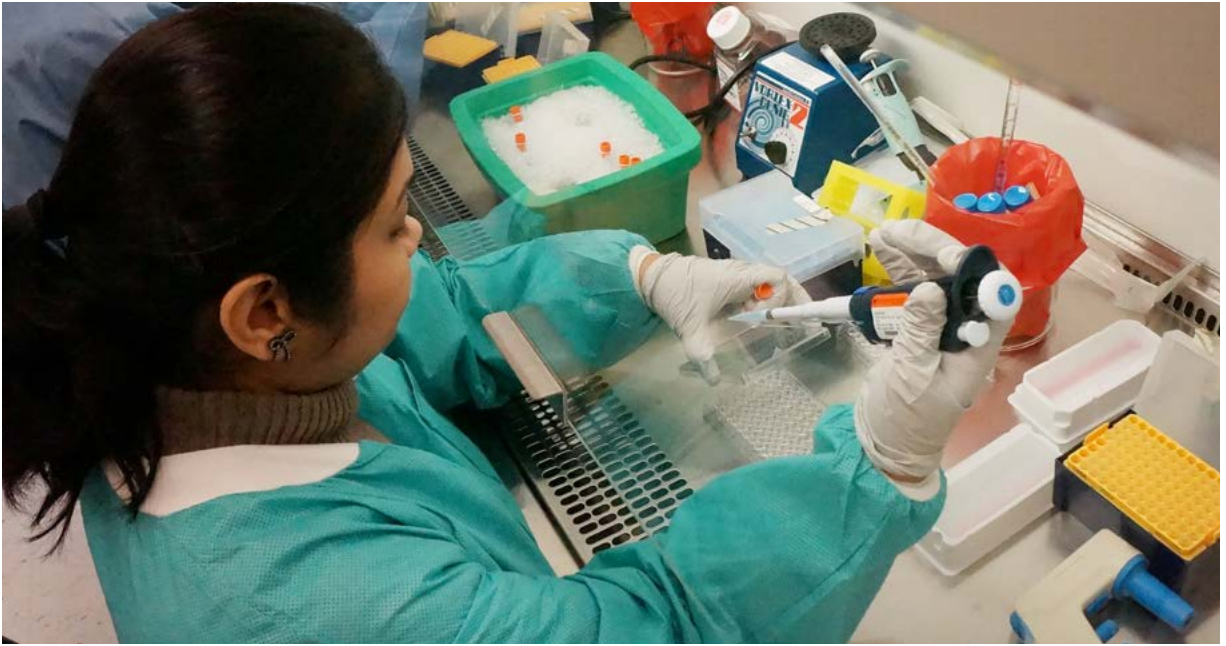
"This reorganization is critical to advance our vision of collaborative science," says **CHARLES IRVIN, PH.D.**, the department's vice chair for research. "It's key to helping us achieve our research goals over the next 20 years."

Left: Marie Wood, M.D., professor in the Division of Hematology/Oncology, is also a member of the UVM Cancer Center and conducts research across disciplines. Right: Post-doctoral associate David Chapman, Ph.D., conducts research on lung diseases with colleagues in the Vermont Lung Center.



Fast Facts

- 400** Over 400 studies currently in Department of Medicine's research portfolio
- 70** Department of Medicine clinical trials account for roughly 70 percent of UVM Medical Center's total
- 300** Approximately 300 faculty, fellows, residents, medical students, graduate students, and staff support the department's extensive clinical trials, translational, and basic science work.



The Vaccine Testing Center continues to play a key role in developing several important vaccines for cholera, dengue fever, and now Zika virus.

The UVM Cancer Center's adult oncology research has been a particular focus for the team over the past year and a half. **TINA MAZUZAN**, the department's research administrator, says the goal was to use the department's model to create a similar team for the center, which has the largest portfolio of active trials across the College of Medicine. After successfully training roughly 15 staff members, this structure is now ready to move from Department of Medicine oversight to cancer center oversight at the end of the calendar year.

When it comes to the leading-edge research the new infrastructure supports, the Department of Medicine has no shortage of success stories. UVM was one of 45 sites nationwide to participate in a clinical trial – led by **HAROLD DAUERMAN, M.D.**, professor in the Division of Cardiovascular Medicine – that resulted in FDA approval for Transcatheter Aortic Valve Replacement (TAVR) in two categories of patients. The procedure uses catheters to replace faulty heart

“This reorganization is critical to advance our vision of collaborative science. It’s key to helping us achieve our research goals over the next 20 years.”

– Charles Irvin, Ph.D.

valves in patients deemed inoperable or at high risk for complications during open heart surgery. The Vaccine Testing Center, led by **BETH KIRKPATRICK, M.D.**, reported in March of 2016 promising results from clinical trials on a new vaccine that is very effective at preventing dengue infection and is likely to require only a single dose. The center will soon be involved in research on a possible vaccine for the Zika virus, which was declared a global health

emergency by the World Health Organization on February 1, 2016. And the Vermont Lung Center has long been a research leader nationally and internationally, as it continues to conduct important work on diseases including asthma, chronic obstructive pulmonary disease (COPD), and lung cancer, among others.

Now that the Department of Medicine research infrastructure is in place, plans include harnessing additional resources for statistical analysis, and offering support to researchers who have an idea they'd like to investigate but need help on the next steps, are also in the works. This work builds on an already robust community of researchers who benefit from the close proximity of the medical center to research labs, and a culture of cooperation and partnership.

“There are samples obtained in a clinical trial setting that are minutes later being further analyzed and processed in the laboratory,” Gagnon says. “The collaborations within the Department of Medicine are very strong.” ©

Department Leadership

Meet the Department of Medicine Vice Chairs

The Department of Medicine vice chairs are charged with supporting faculty as they conduct research, teach, and progress through career milestones. These key leaders provide the vision for moving forward in their respective areas.



CHARLES IRVIN, PH.D., VICE CHAIR FOR RESEARCH

In addition to his role as vice chair for research, Dr. Irvin serves as associate dean for faculty affairs, and as director of the Vermont Lung Center, a

position he has held since his arrival at UVM in 1998. A national/international expert in pulmonary physiology and asthma pathogenesis, he was instrumental in securing a COBRE grant for Translational Research in Lung Biology in 2000.

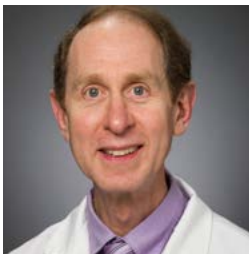
What is the mission of the Vice Chair for Research?

“My goal is to do whatever I can to stimulate and energize the research agenda for the department,” says Irvin. I’m constantly on the look-out for ideas that will make our research agenda more robust.” One success story is the SPARK-VT program, launched by the department

in 2012 to bring promising researchers together with business innovators and biotech leaders to help address the challenges of translating novel research into the community. It is now a UVM-wide program with support from the Office of the Vice President for Research.

Key Recent Developments

- The first Celebration of Excellence in Research is planned to honor the achievements of researchers from across the college, including the many in the Department of Medicine who continue to make major contributions in their fields. A research day specifically for the department is in the works for the spring of 2017.
- We continue to promote collaborative interactions across the department with initiatives including the Translational Pilot Grant Award program and “speed dating” presentations at Medicine Grand Rounds where faculty give short, one slide, three minute presentations on their research.



MARK LEVINE, M.D., VICE CHAIR FOR EDUCATION

Dr. Levine’s career as a clinician-educator encompasses recognized teaching expertise, educational program and curriculum innovation, and

administration of research grants that target education. A two-time recipient of the E.L. Amidon Award for Teaching Excellence from the Department of Medicine, he has also received the college’s Clinical Teacher of the Year award. He serves as associate dean for graduate medical education, and is designated institutional official at UVM Medical Center for the Accreditation Council for Graduate Medical Education (ACGME).

What is the mission of the Vice Chair for Education?

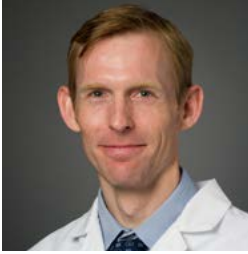
The vice chair creates and fosters a vision for program development, maintains ACGME and Liaison Committee on Medical Education accreditation status, fosters the

success of program and clerkship directors, monitors metrics for program quality, and promotes educational scholarship. Other goals include promoting the visibility of education within the department locally and nationally, and seeking to increase the percentage of UVM medical students choosing internal medicine as a career path.

Key Recent Developments

- The inpatient medicine clerkship has launched physical examination rounds with expert faculty, Stanford 5 Minute Bedside Moment, and improvements in the Clinical Tutor program and format of the didactic curriculum.
- The residency plans to launch a protected weekly academic half day for interns and upper level residents to help foster innovative educational sessions and themed learning opportunities that don’t interfere with clinical duties.
- A series of recruitment videos for each of the fellowship programs is poised to be launched, modeled after “our very successful residency video,” says Levine.

“I want to serve as a resource for Department of Medicine faculty, fellows and residents interested in QI, patient safety and implementation science.” – Allen Repp, M.D.



**ALLEN REPP, M.D.,
VICE CHAIR FOR
QUALITY**

Dr. Repp came to the position of vice chair for quality in 2016, after having served as chief of the Division of Primary Care Internal Medicine for four

years. He's been a leader at the state and national levels around quality improvement and patient safety, including serving as a primary investigator for a two-year Vermont Health Care Innovation Project award aimed at reducing unnecessary lab tests in eight medical centers across Vermont and New Hampshire.

What is the mission of the Vice Chair for Quality?

The role has three main components: Promote excellence in clinical care and coordination of QI and performance improvement efforts across the department; enhance education in improvement science at all levels; and foster scholarship in improvement science.

“I want to serve as a resource for Department of Medicine faculty, fellows and residents interested in QI, patient safety and implementation science,” says Repp.

Key Recent Developments

- The Department of Medicine now hosts a website focused on improvement, including an extensive list of ongoing QI and patient safety activities, and resources for advanced training in QI, publishing QI work, and developing a QI portfolio to support reappointment and promotion. [<http://www.med.uvm.edu/medicine/quality>]
- To support scholarship in QI/PS, a new “QI Scholar” position of has recently been posted. Responsibilities will include providing expert mentorship for scholarly QI/PS activities and assisting trainees and faculty with design, protocol development, data acquisition and analyses.
- In September, a working group started the process of developing an integrated, longitudinal and applied curriculum in improvement science for internal medicine residents.



**BENJAMIN SURATT, M.D.,
VICE CHAIR FOR
ACADEMIC AFFAIRS**

Dr. Suratt holds several leadership positions, including associate director of the pulmonary disease and critical care fellowship

training program, and associate chief for the Division of Pulmonary Disease and Critical Care Medicine. A faculty member at UVM since 2002, mentorship has been a key focus of his work, including “all levels of trainees and faculty, and international training collaborations.

What is the mission of the Vice Chair for Academic Affairs?

The vice chair for academic affairs is charged with assisting and supporting the faculty in their clinical, teaching, research, and administrative roles and facilitating the career development of all faculty, including the critical processes of reappointment and promotion. “As part of this effort, I started the Department of Medicine Faculty Development

Committee in collaboration with Dr. Laurie Leclair,” says Suratt. The committee, comprised of one to two faculty from each division, focuses on issues related to faculty development, including faculty mentoring, career development, and promotion.

Key Recent Developments

- Development and implementation of a Department of Medicine-wide faculty mentoring program. “Moving forward, I hope to also pursue efforts related to both mid-career faculty development and mentoring, and to the increasing challenge of faculty burn-out,” says Suratt.
- In an ongoing effort to increase awareness of the RPT process and make its navigation easier for faculty, the department recently launched a new academic affairs website to support faculty. Suratt has also been working with Charles Irvin, Ph.D., in his role as the College's associate dean for faculty, to develop a “standardized CV format across not only the department but the entire College, and to move towards the replacement of the current ‘Green Sheets’ for the RPT process in certain situations.”

Researchers garner \$4.13 Million Grant to Study Obesity and Asthma

ANNE DIXON, M.A., B.M., B.CH., and **MATTHEW POYNTER, PH.D.**, professors in the Division of Pulmonary Disease and Critical Care Medicine, have received a \$4.13 million National Institutes of Health R01 grant to help better understand why early onset allergic (EOA) asthma tends to be more severe in patients who suffer from obesity, as well as develop therapies targeted specifically to these patients. The researchers are looking at whether cells secreted from visceral adipose tissue of obese allergic asthmatics affect the mitochondrial function of airway epithelial cells in a way that leads to severe disease. Using materials collected from subjects enrolled in a longitudinal study of EOA asthmatics undergoing bariatric surgery, and novel mouse models, they will be exploring how obesity may alter



Anne Dixon, M.A., B.M., B.Ch.



Matthew Poynter, Ph.D.

airway cellular function, and how this results in disease. They'll also be looking at the mechanisms by which weight loss may help obese patients – who often do not respond to available treatments – regain normal function.

Department of Medicine Announces Pilot Award Winners

The Department of Medicine Pilot Awards support translational research by faculty members who are collaborating across divisions on novel research studies, encouraging teamwork and cross-pollination of ideas. The 2016-17 award winners are:

RENEE STAPLETON, M.D., PH.D., and **MICHAEL TOTH, PH.D.:** \$50,000 for “Nutrition and Exercise in Critical Illness: A Pilot Study”

MERCEDES RINCON, PH.D., and **ANNE DIXON, M.D.:** \$50,000 for “Impact of IL-6R gene polymorphisms in COPD”

Publication Highlights

DAUERMAN HL. The Expanding Universe of Perioperative Myocardial Infarction. *J Am Coll Cardiol.* 2016 Jul 26;68(4):339-42. doi: 10.1016/j.jacc.2016.03.601.

DIXON AE, RINCÓN M. Metabolic dysfunction: mediator of the link between obesity and asthma? *Lancet Respir Med.* 2016 Jul;4(7):533-4. doi: 10.1016/S2213-2600(16)30104-7. Epub 2016 Jun 6. PubMed PMID: 27283229.

GILBERT MP, Alvi MM, SCHNURE JJ, NATHAN MH, DeSarno MS, Anderson SR. Multidisciplinary thyroid biopsy clinic at the University of Vermont -A comprehensive educational experience. *J Grad Medical Educ.* 2016 Jul;8(3):448-9.

Moukharskaya J, Abrams DM, Ashikaga T, **KHAN F**, Schwartz J, **WILSON K, VERSCHRAEGEN C**, Openshaw T, Valentine J, Eneman J, Unger P, **ADES S.** Randomized phase II study of loratadine for the prevention of bone pain caused by pegfilgrastim. *Support Care Cancer* 2016 Jul;24(7):3085-93. doi: 10.1007/s00520-016-3119-0 PMID: 26894485

Chen WH, Cohen MB, **KIRKPATRICK BD**, Brady RC, Galloway D, Gurwith M, Hall RH, **KESSLER RA**, Lock M, Haney D, Lyon CE, Pasetti MF, Simon JK, Szabo F, Tennant S, **LEVINE MM.** Single-dose Live Oral Cholera Vaccine CVD 103-HgR Protects Against Human Experimental Infection With *Vibrio cholerae* O1 El Tor. *Clin Infect Dis.* 2016 Jun 1;62(11):1329-35.

LAMANTIA M. Response to Depression Treatment in the Aging Brain Care Medical Home Model. *Clinical Interventions in Aging.* In Press.

Hermel DJ, **MCKINNON WC, WOOD ME,**

GREENBLATT MS. Multi-gene Panel Testing for Hereditary Cancer Susceptibility in a Rural Familial Cancer Program. *Familial Cancer* 2016, Jul in press. PMID: 27401692.

Ather JL, Chung M, Hoyt LR, Randall MJ, Georgsdottir A, Daphtary NA, Aliyeva MI, **SURATT BT, BATES JH, IRVIN CG**, Russell SR, Forgione PM, **DIXON AE, POYNTER ME.** Weight Loss Decreases Inherent and Allergic Methacholine Hyperresponsiveness in Mouse Models of Diet-Induced Obese Asthma. *Am J Respir Cell Mol Biol.* 2016 Aug;55(2):176-87.

Grant Highlights

RALPH BUDD, M.D., professor in the Division of Immunobiology, is principal investigator for a \$250,000 National Institutes of Health/National Institutes of Allergy and Infectious Diseases grant to investigate “Metabolic Regulation of Caspases and Survival in T Cells.”

ROBERT KELM, PH.D., associate professor in the Division of Cardiovascular Medicine, is principal investigator for a two-year American Heart Association Founders Affiliate grant for “Role of PURB in Controlling the Phenotypic Plasticity of Vascular Smooth Muscle Cells.”

DIMITRY KREMENTSOV, PH.D., assistant professor in the Division of Immunobiology, has received a three-year, \$502,506 grant from the National Multiple Sclerosis Society for “Mechanisms of Sex-Specific p38 MAPK-Mediated Pathogenesis in CNS Autoimmunity.”

MERCEDES RINCON, PH.D. professor in the Division of Immunobiology, is principal investigator for a \$248,998 grant from the National Institutes of Health/National Institute of Allergy and Infectious Disease for “IL-6 as a Regulator of Mitochondria Function in T Cells.”

CORY TEUSCHER, PH.D., professor in the Division of Immunobiology, has received a \$150,000 grant from the National Institutes of Health/National Institute of Neurological Disorders and Stroke for “Gene-Environment Interactions in CNS Autoimmune Disease.”

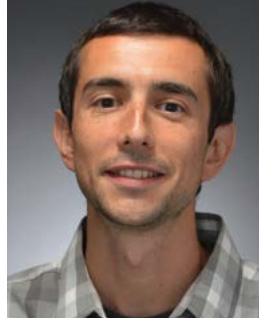
MICHAEL TOH, PH.D., associate professor in the Division of Cardiovascular Medicine, has received a \$255,301 grant from the National Institutes of Health/National Cancer Institute for “Alternative Exercise Modalities to Improve Skeletal Muscle Function in Cancer Survivors.”



Ralph Budd, M.D.



Robert Kelm, Ph.D.



Dimitry Krementsov, Ph.D.



Mercedes Rincon, Ph.D.

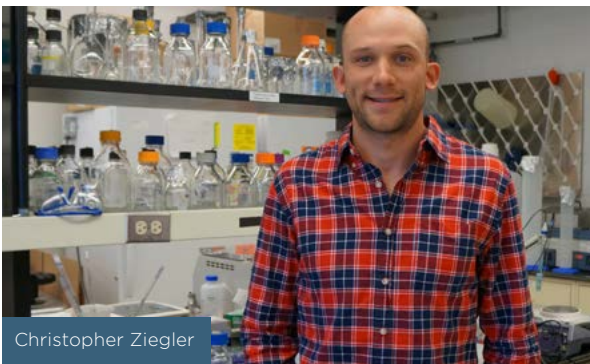


Cory Teuscher, Ph.D.



Michael Toth, Ph.D.

Botten Mentee Awarded BioTek Instruments' Alpert Research Prize



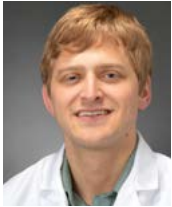
Winooski, Vt.-based BioTek Instruments has announced that graduate student **CHRISTOPHER ZIEGLER** is the recipient of the 2016 Norman R. Alpert Research Prize.

Ziegler, who works with **JASON BOTTEN, PH.D.**, assistant professor in the Division of Immunobiology, was responsible for characterizing a new aspect of virology that helps to explain the basis for production of defective interfering particles during viral infection. This is detailed in his March 2016 *PLoS Pathogens* publication, “The Lymphocytic Choriomeningitis Virus Matrix Protein PPXY Late Domain Drives the Production of Defective Interfering Particles.” The annual prize, named in honor of the late Norman Alpert, Ph.D., BioTek founder and longtime professor and chair of molecular physiology and biophysics at the College of Medicine, recognizes the best peer-reviewed research article by a graduate student in the UVM Cellular, Molecular and Biomedical Sciences (CMB) Program.

Meet the Chief Residents

Every year, a new group of chief residents rise to the challenge of leading their program and serving as a mentor for their peers. The three chief internal medicine residents, and the two for the Division of Dermatology, show exceptional clinical and teaching ability, as well as provide important support for faculty.

INTERNAL MEDICINE CHIEF RESIDENTS



SAMUEL STOYAK, M.D.

Hometown: Youngstown, Ohio
Medical School: University of Pittsburgh School of Medicine
Research Interests: Innovations in medical education
Clinical Interests: Hospitalist and outpatient internal medicine and geriatrics

"It has been exhilarating to experience so many facets of academic medicine in such a short period of time, and it seems like every day there is an exciting new opportunity to explore. I am a co-chair of the Residency Quality Council, which is a multi-departmental committee designed to foster resident quality projects throughout the hospital. Also, within the Internal Medicine residency I have created an elective course to help train residents in the use of diagnostic point-of-care ultrasound."



TARA SCRIBNER-METCALF, M.D.

Hometown: St. Johnsbury, Vt.
Medical School: University of Washington WWAMI (Washington, Wyoming, Alaska, Montana, Idaho) program
Research Interests: High-value

care initiatives

Clinical Interests: Rural, small hospital medicine

"I'm interested in clinical research, particularly in identifying common practices which have no scientific basis, and suggesting alternative processes to improve high value care. I enjoy working with my hands and try to teach residents and students how to use ultrasound and procedural skills to improve patient care. Chiefdom has opened up a whole new world, requiring a level of creativity and outside-the-box thinking heretofore unrealized in my career."



JACQUELINE O'TOOLE, D.O.

Hometown: Laytonsville, Maryland
Medical School: University of New England – Doctor of Osteopathic Medicine
Research interests: Clinical outcomes

around communication in the medical intensive care unit, education initiatives and curriculum development
Clinical interests: Critical care medicine, general pulmonary medicine

"As chief resident I have the pleasure of working with over 50 of our finest residents as they embark on their post-graduate training. It has been great to see how much I can learn just by being surrounded by our inquisitive house staff. As a chief, I help implement our didactic curriculum by supporting resident-driven cases at morning report and working with our simulation group for Mock Code Blue training."

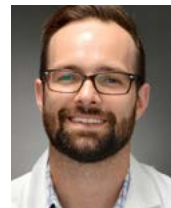
DIVISION OF DERMATOLOGY CHIEF RESIDENTS



ANDREW HANKINSON, M.D.

Hometown: Pittsburgh, Penn.
Medical School: Penn State College of Medicine
Clinical interests: Skin oncology, Mohs Micrographic Surgery

"Since I have become one of the chief residents I have realized how much more goes into healthcare than just the practice of medicine and medical knowledge. In order to provide quality healthcare, clinics must run smoothly. I have learned to appreciate the amount of effort that goes on behind the scenes in order to help treat our patients."



MICHAEL ROMANO, M.D.

Hometown: Plymouth, Mass.
Medical School: University of Massachusetts Medical School
Clinical interests: Medical dermatology, inpatient consultative dermatology, medical education

"I am involved in a quality improvement project that will assess the benefit of photodocumentation of skin biopsies with respect to patient safety and wrong site surgery. So far, the year has been exciting and educational, and I know the skills I learn as a chief resident will help me in my future career."

A New Approach to Resident Wellness

From lunchtime gatherings to listen and reflect with peers, to volunteer opportunities for local non-profits and even some late fall apple cider-making, the Department of Medicine takes a multi-pronged approach to supporting residents and promoting wellness.

With support from **MARK PASANEN, M.D.**, vice chair of education and associate professor in the Division of Hospitalist Medicine, the department's wellness committee is connecting the department's roughly 50 residents to each other and the broader community.

The committee, led by **SHADEN ELDAKAR- HEIN, M.D.**, assistant professor in the Division of Hospitalist Medicine, organizes fun outings to play laser tag or attend local baseball games, as well as community service activities including preparing dinner and sharing a meal with residents of Hope Lodge, the American Cancer Society's temporary residence for patients receiving treatment at UVM Medical Center. Patients appreciate the opportunity to get to know physicians outside of the hospital, says Eldakar-Hein, while residents have the chance to connect with each other and the broader community.

Although the goal is to have fun and give back, it's also about helping new doctors make a successful transition into practice. Given the sobering national statistics about physicians struggling with burn-out, depression, and suicide, the wellness committee has important work ahead of them.

"Part of wellness is to be reminded of our role in the community," says Pasanen. "We can see our patients in a different context."

Since arriving at UVM, Eldakar-Hein has been organizing monthly resident reflection sessions. She says discussions run the gamut, from talk about



(L to R): Tara Scribner-Metcalf, M.D., Shaden Eldakar-Hein, M.D., Kathleen Whitbread, M.D., and Elizabeth Levine, M.D., finish up dinner preparation during a recent visit to the Hope Lodge.

At right: Kathleen Whitbread, M.D., at Hope Lodge.

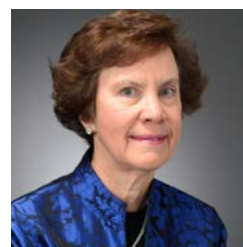


work-life balance and how to better communicate with learners and support staff, to how to handle death and dying on the wards. She developed the course and continues to collaborate with colleagues at the College of Medicine and the Department of Family Medicine, and notes that these partnerships have helped everyone think about wellness in different ways. As a member of the College of Medicine Teaching Academy, she's also hosted workshops on wellness and physician burn-out, and sees the department's support of residents evolving as the needs of the group change over time.

"We try our best to have a good feel for the residents," she says, "and as we stay engaged with them we will continue to understand more about what they need."

UVM Launches New Epidemiology Graduate Certificate Program

A new epidemiology graduate certificate program, led by **JAN CARNEY, M.D., M.P.H.**, associate dean for public health and professor in the Division of Pulmonary Disease and Critical Care Medicine, has been launched for the fall of 2016. The program features a six-course immersion in the quantitative sciences of public health used for analyzing diseases and health-related conditions. The Certificate of Graduate Study in Epidemiology is the fourth online graduate public health program at UVM, joining the Certificate of Graduate Study in Public Health, Certificate of Graduate Study in Environmental Public Health and Master of Public Health programs.



Jan Carney, M.D., M.P.H.

First Watchman Cases Completed by Lustgarten and Team

On July 27, **DANIEL LUSTGARTEN, M.D.**, successfully performed the first four Watchman Left Atrial Appendage Closure cases on patients at UVM Medical Center, with the collaboration of the Watchman team and **MARK CAPELESS, M.D.**, **PETER VAN BUREN, M.D.**, **FRIEDERIKE KEATING, M.D.**, **DANIEL CORREA DE SA, M.D.**, and **DAVID SCHNEIDER, M.D.** “We are extremely gratified to be one of the few hospitals in New England offering this procedure to qualifying high-risk stroke patients unable to tolerate blood-thinning medications as part of their medical care,” says Lustgarten.

In 2012, Lustgarten was the site principal investigator for a Phase 3 clinical trial that examined the effectiveness of the new device. UVM was among the top six enrolling centers out of 42 participating centers, and was the only New England study site north of Boston.



RECOGNITION AND AWARDS



In an effort led by **GILMAN ALLEN, M.D.**, professor in the Division of Pulmonary Disease and Critical Care Medicine, and critical care nurse **MARY DAVID, R.N.**, UVM Medical Center’s critical care unit has been accepted as one of 50 participants from across

the country for the Society of Critical Care Medicine’s PCOR-ICU Collaborative: Improving Care for Critically Ill Patients and Families through Research Dissemination and Implementation. More than 150 institutions applied to the collaborative, which aims to help hospitals implement patient and family engagement programs.

JASON BATES, PH.D., professor in the Division of Pulmonary Disease and Critical Care Medicine, has been elected as a fellow of the Biomedical Engineering Society.

ANNE DIXON, M.D., professor in the Division of Pulmonary Disease and Critical Care Medicine, has been elected 2016-17 president of the Association of Pulmonary Critical Care and Sleep Division Directors (APCCSD).

E. ROSY HILL, M.D., and **ISAURA MENZIES, M.D.**, both assistant professors in the Division of General Internal Medicine/Geriatrics, have been accepted to participate in the Reynolds Foundation Grantee Annual Meeting in

October in New Orleans, Louisiana. The meeting is funded by the foundation, through its Geriatrics Education Coordinating Center grant, and organized by the Association of Directors of Geriatrics Academic Programs and the Icahn School of Medicine at Mount Sinai.

RENEE STAPLETON, M.D., PH.D., associate professor in the Division of Pulmonary Disease and Critical Care Medicine, has been named the 2016 Department of Medicine Resident and Fellow Research Mentor of the Year.

CHARLOTTE TENEBACK, M.D., assistant professor in the Division of Pulmonary Disease and Critical Care Medicine, was elected to the Board of Directors of the American Association of Cardiovascular and Pulmonary Rehabilitation.

CLAIRE VERSCHRAEGEN, M.D., professor in the Division of Hematology/Oncology, with UVM colleagues Jon Ramsey, Ph.D., William Geiger, Ph.D., and Kevin Lam, Ph.D., presented their research “Development of cymanquine, a metallo-chloroquine derivative for cancer care,” at the BIO Investor Forum’s SPARK Showcase in San Francisco, Calif., on October 17, 2016. An exclusive audience of venture capitalists, industry experts, and a diverse group of highly-accomplished academic leaders were present. In other news, Verschraegen has been certified as principal investigator by the Academy of Clinical Research Professionals.



who KNEW?

Cushman Attends White House Briefing on Cardiovascular Health

On September 8, **MARY CUSHMAN, M.D., M.Sc.**, professor in the Division of Hematology/Oncology and a member of the American Heart Association Board of Directors, attended a White House Briefing presented in collaboration with the American Heart Association. Titled "Making Health Better: Cardiovascular Health," the event was livestreamed at

WhiteHouse.gov and featured numerous leaders in healthcare including Dr. Tom Frieden, Director of the Centers for Disease Control, Dr. Gary Gibbons, Director of the National Heart Lung and Blood Institute, Dr. Rob Califf, Commissioner of the Food and Drug Administration and Dr. Mandy Cohen, Chief Operating Officer and Chief of Staff of the Centers for Medicare and Medicaid Services.

IN THE MEDIA



Jeffrey Spees, Ph.D.



Christopher Grace, M.D.



Mary Cushman, M.D. M.Sc.

On August 10, 2016, **JEFFREY SPEES, PH.D.**, associate professor in the Division of Cardiovascular Medicine, was featured in a story on WCAX-TV regarding the drug therapy he's developing, called VasaPlex, that has been shown in animal models to help reduce heart damage following a heart attack.

CHRISTOPHER GRACE, M.D., professor in the Division of Infectious Disease, was interviewed on WCAX-TV on September 21, 2016, for a segment on the best time to receive flu shots for maximum protection, which he said was between mid-October and December.

MARY CUSHMAN, M.D., M.Sc., professor in the Division of Hematology/Oncology, authored an article in the July, 2016 issue of *Vermont Sports* about blood clot risk and treatment in athletes.

Faculty Engagement Committee

Led by **JULIE LIN, M.D.**, associate professor in the Division of Dermatology, the 11-member Faculty Engagement Committee is tasked with facilitating interaction between the different divisions, with a goal to encourage discourse and promote mentorship. Past events have been held at the Fleming Museum, Shelburne Vineyard, Arts Riot, and many other local venues. Committee members include:

- Katherine Cheung, M.D.
- Nicole Hynes, M.D.
- Julie Lin, M.D.
- Farrah Khan, M.D.
- Prema Menon, M.D.
- Cindy Dion Noyes, M.D.
- Joseph Pierson, M.D.
- Joel Schnure, M.D.
- Amy Teleron, M.D.
- Edward Terrien, M.D.
- James Vecchio, M.D.



Meet the Scientists

How do you carefully remove all of the cells from a lung, and then repopulate that 'scaffold' with stem cells from a new host? As a summer research fellow in the lab of **DANIEL WEISS, M.D., PH.D.**, (at right), professor in the Division of Pulmonary Disease and Critical Care Medicine, medical student **CHRIS BERNARD**, Class of 2019, spent several months testing and re-testing processes and procedures, inching ever closer to an answer to that question. Ultimately, the goal of the research is to seed a donated lung scaffold with a patient's own stem cells to minimize the immune reaction during the transplant process. That donor could be a human, or possibly even an animal, like a pig. Reaching that ultimate goal hinges on fine-tuning how decellularization – an intricate process that can take up to three days – works. Bernard's efforts have helped to pinpoint what effectively ensures that the protocol removes and leaves behind the cells, parts and pieces necessary to make the recellularization process a success. Bernard says his experience as a research fellow has been invaluable. "This is at the forefront of medicine," he says. "We're are pushing the limits of what human capabilities are, and this lab is doing things no one else does."



The Robert Larner, M.D.
College of Medicine

THE UNIVERSITY OF VERMONT