Mentor Philip Ades, M.D. (right) talks with mentee Kim Dittus, M.D., Ph.D. See “Helping Faculty Succeed” on page 4.
ith our diverse faculty and wide scope of practice, the Department of Medicine prides itself on leading the way when it comes to trying out innovative ideas to support our goals. This spring is no different! Various divisions and committees are hard at work developing new initiatives and collaborating on important projects that will help us continue to deliver the best patient care possible, all the while fostering the next generation of physicians and producing leading edge research.

This issue of The Chart features news related to faculty development in the Department of Medicine, including an exciting mentoring program that matches junior faculty with more senior members of the department to support career development and promotion. We have high hopes that this program will leverage the knowledge of our more senior faculty to help our department continue to nurture future talent.

We also take a closer look at the Division of Endocrinology, Diabetes, and Metabolism, a group that is tackling what can be a debilitating disease – diabetes – in innovative ways. They’ve set up collaborative clinics in cooperation with several other departments at UVM Medical Center, and have developed a “road map” for primary care providers to help manage diabetes in patients with varying levels of the disease. This type of work is a hallmark of our department: Collaborative and focused on the best outcomes for patients.

We are so proud of our faculty who continue to push the boundaries of what we know, publishing important research studies, creating new treatments, and increasing our understanding of the human body. See our Research News section for the latest grants, publications, and more!

Polly E. Parsons, M.D.
E.L. Amidon Professor and Chair, Department of Medicine

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SPECTOR’S RESEARCH EARN PATENT, INDUSTRY AGREEMENT
Research on atrial fibrillation (AF) from PETER SPECTOR, M.D., a professor in the Division of Cardiovascular Medicine, has yielded a growing patent portfolio and a collaborative agreement with an industry partner to move his work toward clinical trials. He and colleagues at UVM have developed technology that creates a 3-D computer model of the electrical activity of a real human heart. They have used this model to study AF as well as design catheters and a mapping system capable of locating the sites responsible for AF. The patent applications cover the catheters, signal processing algorithms and other aspects of the research. Spector was awarded the first of these U.S. patents in November 2014, and as of January 2015, a second patent application has been allowed. UVM has separately entered a collaborative research agreement with California-based Biosense Webster, Inc.
Parsons Elected to Leadership Role for American Thoracic Society

Department Chair POLLY PARSONS, M.D., has been elected secretary-treasurer of the American Thoracic Society for the 2015-16 term. She will then assume the role of president for the 2018-19 term. Parsons outlined three goals for the ATS: increasing the support of research and career development by strengthening existing relationships; increasing collaboration and communication to enhance synergy within the organization; and enhancing revenue. With more than 15,000 members, ATS is considered the world’s leading medical association dedicated to advancing “clinical and scientific understanding of pulmonary diseases, critical illnesses and sleep-related breathing disorders.”

AWARD NOTABLES

MARIE WOOD, M.D., and CLAIRE VERSCHRAEGEN, M.D., have been named Castle Connolly Top Doctors for 2015. Doctors listed in the company’s books and online directory are nominated by their peers through an annual survey of thousands of American doctors.

SHADEN ELDAKAR-HEIN, M.D., was nominated for the University of Vermont Medical Group Graduate Medical Education Teacher of the Year Award.

NAOMI FUKAGAWA, M.D., Ph.D., has been named director of the U.S. Department of Agriculture’s Beltsville Human Nutrition Research Center, the oldest and most comprehensive of the six human nutrition research facilities under USDA. After a 20-year career at UVM, Fukagawa will retire from the university to take on the new position. She will continue her current research program as professor emerita in the College of Medicine.

MARK LEVINE, M.D., was elected to the American College of Physicians Board of Regents.

JAN CARNEY, M.D., M.P.H., has been named vice-president of the University of Vermont Faculty Senate. She assumes her new role July 1, 2015.

MARY CUSHMAN, M.D., M.Sc., was recently elected to serve a three-year term on the board for the North American Society of Thrombosis & Hemostasis. She is also the faculty advisor for the Early Career Advisory Committee of the Cardiovascular Research Institute of Vermont (CVRI). Other committee members from the Department of Medicine include PATRICK HOHL, D.O., and SEAN McMAHON, M.D., both cardiology fellows.

CLAUDIA BERGER, M.D., was named regional clinician representative for OneCare Vermont Accountable Care Organization, as of January 2015. In this role, she will work on quality assurance/improvement efforts, and will manage the activities of OneCare Vermont’s Regional Clinical Performance Committee.

J. CHRIS NUNNINK, M.D., has been elected to a community oncologist seat on the board for the American Society of Clinical Oncology (ASCO). Nunnink has participated as a member of ASCO since 1986 and currently serves on the Clinical Practice Committee. Since 2010 he has been an ASCO delegate to the American Medical Association.

POLLY E. PARSONS, M.D., was elected to the national Association of Professors of Medicine Council. She is also chair of the Data Safety Monitoring Board for NIH/NHLBI Petal Network.

2014 UVM MEDICAL GROUP RESEARCH & EDUCATION AWARDS

Several Department of Medicine faculty have received awards and grants from the UVM Medical Group. They are:

Junior Investigator of the Year Award: MARKUS MEYER, M.D., internationally known for helping define the contribution of cardiac myocyte remodeling to heart-failure progression, Meyer has an impressive list of publications and awards, and was the first SPARK-VT recipient from the Department of Medicine.

Senior Investigator of the Year: MARTIN LEWINTER, M.D. LeWinter is internationally recognized for his contributions to the understanding of the basic mechanisms of heart failure, and to the development of testing of new modalities for its treatment. He has a streak of 35 years of NIH funding and is the PI for a U01 and R01 through 2019.

$50,000 Research Grant: ANNE DIXON, M.D., and Ryan Walsh, M.D., are the co-principal investigators for “Airway Compliancy in the Asthma of Obesity” JASON BATES, PH.D., and Jeffrey Klein, M.D., are also on the research team.

CONFERE NCE NEWS

The fourth annual UVM Hospital Medicine Continuing Medical Education Course was delivered February 5 – 7, 2015. This year’s offerings included a pre-course in point-of-care ultrasound at the UVM/UVM Medical Center Clinical Simulation Laboratory, directed by MIREILLE ANAWATI, M.D., and the main course in Stowe, Vt., directed by CARRIE LYON, M.D., STEVEN GRANT, M.D., and ALLEN REPP, M.D.
Helping Faculty Succeed

Several initiatives in the Department of Medicine are helping junior faculty navigate the ins and outs of career development and promotion, which can often be overshadowed by competing demands on the time of academic physicians.

“Understanding the path to promotion is one of the leading faculty development issues in academic medicine,” says Vice Chair for Academic Affairs Ben Suratt, M.D. One key change has put this issue at the forefront: the rise of the clinical educator, or what UVM terms the clinical scholar pathway. While the traditional tenure track faculty member is typically evaluated by the volume of their research publications and external grant funding, moving up through the clinical scholar pathway hinges on demonstrating excellence in teaching, service and scholarship in a combination unique to the individual. This shift has made guidance on career development even more important.

“The overall focus of our work is to help junior faculty understand what they need for promotion,” says Laurie Leclair, M.D., an associate professor in the Division of Pulmonary and Critical Care Medicine who until recently was chair of the department’s Faculty Development Committee. “Mentorship is essential to successful promotion.”

Academic medical centers across the country struggle to foster meaningful mentoring relationships, says Suratt, and results from a survey of junior faculty in the Department of Medicine mirrored this national trend. According to the survey, many junior faculty either lacked a formal mentor, or didn’t fully understand the role a mentor should play, labeling their identified mentor as an “acceptor” or “friend,” as opposed to descriptors more closely tied to career development, like “coach” or “promoter.”

To help address these issues, the department recently created a mentoring pilot program to match junior faculty with more senior members. The focus is on career development: Mentees and mentors are expected to meet regularly throughout the year to check in on progress toward achieving goals they set. Key to the effort is the integration of the mentor with the annual review process. Goals and objectives set by the mentor and mentee are considered during the annual review meeting with the division chief, which the mentor attends.

“By making this more formal, with clear and defined responsibilities for the mentors, my hope is to help them be more effective and engaged,” says Suratt.

Although the effort is in its beginning stages – all 84 junior faculty received mentor assignments in early 2015 – the mentoring program promises to help junior faculty understand and meet milestones for promotion. It also stands to enrich the experience of more senior faculty who have knowledge to share.

“Good mentors actually enjoy it; it’s a whole different level of play,” says Suratt. Mentor and mentee pairs have started to meet, and are reporting positive effects as a result of the program.

“For me the best part of having a mentor is knowing someone has my back, whether for support or simply answering questions,” says Kim Dittus, M.D., assistant professor in the Division of Hematology /Oncology. She is paired with Philip Ades, M.D., a professor in the Division of Cardiovascular Medicine.

The Faculty Development Committee continues to be a way for junior faculty across the department to connect. The group generally meets monthly, with conversations around different topics of interest.

And the newly formed Teaching Academy at the College of Medicine – which offers workshops, retreats, and awards fellowships – will be another way to create connections between faculty who have a particular passion for teaching and mentoring.

Ultimately, the goal is to foster leadership in the next generation of faculty, ensuring the Department of Medicine continues to have a firm foundation for the future.

The message is: “We’re thinking of you and want you to be successful” says Leclair.

Support tools for mentors/mentees include:
- CV template and Green Sheet “cheat sheets”
- Promotion timeline suggestions
- Pre-review checklist to flesh out goals, plans, and promotion assessment
- Resource lists
Diabetes, Endocrinology, and Metabolism

Diabetes – a complex disease for which there is currently no cure – continues to strike an increasing number of Americans every year, making comprehensive treatment and patient education a priority for health care providers nationwide. So too is research seeking novel therapies and a better understanding of the pathogenesis of the disease. Faculty members in the Division of Endocrinology, Diabetes and Metabolism are at the forefront in both arenas, contributing new knowledge to the broad field of human metabolism and providing comprehensive care for tens of thousands of patients annually, not only for diabetes but for all aspects of clinical endocrinology.

The varied expertise of the faculty and their many collaborative efforts result in a robust clinical service, says Division Co-Chief and Professor JACK LEAHY, M.D. The outpatient practice based at Tilley Drive in South Burlington sees over 15,000 patients annually from across Vermont and northern New York. The practice offers the full spectrum of endocrine services, from team-based diabetes care to comprehensive diagnostic and treatment services for pituitary, adrenal, parathyroid, and thyroid diseases. The division recently expanded their service to UVM Health Network affiliate Champlain Valley Physicians Hospital in Plattsburgh, NY.

The addition of diabetes educators to the UVM Medical Center Community Health Team has helped empower patients to take charge of their health and better manage their disease, says Division Co-Chief and Professor JOEL SCHNURE, M.D. The educators visit the nine UVM Medical Center primary care sites providing team-based care along with dieticians, nurses, and social workers.

A high-risk diabetes clinic at UVM Medical Center – in place for just over a year – has also been a “huge success,” Schnure says. The clinic, run in collaboration with the Department of Obstetrics, Gynecology and Reproductive Sciences’ Division of Maternal-Fetal Medicine, allows pregnant women to receive care for diabetes management at the same time as their Ob/Gyn check-ups, improving outcomes by addressing potential complications early. The division also conducts a co-clinic for patients with cystic fibrosis, in cooperation with the Division of Pulmonary and Critical Care Medicine, as well as an osteoporosis clinic and a transitional clinic for pediatric patients.

One new initiative aims to improve diabetes outcomes through coordination with primary care. The division, along with the primary care teams, have created a “road map” for primary care providers to help determine the best course of action based on a patient’s needs. Treatment steps for a host of different indications – including pre-diabetes, diabetes not controlled on medications, insulin-treated diabetes, and many other categories – are outlined in the guidelines, helping put best practices at the fingertips of providers.

Next for this initiative will be adapting the road map for the in-patient population, another challenging group when it comes to managing a multifaceted disease like diabetes. Overall, the goal is to “become more vocal about guidelines for diabetes care,” says Leahy, helping to connect specialists more closely to the points where patients enter the health care system. To this end, Assistant Professor MATTHEW GILBERT, M.D., M.P.H., was recently named the director of Inpatient Diabetes Service at the UVM Medical Center.

The division has a combination of M.D. and Ph.D. faculty who together create a highly-regarded research program. Associate Professor THOMAS JETTON, PH.D., and Assistant Professor DHANANJAY GUPTA, PH.D., based at the Colchester Research Facility, study the development, regeneration, function, and physiological regulation of the insulin-producing β-cell. In collaboration with the UVM Department of Animal Science, they are exploring a novel and potentially new role for a specific milk protein that may have an important activating effect on the function of β-cells.

Faculty are also active in translational research: Gilbert currently plays a key role in a large, university coordinated multicenter trial seeking to understand the role of variable blood glucose control on macro and micro cardiovascular conditions, while Professor MURIEL NATHAN, M.D., PH.D., has contributed to many research studies and clinical trials looking at thyroid imaging, diabetic vascular disease, and a new screening for aggressive thyroid cancer.

Training and education opportunities in the division continue to expand: In addition to the two-year fellowship training program in endocrinology, the division recently created a rotation for maternal fetal medicine fellows. Internal medicine and family medicine residents rotate on the division’s service, and faculty deliver lectures during the Convergence course in Level One of the Vermont Integrated Curriculum. Schnure points with pride to the division’s community outreach, including well-attended monthly classes called Living Well with Diabetes, and events such as the College of Medicine’s Community Medical School.
National Grant Highlights

**CORY TEOUSCHER, PH.D.**, a professor in the Division of Immunobiology, has received a three-year, $411,000 award from the National Multiple Sclerosis Society.

**DANIEL WEISS, M.D., PH.D.**, a professor in the Division of Pulmonary Care and Critical Medicine, has been awarded two grants: He is principal investigator for an R01 grant titled “Optimizing Functional Recellularization of Acellular Human Lung Scaffolds.” He is also principal investigator for a DOD Medical Discovery Award for “Development of a novel alginate-based pleural sealant.” His co-investigator for both grants is Rachael Oldinski, Ph.D.

**CLAIRE VERSCHRAEGEN, M.D.**, a professor in the Division of Hematology/Oncology, is co-investigator for a two-year American Cancer Society Institutional Research Grant with Gary Stein, Ph.D., as principal investigator.

**MARY CUSHMAN, M.D., M.SC.**, a professor in the Division of Hematology/Oncology, is subcontract principal investigator for a COBRE grant at the University of West Virginia, titled “Effects of Perfluoroalkyl Chemicals on Stroke Incidence, Mortality and Morbidity.”

**MARKUS MEYER, M.D.**, associate professor in the Division of Cardiovascular Medicine, has received a $68,000 grant from Medtronic. He has also received an NIH R01 grant.

**PUBLIC HIGHLIGHTS**


**MCENTEE RK, MEYER M,** Nyotowidjojo I, Chu G, LEWINTER M. Relationship of Exercise Capacity and Left Ventricular Dimensions in Patients with a Normal Ejection Fraction. An Exploratory Study. *PLOS ONE*. Accepted for publication 2015


**PIERSON JC.** Topical Prescription Contamination. *JAMA Dermatol* 2014;150:1147-1148.

**Recent Presentations**

**BENJAMIN LITTENBERG, M.D.**, director of the Division of General Internal Medicine Research, and Kairn Kelley, a Ph.D. candidate in clinical and translational science, had an abstract accepted for a podium presentation at the 2015 Scientific and Technology Meeting of the American Auditory Society. The abstract is titled “Test-Retest Reliability and Associations of Dichotic Listening Test Scores.”

The UVM College of Medicine had eight poster presentations at the American Heart Association Epidemiology, Prevention, Lifestyle and Cardiometabolic Health Scientific Sessions in Baltimore, Maryland, March 3-5, 2015. Presenting posters were internal medicine residents **SAMUEL MERRILL, M.D.**, and **MARKUS DEGIRMENCI, M.D.**, medical student **KARA KLINGMAN ’15**, Ph.D. student **PETER DURDA**, postdoctoral fellows **KRISTINE ALEXANDER, PH.D.**, and **KATHARINE CHEUNG, M.D.**, and faculty members **NANCY JENNY, PH.D.**, and **NEIL ZAKAI, M.D., M.Sc.**

**IT’S A MATCH!**

Six UVM medical students matched to UVM Medical Center for residencies in the Department of Medicine. Vishal Shah ’15, third from left, cheers on classmates during Match Day March 20. He matched to internal medicine at UVM Medical Center.

**ADES NAMED A UVM UNIVERSITY SCHOLAR**

**PHILIP ADES, M.D.**, a professor in the Division of Cardiovascular Medicine, has been named a 2015-16 University Scholar by the University of Vermont for “sustained excellence in research, creative and scholarly activities.” He is one of four UVM professors to be inducted at a ceremony April 29, 2015. The author of nearly 200 peer-reviewed publications, book chapters, and review articles, Ades’ work in developing cardiac rehabilitation programs has provided a paradigm shift in the U.S. as to how cardiology patients are treated. Many of his papers are considered seminal in his field.

**Excellence in Education**

**LYNN PESTA, M.D.**, a third-year internal medicine resident, received the Gold Honor Society Humanism and Excellence in Teaching Award from the UVM College of Medicine Class of 2016. This is awarded to residents who display excellence in teaching and demonstrate humanism in the care of the patient and in teaching medical students.

**WILLIAM HOPKINS, M.D.**, received the Silver Stethoscope Award from the UVM College of Medicine Class of 2018 at the Foundations awards ceremony. This award recognizes the faculty member who had few lecture hours, but made a substantial contribution to students’ education.

The Cardiovascular, Respiratory and Renal Systems Course, under the leadership of **LAURIE LECLAIR, M.D.**, and **GARTH GARRISON, M.D.**, won the award for the top Foundations course in the Vermont Integrated Curriculum. Garrison was also appointed director of the acting intern program, a fourth-year component of the Vermont Integrated Curriculum.

**Education news**

Department of Medicine faculty are well-represented in the UVM College of Medicine Teaching Academy, which aims to promote an academic environment that values the scholarship of teaching and learning, and facilitates educator development across the career continuum. Inaugural members were inducted at the annual Mud Season Retreat March 26-27.

**DISTINGUISHED EDUCATORS**

Jan Carney, M.D., M.P.H.
Charles Irvin, Ph.D.
Mark Levine, M.D.

**MASTER TEACHERS**

Dennis Beatty, M.D.
Patricia King, M.D., Ph.D.
Laurie Leclair, M.D.

**MEMBERS**

Maura Barry, M.D.
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In sub-zero temperatures, with two feet of snow and water on the ice, JOSEPH PIERSON, M.D., and GLENN GOLDMAN, M.D., caught four pike ice fishing in February in front of Pierson's house on Chateaugay Lake in New York State. Pierson used a manual auger to cut the hole, since the propane auger wouldn’t work in the cold. They used tip-ups and medium shiners to reel in their catch, but in the end, Goldman reached into the lake to pull up, bare-handed, and in spite of fish bites, their fourth pike, which at a whopping 36 inches long was too big to fit through the hole!

From left, MARC TISCHLER, M.D., associate professor in the Division of Cardiovascular Medicine, joins Lydia Corrivau, R.N., Molly Wallner, R.N. and Bruce Leavitt, M.D., professor of surgery. They were part of a team of over 40 doctors, nurses and medical specialists who recently traveled to Rwanda on a humanitarian medical mission to care for young people afflicted by rheumatic heart disease through a surgical volunteer organization called Team Heart.
How does chronic inactivity affect muscle at the molecular level? MICHAEL TOTH, Ph.D., associate professor in the Division of Cardiovascular Medicine, studies this question, and his work may have helped to identify a phenotype that may predispose older adults to disability. A recent study from Toth, focused on patients with advanced stage osteoarthritis, found that muscle disuse did indeed affect the performance of single muscle fibers on several key measures: force generation, power output and contractile velocity. Particularly surprising was the difference between the sexes, with women showing cellular and molecular adaptations to muscle disuse that explain their predisposition to develop physical disability. Toth adds that this finding could help hone in on exercises or physical therapy interventions specific to patients with this phenotype. The study may lead to even wider implications down the road. With an aging population, 3.5 million adults per year are expected to need knee replacements by 2030. Targeted interventions that help patients both prepare for and recover from surgery improve quality of life and reduce health care costs.