Department of Medicine

ANNUAL REPORT

July 1, 2015 – June 30, 2016

Submitted by:

Polly E. Parsons, MD

E.L. Amidon Professor and Chair Department of Medicine

Date: September 8, 2016
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Chair’s Executive Summary

The Department of Medicine had incredible year: we were named the Clinical Department of the Year by the graduating medical school class, awarded over $39 million in research funding, expanded clinical services, welcomed nine faculty (with an additional 15 new faculty already hired to start in the current year, and celebrated the numerous achievements and recognition awards of our faculty, staff, housestaff and students. We also fully integrated subspecialty medicine and primary care internal medicine into a single health care service. With this integration we welcomed two new divisions into the Department: General Internal Medicine & Geriatrics led by Dr. Jen Gilwee and Hospital Medicine led by Dr. Mark Pasanen and expanded our breadth and expertise in Quality and Patient Safety with the recruitment of Dr. Allen Repp into a new role as Vice Chair for Quality. Allen, Jen and Mark have been outstanding additions to our leadership team.

The Department continued to expand its clinical practice across the University of Vermont Health Network and increase our collaboration with Burlington Veteran’s administration. New clinical programs this year included an expansion of the roles and responsibilities for the transdisciplinary teams (TDT) in cancer, the launching of the Watchman device program in Cardiology, and, in GI, implementing an ultrasound-based noninvasive technique, which can often be used instead of tissue biopsy to define the extent of liver fibrosis. With the recent recruitment of Dr. Michael Lamantia, we are looking forward to expanding our clinical, education and research program in Geriatrics over the upcoming years.

Two faculty, Drs. Muriel Nathan and Joe Pierson, were awarded the Vision award from UVMMC in recognition of their quality of care and service to their patients.

Under the leadership of Dr. Allen Repp, the department has substantially increased our focus on and opportunities in quality and patient safety. Building on the highly productive and nationally recognized program, UVM High Value Care (previously known as Choosing Wisely) initiative led by Drs. Virginia Hood and Justin Stinnett-Donnelly, Allen Mead, and Pam Stevens, the quality program is expanding to both further improve patient care and enhance scholarship.

As evidenced by our recognition as the Clinical Department of the year and the success of our graduating residents and fellows, education is a core mission for the department. Faculty continue to engage innovative new programs at UVM as well as at our affiliate sites. This year, we expanded our medicine clerkship in the Western Connecticut Health Network and our Dermatology training program with the Burlington VA clinic. Four more faculty-- Maura Barry, MD, Jason Bartsch, MD, Shaden
Eldakar-Hein, MD, and Alan Rubin, MD—became members of the teaching academy. The faculty continued to participate extensively in the VIC curriculum and again received a number of honors and awards for their contributions to education. The Outpatient Medicine Clerkship directed by Dr. Roberta O’Brien received the Best Clerkship Award from the UVM College of Medicine Class of 2017, the Cardiovascular, Respiratory & Renal Systems course, Directed by Dr. Laurie Leclair and Garth Garrison and taught by many of our faculty, won the award for Outstanding Foundations Course. Department of Medicine House Staff Awards were presented to Katherine Menson, DO, Sherrie Khadanga, MD, and Jonathan Wilfong, MD. Gatha Nair, MD, PGY2, was recently honored with the Arnold P. Gold Humanism and Excellence in Teaching award. In recognition of their contributions to resident education, Dr. Ryan Clouser received the E.L. Amidon MD Award for Subspecialty Medicine and Dr. Florian Foerg received the William Osler, MD Award for General Internal Medicine.

The Department continues to be a nationally/internationally recognized leader in research with contributions to new scientific knowledge.

The diversification of research throughout our divisions is a testament to our talented investigators. Key awards include: Dr. Michael Toth’s project entitled, “Alternative Exercise Modalities to Improve Skeletal Muscle Function in Cancer Survivors,” Dr. Ben Littenberg’s PCORI award entitled, “Integrating Behavioral Health and Primary Care for Comorbid Behavioral and Medical Problems,” Dr. Mercedes Rincon’s NIGMS project entitled, “Fostering Entrepreneurship in Biomedical Research,” Dr. Beth Kirkpatrick’s Bill and Melinda Gates Foundation project entitled, “Using Cryptosporidium Human Challenge Models to Advance Therapeutics and Vaccines,” and Dr. Renee Stapleton’s NIA project entitled, “Improving Palliative Care for Older Seriously Hospitalized Patients and Their Families: A Randomized Trial of an Informed Assent Communication Intervention about CPR.”

In aggregate, members of the department including students, residents, fellows (MD and PhD) published in high impact journals, as detailed within this report. They were asked to lead and serve on NIH study sections and advisory councils, FDA review panels and editorial boards. They are invited from around the world to present at scientific meetings and to be visiting professors, and they are elected to leadership in national societies. Our students, residents and fellows also presented their work at regional and national meetings and published in high impact journals. In recognition of their substantial contributions to scholarship Dr. Phil Ades was recognized as a University Scholar by UVM and Dr. Ralph Budd was awarded the highest faculty honor at UVM, University Distinguished Professor. The Department of Medicine also recognized two new endowed professors as the result of generous donations: Dr. Jack Leahy is the inaugural Sarah Nichols Gruening Green and Gold Professor In Diabetes Research and Dr. Phil Ades is the Philip Ades, MD, Endowed Professor of Cardiovascular Disease Prevention.
Administrative Team:

Physician Leader and Chair: Polly E. Parsons, MD
Vice Chairs:
- Medical Education: Mark Levine, MD
- Research: Charles Irvin, PhD
- Academic Affairs: Benjamin Suratt, MD
- Quality: Allen Repp, MD
Director: Allen Mead
Assistant Director: Tammy Stockton, RN
Director, Cancer Center: Katie Michaud
Supervisor, Med Ops Support Svcs.: Laurie St.Gelais
Financial Administrator: Jessica Hendela
Grants Manager: Eric Gagnon
Financial Associate: Marlene Frank
HR Administrator: Jennifer Russell

Department of Medicine, University of Vermont Division Chiefs
- R. Budd, MD, Immunobiology
- B. Libman, MD, Rheumatology
- C. Grace, MD, Infectious Diseases
- G. Goldman, MD, Dermatology
- J. Leahy, MD and Joel Schnure, MD, Endocrinology, Metabolism, & Diabetes
- B. Littenberg, MD, General Internal Medicine Research
- J. Gilwee, MD, General Internal Medicine & Geriatrics
- C. Verschraegen, MD, Hematology/Oncology
- A. Dixon, MD, Pulmonary and Critical Care Medicine
- Schneider, MD, Cardiopulmonary
- R. Solomon, MD, Nephrology
- J. Vecchio, MD, Gastroenterology

Total faculty: 188
By rank –
Assistant Professors: 84
Associate Professors: 49
Professors: 53
Clinical Practice Physicians: 2

By gender – 76 female; 112 male
By track –
Tenured: 38
Research Scholar Pathway: 8
Tenure Pathway: 5
Clinical Scholar Pathway: 130
Education Scholar Pathway: 5
Clinical Practice Physician – 2

By gender – 76 female; 112 male
By track – Tenured: 38
Research Scholar Pathway: 8
Tenure Pathway: 5
Clinical Scholar Pathway: 130
Education Scholar Pathway: 5
Clinical Practice Physician – 2

Faculty Actions:

FALL 2015 – six green sheet promotions; 10 annual review reappointments

SPRING 2016 – 31 green sheet reappointments; five annual review reappointments; 15 volunteer pathway faculty reappointments.

Promotions (7/1/16):

Gil Allen – to Professor, CSP
Laurie Leclair – to Professor, CSP
Julie Lin – to Associate Professor, CSP
Daniel Lustgarten – to Professor, CSP
Joseph Pierson – to Associate Professor, CSP
Marie Sandoval – to Associate Professor, CSP

Department of Medicine – Standing Committees

Assistant Professor Faculty Actions Committee
M. Tischler, Chair
T. Bertsch
S. Eldakhar-Hein
M. Gilbert
C. Holmes
S. Lidofsky
C. Lyon
D. Strader
P. Van Buren

Committee Mission:
The mission of the Department of Medicine Faculty Action Committee is to provide support to the Department Chair in the preparation of summary information required for reappointment and/or
promotion of Department of Medicine faculty members at the Assistant Professor level. The Committee is charged with reviewing the content of dossiers, assembled by each faculty member (under consideration) and corresponding unit director, and with writing summaries that highlight accomplishments in the areas of teaching, research and scholarship, and service to the institution and beyond. Each summary will also serve to generate constructive feedback to the faculty member under consideration, so that the goals for future promotion can be achieved. The Committee will meet at least once during each faculty review cycle to finalize the summaries, which will then be forwarded by the Committee Chair to the Department Chair.

**Promotions and Tenure Committee**
B. Suratt, MD, Chair
B. Littenberg, MD
J. Bates, PhD
M. Levine, MD
K. Pierce, MD
C. MacLean, MD
H. Dauerman, MD
G. Atweh, MD

Committee Mission:
The DOM RPT Committee is charged with the evaluation of all DOM reappointment and promotion dossiers for senior (Associate and Full Professors) and Tenure Track faculty during the annual academic cycles. The objectives of the committee are to provide guidance to faculty throughout their promotion cycles and to ensure that faculty dossiers are of the highest standards before they are sent to the COM RPT Committee.

**Medicine Credentials Committee**
G. Goldman, Chair
M. Lazarovich, MD
K. Pierce, MD
D. Schneider, MD
J. Schnure, MD
R. Solomon, MD
J. Vecchio, MD
M. Wood, MD

Committee Mission:
The mission of the Medicine Credentials committee is two-fold. First, the committee is charged with maintaining an up to date policy and procedure / rules and regulations for the Medicine Health Care Service. Second, the committee is charged with ensuring that faculty receive appropriate initial and ongoing performance evaluations to assist the medical staff office with credentialing.

**Part-Time Faculty Actions Committee**
Quality Assurance Committee – Cardiac Catheterization Laboratory
P. Gogo, Chair
H. Dauerman
E. Terrien
M. Watkins
T. Fortner
S. Beausoleil

Committee Mission:
The purpose of the committee is to ensure high quality in the processes of care of the cath lab to ensure excellent outcomes. Some goals are to eliminate outliers, reduce variation, and enhance performance. The QA monthly meeting provides rapid turnover feedback mechanisms. The committee is committed to educational opportunities for the staff and incorporating practice standards and guidelines into the laboratory operation. Internal, regional, and national comparative data is included that address cognitive knowledge, procedural skill, clinical judgment, and procedural outcomes.

Resident Research Committee
R. Stapleton, Chair
V. Hood
C. Huston
D. Kaminsky
M. Meyer
M. Pasanen
R. Pinckney
H. Sobel
D. Weiss
Z. Zakai

Committee Mission:
Responsibilities of the Committee are to, in general, provide guidance and resources for residents and fellows, along with their mentors, performing scholarly research projects. More specifically, the Committee has the following duties:

1) Explain the research project process to new R2s at their annual R2 retreat in July
2) Conduct R2 Research Evenings every fall, where each R2 and their mentor present their project to the Committee to ensure feasibility and receive any pertinent advice/feedback
3) Review residents’ proposals for travel to national meetings to present abstracts that have been accepted, so that limited travel funds can be awarded
4) Serve on a discussion panel for medical students interested in research
5) Review R3 and fellow abstracts every spring to select the abstracts that will be presented orally and via poster on Resident Research Day and Fellow Research Day
6) Select winners of the R3 research (Harriet Dustan) and mentor awards annually for presentation at the resident graduation dinner

**Fellowship Directors Education Committee**
M. Levine, Chair
F. Keating
N. Ferrentino
E. Gagnon
M. Gilbert
D. Kaminsky
B. Libman
M. Pasanen
K. Pierce
A. Segal
J. Sprague

Committee Mission:
The primary mission of the Fellowship Directors’ Education Committee is to provide a forum and improve the training, education and overall experience for all Fellows throughout the UVMMC and to support, and develop the potential of each Fellow; in doing so, the Fellows will become an asset to the medical community providing outstanding care and contributions.

**Clinical Competency Committee**
M. Ramundo, Chair
S. Eldakhar-Hein
J. Bartsch
H. Sobel
R. Clouser
E. Ganguly
M. Pasanen
F. Keating

Committee Mission:
The mission of the Clinical Competency Committee is to ensure that the graduates of our training program have the necessary knowledge, skills and attitudes to provide excellent patient care and to promote quality and improvement in the health care system. The Clinical Competency Committee meets a minimum of twice yearly to assess resident progress towards independent practice using the Milestones as a platform. This committee is responsible for issues pertaining to resident promotion, remediation and dismissal. The committee is also responsible for preparing a complete summative evaluation report, based on a review of all available evaluations, for each resident semi-annually.
Housestaff Selection Committee

Shaden Eldakar-Hein, MD - Chair
W. Alston, MD
M Burnett, MD
R. Clouser, DO
E. Ganguly, MD
J. Halevy, MD
W. Hopkins, MD
R. McEntee, MD
P. Menon, MD
M. Meyer, MD
K. Pierce, MD
M. Ramundo, MD
J. Sprague, MD
Ms. D. Shelc

Committee Mission:

The Housestaff Selection Committee is responsible for the recruitment of Internal Medicine Residents. This includes a careful review of applications from candidates, interviews of the invited candidates and, finally the compilation of the rank list for Match Day. As we receive over 1300 applications for residency, and interview over 200 applicants, this committee serves a critical role in the success of the residency.

Program Evaluation Committee

M. Pasanen, MD - Chair
V. Agrawal MD
M. Barry, MD
J. Bartsch, MD
R. Clouser, DO
M. Degirmenci
E. Ganguly, MD
F. Keating, MD
M. Burnett, MD (Chief Resident)
E. Monfred, MD
M. Ramundo, MD
J. Halevy, MD (Chief Resident)
D. Shelc
R. McEntee, MD (Chief Resident)
P. Slavik, MD
H. Sobel, MD
J. Wilfong, MD
Committee Mission:

The Program Evaluation Committee meets 1–2 times per month. This committee actively participates in planning, developing, implementing and evaluating all educational activities of the program. This includes reviewing and making recommendations for revision of competency-based curriculum goals and objectives. It also includes addressing areas of noncompliance with ACGME standards and reviewing the program annually using the evaluations of faculty, residents and others. This culminates in an annual report which summarizes a systematic evaluation of the curriculum and renders the official written Annual Program Evaluation.

Quality Assurance Committee – Medicine Health Care Service
M. Levine, Chair
S. Ades
M. Airoldi
S. Bellemare
T. Berrings
M. Capeless
P. Gagne
Y. Mageto
S. Merrill
S. Raza
A. Repp
J. Rimmer
P. Stevens
S. Thach
J. Vecchio

Committee Mission:
To monitor, assess and continuously improve the quality and safety of health care provided by the UVMMC by reviewing, evaluating, and continuously improving the care delivered by the Medicine Health Care Service.

Faculty Engagement Committee
E. Terrien, Chair
J. Pierson
C. Noyes
F. Khan
P. Menon
J. Lin
K. Cheung
J. Schnure
J. Vecchio
Committee Mission:
We are tasked with facilitating interaction between the different divisions in Medicine. We sponsor gatherings at different times of the year and encourage meeting events between divisions. Our goal is to “open up” the department, to encourage inter divisional discourse, and promote mentorship.

Medical Grand Rounds Education Program Committee
R. Budd, MD
C. Irvin
M. Levine
P. Parsons
T. Jetton
S. Lidofsky
M. Wood
M. Burnett
J. Halevy
R. McEntee

Committee Mission:
The Grand Rounds Committee reviews the format for Grand Rounds and its speakers to insure that it is scientifically sound, presenting up-to-date information, and assisting the medical residents and medical students in becoming familiar with the research going in within the Department. We also review candidates nominated for the Tisdale Lectureship.

Scientific Integrity Committee
R. Budd, Chair
C. Irvin

Committee Mission:
Scientific Integrity Committee advises the Chair on issues related to policies for reviewing possible scientific fraud.

Medicine Operations Committee
F. Keating, MD, Chair
N. Bethina, MD
G. Lamba, MD
Y. Mageto, MD
A. Mead – Staff
T. Stockton – Staff
J. Pierson, MD
L. Polish, MD
J. Schnure, MD
A. Segal, MD
D. Strader, MD
Committee Mission:
The Department of Medicine Operations Committee serves to compare operational practices across specialties with the aim of improving operational efficiency and enhancing quality; to review and select High Value Care quality improvement projects; and to advise the departmental leadership (Chair and Unit Chiefs) regarding operational matters.

Faculty Development Committee
Laurie Leclair, Chair
Benjamin Suratt, MD
Garth Garrison, MD
Matthew Gilbert, DO, MPH
Christine Jones, MD
Farrah Khan, MD
Beth Kirkpatrick, MD
Allen Lee, MD
Robert Lobel, MD
Narandra Bethina, MD
Kristen Pierce, MD
Christine Weinberger, MD

Committee Mission:
The DOM Faculty Development Committee is composed of 1-2 faculty from each division in the DOM and meets monthly. The charge of the committee is to work with the Vice Chair for Academic Affairs on matters related to faculty development, including faculty mentoring, career development, and promotion. Current efforts include work on faculty mentoring support tools, Green Sheet assistance, and the development of metrics and guidelines for the Clinical Scholar Pathway within the DOM.

Research Committee
C Irvin, PhD, chair
R. Budd, MD
M. Poynter, PhD
B. Kirkpatrick, MD
T. Jetton, PhD
M. Toth, PhD
E. Gagnon - Staff
M. Cushman, MD
N. Fukagawa, MD PhD
S. Lidofsky, MD PhD
M. Meyer, MD
R. Solomon, MD
T. Mazuzan – Staff
M. Rowen – Staff
Committee Mission:

The Department of Medicine’s Research Committee is Chaired by the Vice Chair for Research with faculty representation from each Division/Center and financial/operations leadership staff. The committee meets monthly to discuss a wide range of issues pertaining to the research mission and activities of the department’s faculty. A major focus of the committee is to advise the Chair on decisions that impact the research endeavors of the department’s faculty. Other topics include the development and review policies and procedures relating to research, funding requests, new funding opportunities, changes in Federal policies, dissemination of information and setting new initiatives to enhance the research activities of the department.

Quality Assurance Committee – Dermatology
T. Holmes, MD
G. Goldman, MD
C. Weinberger, MD
J. Lin, MD

Committee Mission:
Our mission is to ensure quality care and promote continuous quality improvement of services and processes in order to fulfill the needs and expectations of the patients we serve.

Medical Service
Patient Days: 49,212 (inpatients and bedded outpatients)
Ambulatory Care Visits: 234,906 (166,012 specialty care and 68,894 primary care)
Work RVUs: 554,697 work RVUs

UVMMC Practice Sites:

Ambulatory Care Center – Medicine has a presence in four Modules:

- Medicine: Infectious Disease (including Travel Medicine), Osteoporosis Center, Rheumatology and Clinical Immunology, and Pulmonary (including PFTs), Lung Cancer Multidisciplinary Clinic
- Dermatology including Mohs Surgery
- Cancer Center: Hematology/Oncology, Breast Care Center and Multidisciplinary Clinic, Head and Neck Cancer Multidisciplinary Clinic, and Sarcoma Multidisciplinary Clinic.
- Surgery: Gastroenterology, Thrombosis Center [part of Hem/Onc and Vascular Surgery], and Gastrointestinal Cancer Multidisciplinary Center
University Health Center
- Nephrology
- Sleep Medicine

Tilley Drive, South Burlington
- Cardiology and Cardiac Rehabilitation, Oncology Rehabilitation, Pulmonary Rehabilitation
- Endocrinology and Endocrine Clinical Research

Fanny Allen Hospital
- Memory Clinic

UVMMC Outreach Sites:

Vermont
Brattleboro (BMH) – Infectious Disease
Morrisville (Copley Hospital) – Hem/Onc, Rheumatology, Cardiology
St. Albans (Northwestern Medical Center) – Nephrology and Cardiology
St. Johnsbury (Northeastern Medical Center) – Infectious Disease
Barre (Central Vermont) – Rheumatology, Nephrology, Dermatology (Telederm), Pulmonary, Hem/Onc
Rutland (Rutland Regional) – Nephrology, Cardiology, Infectious Disease
Middlebury (Porter) – Cardiology, Hem/Onc
Newport (Newport Memorial) – Nephrology, Dermatology (Telederm)

New York
Malone (Alice Hyde) – Cardiology
Ticonderoga (Moses Luddington Hospital) – Dermatology
Canton- Potsdam – Cardiology
Massena (MMH) – Cardiology
Plattsburgh (CVPH) – Cardiology, Endocrinology

Massachusetts
Mass General Hospital, Boston – Cardiology

Primary Care Sites (General Internal Medicine and Geriatrics):
South Burlington
Essex Junction
Burlington (University Health Center)
Williston

Nursing Homes and Other Locations:
Starr Farm Nursing Facility
Birchwood Terrace Nursing Facility
Green Mountain Nursing Facility
Visiting Nursing Association of Vermont
The Department also participates in many multidisciplinary clinics:

**Department of Medicine Multidisciplinary Clinics and Case Conferences/Tumor Boards**  
(examples of participants in parentheses)

**Active**

- Maternal Fetal Medicine/Gestational Diabetes (Endocrine, Women’s)
- Upper GI MDC and Tumor Board (Gastroenterology, Hematology/Oncology, Rad. Oncology, Pathology, Radiology, Surgery)
- Lung MDC and Tumor Board (Pulmonary, Surgery, Radiation Oncology, Hematology/Oncology, Pathology, Radiology)
- Breast MDC and Tumor Board (Hematology/Oncology, Radiology, Surgery, Radiation Oncology, Pathology)
- Hem Malignancy Conference (Hematology/Oncology, Pathology)
- Brain Tumor Board (Hematology/Oncology, Surgery, Radiology, Radiation Oncology)
- Sarcoma Tumor Board (Hematology/Oncology, Orthopaedics, Radiology, Pathology, Radiation Oncology)
- ENT MDC Tumor Board (Hematology/Oncology, Surgery, Radiation Oncology)
- GU MDC and Tumor Board (Hematology/Oncology, Surgery, Pathology)
- Melanoma Tumor Board (Dermatology, Surgery, Hematology/Oncology, Pathology)
- Familial Cancer Program Conference (Genetic counseling, medical oncology, pathology, surgical oncology, ob/gyn).
-Interstitial Lung Disease (Pulmonary and Rheumatology)
- Cystic Fibrosis (Pulmonary, Endocrinology, Social Work, Nutritional Services)
- Bone Metabolism (Endocrinology and Rheumatology)
- Stone Clinic (Nephrology and Urology)
- Transplant Clinic (Nephrology and Transplant Surgery)
- Oncology Rehabilitation (Hematology/Oncology, Cardiology, Physical Therapy)
- Pulmonary Rehabilitation (Pulmonary, Cardiology, and Physical Therapy)
- Heart Failure (Cardiology and Primary Care)
- TAVR (Cardiology and Surgery)

**Under Development**

- Dermatology and OB/GYN
Medical Education

Medical Education 2015-2016

1. Leadership

Mark E. Pasanen, M.D., F.A.C.P – Program Director

Mary Ramundo, M.D. – Associate Program Director

Shaden Eldakar-Hein, M.S., M.D., FACP – Associate Program Director

Dorothy Shelc – Program Administrator

2. Summary of Program Highlights 2015-2016
Enhancements to Curriculum:
Beginning in 2015, we embarked on an overhaul of our noon lecture series – focusing our curriculum around subspecialty-specific months. This allows our residents, with the help of our faculty, to immerse themselves in a sub-specialty. We also encouraged our faculty to develop more interactive teaching methods – both of which have been well-received. We continue to incorporate sub-specialists into the vast majority of our Morning Reports, with the goal being to provide our residents with this expertise. For Geriatrics, we have convened a group of engaged faculty to refine both the curriculum and clinical experiences to optimize the resident experience.

We continue to provide MKSAP, the premier board review product, for all of our residents, and utilize MKSAP questions in many of our teaching sessions. In addition, for the second year we provided all 2nd and 3rd year residents with subscriptions to NEJM Knowledge (+), a mobile question-based board review product with an adaptive learning interface as part of our commitment to ABIM Board success – and resulting in a three-year board pass rate above the national mean.

Continuity Clinic Update:
As we move into the 5th year of a block schedule (4+1), we continue to take advantage of this structure to optimize education. With the leadership of Drs. Halle Sobel and Rich Pinckney, small group learning sessions continue to be developed and are extremely well-received by residents – all part of a comprehensive 3-year curriculum. Residents are educated on practice management, patient safety and quality and improvement and have initiated personal practice improvement projects. At the core of the experience is providing care for a diverse population of primary care patients. In addition, we’ve incorporated the PEAC self-learning modules, focused on common ambulatory issues, into the formal educational experience.

Wellness:
Over the last year, we have initiated a Resident Wellness Committee, with the goal of promoting resiliency by creating opportunities for our residents to engage in activities with each other and our community. Events have included attending a Lake Monsters game, picking apples and making cider as well as monthly dinners at the Hope Lodge (cooked and served by our residents).

Improvements in Evaluation/Assessment:
With leadership from Dr. Ramundo, we have developed a robust Clinical Competency Committee – which is charged with reviewing all of our residents at least bi-annually, providing milestone-based evaluations and feedback. In addition, this group now provides insight and guidance for residents who benefit from more structured support.

Recruitment:
With leadership from Dr. Eldakar-Hein, we had an incredible resident recruitment cycle. Given the significant increase in the number of programs each student applies to, it was critical to substantially increase the number of resident candidates we interviewed. Numerous faculty volunteered their time, resulting in one of our most successful recruitment seasons on record.

3. List of All Residents (as of July 1, 2016 –Graduating Residents and Match Results below)
PGY-3
Caitlin Baran University of Vermont
Trace Barrett Albany Medical College
Lee-Anna Burgess University of Queensland, Australia
Brendan Everett Rutgers Robert Wood Johnson
Steven Jarzembowski George Washington University
Shea Lambirth University of Kentucky
Kevin Leadholm Albany Medical College
Erica Monfred University of Maryland
Lakshmi Nambiar Royal College of Surgeons Ireland
Sara Roberts Pennsylvania State University
Moussa Takla University of Connecticut
Javaneh Tamiji Royal College of Surgeons Ireland
Kaitlyn Vennard NY Institute of Tech College of Osteopathic Medicine

PGY-2
Sarah Gillett University of Vermont
Caitlin Greenberg University of New England College of Osteopathic Medicine
Elena Kozakewich Albany Medical College
Lauren Miller Drexel University (Primary Care)
Gatha Nair University of Arizona
Hank Ng University of Vermont
Nehpreet Pandhair JJM Medical College, India
Anthony Provenzano Wayne State University
Vishal Shah University of Vermont
Kelsey Sheahan University of Vermont (Primary Care)
Ross Stemmler Florida State University
Umer Syed Chicago Medical School at Rosalind Franklin University
Kathleen Whitbread University of Buffalo
Heather Wright University of New England College of Osteopathic Medicine
Ann Vo Touro University-California College of Osteopathic Medicine

Chief Medical Residents
Jacqueline O'Toole University of New England, Osteopathic Medicine
Tara Scribner-Metcalf University of Washington
Samuel Stoyak University of Pittsburgh

4. Resident Awards

- **The Harriet P. Dustan, M.D. Award**
  *Sherrie Khadanga, M.D.*

- **The Frank L. Babbott, M.D. Memorial Award**
  *Katherine Menson, D.O.*

- **Richard E. Bouchard, M.D. Excellence in Primary Care Award**
  *Jonathan Wilfong, M.D.*

- **E.L. Amidon, M.D. Award**
  *Outstanding Teacher of the Year Subspecialty Medicine*
  *Ryan Clouser, D.O.*
William Osler, M.D. Award
Outstanding Teacher of the Year
General Internal Medicine
Florian Foerg, M.D.

5. Resident presentations at local/national meetings and publications

Clinical Research

Khadanga S, Savage P, Ades PA  Insulin Resistance and Diabetes Mellitus in Contemporary Cardiac
Rehabilitation  Journal of Cardiopulmonary Rehabilitation and Prevention 2016

Khadanga S, Lakoski SG, Hart V, Sprague BL, Ba Y, Hampton JM, Higgins ST, Ades PA, Newcomb
PA, Trentham-Dietz A.  Partnership Status and Socioeconomic Factors in relation to Health Behavior
Changes after a Diagnosis of Ductal Carcinoma In Situ  Cancer Epidemiology Biomarkers Prev. 2016
Jan

Menson K, O'Toole J, Abdessamad A, Giri, C, Weise W.  A retrospective study evaluating the
etiologies of SIADH in an inpatient population and their clinical course.  Abstract presentation at the
American Thoracic Society Meeting 2016

Solomon B, Wood M  Contribution of Extended Family History in Assessment of Risk for Breast and
Colon Cancer  Presented at the NE Clinical Oncology Society in Oct 2015

Psychological Distress and Risk for Breast Cancer. Presented at the NE Clinical Oncology Society in
Oct 2015

Abstracts at VT ACP Meeting 2015

Clinical Vignettes:

A bad gut feeling. A Case of Plasmablastic Lymphoma. Jacqueline O'Toole, DO and Brendan Everett,
MD

Primary peritonitis leading to streptococcal toxic shock syndrome in an otherwise healthy woman.
James Enser, MD

Rapid Development of an Apical Thrombus in a Patient with Stress Cardiomyopathy. Steve
Jarzemowski, MD

Examining beneath the surface: A rare case of Eosinophilic fasciitis. Sherrie Khadanga MD, Chi Chi
Lau, MD

Bad Blood: A Case of Catastrophic Antiphospholipid Syndrome. Katherine Menson, DO

The octopus trap: the clinical course of stress cardiomyopathy. Lakshmi Nambiar MD

Caitlin N. Baran, MD

Vertebral Artery Dissection Following Cervical Spine Manipulation. Javaneh Tamiji, MD

A retrospective study evaluating the etiologies of SIADH in an inpatient population, the clinical course,
and treatment options. Jacqueline O’Toole DO, Katherine Menson DO, Adel Abdessamad MD,
Chudamani Giri MD, Wolfgang Weise MD
Making a Connection: Nephro-colonic Fistulas. Brendan Everett MD, James Enser MD

**Research Submissions:**
Contribution of Extended Family History in Assessment of Risk for Breast and Colon Cancer. Benjamin Solomon, MD; Tiffany Rounds, MPH; Todd Whitman, MD; Marie Wood, MD

Use of anticoagulation in general medicine patients with elevated troponin. Tara Scribner-Metcalf, MD

**Quality Improvement**
Khadanga S, Dunbar E, Howard A, Sobel H What is the Impact of a Community Health Team on Diabetes Management in a Resident Clinic? Oral Presentation at the Society of General Internal Medicine New England Regional Meeting in April of 2016 and the ACP National Meeting in May of 2016

**Case reports**

6. Graduating Residents – where are they going/which fellowships

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Champaloux, Marc</td>
<td>Hospitalist, Virginia</td>
</tr>
<tr>
<td>Dunbar, Edward</td>
<td>Hospitalist, University of Wisconsin</td>
</tr>
<tr>
<td>Enser, James</td>
<td>Infectious Disease Fellowship, UVMMC</td>
</tr>
<tr>
<td>Hall, Elizabeth</td>
<td>Oncology Research Position, UVMMC</td>
</tr>
<tr>
<td>Khadanga, Sherrie</td>
<td>Cardiology Fellowship, UVMMC</td>
</tr>
<tr>
<td>Menson, Katherine</td>
<td>Pulmonary/Critical Care Medicine Fellowship, UVMMC</td>
</tr>
<tr>
<td>O’Toole, Jacqueline</td>
<td>Chief Resident, UVMMC</td>
</tr>
<tr>
<td>Scribner-Metcalf, Tara</td>
<td>Chief Resident, UVMMC</td>
</tr>
<tr>
<td>Solomon, Benjamin</td>
<td>Hematology/Oncology Fellowship, University of Utah</td>
</tr>
<tr>
<td>Stoyak, Samuel</td>
<td>Chief Resident, UVMMC</td>
</tr>
<tr>
<td>Thach, Susanna</td>
<td>Palliative Care Fellowship – applying currently</td>
</tr>
<tr>
<td>Vanderloo, Matthew</td>
<td>Hospitalist, Minnesota</td>
</tr>
<tr>
<td>Wacker, Matthias</td>
<td>Nephrology Fellowship, Tufts University</td>
</tr>
<tr>
<td>Wilfong, Jonathan</td>
<td>Primary Care, North Shore Medical Center, Danvers, MA</td>
</tr>
</tbody>
</table>

CHIEF RESIDENTS:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maria Burnett</td>
<td>Hospitalist, UVMMC</td>
</tr>
<tr>
<td>Jonathan Halevy</td>
<td>Cardiology Fellowship, UVMMC</td>
</tr>
<tr>
<td>Rachel McEntee</td>
<td>Hospitalist, UVMMC</td>
</tr>
</tbody>
</table>

7. MATCH RESULTS - Spring 2016

**Categorical**

<table>
<thead>
<tr>
<th>Name</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sean Bullis</td>
<td>University of Vermont</td>
</tr>
<tr>
<td>Alejandro Castro</td>
<td>University of Vermont</td>
</tr>
<tr>
<td>Gurpinder Gill</td>
<td>University of Vermont</td>
</tr>
<tr>
<td>Shah Khan</td>
<td>University of Texas – San Antonio</td>
</tr>
<tr>
<td>Elizabeth Levine</td>
<td>University of Texas – San Antonio</td>
</tr>
<tr>
<td>Julia Powelson</td>
<td>University of Alabama</td>
</tr>
<tr>
<td>Brennan Rigby</td>
<td>University of Utah</td>
</tr>
<tr>
<td>Avneet Singh</td>
<td>University of Toledo</td>
</tr>
<tr>
<td>Michael Stutzman</td>
<td>University of Minnesota</td>
</tr>
</tbody>
</table>
Kramer Wahlberg  University of Washington  
Sasha Waldstein  University of Rochester  

Primary Care  
Gary Gilmond  University of Vermont  
Emily Hadley Strout  University of Vermont  
Elizabeth Wahlberg  University of Washington  

Preliminary  
Kylie Abe  University of Queensland (Neurology)  
James East  University of North Carolina – Chapel Hill (Radiology)  
Robert Fuino  University of Rochester (Neurology)  
Jeffrey Maneval  Sidney Kimmel Medical College (Neurology)  
Katelyn Shea  University of Vermont (Dermatology)  
Mutlay Sayan  University of Vermont (Radiation Oncology)  
Michael Theriault  New York Medical College (Neurology)  

Preliminary Anesthesia (shared with Surgery)  
Karl Hinrichs  New York Medical College  
Virginia Horne  West Virginia University  
Michael Kem  University of Colorado  
Brandon King  SUNY – Upstate  
Alexa Pflaum  University of Minnesota  
Russell Shults  East Tennessee State University
The 2015-2016 academic year was a productive one for the Cardiovascular Division. Accomplishments included the recruitment of a new heart failure specialist. Johannes Steiner joined our faculty after completing subspecialty training in advanced heart failure at Massachusetts General Hospital (MGH). The addition of Dr. Steiner expands clinical options for our patients and teaching options for our fellows. He continues to be an active member of the heart failure team at MGH where he has regular inpatient rotations. His recruitment enabled us to create educational rotations for our fellows on the transplant service at MGH. We also completed the recruitment for an electrophysiologist, hiring Daniel Correa de Sa, who will join UVMMC faculty in August 2016. CVMC cardiology added a new cardiologist, Preeth Sundaran, who trained at UVMMC. Preeth will continue as an active member of our group performing regular inpatient rotations. In addition, we recruited a cardiologist who will be based primarily at Massena Medical Center beginning in July 2016. Dr. Aderonke Adeniyi has both general cardiology training as well as additional training in heart failure and pulmonary hypertension. We are actively recruiting a cardiologist at CVPH as well as an interventional cardiologist at UVMMC.

Clinical integration of cardiovascular services across the network continues. During the past academic year, the cardiologists at CVPH reorganized to work as a more cohesive group. Progress with integration has enabled us to markedly reduce outreach. UVMMC cardiologists will continue to offer subspecialty clinics in northern New York. Clinics for patients with advanced heart failure as well as pulmonary hypertension and congenital heart disease will be transitioned to CVPH beginning in the fall of 2016.

At UVMMC we have seen continued growth of catheter-based treatment for structural heart disease. Transcatheter aortic valve replacement is now performed in 10 to 12 patients per month. While this program is predominantly clinical, under the leadership of Harry Dauerman we continue to be actively involved in research to refine care. We are expanding therapeutic options for patients with structural heart disease by offering catheter-based treatment for mitral valve disease. The research efforts led by Daniel Lustgarten with the Watchman device (a device that occludes the left atrial appendage and obviates the need for anticoagulation as a treatment option for atrial fibrillation) have led to our initiation of a program for clinical use of this device in selected patients.
Faculty recognition and advancement during 2015-2016 include Daniel Lustgarten’s promotion to Professor of Medicine, the selection of Philip Ades as a University Scholar and the first endowed Professor of Cardiovascular Disease Prevention, and the fellows’ selection of Peter Spector as Teacher of the Year in the Cardiovascular Training Program.

Clinical and translational research remains active with 15 members of the division pursuing actively funded projects. Culmination of research projects is demonstrated by 53 publications during the past academic year.

Education continues to be a key focus with active training programs in cardiovascular disease, cardiovascular intervention, and electrophysiology.

**Faculty**

**David J. Schneider, MD**
Professor of Medicine  
Director, Cardiovascular Division  
Medical Director, Cardiovascular Services, University of Vermont Health Network  
Research and clinical interests  
- thrombosis  
- platelet biology  
- atherosclerosis/ischemic heart disease  
- preventive cardiology

**Philip A. Ades, MD**
Professor of Medicine  
Director, Cardiac Rehabilitation  
Research and clinical interests  
- cardiac rehabilitation  
- preventive cardiology  
- ischemic heart disease

**William Bradley, MD**
Interventional Cardiology  
Clinical interests  
- ischemic heart disease
- cardiac catheterization
- coronary intervention

**Mark Capeless, MD**

Professor of Medicine

Research and clinical interests

- clinical cardiac electrophysiology

**Kevin Carey, MD**

Assistant Professor of Medicine

Research and clinical interests

- coronary intervention
- cardiac catheterization
- ischemic heart disease

**Harold L. Dauerman, MD**

Professor of Medicine
Director of UVMMC Cardiovascular Services

Research and clinical interests

- coronary intervention
- cardiac catheterization
- structural heart intervention
- ischemic heart disease
- vascular biology

**John Fitzgerald, MD**

Assistant Professor of Medicine

Research and clinical interests

- preventive cardiology
- ischemic heart disease
- valvular heart disease

**Timothy Garrand, MD**

Interventional Cardiology
Clinical interests

- ischemic heart disease
- cardiac catheterization
- coronary intervention

Eric Gauthier, MD
Assistant Professor of Medicine
Clinical interests

- ischemic heart disease
- cardiac catheterization
- coronary intervention

Prospero B. Gogo, MD
Associate Professor of Medicine
Director, Cardiovascular Catheterization Laboratory
Director Interventional Cardiology Training Program
Research and clinical interests

- cardiac catheterization
- percutaneous coronary intervention
- percutaneous treatment of structural heart disease

William E. Hopkins, MD
Associate Professor of Medicine
Director, Pulmonary Hypertension and Adult Congenital Heart Disease Program
Research and clinical interests

- pulmonary hypertension
- adult congenital heart disease
- genetic heart disease
- valvular heart disease
- echocardiography

Roger Ischac, MD
Assistant Professor of Medicine
Clinical interests

- ischemic heart disease
- cardiac catheterization
- coronary intervention

**Friederike Keating, MD**

Associate Professor of Medicine  
Director, Nuclear Cardiology  
Program Director, Cardiovascular Fellowship  
Leader, Women’s Cardiac Care Program  
Subspecialty Coordinator for Cardiology, Internal Medicine Residency Program

Research and clinical interests

- cardiovascular disease in women  
- cardiovascular imaging  
- thrombosis  
- platelet biology

**Robert J. Kelm, Jr., PhD**

Associate Professor of Medicine  
Associate Professor of Biochemistry

Research interests

- molecular biology of cell differentiation  
- mechanisms of cardiovascular remodeling  
- regulation of gene expression  
- protein-nucleic acid interactions

**Martin M. LeWinter, MD**

Professor of Medicine and Molecular Physiology and Biophysics  
Director, Heart Failure and Cardiomyopathy Program

Research and clinical interests

- heart failure and cardiomyopathies  
- cardiac hypertrophy  
- heart failure with preserved ejection fraction  
- effects of hypertension and diabetes on the myocardium  
- pericardial disease

**Robert Lobel, MD**

Assistant Professor of Medicine

Research and clinical interests

- clinical cardiac electrophysiology  
- catheter ablation
• pacemaker and ICD implantation

Daniel Lustgarten, MD
Professor of Medicine

Research and clinical interests

• clinical cardiac electrophysiology
• catheter ablation
• pacemaker and ICD implantation

Markus Meyer, MD
Associate Professor of Medicine

Research and clinical interests

• cardiac imaging and stress testing
• general cardiology
• heart failure and cardiomyopathy

Peter S. Spector, MD
Professor of Medicine
Director, Cardiac Electrophysiology
Director, Electrophysiology Fellowship Training Program

Research and clinical interests

• catheter ablation
• atrial fibrillation

Jeffrey L. Spees, PhD
Associate Professor of Medicine
Director, Stem Cell Core Facility

Research interests

• adult stem cell biology
• regenerative medicine
• repair of cardiac and CNS tissues
• vascular biology

Johannes Steiner, MD
Assistant Professor of Medicine
Research and clinical interests

- advanced heart failure
- echocardiography

Edward Terrien, MD
Associate Professor of Medicine
Director, Ambulatory Cardiovascular Clinic
Research and clinical interests

- coronary intervention
- cardiac catheterization
- peripheral vascular intervention
- ischemic heart disease

Marc D. Tischler, MD
Associate Professor of Medicine
Director, Echocardiography Laboratory
Research and clinical interests

- magnetic resonance imaging and echocardiography
- valvular heart disease
- ischemic heart disease
- congestive heart failure

Michael J. Toth, PhD
Associate Professor of Medicine
Research interests

- skeletal muscle physiology
- heart failure
- aging
- physical disability
- muscle disuse

Peter Van Buren, MD
Associate Professor of Medicine
Associate Professor of Molecular Physiology and Biophysics
Director Cardiac Care Unit
Associate Director Cardiovascular Training Program
Research and clinical interests

- specialist in heart failure
- echocardiography
- nuclear cardiology

Matthew W. Watkins, MD

Professor of Medicine
Director of Interventional Cardiology
Research and clinical interests

- interventional cardiology
- ischemic heart disease

Joseph Winget, MD

Associate Professor of Medicine
Research and clinical interests

- clinical cardiac electrophysiology
- catheter ablation
- pacemaker and ICD implantation

Fellows

<table>
<thead>
<tr>
<th>Abraham Abernethy</th>
<th>Patrick Hohl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imran Alkhalil</td>
<td>Sherrie Khadanga</td>
</tr>
<tr>
<td>Amir Azarbal</td>
<td>Sean McMahon</td>
</tr>
<tr>
<td>Sreedivya Chava</td>
<td>Mehdi Rambod</td>
</tr>
<tr>
<td>David Cleary</td>
<td>Ashwini Sharma</td>
</tr>
<tr>
<td>Christine DeStephan</td>
<td>Samvit Tandan</td>
</tr>
<tr>
<td>Mohamed El-Haddad</td>
<td>Srinath Yeshwant</td>
</tr>
<tr>
<td>Jonathan Haley</td>
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</tr>
</tbody>
</table>

Nurse Practitioners and Physician Assistants

<table>
<thead>
<tr>
<th>Elizabeth Carney, APRN</th>
<th>Margaret MacDonald, NP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gregory Ehle, PA</td>
<td>Cheryl McNeil, APRN</td>
</tr>
<tr>
<td>Karen Farrell, APRN</td>
<td>Nancy Strong, APRN</td>
</tr>
</tbody>
</table>
Graduate Students, Post-doctoral Fellows, MD PhD Students

Robert J. Kelm, Jr., PhD

Lauren A. Ferris, PhD student, Biochemistry Graduate Program

Tamar R. Wheeler, 2015 Summer Undergraduate Student Fellowship from the American Heart Association Founders Affiliate, 2016 Distinguished Undergraduate Research Award from the UVM College of Agriculture and Life Sciences

Martin M. LeWinter, MD

Damien Callahan
Abraham Abernethy
Patrick Hohl
Mentorship: Johannes Steiner

Peter S. Spector, MD

Oliver Bates, PhD candidate
Bryce Benson, PhD candidate, Biomedical Engineering
Richard Carrick, PhD candidate
Nicole Habel, post-doctoral fellow

Michael J. Toth, PhD

Blas Guigni, CMB doctoral candidate
Damien Callahan, PhD, post-doctoral
Timothy W. Tourville, PhD, post-doc/K08 mentee

Leadership in Professional Societies

Harold L. Dauerman, MD

Data Safety and Monitoring Boards
  RADIANCE HTN (Renal Denervation) Trial
COAPT (Mitraclip) Trial
LEADERS FREE (Drug Eluting Stent) Trial
American College of Cardiology, Fellow
American Heart Association, Fellow
Society of Cardiac Angiography and Intervention, Fellow
UVM Cardiovascular Research Institute, Board of Directors

**Prospero B. Gogo, MD**

Vermont Chapter of the American College of Cardiology, Governor and member
Novation Cardiovascular Council

**William E. Hopkins, MD**

American College of Cardiology, Fellow
American College of Physicians, Fellow
Pulmonary Hypertension Association
International Society for Adult Congenital Cardiac Disease

**Friederike Keating, MD**

Vermont Chapter of the American College of Cardiology Governor-Elect
American College of Cardiology, Fellow
American Heart Association
American Society of Nuclear Cardiology
UVM Cardiology Student Interest Group, faculty contact
Community Action Committee, VT AHA, member
Cardiology Clinical Lead, EPIC / PRISM

**Robert J. Kelm, Jr., PhD**

UVM Institutional Biosafety Committee, Chair
Student Progress Committee, Cellular, Molecular, and Biomedical Sciences Graduate Program, Chair
Graduate Studies Committee, Department of Biochemistry, Chair

**Martin M. LeWinter, MD**
Research Committee, Chair  
Heart Failure Society of America  
Cardiovascular Self-Examination Committee, ABIM

Daniel Lustgarten, MD  
Heart Rhythm Society, Fellow  
American College of Cardiology Political Action Committee, member  
Paul Dudley White Society - Cardiology Division, member

Marc D. Tischler, MD  
American College of Cardiology, Fellow  
American Heart Association, Fellow  
American College of Physicians, Fellow  
Faculty Actions Committee, University of Vermont College of Medicine, Chair

Editorships and Editorial Boards

Philip A. Ades, MD  
Consulting Editor (former Editor-in-Chief): Journal of Cardiopulmonary Rehabilitation and Prevention  
Editorial Boards: Coronary Artery Disease, Circulation

Harold L. Dauerman, MD  
Editor-in-Chief: Coronary Artery Disease, 2013-current  
Section Leader, Interventional Cardiology: Journal of the College of Cardiology, 2014-current  
Editorial Board: Circulation Cardiovascular Interventions, 2014-current

William E. Hopkins, MD  
Associate Editor: Coronary Artery Disease

Friederike Keating, MD  
Editorial Board: Coronary Artery Disease
Martin M. LeWinter, MD

Associate Editor: *Circulation, Coronary Artery Disease*
Section Editor: *Myopericardial Disease, Up-To-Date*
Editorial Boards: *Heart and Vessels, Experimental and Clinical Cardiology, Current Cardiology Reviews, Heart Failure Reviews*

Daniel Lustgarten, MD

Editorial Board: *Journal of Innovations in Cardiac Rhythm Management*

David J. Schneider, MD

Associate Editor: *Coronary Artery Disease*
Editorial Boards: *American Journal of Cardiology, Diabetes Care*

Marc D. Tischler, MD

Associate Editor: *Coronary Artery Disease*

Michael J. Toth, PhD


Peter Van Buren, MD

Editorial review for: *Biochemistry, Circulation Review, Coronary Artery Disease*

Study Sections, National Advisory Boards, National/International Invited Talks

Harold L. Dauerman, MD

Boston Scientific, Physician Executive Committee, 2014 to present

William E. Hopkins, MD


Martin M. LeWinter, MD

Daniel Lustgarten, MD
Medtronic Co-Management Council of Advisors, 2008-present
CardioFocus HeartLight Trial, Chair of the Data and Safety Monitoring Board
AdaptResponse Trial, Events Adjudication Committee, member

Peter S. Spector, MD
Biosense Webster, Inc., Physician’s Advisory Board, 2003 to present
Atrial Fibrillation Association-US (AFA-US), Medical Board 2011 to present

Jeffrey L. Spees, PhD
Vermont Cancer Center/LCCRO Scientific Review Committee, member 2015
AHA Study Section - Brain R1, member 2015 to present
Marsden Research Fund Grant Reviewer, New Zealand, 2015
NIH ZRG1 CB-J (55), Special Emphasis Panel for Stem Cell Animal Models, member
NIH BMBI Study Section, member 2016 (in June 2017, he will start a 4-year term for BMBI)

Michael Toth, PhD
ZRG MOSS-C SMEP Member Conflict Study Section, ad hoc member
NIH SMEP Study Section, ad hoc member
Peter Van Buren, MD

Medtronic Co-Management Council of Advisors, 2008-present

Matthew W. Watkins, MD

Green Mountain Care Advisory Board, State of Vermont, UVMMC physician representative

Northern New England Cardiovascular Disease Study Group – a multi-institutional, regional collaborative focused on improving outcomes in Interventional Cardiology and Cardiac Surgery

Major Faculty Honors and Awards

Philip A. Ades, MD

2015 - University Scholar, University of Vermont
2016 - University of Vermont Endowed Professor of Cardiovascular Disease Prevention

Harold L. Dauerman, MD

2016 - Induction into Association of University Cardiologists
2016 - Simon Dack Award for Outstanding Scholarship, ACC

Markus Meyer, MD

U.S. Patent #13/030740: Noninvasive approach to determine cardiac output
U.S. Patent #14/387,971: Cardiac Pacemakers and Uses Thereof

Peter S. Spector, MD

The University of Vermont Inventor Hall of Fame for commercializing the Methods and Treatments for Optimizing Treatment of Atrial Fibrillation, awarded April 2, 2015

U.S. Patent #9,033,893 B2: Methods and Systems for Assessing Cardiac Fibrillogenicity, awarded: May 19, 2016

Cardiology Division Teacher of the Year, 2015-2016

Jeffrey L. Spees, PhD
U.S. Patent in 2015: Compositions and Methods of Cardiac Tissue Repair
2015 - Spees Lab invention “Cell-Kro” selected by Stanford University Spark Program to be presented at the BioInvestor Forum, San Francisco, CA
2016 - Invited to become a charter member of BMBI (i.e., standing NIH study section member)

**Grants**

**Philip A. Ades, MD**

NIH: The National Institute of General Medical Sciences - P20GM103644-01A1
   Vermont Center for Behavior and Health (2013-2018)
   Role: Associate Director and Co-Principal Investigator (Steven Higgins, PI)

National Institute on Drug Abuse and U.S. Food and Drug Administration - P50DA036114
   Tobacco Centers of Regulatory Science Award (2013-2018)
   Role: Investigator (Steven Higgins, PI)

**Harold L. Dauerman, MD**

Boston Scientific
   EVOLVE SHORT DAPT: A National Registry of 3 Months Dual Antiplatelet Therapy in Conjunction with SYNERGY Bioresorbable Polymer Drug Eluting Stent for Patients at High Risk of Bleeding, National Steering Committee.
   Role: Site Principal Investigator

Edwards Lifesciences
   Transcatheter Aortic Valve Replacement to UNload the Left Ventricle in Patients with ADvanced Heart Failure: A randomized trial (TAVR UNLOAD)
   Role: Site Principal Investigator.

Bayer Healthcare
   GALILEO: A Randomized Trial of Antiplatelet versus Antithrombotic Strategy with Riviroxiban to Improve Outcomes after TAVR
   Role: Site Principal Investigator.

Medtronic
   CoreValve Transcatheter Aortic Valve Replacement in Patients at Low Risk for Surgical Aortic Valve Replacement
   Role: Site Principal Investigator
SURTAVI Randomized Trial--CoreValve TAVR vs Surgical AVR for Patients at Intermediate Risk for Mortality
Role: Site Principal Investigator

Dauerman Research and Education Fund
A Paradoxical Decrease in Costs for Extreme Risk TAVR Patients; in conjunction with Jacob Martin, MD (Anesthesia), Joseph Schmoker, MD (CT Surgery), Taka Ashikaga, PhD (UVM Biostatistics) and Trainees Sridivya Chava, MD and Christopher Mayhew (UVM 4th year Med Student)

Correlation of Coronary CT Angiography with Invasive Cardiac Catheterization Assessment in Patients Referred for TAVR.
Role: Investigator Initiated Research, Site Principal Investigator
Trainee: Sridivya Chava, MD, in conjunction with UVM Biostatistics and George Gentchos, MD (Radiology)

Friederike Keating, MD
Nuclear Cardiology Projects: Safety of Regadenoson after NSTEMI

Improved Systems of Care for Inpatients with Elevated Troponin
Resident research project on troponin elevations in inpatients; with Tara Metcalf-Scribner, MD, Resident: ongoing.
Sarcoidosis and PET imaging – new protocols; with Mehdi Rambod, MD ASNC 2015
Sanofi
EFC11570 ODYSSEY Outcomes study
Role: Site Principal Investigator

Robert J. Kelm, Jr., PhD
NIH/NHLBI T32 HL007594-26-30
Hemostasis and Thrombosis Program for Academic Trainees (7/1/2015-6/30/2017)
Role: Research Mentor and Principal Investigator/Program Director

American Heart Association Founders Affiliate Grant-in-Aid 16GRNT31160006
Role of PURB in Controlling the Phenotypic Plasticity of Vascular Smooth Muscle Cells (7/1/2016-6/30/2018)
Role: Principal Investigator

Martin M. LeWinter, MD
NIH RO1 HL118524
Myofilament Basis of Diastolic Dysfunction in HFpEF (9/1/2014-6/30/2018)
Role: Principal Investigator

Robert Lobel, MD

Product Surveillance Registry 09-167 Registry Study: Patients who have received specific leads in the past 30 days, examining the longevity of the system/leads once implanted
Role: Principal Investigator

Daniel Lustgarten, MD

WRAP-IT 15-270: Determine the effectiveness of the TYRX absorbable envelope
Role: Principal Investigator

Protego DF4 PAS 15-35: Determine the effectiveness of Biotronik’s DF4 lead
Role: Principal Investigator

CAP2 13-031: Continued access of the Prevail Study
Role: Principal Investigator

Preval 11-035: Prospective Randomized Evaluation of Warfarin Therapy in Atrial Fibrillation Patients Versus WATCHMAN LAA Closure Technology (PREVAIL).
Role: Principal Investigator

St. Jude Quadripolar Pacing 13-013: Collect additional information on the safety and long-term performance of the St. Jude quadripolar CRT-D device system or any device with quadripolar pacing capabilities and the Quartet LV lead in patients that are indicated for CRT-D
Role: Principal Investigator

TEMPO 15-008: Evaluate the Effect of GS-6615 on Ventricular Arrhythmia in Subjects with an ICD or CRT-D
Role: Principal Investigator

Markus Meyer, MD

NIH NHLBI 1 R01 HL122744-01A1
Tachycardia-Induced Sarcolemmal Calcium Extrusion Defect in Patients with Diastolic Dysfunction (2015-2020)
Role: Principal Investigator

Medtronic
Pacing-induced Remodeling in a Swine Model of Left Ventricular Hypertrophy (2013-2016)
Role: Principal Investigator

David J. Schneider, MD
Janssen Pharmaceuticals LLC  
Novel Markers of Thrombotic Risk (7/1/2014 – 12/31/2016)  
Role: Principal Investigator

Jeffrey Spees, PhD

NIH/NHLBI R01 HL132264  
Vascular Protection by HGF/IgG Protein Complexes that Activate RYK (4/1/2016-3/13/2020)  
Role: Principal Investigator

NIH/NINDS/NIGMS R01 NS073815  
Control of Reactive Astrocytes by Notch1 and Amyloid Precursor Protein (7/1/2012-6/30/2016)  
Role: Principal Investigator

SPARKVT (UVM Medical Center)  
Role: Principal Investigator

Peter S. Spector, MD

Gilead (Tempo) 2015  
Medtronic (Wrap It) 2015  
Biotronic (Protego) 2016  
SP282 (Evslin Grant), 2015  
PSPEC (R&E), 2015  
EP (R&E), 2015  
BSW, 2015

Michael J. Toth, PhD

NIH R01 AG033547  
Muscle Disuse and Contractile Dysfunction in the Elderly  
Role: Principal Investigator

NIH R21 CA191532  
Alternative Exercise Modalities to Improve Skeletal Muscle Function in Cancer Survivors  
Role: Principal Investigator

NIH R01 AR065826  
Skeletal Muscle Atrophy and Dysfunction in Human Cancer  
Role: Principal Investigator

Dept. of Medicine Translational Science Award  
Nutrition and Exercise in Critical Illness (The NEXIS Trial): A pilot study
Role: Co-Investigator (Renee Stapleton, PI)

Matthew W. Watkins, MD
Capricor, Inc.
Randomized, Double-Blind, Placebo-Controlled Phase I/II Study of the Safety and Efficacy of Intracoronary Delivery of Allogeneic Cardiosphere-Derived Cells in Patients With an Anterior Myocardial Infarction and Ischemic Left Ventricular Dysfunction (ALLogeneic Heart STem Cells to Achieve Myocardial Regeneration, ALLSTAR) – Enrollment ongoing
Role: Site Principal Investigator

NIH/Renova Therapeutics
Adenovirus Vector Type 5 (Ad5.hAC60 Expressing Human Adenylyl Cyclase Type 6) Administered via Intracoronary Catheterization – enrollment completed 2014, study ongoing
Role: Site Principal Investigator

Joseph Winget, MD
AdaptResponse 15-066: Test the AdaptivCRT algorithm in CRT indicated patients
Role: Principal Investigator

CROSS X4 15-406: Evaluate the Presence of PNS in Patients Who Receive a BSCI Device with SJM LV Lead (study closed March 2016)
Role: Principal Investigator

Peter VanBuren, MD
NIH/NHLBI 5U10HL110342
New England, New York and Quebec Regional Clinical Center of the National Heart Failure Research Network (1/1/2012-12/31/2018)
Role: Principal Investigator
Ades PA. A lifestyle program of exercise and weight loss is effective in preventing and treating type 2 diabetes mellitus: why are programs not more available? Prev Med. 2015 Nov;80:50-2.


Rubin LJ, Hopkins WE. Clinical features and diagnosis of pulmonary hypertension in adults. In: UpToDate; Rose BD (Ed); UpToDate, Waltham, MA; 2016 Feb.

Rubin LJ, Hopkins WE. Overview of pulmonary hypertension. In: UpToDate; Rose BD (Ed); UpToDate, Waltham, MA; 2016 Feb.

Rubin LJ, Hopkins WE. Pathogenesis of pulmonary hypertension. In: UpToDate; Rose BD (Ed); UpToDate, Waltham, MA; 2016 May.

Rubin LJ, Hopkins WE. Treatment of pulmonary hypertension. In: UpToDate; Rose BD (Ed); UpToDate, Waltham, MA; 2016 Jun.


Schneider DJ. Transition strategies from cangrelor to oral platelet P2Y12 receptor antagonists. Coron Artery Dis. 2016;27:65-9


Dermatology at the University of Vermont Medical Center is a division of Medicine with five general medical dermatologists, three surgical dermatologists, and four experienced physician assistants. We provide general dermatology care to the community as well as highly-specialized consultation with particular strengths in the treatment of psoriasis, cutaneous lupus, dermatomyositis, cutaneous lymphoma, and all forms of skin cancer including melanoma. This year we will see over 30,000 patient visits per year. We also provide aesthetic services and have hired an aesthetician to join our practice and she is already extremely busy.

This year we will be adding Dr. Melanie Bui to our staff. She is joining her husband (a pathology researcher) in coming to UVM. Dr. Bui will see patients with all forms of dermatologic disease and has a special interest in research with cutaneous stem cells. We are working on a joint hire with CVPH to improve the care of patients in upstate New York.

Our new Veterans Administration clinic has opened at the outpatient center in Burlington under the direction of Dr. Joseph Pierson, and the VA is now sponsoring one of our residents. Dr. Laura McGevna will join Dr. Pierson in providing services at the VA.

We continue to volunteer regularly at the Community Health Center Free Clinic. Each month, an attending physician supervises the residents and Physician Assistants in the provision of free care to patients at the Community Health Center in Burlington. This provides a service to the community and is also a superior experience for our residents and fellow, who are able to participate in the care of an underserved population. Dr. Pierson has taken the lead in public education and skin cancer awareness.

In the last year our surgical dermatologists and our dermatopathologists worked with Dr. Christian Jordan to develop a frozen tissue bank. Dr. Jordan has accepted a position at the Cleveland Clinic for his dermatology residency training. The tissue bank is expanded daily and will provide fresh frozen tissue for research for the foreseeable future.

This year has seen an explosion in the number of publications by our residents and students. This reflects an increasing focus on education and development.

Dr. Glenn Goldman is Chair of the American Society for Dermatologic Surgery International Travelling Mentorship Program. He and his fellow, Kendra Lesiak, MD travelled to Wroclaw, Poland for one week of instruction and surgery with the only Mohs surgeon in Poland, Dr. Andrzej Bieniek. Dr. Lesiak had the honor of lecturing to the Polish Society of Dermatology.
Dr. Goldman, Dr. Weinberger, Dr. Holmes, Dr. Lin, Dr. McGevna and Dr. Pierson serve on a
number of UVMMC committees. Dr. Julie Lin continues her involvement in PRISM, where she
is the PRISM representative from the Department of Medicine. We continue to work on
developing a functional telemedicine program and this year this venture is on the strategic plan
for the institution.

Our residency and procedural dermatology fellowship remain successful and rewarding. This
year Dr. Elizabeth Lester completed her training in dermatology and has begun a fellowship in
dermatopathology here at the University of Vermont College of Medicine. Graduate Jeremy
Hugh, MD accepted a position on the faculty at Dartmouth. Residents and fellows present
regularly at our local and regional meetings, and the senior residents and fellows are currently
involved in a number of publications.

Each month we host several third or fourth year students for rotations in dermatology. On
average one or two University of Vermont medical students per year choose to enter the field of
dermatology. Due to the tremendously-competitive nature of dermatology as a specialty, each
student requires careful guidance and assistance in procuring a residency. As usual, last year our
UVM student interested in dermatology matched at an excellent training program. On a special
note, one of our home-grown students matched with us and has begun her internship. Dr. Katelyn
Shea started in dermatology six years ago as a medical assistant for Dr. Julie Lin. She had an
immediate aptitude for dermatology and, after two years of work, matriculated at the UVM
COM. She will be doing her transitional year here in Internal Medicine and will then move on to
dermatology.

Faculty
Glenn Goldman, MD

Professor of Medicine
Director, Dermatology Division
Director, Procedural Dermatology Program
RUC Representative, American College Of Mohs Surgery
- Mohs Surgery and Reconstructive Surgery
- Management of high-risk skin cancers
- Cosmetic Dermatology
- Procedural Dermatology Education
- National Health Care Policy
- Continuing Medical Education
- International Dermatologic Surgery
- Flap tension in vivo research

Jamie Alpert, MD
Associate Professor of Medicine
Chair, Part-Time Faculty Actions Committee
- General Medical Dermatology

Todd Holmes, MD
Associate Professor of Medicine
- Surgical Dermatology and Cutaneous Oncology
- Mohs and Reconstructive Surgery
- Resident and Fellow Education
- International Education in dermatologic surgery

Julie Lin, MD
Assistant Professor of Medicine
Department of Medicine PRISM Representative
- Cutaneous Lymphoma
- Electronic Medical Records
- Bioinformatics
- Teledermatology

Christine Weinberger, MD
Assistant Professor of Medicine
- Mohs Surgery and Reconstruction
- Mohs Surgery for Melanoma

Joseph Pierson, MD, Col US Army
Assistant Professor of Medicine
- General Medical Dermatology
- Residency Education in Dermatology

Laura McGevna, MD
- UVM Medical Graduate
- General Medical Dermatology
- Women’s Dermatology
- Residency Education in Dermatology

Elizabeth Zeeck, MD
- General Medical Dermatology
- Dermatology Laser and Cosmetics
- Residency Education in Dermatology

Fellow
Kendra Lesiak, MD
Procedural Dermatology Fellow 2014-2016

Residents
Jeremy Hugh, MD PGY-4 / Co-chief
Elizabeth Lester, MD PGY-4 / Co-chief
Andrew Hankinson, MD PGY-3
Michael Romano, MD PGY-3
Emily Farrell, MD, PGY-2
Alyssa Fischer, MD, PGY-2
Ivy Norris, MD, PGY-2

Physician Assistants:
Deb Roseman, PA:
Deb has been with us for over ten years. She has decades of experience as a dermatology physician assistant and has a following of thousands of patients for whom she provides care.

**Anne Klein, PA**
Anne is a surgical PA, and works with the dermatologic surgeons daily. She trained for years with a plastic surgeon and has exceptional procedural skills. A testament to her skill is that physicians refer patients to her regularly for surgical excisions.

**Rich Callahan, PA**
Rich is experienced in dermatology and provides both medical and minor surgical dermatology care. He brings with him many patients from his former practice.

**Christine Sowle, PA**
Christine trained with us and stayed on as a dermatology PA. She has been working with us for almost ten years and has a large following of thousands of patients who see her on a regular basis.

**Leadership in Professional Societies:**

**Vermont Dermatologic Society**
Dr. Joseph Pierson, President

**Study Sections and Federal Advisory Boards:**

**American Medical Association**
Dr. Goldman – RUC representative for the American College of Mohs Surgery

**Dermatology Foundation**
Dr. Goldman – Leader’s Society State / Regional Chair
Dr. Pierson – Leader’s Society State / Regional Vice Chair

**American College of Mohs Surgery**
Dr. Goldman – Fellowship Training Committee

**Publications – Books, Peer reviewed, chapters,**

**Book Chapter**

**Peer-reviewed Articles**


The 2015-2016 academic year was one of increased research and patient care opportunities for the Division of Endocrinology and Diabetes. We were pleased to recruit Dr. Sree Susmitha Garapati to our faculty following completion of her Endocrinology Fellowship with our Division; her recruitment brings our roster of healthcare providers to 5 physicians, 2 nurse practitioners, and 4 certified diabetes educators. Dr. Garapati is particularly skilled in in-patient diabetes management and she fills a key role in our in-patient diabetes management team, which works to ensure a multidisciplinary, comprehensive, patient-oriented approach to the care of patients with diabetes and their families.

The Division serves the residents of Vermont and upstate New York, with a goal of delivering seamless, system-wide care within the University of Vermont Health Network for endocrine-related disorders. We provide consultative and ongoing care through our out-patient endocrine clinic at Tilley Drive, which has approximately 14,000 visits per year (4th in the Department of Medicine). The Division also operates a consult service at the UVM Medical Center and continues to develop an endocrine service at CVPH in Plattsburgh, NY. Beginning in the autumn of 2016, the CVPH clinic will be staffed by Tina Kader, MD, who will join our Division as an adjunct faculty member.

The “Diabetes Initiative” developed in conjunction with PCIM and Family Medicine continues to be a valuable tool in use within the UVM Health Network. The roadmaps and algorithms for treatment that are included in this initiative ensure state of the art diabetes management for all patients treated by our diabetes care team. In response to the increasing number of patients monitoring their glucose control with apps on mobile devices, Dr. Schnure is beginning an exploration of methods to incorporate glucose monitoring data from a patient’s mobile device into the electronic medical record.

The thyroid fine needle aspiration biopsy clinic developed in conjunction with cytopathology faculty continues to be an overwhelming success in providing our patients with early diagnosis and treatment of thyroid cancer and in providing endocrine and cytopathology fellows and trainees with immediate feedback in the development of their biopsy and diagnosis skills.

In July 2015, Dr. Nathan received the VISION Award from the UVM Medical Center. This award acknowledges a clinician’s dedication to patient care and is based upon letters and recommendations received by colleagues and patients.

The Division’s basic research efforts continue to focus on beta cell function, intracellular metabolism, and life cycle. Dr. Leahy’s work in this area is world renown and was recognized locally with
his investiture in March 2016 as the inaugural Sarah Nichols Gruenig Green & Gold Professor in Diabetes Research. This endowment was established to fund research to improve treatment and find an eventual cure for diabetes.

Our clinical research includes participation in clinical trials involving incretin biology; new product development; novel treatments for hypertension, obesity, and insulin resistance; and research regarding cardiovascular outcomes. In conjunction with the Maternal Fetal Medicine Clinic, Dr. Schnure is studying the usefulness of glycosylated albumin (a test known as the fructosamine assay) as a measure of glucose control in pregnant women with diabetes. Historically, the hemoglobin A1c test, a measure of average blood glucose over 6 to 12 weeks, has been used—this time frame, however, is too long an interval for use in pregnancy. The fructosamine assay being studied provides glucose control information based on a 2-week turnaround time.

As part of our educational mission, Dr. Nathan served as the Course Director for the 2016 New England Thyroid Conference, held in April in Framingham, MA. This CME conference provided lectures and training on the care of patients with benign and malignant thyroid disorders and was attended by more than 70 physicians and other health professionals, fellows, and residents from the New England area.

Finally, each year Dr. Jetton teaches classes in human structure and function and in human physiology and pharmacology to graduate and medical students, and the Division’s medical faculty train two Fellows in Endocrinology and work closely with the medical students and residents rotating through the endocrine service.

## Faculty

### John (Jack) L. Leahy, MD
Professor of Medicine  
Sarah Nichols Gruenig Green & Gold Professor in Diabetes Research  
Co-Director, Division of Endocrinology and Diabetes  
Research and clinical interests:  
- Diabetes mellitus  
- Islet beta-cell physiology and dysfunction

### Joel J. Schnure, MD
Professor of Medicine  
Co-Director, Division of Endocrinology and Diabetes  
Member, DOM Operations and Efficiency Committee  
Lead, Diabetes Chronic Care Initiative  
Lead, Task Force on In-patient Diabetes Education
Member, In-patient Diabetes Initiative

Research and clinical interests:
- Diabetes care, Types 1 and 2
- Diabetes in pregnancy
- Thyroid disease
- Pituitary disease
- Integration of home glucose monitoring into electronic medical records
- Fructosamine as an alternative to HbA1C in pregnancy

Sree Susmitha Garapati, MD
Assistant Professor of Medicine

Clinical interests:
- In-patient and out-patient diabetes management
- Thyroid disease, including thyroid ultrasound and biopsy
- Adrenal and pituitary diseases
- PCOS
- Male hypogonadism

Matthew P. Gilbert, DO, MPH
Associate Professor of Medicine
Director, Endocrinology Fellowship Program
Director, Inpatient Diabetes Management

Research and clinical interests:
- Diabetes mellitus
- Thyroid disorders
- Thyroid cancer
- Male hypogonadism

Dhananjay (Jay) Gupta, PhD
Research Assistant Professor

Research interests:
- Pathogenesis of type 2 diabetes and islet biology
- Epigenetic regulation of adaptive islet beta cell response with changing metabolic milieu

Thomas L. Jetton, PhD
Professor of Medicine

Research interests:
- Regulation of glucose homeostasis
- β-cell biology
- Nutrient and neural regulation of β-cell growth

Teaching interests:
- Human Structure and Function
- Human Physiology and Pharmacology

Muriel H. Nathan, MD, PhD
Professor of Medicine
Research and clinical interests:
- Diabetes (including use of insulin pumps) and PCOS
- Thyroid cancer, thyroid nodules, and hyper- and hypothyroidism
- Pituitary tumors and dysfunction
- Adrenal disorders, hirsutism
- Inpatient improvement projects funded by the James M. Jeffords Institute for Quality ~ SQ and IV insulin forms, insulin pump, DKA

Fellows

Juan Pablo Perdomo Rodriguez, MD (F4; started July 1, 2015)
Anna Thottan, MD (F5; started July 28, 2014 and will complete training July 27, 2016)

Nurse Practitioners and Certified Diabetes Educators

Margaret Costello, FNP, MS
Ann Gotham, ANP, MSN, ScM
Kristen Bolton, MS, RD, CDE
Rhonda Lapidow, RN, CDE
Mary Spence, RN, CDE
Linda Tilton, MS, RD, CDE

Graduate Students, Post-doctoral Fellows, MD PhD Students

None

Endowed Professorships

Sarah Nichols Gruenig Green & Gold Professor in Diabetes Research
- March 2016 – John (Jack) L. Leahy, MD named inaugural professor

Leadership in Professional Societies

Muriel H. Nathan, MD, PhD
- New England Thyroid Conference, 2016 Course Director

Thomas L. Jetton, PhD
- Boston-Ithaca Islet Club, senior member and program organizer

Editorships and Editorial Boards

Dhananjay (Jay) Gupta, PhD
Editorial Board: *Journal of Endocrinology, Diabetes and Obesity*
Reviewer: *Diabetes, Science Reports, Journal of Nutritional Biochemistry, Life Sciences, International Journal of Chronic Diseases*

**Thomas L. Jetton, PhD**
Reviewer: *Diabetes, Endocrinology, PNAS, Metabolism, Diabetologia, American Journal of Physiology, PLoSOne*

**John (Jack) L. Leahy, MD**
Founding member and member of the Editorial Board: BetaCellsinDiabetes.org
Associate Editor: *Journal of the Endocrine Society*
Editorial Board: *Journal of Biological Chemistry*

**Joel J. Schnure, MD**
Editorial Board: *Coronary Artery Disease*

### Study Sections and Federal Advisory Boards

**Dhananjay (Jay) Gupta, PhD**
Grant Review Panel, Diabetes UK

**Thomas L. Jetton, PhD**
EMNR-Study Section (SBIR and STTR), ad hoc reviewer
NIDDK, ad hoc reviewer
NIH, ad hoc reviewer

**John (Jack) L. Leahy, MD**
American Diabetes Association, Grant Review Panel
Hillblom Foundation, Scientific Advisory Board

### Major Faculty Awards

**Muriel H. Nathan, MD, PhD**
UVMMC VISION Award for dedication to patient care, July 2015

### Grants

**Dhananjay (Jay) Gupta, PhD**
Juvenile Diabetes Research Foundation International
Manipulating β-cell Inflammation and Survival via Cholinergic Pathways (09/01/13-08/31/16)
Role: Co-Investigator (Thomas Jetton, Principal Investigator)

University of Vermont REACH Award
Studying the Role of Dairy-Derived Bioactive Lipids as a Nutritional Intervention Targeting the Pathogenesis of Diabetes Mellitus (05/01/14-08/31/15)
Role: Co-Investigator (Jana Kraft, Principal Investigator)

Thomas L. Jetton, PhD
Juvenile Diabetes Research Foundation International
Manipulating β-cell Inflammation and Survival via Cholinergic Pathways (09/01/13-08/31/16)
Role: Principal Investigator

Armin Grams Research Award – UVM Center on Aging
Nutritional Intervention with Plant- and Dairy-Based Bioactive Fatty Acids to Reduce Diabetes Risk in the Elderly (2015-2016)
Role: Principal Investigator

University of Vermont REACH Award
Studying the Role of Dairy-Derived Bioactive Lipids as a Nutritional Intervention Targeting the Pathogenesis of Diabetes Mellitus (05/01/14-08/31/15)
Role: Co-Investigator (Jana Kraft, Principal Investigator)

Muriel H. Nathan, MD, PhD
University of Vermont Medical Group Grant
Role: Co-Investigator (Daniel J. Bertges, Principal Investigator)

University of Vermont Medical Center Investigator-Initiated Award
Molecular Tumorigenesis of Papillary Thyroid Microcarcinoma (2015-2017)
Role: Co-Investigator (Nikoletta Sidiropoulos and Frances Carr, co-Principal Investigators)

Publications


The Gastroenterology and Hepatology Unit at the University of Vermont College of Medicine/University of Vermont Medical Center has eight full-time M.D. faculty members, three GI Fellows and three Ph.D. faculty members. Clinical care, teaching, and both basic science and clinical research are all major elements of the GI Unit.

In January, 2016, the GI Unit welcomed Dr. Gordon Jensen. Dr. Jensen is a world recognized expert in nutritional disorders and as well is Senior Associate Dean of Research at UVM. His clinical and research interests include nutrition assessment in chronic illnesses and short bowel syndrome.

Cutting edge clinical care and state of the art endoscopy are just two components of the Faculty’s responsibilities. A modern 8-room Endoscopy Center is equipped with the latest HD endoscopes and monitors and an electronic reporting system. Over 12,500 endoscopic procedures are performed each year. All aspects of diagnostic and therapeutic GI endoscopy are performed. Advanced endoscopic procedures include RFA (radio frequency ablation) of the esophagus and EUS (endoscopic ultrasound) of the stomach, pancreas and colon with onsite cytopathology, balloon enteroscopy and all modes of ERCP (endoscopic retrograde cholangiopancreatography) with cholangioscopy and laser lithotripsy with portable C-arm fluoroscopy are performed. A dedicated, specialized nursing staff and ancillary personnel of the Endoscopy Center ensure a seamless flow of patients each day.

In the Rowell Building of the University of Vermont there is a newly created Simulation Center. At the Simulation Center, GI Fellows may practice their skills in endoscopy on newly designed and highly sophisticated computerized models of the GI tract.

A daily clinical office setting is shared with General Surgery in the Digestive Disease Center located on the 5th floor of the Ambulatory Care Center. There is a very close working relationship with the Colorectal Surgery and General Surgery divisions. There are dedicated liver clinics, and each aspect of luminal gastroenterology is represented in the various clinics. All this is accomplished with an integrated out-patient and in-patient electronic medical record.

All members of the GI Unit are actively involved in a variety of aspects of teaching. The members of the GI Faculty have very active roles in medical school lectures in the Vermont Integrated Curriculum of the UVM College of Medicine. UVM medical students are team members on the GI consult service and in the clinical office setting. The members of the GI Faculty are responsible for the vast majority of the teaching in the GI Fellowship Program. Members of the GI Faculty give lectures to both medical and surgical residents, preside at Residents’ Morning Report and are part of the integrated Teaching
Attending Service at the University of Vermont Medical Center. A weekly clinical GI Conference is held and led by GI Faculty and guest speakers from other divisions. As well, there is a weekly GI Pathology Conference led by specialty trained GI pathologists. There, an in depth discussion and review of recent GI pathology occurs with the intent to improve diagnosis and clinical outcomes. Two GI Journal Clubs occur each month where detailed analysis and review of recent published articles is accomplished. A monthly Quality Care Review Committee Meeting enables a constant improvement and review of clinical care and of endoscopic practices. Members of the GI faculty are also key contributors at the weekly GI Multidisciplinary Cancer Conference. And finally, a monthly GI Research Meeting of all the GI Faculty and Fellows meets to review present and future research endeavors.

Each Faculty member and each GI Fellow is actively engaged in an academic research pursuit. Research projects to date span the field of gastroenterology and hepatology from celiac disease, to new therapy for Barrett’s esophagus with radiofrequency ablation (RFA), to all aspects of chronic liver disease, new therapies for hepatitis C, new medications for inflammatory bowel disease (IBD), and irritable bowel syndrome (IBS), fecal microbial transplant (FMT), maintaining nutrition in chronic illness, exploring new methods for early detection of pancreatic cancer and assessing new therapies for motility disorders.

The Gastroenterology and Hepatology Unit at the University of Vermont fosters a close cooperation, collaboration and interaction with other research departments throughout UVM which allows an unique opportunity to explore translational research as it pertains to future aspects of clinical care.

James Vecchio, MD
Professor of Medicine
Director, Gastroenterology and Hepatology Division
Director, Gastroenterology Outpatient Ambulatory Care Center
- GERD
- Celiac Disease
- Inflammatory Bowel Diseases – Crohn’s and Ulcerative Colitis
- Therapeutic Endoscopy

Nicholas Ferrentino, MD
Associate Professor of Medicine
Director, GI Fellowship Program
- Chronic Viral Hepatitis
- Management of Cirrhosis
- General Gastroenterology and General Hepatology
- Therapeutic Endoscopy

Eric Ganguly, MD
Associate Professor of Medicine
- Endoscopic Ultrasound and GI Malignancies
- Barrett’s Esophagus and Radiofrequency Ablation for Barrett’s Esophagus
- Therapeutic Endoscopy
- GERD

**Gordon Jensen, MD, Ph.D.**
Professor of Medicine and Nutrition
Senior Associate Dean of Research
- Nutrition assessment and therapy in chronic illness
- Short bowel syndrome

**Steven Lidofsky, MD, Ph.D.**
Professor of Medicine and Pharmacology
Director, Hepatology Section
Co-Director, Gastrointestinal Research
Director, MD-Ph.D. Program
- Liver Cell Biology
- Portal Hypertension
- Hepatocellular Carcinoma
- Viral Hepatitis
- Metabolic Syndrome and the Liver

**Gary Mawe, Ph.D.**
Professor of Neurological Sciences; Adjunct Professor of Medicine and of Pharmacology
- Neural Regulation of the Digestive Tract
  (understanding changes in enteric neural circuits that contribute to altered gut function in inflammatory bowel disease and irritable bowel syndrome)

**Peter Moses, MD**
Professor of Medicine
Co-Director, Gastrointestinal Research
- Inflammatory Bowel Disease
- Irritable Bowel Syndrome
- Therapeutic Endoscopy
- Translational research with Human Microbiota; Fecal Microbial Transplant

**Doris Strader, MD**
Professor of Medicine
- Hepatitis C
- Portal hypertension
- Eosinophilic Esophagitis
- General Hepatology and General Gastroenterology

**Richard Zubari, MD**
Professor of Medicine
Director, Endoscopy
Pancreatic Disorders
Endoscopy Quality
Therapeutic Endoscopy and EUS
Endoscopic Ultrasound

Mario Velez, MD
GI Fellow
Aaron Cohn, MD
GI Fellow
Ovais Ahmed
GI fellow

Leadership in Professional Studies:
Steven Lidofsky, MD, Ph.D.
- Co-Chair Joint Research Awards Committee, American Association for the Study of Liver Diseases and American Liver Foundation
- Selected to the inaugural group of Fellows of the American Association for the Study of Liver Diseases

Gary Mawe, Ph.D.
- Councilor, American Gastroenterological Association, Nerve-Gut Interactions Section, 2014–present
- Fundamentals of Neurogastroenterology - Basic Science Committee, The Rome Foundation, 2012-2014. The purpose of this committee is to develop a summary of the research and literature to date related to functional gastrointestinal disorders, and then offer guidelines or recommendations to help advance future research.
- Scientific Advisory Board, The International Foundation for Functional Gastrointestinal Disorders, 2008 – present
- Chair, Research Committee, American Neurogastroenterology and Motility Society, 2012-2014
- Councilor, American Neurogastroenterology and Motility Society, 2006-present

Peter Moses, MD
- Elected member of the University of VT Professional Standards Committee, 2013-2014

Editorships and Editorial Boards:
Steven Lidofsky, MD, Ph.D.
- Editorial Board, Clinical Therapeutics
- Ad hoc Grants Reviewer for: Burroughs Welcome Foundation, Medical Research Council of Canada, Natural Sciences and Engineering Research Council of Canada
- Ad hoc Reviewer for the following selected Journals: American Journal of Medicine, American Journal of Physiology, American Journal of Transplantation, British Journal of Pharmacology,

Gary Mawe, Ph.D.

- Reviewing Editor: *Journal of Physiology*, 2012 – present
- Reviews Editor: *Neurogastroenterology and Motility*, 2012 – present
- Guest Associate Editor: *Gastroenterology*, 2012
- Editorial Board: *Frontiers in Autonomic Neuroscience*, 2010-present
- Editorial Board: *Frontiers in Gastrointestinal Sciences*, 2011-present
- Editorial Board: *Journal of Visualized Experiments, (JoVE)*, 2011-present

Peter Moses, MD

- Editorial Board Member, The Journal of Clinical Gastroenterology (Yale)
- Editorial Board Member, The World Journal of Gastroenterology (China)
- Reviewer, The American Journal of Gastroenterology
- Reviewer, Gastroenterology
- Reviewer, Alimentary Pharmacology
- Reviewer, Neurogastroenterology and Motility

Richard Zubarik, M.D.

- Editorial Board Member, World Journal of Gastroenterology 2012-present
- Reviewer, Gastrointestinal Endoscopy 2004-present
- Reviewer, Evidence-Based Gastroenterology 2001-present
- Reviewer, Journal of Gastroenterology 2006-present
- Reviewer, Archives of Internal Medicine 2010-present
- Reviewer, Digestive Diseases and Sciences 2010-present
- Reviewer, International Journal of Inflammation 2012-present

**Study Sections and Federal Advisory Boards:**

Steven Lidofsky, MD, Ph.D.

- NIH ZDK1 GRBN Special Emphasis Panel

Gary Mawe, Ph.D.

- Member of the Clinical, Integrative, and Molecular Gastroenterology Study Section, Center for Scientific Review, NIH, 2013 - 2017.
- Grant Reviewer, Study Section of the NIH at the National Institute of Biomedical Imaging and Bioengineering (NIBIB)

Doris Strader, MD
- Director of Data Safety Monitoring Board for NIH Hepatitis B Research Network

Grants – list all active by faculty member, PI

Eric Ganguly, MD
- A Multicenter National Prospective Study of Pregnancy and Neonatal Outcomes in Women with Inflammatory Bowel Disease

Steven Lidofsky, MD, Ph.D.
- Non-interventional, prospective, cohort study of the effectiveness, safety, and utilization of two approved pegylated interferon-based direct acting triple therapies in the management of genotype 1 hepatitis C in routine clinical practice in the USA (PegBase).

- A randomized, double-blind, controlled Study to evaluate the efficacy and safety of the combination of ABT-450/Ritonavir/ABT-267 (ABT-450/r/ABT-267) and ABT-333 with and without ribavirin (RBV) in treatment- naïve adults with genotype 1b chronic hepatitis C virus (HCV) infection (PEARL-III)

Gary Mawe, Ph.D.
- Neuronal excitability and motility in colitis (G. Mawe, Principal Investigator). NIH RO1 Grant Award (DK 62267); 7/15/02-3/31/2017. 40% effort. The goal of this project is to determine what changes occur in colonic neural circuitry in an animal model of colitis.

- Centers of Biomedical Research Excellence (COBRE) Phase III: Transitional Centers. (Imaging/Physiology Core Director) NIH/NIGMS 7/1/2011-6/30/2016 5% Effort. The primary goal of this grant is to support the continued growth of two sophisticated multi-user research cores: an Imaging/Physiology Core and Cellular/Molecular Core.

- Studies of gastroparesis in monogenic migraine mouse models (R. Shapiro, PI). Migraine Research Foundation. January 1, 2014 – Dec 31, 2014. The primary aim of this pilot exploratory project is to determine whether mice that have been engineered to express genetic mutations causative for human migraine have delayed gastric emptying relative to their wildtype littermate mice.

- “Mechanisms of gastrointestinal dysfunction in multiple sclerosis” (G. Mawe, Principal Investigator). National Multiple Sclerosis Society June 1, 2014 – May 30, 2015. This pilot project aims to explore the possibility that altered GI function can be investigated using well-established mouse models of MS (MS mice). In addition, we will test the hypothesis that the blood of individuals with MS contains antibodies that stick to, and interfere with, nerve cells in the GI...
tract.

Peter Moses, MD

- A Phase II Randomized, Placebo-Controlled, Double-Blind, Dose Ranging Study to Assess the Immunogenicity and Safety of a *Clostridium Difficile* Toxoid Vaccine (ACAM-CDIFF™) in Subjects with *Clostridium Difficile* Infection (CDI)
- Furiex Mu-Delta Agonist for the treatment of IBS with diarrhea
- FMT in Ulcerative Colitis

James Vecchio, MD

- Prospective, Multicenter, Randomized, Double-Blind, Placebo-Controlled Trial Comparing REMICADE® (infliximab) and Placebo in the Prevention of Recurrence in Crohn’s Disease Patients Undergoing Surgical Resection Who Are at an Increased Risk of Recurrence (PREVENT)
- SECURE / A Non-Interventional Long-term Post-Marketing Registry of Patients Treated with Certolizumab Pegol (Cimzia®) for Crohn’s Disease

Richard Zubarik, MD

- Can Endoscopic Ultrasound (EUS) Stigmata of Chronic Pancreatitis Predict the Response to Pancreatic Enzymes
- International Registry for Intraductal Papillary Mucinous Neoplasms
- Prospective Study of Bacteremia and the Infection Rates Following Cholangioscopy with the Spyglass Cholangioscope

Publications – peer reviewed, chapters, etc. (not abstracts)


General Internal Medicine & Geriatrics

Jennifer Gilwee, MD, Division Chief

http://www.uvm.edu/medicine/medicine/pcim/

The Division of General Internal Medicine & Geriatrics specializes in diagnosing, treating, and preventing medical problems in adolescents, adults, and the elderly. Our general internal medicine physicians work with their teams in the outpatient clinics to care for a large proportion of patients in our area. Our geriatricians provide expert consultation on geriatric issues and are responsible for the care delivered at a number of skilled nursing facilities.

Our faculty physicians teach general internal medicine and geriatrics to medical students, resident physicians, professional colleagues, and community members. We hold numerous leadership roles at the College of Medicine and are proud to serve an integral role in our vibrant academic medical center.

Service:

Our clinical service includes approximately 40 physicians, nurse practitioners and physician assistants. We have four outpatient sites in Chittenden County. We also see patients at numerous skilled nursing facilities and the memory center.

Over the past year we welcomed an exceptional new faculty member – Dr. Michael LaMantia (Section Chief of Geriatrics)

In the office setting, patients are seen for a variety of acute and chronic medical problems, preventive care, health maintenance and preoperative exams. Our group has been a national leader in developing innovative models for care delivery. All four outpatient sites have been NCQA recognized as level 3 Patient Centered Medical Homes.

Our physicians care for many geriatric patients in Chittenden County, attending to elderly patients living independently, in assisted living, in local nursing homes, and at hospice. Our geriatrics section does consultation on geriatric outpatients through our Adult Primary Care Williston location and also at the Memory Center.

This year GIM & Geriatrics faculty and providers will conduct approximately 70,000 patient encounters and generate 100,000 work RVUs.
Our faculty and providers are extensively engaged in service at the state and national levels. A few examples include: Faculty participation in committees and task forces at the College of Medicine and UVM Medical Center is also wide-ranging.

American College of Physicians (ACP) Board of Regents member, Executive Council for the ACP Board of Governors member, Chair of the ACP Chapter Subcommittee, Chair of the Vermont Board of Medical Practice, member of the Board of Directors of the Federation of State Medical Boards, member of the State Board Advisory Committee to the USMLE, member of the Vermont Commissioner of Health’s Task Force on Opioid Prescribing, USMLE Composite Committee member, Vermont Medicaid Drug Utilization Board members, Green Mountain Care Board Technical Advisory Group member, OneCare Vermont Accountable Care Organization Clinical Advisory Board members and OneCare Vermont Regional Clinician Representative.

Education:

Division faculty members play a pivotal role in teaching and directing courses for a broad audience of clinical learners in the outpatient and inpatient settings. Our educational programs cover a wide spectrum, from primary care to tertiary care, communication skills to statistics, and from pre-medical students to post-graduate continuing medical education.

At the UVM College of Medicine, our faculty member’s act as preceptors, instructors, and facilitators for courses at all levels of the Vermont Integrated Curriculum. Additionally, we serve as course directors for Doctoring in Vermont (Dr. Beatty), Convergence (Dr. King), Outpatient Medicine Clerkship (Dr. O’Brien), and Bridge (Dr. Beatty). Administrative leadership positions at the College of Medicine include Associate Dean for Clinical Education (Dr. Bertsch), Associate Dean for Primary Care (Dr. Maclean), and Vice Chair for Education in the Department of Medicine and Associate Dean for Graduate Medical Education at the College of Medicine (Dr. Levine).

We also play key roles in the clinical education of the Internal Medicine residents. The Adult Primary Care Burlington practice houses the Internal Medicine Resident Clinic – where the Internal Medicine residents practice under the supervision of our preceptors and firm leaders in a busy clinic environment. Drs. Pinckney and Sobel lead the curricular coordination for the Resident Clinic. In the inpatient setting, hospitalists serve as teaching attendings for the 4 general medicine teaching teams throughout the year – offering clinical supervision, clinical education, lectures, and evaluation to resident physicians and medical students.

Our educational endeavors extend to graduate students in analysis of clinical research, nurse practitioners in palliative care fellowship programs, and nurse practitioners early in their clinical rotations as they start to use the electronic health record in their encounters. We educate our
colleagues locally, regionally and nationally in a variety of venues. An example of this is the Vermont Academic Detailing Program which delivers educational outreach to Vermont’s primary care providers. Additionally, our geriatricians are key presenters at the annual Vermont Geriatrics Conference which is a one-day symposium covering practical and innovative approaches to the medical care of older adults.

**Research**

Many of our clinical faculty conduct research via the General Internal Medicine Research unit and provide mentorship, resources, and a scholarly community that supports faculty from many departments in their investigations. We have a diversity of scholarly interests among our faculty including the impact of innovative models for primary care, high value laboratory ordering practices, narcotic prescribing practices in the outpatient setting, the impact on the electronic medical record on patient-provider interactions and many initiatives around chronic disease management.

**Faculty**

**Adult Primary Care - Burlington**

**Claudia Berger, MD (Site Clinical Leader)**  
Assistant Professor of Medicine

**Mia Hockett, MD, MPH**  
Assistant Professor of Medicine

**Robert Karp, MD**  
Associate Professor in Medicine (Emeritus)  
- Geriatric Medicine

**Benjamin Littenberg, MD** (see Division of GIM-Research)  
Professor of Medicine  
Director, Division of General Internal Medicine - Research

**Scott Luria, MD**  
Associate Professor of Medicine

**John Miller, MD**  
Assistant Professor of Medicine

**Richard Pinckney, MD, MPH**  
Associate Professor of Medicine  
Co-Director, Internal Medicine Resident Clinic

**Alan Rubin, MD** (see Division of GIM-Research)  
Professor of Medicine

**Halle Sobel, MD**  
Associate Professor of Medicine  
Co-Director, Internal Medicine Resident Clinic

**Adult Primary Care - Essex**
Tania Bertsch, MD  
Associate Professor of Medicine  
Associate Dean for Clinical Education

Diane Haddock, MD (Site Clinical Leader)  
Assistant Professor of Medicine

Patricia King, MD, PhD  
Associate Professor of Medicine  
Convergence Course Director, Vermont Integrated Curriculum, UVM College of Medicine

Mark Levine, MD  
Professor of Medicine  
Associate Chair for Education, Department of Medicine  
Designated Institution Official at UVM Medical Center and Associate Dean for Graduate Medical Education at the UVM College of Medicine

Jessica Lunardini, MD  
Assistant Professor of Medicine

Charles MacLean, MD (see Division of GIM-Research)  
Professor of Medicine  
Associate Dean for Primary Care  
- Health services research and epidemiology

Roberta O’Brien, MD  
Associate Professor of Medicine  
Director, Internal Medicine Clerkship

**Adult Primary Care – South Burlington**

Dennis Beatty, MD  
Assistant Professor of Medicine  
Doctoring in Vermont Course Director, Vermont Integrated Curriculum, UVM College of Medicine

Jennifer Gilwee, MD  
Assistant Professor of Medicine  
Division Chief, General Internal Medicine and Geriatrics

Jason Gramling, MD  
Assistant Professor of Medicine

Diane Hakey, MD
Assistant Professor of Medicine

Jonathan Hayden, MD
Associate Professor of Medicine

Alison Landrey, MD
Assistant Professor of Medicine

Marie Sandoval, MD (Site Clinical Leader)
Associate Professor of Medicine

Susan Weinstein, DO
Assistant Professor of Medicine

David Ziegelman, MD
Assistant Professor of Medicine

Adult Primary Care - Williston

Zail Berry, MD
Associate Professor of Medicine
Medical Director, Birchwood Terrace

Anne Breña, MD
Assistant Professor of Medicine

Jaina Clough, MD
Assistant Professor of Medicine
Medical Director of Hospice for Visiting Nurses Association

Elizabeth Rosy Hill, MD
Assistant Professor of Medicine
• Geriatric Medicine

Michael LaMantia, MD
Associate Professor of Medicine
• Chief, Section of Geriatrics

Marvin Klikunas, MD
Associate Professor of Medicine (Emeritus)
Medical Director, The Arbors
- Geriatric Medicine

Isaura Menzies, MD
Assistant Professor of Medicine
Medical Director of Starr Farm Skilled Nursing Facility
- Geriatric Medicine

Lucy Miller, MD
Assistant Professor of Medicine

Dennis Plante, MD (Site Clinical Leader)
Associate Professor of Medicine

Nurse Practitioners, Physician Assistants, and Mental Health Specialists:

**Adult Primary Care - Burlington**
Candis Cousins, PA
Gabrielle Mikula, NP
Tracey Niquette, NP

**Adult Primary Care - Essex**
Sarah Bushweller, PA
Alison Hall, PA

**Adult Primary Care - South Burlington**
Tristin Adie, NP
Diane Bell, NP
Rachel Brodie, PA
Ruth Polishuk, NP

**Adult Primary Care - Williston**
Kirsten Berggren, NP

**Starr Farm (Skilled Nursing Facility)**
Katharine Murphy PhD, MS, APRN

**Birchwood Nursing Center (Skilled Nursing Facility)**
Tara Meyer, NP
**Leadership in Professional Societies:**

Mark Levine, MD

- American College of Physicians (ACP) Board of Regents member
- Chair, ACP Education and Publications Committee
- Vice President, VT Medical Society

Sarah Bushweller, PA

- Board of Directors for the Physician Assistant Academy of Vermont
- Vermont representative to the House of Delegates, American Academy of Physician Assistants

**Editorships and Editorial Boards:**

Mark Levine, MD

- Reviewer: Annals of Internal Medicine, MKSAP Syllabus, American College of Physicians, Journal of General Internal Medicine

Halle Sobel, MD

- Reviewer: Annals of Internal Medicine

**Study Sections and Federal Advisory Boards:**

Patricia King, MD, PhD

- Federation of State Medical Boards Advisory Council to the United States Medical Licensing Examination
- National Board of Medical Examiners Standards Setting Committee for USMLE Step 1

**Major Faculty Awards:**

- Teaching Academy Inductee in December 2015:
  - Member- Dr. Isaura Menzies
- Dr. Marie Sandoval was promoted to Associate Professor

**Publications – peer reviewed, chapters, etc. (not abstracts)**
A. Executive Summary

The Division combines 2 specialties, Hematology and Oncology. There are 2 faculty focusing on benign hematology and thrombosis, 4 faculty treating benign and malignant hematology, 11 medical oncologists, 1 internist (lymphedema), 6 fellows, 3 post-doctoral fellows, 6 midlevel providers, and over 70 nurses and staff in the outpatient clinic. Dr. Eswar Tipirneni started in the fall of 2015 and replaces Dr. Valentine at Central Vermont Medical Center (CVMC). He works with Dr. Ospina, and covers not only CVMC, but also Gifford Hospital in Randolph. Dr. Elvira Umyarova has joined our group in July 2016. She will focus her research and clinical expertise on acute leukemia. She is coming from the University of South Carolina in Charleston.

PROGRAMS: The Division supervises

- The Thrombosis & hemostasis Program, (Dr. Cushman, PI)
- The Apheresis Program, (Dr. Sprague, PI)
- The Hemophilia Treatment Center supported by a federal grant, (Dr. Holmes, PI)
- The Stem Cell Transplant Program, which was reaccredited in 2016, (Dr. Sprague, PI)
- The High Risk Breast Program, a clinical research program, (Dr. Wood, PI)
- Cancer Familial Genetics, (Drs. Wood and Greenblatt, PI’s)
- Oncology Rehabilitation, (Dr. Dittus, PI)
- Lymphedema Services, (Dr. O’Brien, PI)

Our group embraces the mission of the COM and UVMMC with cost effective high quality care, cutting-edge research, and dedication to all aspects of teaching and research

Clinical work

Clinical efforts for 2015-2016 included a heavy clinical load with 33,500 outpatient visits (about 2,300 new patients), approximately 12,100 treatment infusion/injection patients and about 7,000 inpatient visits. The Cancer Service Line, a transdisciplinary effort to provide optimal patient-centered care continues to grow and this year the Service Line is organized into Transdisciplinary Academic Teams (TDT), groups of expert physicians and scientists who focus on all aspects of academic medicine for the specific cancers they treat and research. Established TDT clinics exist for breast, upper GI, ENT, lung cancer, GU, melanoma, sarcoma, leukemia’s and lymphomas. Approximately 674 cases were presented at the TDT clinics. We thank all members of other Divisions for their participation

Research

Research within the Division is done in several collaborative ways (clinical trials, basic science research and epidemiology) covering a number of broad themes (new drug development, cancer
treatment and prevention, thrombosis, cardiovascular and stroke epidemiology, supportive care of cancer patients, cancer and exercise, and cancer and coagulation). Working within Transdisciplinary Teams, the faculty of the Hematology/Oncology Division are principal investigators for the majority of the over 200 cancer related studies at the University of Vermont, with 25% of these studies being investigator initiated. Available trials include Phase I-III treatment trials, supportive care and translational studies, with the majority of the later (supportive care and translational studies) being investigator initiated. Investigators within the Division receive funding from clinical trials (cooperative group and pharmaceutical trials), NIH NCI, NHLBI, NINDS and ACS, and through the UVMCC some of the LCCRO funds support Division research activities.

Faculty continue to publish in high impact journals and serve in national leadership as documented below.

**THP**
The Mission of the Thrombosis and Hemostasis Program (THP) is to deliver high quality evidence-based care to patients with venous thromboembolism (VTE), stroke, post-thrombotic syndrome and bleeding disorders, as well as rare disorders. The THP group, including clinicians and clinic staff, meets twice a month to discuss operations, projects and research.

Clinicians working in the program include 3 faculty, Drs. Cushman, Zakai and Holmes, 1 chief medicine resident, Dr. Halevy, 2 hematology oncology fellows doing continuity clinic, 2 nurse practitioners and 2 nurses. There were 740 THP referrals in 2015, an 8.2% increase over 2014. The THP group led or collaborated in over 30 quality improvement project/activities in 2015.

**New Program to reduce VTE in Patients with Cancer**
This quality initiative program, led by Dr. Chris Holmes, is aimed at preventing venous thromboembolism (VTE) without increasing bleed risk for patients with cancer. This new clinical intervention called VTE-PACC (VTE Prevention in the Ambulatory Cancer Center) was launched by our division, in collaboration with the Jeffords Institute for Quality on October 1, 2015. The program is fully operational and assesses risk for clotting and bleeding for all patients beginning chemotherapy or biologic therapy in the UVM Cancer Center clinic. To date over 300 patients have been assessed. Patients found to be at high risk for VTE are referred to the Thrombosis and Hemostasis Program for follow-up and recommendations. The program involves a team-based approach to educate all patients on their risk of blood clots and tailors VTE prevention treatments to the patient’s needs and risks by collaborating with oncologists, hematologists, nursing staff and pharmacists. Of all the patients assessed, 94% have received VTE education, 22% of the patients were found to be high risk of thrombosis and approximately 75% of these were treated prophylactically. To date there have been less than 3% of bleeding adverse events that required holding the preventative anticoagulation. The rate of VTE has declined from 14% to <5% among all patient screened and educated through the program.

**Hemophilia Treatment Center (HCT)**
The hemophilia treatment center is directed by Dr. Holmes. It is one of 140 federally funded centers offering comprehensive care to patients with hemophilia and other bleeding disorders. The HTC is supported, in part, by two active grants—one from the Centers for Disease Control (CDC) and the other from the Federal Health Resources and Services Administration (HRSA). Annually, the Vermont HTC participates in 4 national surveillance programs; Population Surveillance, American Thrombosis and Hemostasis Network (ATHN) database, Community Counts and Rare Bleeding Disorders. For the first time this year, we participated in a national patient experience survey on transition for pediatric patients. Dr. Holmes sits on the Region 1 Executive Committee, which develops regional and national policies relevant to the care of patients with bleeding disorders. In addition, UVMMC is also now participating in a national program to access transitions of care with Dr. Holmes as the site PI for this multi-institutional quality grant from the ATHN.

B. Faculty

Steven Ades, MD, MSc – Associate Professor
Associate Director, Hematology/Oncology Fellowship Program
Leader, University of Vermont Medical Center Upper Gastrointestinal Oncology Transdisciplinary Team
Co-Leader, University of Vermont Medical Center Medical Center Genitourinary Oncology Transdisciplinary Team
In-Patient Hematology/Oncology Service Director
Research interests include: GI and GU cancers, supportive care and thrombosis in malignancy

George F. Atweh, MD-Professor
Clinical Director, Cancer Clinical Trials Office
Member, Protocol Review and Monitoring Committee, UVM Medical Center
Member, Data Safety Monitoring Board, UVM Cancer Center
Cabinet Member, Division of Hematology/Oncology
Research interests include: Molecular basis of benign and malignant blood disorders, and clinical trials in malignant hematology

Maura Barry, MD-Assistant Professor
Associate Director, Hematology/Oncology Fellowship Program
Research interests include: GI and head and neck cancers

Mary Cushman, MD, MSc – Professor, Medicine and Pathology
Director, Thrombosis and Hemostasis Program
Research interests include: Etiology of vascular diseases and other chronic diseases; racial disparities; venous thrombosis and post thrombotic syndrome

Kim Dittus, MD, PhD – Assistant Professor
Medical Director of Oncology Rehabilitation
Chair Research Committee, Program in Integrative Health
Research interests include: Cancer survivorship, energy balance

Edmund Folefac, MD – Assistant Professor
Research interests include: GI and lung cancers
Marc Greenblatt, MD – Professor
Research interests include: Molecular genetics of mutation in cancer genes and gastrointestinal cancers

Chris Holmes, MD, PhD – Associate Professor
Director, Vermont Regional Hemophilia Treatment Center
Assistant Director, Thrombosis and Hemostasis Program
Section Chief, Hematologic Malignancies
Research interests include venous thrombosis, platelet function, coagulation, and cancer

Farrah Khan, MD – Assistant Professor
Research interests include: Care of patients with breast cancer and lung cancer

J. Chris Nunnink, MD, FASCO – Associate Professor
Attending Physician
Research interests include: Oropharyngeal Cancer and GU Cancer

Patricia O’Brien, MD – Assistant Professor Clinical Scholar
Director, Lymphedema Program

Julie Olin, MD – Associate Professor
Attending Physician

Julian Sprague, MD, PhD – Assistant Professor
Director, Hematology/Oncology Fellowship Program
Research interests include: Leukemia and neurotoxicity

Eswar Tipirneni, MD—Clinical Assistant Professor
Physician at CVMC

Claire Verschraegen, MD – Professor
Director, Hematology/Oncology Division
Co-Director, Vermont Cancer Center
Research interests include: Mesothelioma, GYN, Lung and other rare cancers

Marie Wood, MD – Professor
Director, Familial Cancer Program
Assistant Director, Hematology/Oncology Division
Medical Director of the Cancer Clinic
Research interests include molecular markers of breast cancer risk, attitudes of primary care physicians regarding cancer genetics, breast cancer screening and prevention

Neil Zakai, MD, MSc – Associate Professor of Medicine and Pathology
Research interests include: Epidemiology and novel risk factors for venous thrombosis and cardiovascular disease. Epidemiology, causes, and consequences of anemia in diverse populations. Venous thrombosis causes and prevention, post thrombotic syndrome.

C. List of Hematology/Oncology Fellows
Samir Ambrale, MD – 3rd year fellow
Inder Lal, MD – 3rd year fellow
Hibba Rehman, MD – 2nd year fellow
Jose Ruades, MD – 2nd year fellow
Bhargavi Pulluri, MD – 1st year fellow
Purva Sharma, MD – 1st year fellow
D. List all NP’s and PA’s
Jamie Kelly, PA
Penny Gibson, PA
Anne Berkowitz, NP
Janet Ely, NP
Patricia Lewis, NP
Emily Parenteau, MSN, FNP Nurse Practitioner, Thrombosis & Hemostasis Clinic

E. List all graduate students, post-doctoral fellows, MD PHD students
Katharine Cheung, MD, Post-Doctoral Associate
Kara Landry, MD, Post-Doctoral
Daniel Douce, MD, Graduate Student, LCCRO Fellow
Elizabeth Hall, MD, Resident Research Project mentored by Neil Zakai
Matthew Lebow, BS, Post-BACC Student
Damon Houghton, MD: Heme/Onc Fellow UNC, mentored by Neil Zakai

F. Endowed Professorships

G. Leadership in Professional Societies

Steven Ades, MD
Member, UVM Faculty Senate Financial & Physical Planning Committee
Member, UVM Surgical Oncology Faculty Search Committee
Associate Program Director, Hematology Oncology Fellowship Program
Member, UVM Medical Center Hematology/Oncology Fellowship Program Evaluation Committee
Member, UVM Medical Center Hematology/Oncology Fellowship Clinical Competency Committee
Member, Vermont Cancer Center Protocol Review and Monitoring Committee
President, Northern New England Clinical Oncology Society
Member, Alliance Symptom Intervention Committee

Maura Barry, MD
Member, UVM Medical Center Faculty Development Committee,
Member, UVM Medical Center Hematology/Oncology Fellowship Program Evaluation Committee
Member, UVM Internal Medicine Residency Program Evaluation Committee
Member, UVM Medical Center Hematology/Oncology Fellowship Clinical Competency Committee

Mary Cushman, MD, MSc
Member, Scientific Program Planning Committee, World Heart Federation and American Board Director, American Heart Association
Member of the American Society of Hematology Media Experts Subcommittee.
Member, Program Committee for Venous thrombosis Disorders, International Society on Thrombosis and Haemostasis 2015 Congress, Toronto.
Board Director, North American Thrombosis and Hemostasis Society  
President, Board of Directors Vermont District, American Heart Association  
Member, Medical Alumni Executive Committee  
Member, Volunteer Oversight Group, American Heart Association  
Member, Quality Committee, American Society of Hematology  
Member, Media Experts Committee, American Society of Hematology  
Member, Statistics Committee, American Heart Association  
Member, Corporate Relations Review Committee  
Member, ASH Maintenance of Certification Committee

Kim Dittus, MD, PhD
   Member, Protocol Review Committee, UVM Cancer Center  
   Member, Cancer Control Committee, UVM Medical Center  
   Member, Champlain Valley Healthy Lifestyle Collaborative  
   Member, Symptom Intervention Committee, Alliance

Marc Greenblatt, MD
   Member, American Association of Cancer Research  
   Member, American Society of Clinical Oncology  
   Member, American Society of Human Genetics  
   Member, Collaborative Group of the Americas on Inherited Colorectal Cancer  
   Member, International Society for Gastrointestinal Hereditary Tumors (InSiGHT)  
   Member, Human Genome Organization Mutation Database Initiative  
   Member, Human Genome Variation Society  
   Member, Human Variome Project (HVP)  
   Member, International Mismatch Repair Consortium (IMRC)  
   Member, Cancer and Leukemia Group B- Alliance for Clinical Trials  
   Member, National Surgical Adjuvant Breast Program  
   Member, Vermont Medical Society  
   Co-Chair, Working Group on Assessment of Pathogenicity, Human Variome Project  
   Core Member, Variant Interpretation Committee, International Society for Gastrointestinal Hereditary Tumors (InSiGHT)  
   Co-Chair, Working Group on Assessment of Pathogenicity, Collaborative Group of the Americas on Inherited Colorectal Cancer (CGA-ICC)  
   Member, Scientific Advisory Council, Human Variome Project  
   Present, Human Genome Variation Society (HGVS)

Chris Holmes, MD, PhD
   Member, Thrombosis Committee, American Thrombosis and Hemostasis Network, Centers for Disease Control  
   National Chair, Hemophilia Transitions, American Society of Hematology Workgroup on Transitions; American College of Physicians Pediatric to Adult Care Transition Initiative  
   Executive Board Member, National Network, Health and Human Services New England Comprehensive Hemophilia Diagnostic and Treatment Centers  
   Director, Community Counts-Vermont, Centers for Disease Control (CDC) Public Health Monitoring Program, Division of Blood Disorders
Member, Institutional Review Board, Committee on Human Research in the Medical Sciences (CHRMS), University of Vermont

**Farrah Khan, MD**  
Chair, Breast Research Meeting  
Member: UVMMC Department of Medicine Faculty Development Committee, Faculty Engagement Committee  
Member, UVMMC Department of Medicine Quality Assurance and Improvement Committee

**J. Chris Nunnink MD, FASCO**  
Member, UVM Medical Center Clinical Integration Committee  
Member, UVM Medical Center CIC Committee representing Oncology  
Co-Chair, UVM Medical Center Head and Neck Multidisciplinary Clinic  
Director, UVM Cancer Center Network Development  
Member, American Society of Clinical Oncology Board of Directors  
Member, American Society of Clinical Oncology Strategic Planning Committee  
Member, American Society of Clinical Oncology Clinical Guidelines Committee  
Member, Northern New England Clinical Oncology Society Board of Directors

**Julian Sprague, MD**  
Member, UVM Medical Center, Transfusion Committee  
Member, UVM Medical Center, Ethics Committee  
Member, UVM Medical Center, Medical School Curriculum Committee  
Member, American Society of Hematology  
Member, American Society of Clinical Oncology  
Member, American College of Physicians

**Claire Verschraegen, MD**  
Member, ACS New England Cancer Director’s Roundtable, Boston, MA, Conference Committee  
Member, NCI Gynecological Cancers Steering Committee, SWOG representative  
Board of Directors Alliance for Clinical Trials in Oncology  
Member, NCI Uterine Cancer Task Force Member, SWOG representative  
Member, SWOG Rare Cancers Task Force  
Member, Vermonters Taking Action Against Cancer (VTAAC) -Steering Committee  
Member, SWOG Early Therapeutics Committee  
Member, SWOG Lung Cancer Committee  
Member, SWOG Cancer Control and Prevention Committee  
Member, Connective Tissue Oncology Society  
Member, American College of Physicians  
Board of Director, Alliance for Clinical Trials in Oncology  
Board of Director, National Cancer Institute Gynecologic Cancers Steering Committee

**Marie Wood, MD**  
Member, Alliance, Prevention Committee  
Member, Alliance Foundation, Board of Trustees
Member, American Society of Clinical Oncology, CME Committee
Member, Northern New England Clinical Oncology Society Board of Directors
Member, American College of Physicians
Member, National Surgical Adjuvant Breast and Bowel Project

Neil Zakai, MD
Member, American Heart Association, Disparities Research Network Peer Review Committee
Member, American Society of Hematology VTE Guideline Panel: Prevention of VTE in Medical Patients
Co-Chair, Hemophilia and Thrombosis Research Society, Research Committee
Vice Chair, American Heart Association Council on Epidemiology and Prevention, Publications Committee
Member, American Society of Hematology “Consult a Colleague” program-content expert “Hemostasis/Thrombosis”
Member, American Heart Association Representative to the American Association of Blood Banks: Blood Banks and Transfusion Services Standards Program Unit
Member, American Heart Association POP 2 Peer Review Committee
Member, Hemophilia and Thrombosis Research Society Membership Committee
Coordinator, Hematology/Oncology Fellowship Quality Project Committee
Member, UVM Medical Center Hematology/Oncology Fellowship Research Committee
Member, UVM Medical Center Internal Medicine Residency Committee
Guest Editor, Circulation

H. Editorships and Editorial Boards
Neil Zakai
Guest Editor, Circulation

I. Study Sections and Federal Advisory Boards
Clair Verschraegen
NCI Special Emphasis Panel
NCIC Review Section

J. Major Faculty Awards

K. Grants

George Atweh
NIHUO1 HL117709 Punam, Malik (PI) 08/15/13-05/31/18
Cincinnati Center Excellence in Hemoglobinopathies Research Role: Co-Investigator

Maura Barry
University of Vermont Medical Center Foundation 12/1/15-12/1/17
Victoria Buffum Endowment
Quality of Life Assessment for Head and Neck Cancer Patients Undergoing Treatment in The First Year of Survivorship
Role: PI

Mary Cushman
NINDS 08/01/02-11/30/17
U01 NS041588
Etiology of Geographic and Racial Differences in Stroke Mortality
G Howard, PI, University of Alabama at Birmingham
ADC (current Vermont subcontract): $684,296
Role: Subcontract PI, 20%

NHLBI 01/01/98-03/31/17
R01 HL59367
Epidemiology of Venous Thrombosis and Pulmonary Embolism
AR Folsom, PI, University of Minnesota
ADC (current Vermont Contract: $33,723
Role: Subcontract PI, 10%

NHLBI 08/15/00-08/14/21
HHSN2682015000031
Multiethnic Study of Atherosclerosis
R. McClelland, PI, University of Washington
ADC (current Vermont Subcontract): $92,375 (current cycle)
Role: Subcontract PI, 5%

NIH 07/01/14-06/30/19
P01HD03192116A1
The National Longitudinal Study of Adolescent Health - Wave V
ADC: (Vermont Subcontract): $478,373
K Harris, PI; University of North Carolina, Chapel Hill
ADC: (Vermont Subcontract): $478,373
Role: Subcontract PI, 10%

NIH 09/08/14-05/30/19
P20GM109098
Effects of Perfluoroalkyl Chemicals on Stroke Incidence and Mortality
S Frisbee, PI
ADC (Subcontract): $6,978
Role: Subcontract, PI, 2%

NIH 04/01/16-03/31/21
NICHD
Social Context, Life Course and Genetic Transcription in Add Health
ADC (subcontract): $23,489
Role: Subcontract PI, 2.5%
NIH
06/01/16-05/31/21
Transitions to Family Caregiving and its Impact on Health Indicators
ADC: $75,466
Role: Co-Investigator, 5%

Kim Dittus
NIH-NIGMS Higgins (PI) 9/15/13-7/31/18
1P20GM103644-01A1
Vermont Center on Behavior and Health, COBRE
Junior Investigator Project: Predictors of Weight Loss Success in Overweight Breast Cancer Survivors
Role: PI, Junior Investigator Project

Marc Greenblatt
NIH-NHGRI Berg, Jonathan (PI) 11/1/13-10/31/17
U01 HG007437-01
A Knowledge Base for Clinically Relevant Genes and Variants
Role: Co-Investigator

1 ROI CA164944 03/01/13-02-28-17
NIH/NCI
Classifying DNA Mismatch Repair Gene Variants of Unknown Significance
Role: Co-PI

Vermont Cancer Center 5/1/15-2/29/16
Classifying DNS Mismatch Repair Gene Variants of Unknown Significance
Role: PI

Chris Holmes
20694075 01/01/16-12/31/18
The Joint Commission Oversight
Pfizer & Bristol-Myers Squibb Funding
Transition of Care for Patients with Venous Thromboembolism at ATHN Affiliated Sites Rajpurkar and DeSancho (Co-Is)
Role: Site PI

ATHN2011001-1-1 Brettler (PI) 09/30/11-09/29/16
Centers for Disease Control and Prevention American Thrombosis and Hemostasis Network
Public Health Surveillance for the Prevention of Complications of Bleeding and Clotting Disorders
Role: Sub-Investigator
Claire Verschraegen
Lake Champlain Cancer Research Organization (LCCRO) Verschraegen (PI) 2011-Present
Role: PI

Alliance for Clinical Trials in Oncology 2013-Present
Role: Site PI

SPARK VT, Award $50,000 2014-Present
Role: Co-PI

Neil Zakai
NINDS U01 NS041588 04/2014-04/2019
Etiology of Geographic and Racial Differences in Stroke Mortality
PI: G Howard, University of Alabama at Birmingham
Role: Co-investigator 10%

L. Publications


Hermel DJ, McKinnon WC, Wood ME, Greenblatt MS, Multi-gene panel testing for hereditary cancer susceptibility in a rural Familial Cancer Program. Fam Cancer 2016 (Epub ahead of print) PMID: 27401692
Division of Hospital Medicine – Update 2015-2016

Chief: Mark E. Pasanen, MD, FACP

The University of Vermont College of Medicine’s Division of Hospital Medicine pursues excellence in academic hospital medicine by:

- Delivering compassionate, responsive, integrated care to medical inpatients 24 hours a day
- Teaching the science, art, and joy of medicine to students, trainees, and colleagues
- Promoting knowledge through research and educational efforts
- Cultivating a collegial and sustainable practice environment
- Collaborating with members of the hospital and university community to improve the quality, safety and value of inpatient care

Our hospitalist faculty physicians are involved in all aspects of the academic teaching hospital mission, including providing valuable clinical services, teaching a broad range of learners, engaging in leadership and system improvement while advancing a broad research agenda.

Service:

The Internal Medicine Hospitalist Service specializes in the diagnosis and treatment of hospitalized adults, both as the primary service and in the role of consultant – with our service providing 24x7 attending coverage. We serve as physician leadership for the rapid response team (CATS Team), which responds to inpatients with medical emergencies throughout the hospital. Our hospitalists work in multi-disciplinary teams to provide effective, safe, timely and patient-centered care. We also offer medical consultation to patients in the inpatient acute rehabilitation program at Fanny Allen Rehabilitation Center.

In the past year, the Internal Medicine Hospitalist Service faculty conducted over 23,000 patient encounters, generating more than 51,000 work RVU’s. This year also marked our largest recruitment effort to date, as we will be adding 8 new providers for the 2016-2017 academic year to improve our night coverage and to support patient care and education across new services and patient populations. We continue to significantly expand our use and teaching of bedside ultrasound techniques. Evidence of strong clinical performance includes a low overall re-admission rate of <5%. 
Our Hospitalists have been engaged in numerous institutional quality improvement and safety initiatives. Recent successful projects include significantly reducing the number of unnecessary labs performed on our inpatients, reducing the time to admission orders for patients being admitted though the Emergency Department and improvement in completion of accurate problem lists at the time of discharge. In addition, we have developed or modified order sets to improve the quality and consistency of care, with specific interventions for patients presenting with an exacerbation of chronic obstructive lung disease and patients being discharged, with a focus on those patients being transferred to skilled nursing.

**Education:**

Our faculty teaches general internal medicine and hospital medicine to medical students, resident physicians, professional colleagues, and community members.

Hospitalists serve as teaching attendings for the 4 General Medicine teaching teams throughout the year – offering clinical supervision, bedside education, lectures, and evaluation to resident physicians and medical students. Additionally, our inpatient faculty physicians lead the Medicine Consult elective for residents and medical students, including residents from Orthopedic Surgery.

Our faculty are regular participants and facilitators at Resident Morning Report and Intern Report. Amy Teleron has taken the lead in updating our Adult Code training for our resident, with a focus on team dynamics and communication – resulting in recognized improvement in code performance. Several of our faculty also serve as preceptors for the Internal Medicine Resident Clinic.

Dr. Pasanen and Dr. Eldakar-Hein serve as the Director and Associate Director for the Internal Medicine Residency Program, respectively. Our faculty members have been recognized numerous times by the resident physicians for teaching excellence. Dr. Foerg received the William Osler, M.D. Award for Outstanding Teacher of the Year in General Internal Medicine once again in 2016.

At the UVM College of Medicine, our primary teaching is in the hospital setting, focusing on the Internal Medicine Inpatient Clerkship, Internal Medicine Acting Internship and the Clinical Tutor program (which is directed by one of our Hospitalists, Dr. Anawati). However, our faculty are also involved in other teaching activities including Foundation and Professionalism, Communication and Reflection.

We educate our colleagues locally, regionally and nationally in a variety of venues. This includes the University of Vermont Continuing Medical Education Course in Hospital Medicine with a national audience and faculty largely from the Division of Hospital Medicine along with numerous divisions of the Department of Medicine.

The Internal Medicine Hospitalist Service faculty are also very involved in mentorship and advising. This includes advising numerous medical students on career choice and residency match issues. Residents
also frequently seek out our hospitalists to serve as advisors, especially those going into the growing field of Hospital Medicine.

Research

In addition to our clinical work and focus on quality and safety, we have a diversity of scholarly interests among our faculty. This includes externally funded clinical trials of immunizations and high value laboratory ordering practices. In addition, internal funding supports work in teamwork with a focus on communication during rapid response calls, a particularly challenging issue. Other areas of interest include narcotic-related adverse events in inpatients, interosseus access by EMTs prior to hospitalization, adult code communication and performance and VTE prevention in acute medically ill patients.

Faculty

**Division of Hospital Medicine**

*Mireille Anawati, MD*
Assistant Professor of Medicine
Director of Ultrasound CME course (at our annual Hospital Medicine CME course)

*Jason Bartsch, MD*
Assistant Professor of Medicine
Director of Medical Education, Division of Hospital Medicine

*Jennifer Borofsky, MD*
Assistant Professor of Medicine

*Shaden Eldakar-Hein, MD*
Assistant Professor of Medicine
Associate Program Director, Internal Medicine Residency

*Florian Foerg, MD*
Assistant Professor of Medicine
Director, Medicine Consult Service

*Zechariah Gardner, MD*
Assistant Professor of Medicine

*Steve Grant, MD*
Associate Professor of Medicine
Associate Director, Hospitalist Service
HR Physician Liaison, UVM Medical Group
Mohit Jindal, MD  
Assistant Professor of Medicine  
Director of Ultrasound Education, Division of Hospital Medicine

Erin Kurek, MD, MPH  
Assistant Professor of Medicine

Michael Latreille, MD  
Assistant Professor of Medicine  
Director of Quality and Safety, Division of Hospital Medicine

Carrie Lyon, MD, MPH  
Associate Professor of Medicine  
Director, Hospital Medicine CME course

Sadie Mills, MD  
Assistant Professor of Medicine

Chad Mitchell, MD  
Assistant Professor of Medicine

Mark Pasanen, MD  
Associate Professor of Medicine  
Program Director, Internal Medicine Residency Program  
Chief, Division of Hospital Medicine

Allen Repp, MD, MS  
Associate Professor of Medicine  
Vice-Chair for Quality

Paul Slavik, MD  
Assistant Professor of Medicine

Jaspinder Sra, MD  
Assistant Professor of Medicine  
Medical Director, CATS Team  
Physician Informaticist, PRISM

Amy Lynn Teleron, MD  
Assistant Professor of Medicine
Dennis Woods, MD  
Assistant Professor of Medicine

**Leadership in Professional Societies:**

Mark Pasanen, M.D.

- Immediate Past-Governor, Vermont Chapter of the American College of Physicians

The Internal Medicine Hospitalist Service faculty members are extensively engaged in service at the national, state and institutional levels. National and regional involvement includes the OneCare Vermont Clinical Advisory Board, Vermont Chapter for the American College of Physicians (including current Governor and advisory council membership), immediate past president of the UVM Medical Alumni President and the Vermont Medicaid Drug Utilization Board.

Faculty participation in committees and task forces at the College of Medicine and Fletcher Allen Health Care is also wide-ranging. Highlights include leadership and/or participation on the Rapid Response committee, Resuscitation committee, Patient Experience/Patient-Family Centered Care workgroup, Accountable Care Unit workgroup, Operations/Workforce, Quality Improvement, Ethics and the PRISM/IT.

There are numerous specific examples of leadership within the faculty. Dr. Chad Mitchell serves a critical role in Utilization Review, providing real-time reviews in coordination with Case Management. Dr. Steven Grant serves as the Physician Human Resources Liaison, leading to significant improvements in Physician Recruitment and Orientation. Dr. Jaspinder Sra has been instrumental in helping to optimize PRISM, our electronic health record, through his work and leadership as a Physician Informaticist.

We have worked closely with other departments in an effort to optimize patient care. This has included the addition of Co-Management services for the Orthopedics Spine Service, in addition to existing Co-Management on the Trauma Service. We have also developed a shared model of care with the Renal Transplant Service.

**Editorships and Editorial Boards:**

Mark E. Pasanen, MD

- Reviewer: MKSAP Syllabus, American College of Physicians,

Allen Repp, MD, MS

- Reviewer: Journal of Hospital Medicine
- Editorial Board: JSM Clinical Case Reports
Major Faculty Awards:

- Dr. Florian Foerg received the 2016 Osler Award from the IM residents for the general medicine attending who demonstrates excellence in teaching and patient care
- Teaching Academy Inductees in March 2016:
  - Jason Bartsch and Shaden Eldakar-Hein

Grants:

Allen Repp, MD (Co-Principal Investigator)

- “Vermont Hospital Medicine Choosing Wisely Project.” Vermont Health Care Innovation Project (VHCIP) as part of State Innovation Model Grant, Centers for Medicare & Medicaid Services. $488,828 total costs (awarded through Vermont Medical Society Research and Education Foundation)

Jason Bartsch, MD and Rachel McEntee, MD

- “Rapid Resonse Team Simulation: Teaching interprofessional communication and clinical reasoning to improve patient care.” – funded by a Frymoyer Grant

Publications – peer reviewed, chapters, etc. (not abstracts)

Single-dose Live Oral Cholera Vaccine CVD 103-HgR Protects Against Human Experimental Infection With Vibrio cholerae O1 El Tor.


Division of Immunobiology

Ralph Budd, MD, Director

http://www.med.uvm.edu/medicine/immunobiology

http://www.med.uvm.edu/vciid

The Immunobiology Program was established in the Department of Medicine in 1995 in recognition of the growing strength in Immunology research from various departments. Although established in one department, it was intended from the start that this program should evolve to span several departments to include the various interests in the immune response in infections and autoimmune disorders. The core of the Immunobiology Program resides with the Department of Medicine and includes 8 faculty whose research interests are detailed below.

In 2006 the Immunobiology faculty partnered with faculty in Infectious Diseases and Microbiology and Molecular Genetics to successfully compete for a Center of Biomedical Research Excellence (COBRE) Award from NIH (NCRR). This allowed the formation of the Vermont Center for Immunology and Infectious Diseases (VCIID), which now numbers 29 faculty in 9 departments in 5 colleges and is in close alliance with the Vaccine Testing Center, headed by Dr. Beth Kirkpatrick, one of the VCIID faculty. The VCIID has a weekly joint Research-in-Progress meeting, seminar series, and a journal club. This provides a weekly forum for students and postdoctoral fellows to present their research progress as well as for faculty to review hypotheses and specific aims of planned grants. During the first 10 years of COBRE funding, VCIID faculty published 419 articles and received over $92 million in funding. This also provided funds to allow the College of Medicine to build a new BSL3 facility in partnership with the Vermont Department of Health (opened spring, 2016), and to recruit new faculty to the theme of the host response to infection. In the past year we have successfully renewed for another 5 years, both our NIH T32 Training Grant for graduate students, as well as our Phase III COBRE grant.

Faculty

Ralph Budd, MD
Professor of Medicine and Microbiology & Molecular Genetics
Director, Vermont Center of Immunology & Infectious Diseases

- Key Research Interests: Autoimmune mechanisms, immune cell death, Lyme arthritis, caspase regulation, immune metabolism
Jason Botten, PhD  
Assistant Professor of Medicine, Adjunct in Microbiology and Molecular Genetics  
- Key Research Interests: Virus-host interactions; regulation of viral protein function; development of vaccines and therapeutics; host response to viral infections

Andreas Koenig, PhD  
Research Associate, Medicine (through May 2016)  
- Key Research Interests: Viral immunology, innate immunity, systemic lupus erythematosus

Karen Fortner, PhD  
Assistant Professor of Medicine  
- Key Research Interests: Regulation of T lymphocyte homeostasis through cell death, metabolism, and inhibitory functions; T cell homeostasis and function in obesity and liver disease; autoimmunity

Dimitry Krementsov, PhD  
Research Associate through 4/16; Assistant Professor as of 05/16, Medicine  
- Key Research Interests: autoimmunity, inflammation, multiple sclerosis, sex differences

Mercedes Rincón, PhD  
Professor of Medicine and Microbiology & Molecular Genetics  
- Key Research Interests: T cell activation and metabolic regulation, allergy/asthma, influenza, T cell development, breast cancer, cancer and inflammation

Cory Teuscher, PhD  
Professor of Medicine and Pathology  
- Key Research Interests: Immunogenetics, sex susceptibility to infectious and autoimmune diseases, Y chromosome effects on disease

Tina Thornton, PhD  
Research Associate though 04/16; Assistant Professor as of 05/16, Medicine  
- Key Research Interests: Understanding the interactions of signaling pathways that control early thymocyte development and survival, interaction of the p38 MAPK pathway and GSK3.

Graduate Students, Post-doctoral Fellows, MD PhD Students and brief statement on their research study:  

Emily Bruce, PhD (Postdoc) – Role of RAB proteins for arenavirus propagation

Devin Champagne (graduate student) – Role of MCJ as an endogenous inhibitor of mitochondrial respiration in T cell immune response, cancer and fatty liver diseases
Benjamin King (graduate student) – Arenavirus replication dynamics and interactions of the viral nucleoprotein with host cellular machinery

Inessa Manuelyan (graduate student) – Identification of key human proteins required for Zika virus propagation

Abbas Raza (graduate student) – Sex specific regulation of CNS autoimmunity by signaling lymphocyte activation molecule (SLAM) locus

Michael Secinaro (graduate student) – The regulation of caspases by the metabolic state of T cells

Rui Yang (graduate student) – Role of IL-6 in modulating CD4 and CD8 T cell function

Christopher Ziegler (graduate student) – Posttranslational modification as a means to regulate viral protein function and identification of key host proteins required for arenavirus propagation

Leadership in Professional Societies:

(Budd) Chair of T Cell Biology Section of the American College of Rheumatology Annual meeting, 2016

Editorships and Editorial Boards:

(Budd) Senior Editor for “Textbook of Rheumatology” 10th Edition, Elsevier
(Rincón) J. Immunology; International Journal of Biological Sciences
(Krementsov) Ad hoc reviewer for Infection and Immunity, Brain journal

Study Sections and Federal Advisory Boards:

(Botten) Ad hoc reviewer, Developmental Research Project Program for the NIH-NIGMS funded NE-INBRE Program Awards
(Budd) ACTS (Arthritis, Connective Tissue, and Skin Biology Section, NIH/NIAMS
(Budd) ZGM1 RCB-3 (C2) Renewal of Centers of Biomedical Research Excellence, NIH/NIGMS
(Rincón) Charter member, Cellular and Molecular Immunology NIH study section. CMI-A Chair of study section
(Teuscher) Ad hoc reviewer for NIH reviewers pool
(Teuscher) Permanent member, grant review panel for the National Multiple Sclerosis Society

Major Faculty / Research Awards:

(Budd) University Distinguished Professor
(Yang) Rui Yang applied for and received an American Association of Immunologists (AAI) Careers in immunology fellowship, $23,000.

**Grants – list all active by faculty member, PI**

Grant Awards 07/01/15 – 06/30/16

NIH funding:
- 1 - R01
- 5 – R21
- 1 – R56
- 1 – R25
- 1 – T32
- 1 – COBRE (P20)
- 1 – Sub award through University of Utah
- 1 – Sub award through Drexel University
- 1 – AAI Fellowship

Foundation funding:
- 1 – NMSS project
- 1 – VCC Awards
- 1 - Lupus Research Institute

Biotech Funding
- 1-Mitotherapeutix, LLC

**Budd:**
- Title: Metabolic Regulation of Caspases and Survival in T Cells
  - Dates of Award: 04/01/16-03/31/18
  - Role: PI
  - Current Yr funding: $192,969
  - Source: NIH/NIAID

- Title: Vermont Immunology / Infectious Diseases Center
  - Dates of Award: 08/01/2006 – 06/30/2017
  - Role: PI
  - Current Yr funding: $3,033,448
  - Source: NIH/NIGMS

- Title: Vermont Immunology / Infectious Diseases Training Grant
  - Dates of Award: 09/01/05 – 08/31/16
  - Role: PI
  - Current Yr funding: $185,478
Source: NIH/NIAID

Title: Structure and Ligand(s) for Human Synovial TCR-Gamma/Delta
Dates of Award: 01/13/16-12/31/17
Role: PI
Current Yr funding: $243,813
Source: NIH/NIAID
Title: RIG-I Regulation of Interferon Signature in SLE
Dates of Award: 01/01/14 – 12/31/16
Role: PI
Current Yr funding: $100,000
Source: Lupus Research Institute

Botten:
OPP1109415 (Kirkpatrick, B.) 11/5/14-9/30/17
Bill and Melinda Gates Foundation
Characterizing the Immunoprotective and Immunopathogenic Responses to Dengue Viruses using the Dengue Human Infection Model.
Goal: To use advanced immunologic techniques such as immunophenotyping, epitope mapping, and antibody cloning technologies to better understand the immunopathogenesis of dengue infections.
Role: Co-investigator

P20RR021905 (Budd, R.) 7/20/11 - 6/30/16
NIH/NCRR
Centers of Biological Research Excellence (COBRE)
Vermont Immunobiology/Infectious Disease Center
Dr. Botten is the PI of a subproject to define the hantavirus-host protein interactome and is a co-director of the BSL-3 core facility established through this Center of Excellence.

Fortner:
Title: T Lymphocyte Homeostasis in Obesity
Dates of Award: 06/01/14 – 05/31/17
Role: PI
Current Yr funding: $190,625
Source: NIH/NIAID

Rincón:
Title: Fostering Entrepreneurship in Biomedical Research
Dates of Award: 04/01/16-02/28/21
Role: PI
Current Yr funding: $440,063
Source: NIH/NIGMS

Title: Regulation of Mitochondrial Function in T Cells
Dates of Award: 02/10/14 – 01/31/17
Role: PI
Current Yr funding: $0 No Cost Extension
Source: NIH/NIAID

Title: N-MCJ Peptides as Therapy to Overcome Chemoresistance in Breast Cancer
Dates of Award: 07/01/15-06/30/16
Role: Co-PI
Current Yr funding: $25,000
Source: VCC/LCCRO

Title: MCJ as a Metabolic Target
Dates of Award: 05/15/15-05/14/17
Role: PI
Current Yr funding: $0 No Cost Extension
Source: Mitotherapeutix, LLC

Title: IL-6 as a Regulator of Mitochondria Function in T Cells
Dates of Award: 05/01/16-04/30/17
Role: PI
Current Yr funding: $386,041
Source: NIH/NIAID

Title: Regulation of CD8 Cell Function by IL-6
Dates of Award: 09/01/15-08/31/16
Role: PI
Current Yr funding: $22,920
Source: AAI

Teuscher:

Title: Molecular Genetics of Arthritis in Murine Lyme Disease
Dates of Award: 08/15/2004 – 09/18/19
Role: Co-PI
Current Yr funding: $137,250
Source: University of Utah
Title: H1R Signaling and Immune Deviation in EAE
Dates of Award: 01/19/10-12/31/15
Role: PI (Diehl, Co-PI)
Current Yr funding: $0 No Cost Extension
Source: NIH/NINDS

Title: Identification of Gene-by-Environment Interactions Contributing to CNS Autoimmune Disease
Dates of Award: 4/1/15-3/31/18
Role: PI
Current Yr funding: $450,383
Source: NMSS

Title: Refining the Genetic Basis of EAE to Establish a Model for MS-GWAS Testing
Dates of Award: 10/01/15-09/30/16
Role: PI
Current Yr funding: $84,240
Source: Drexel University (NMSS)

Title: Gene-Environment Interactions in CNS Autoimmune Disease
Dates of Award: 06/15/16-05/31/18
Role: PI
Current Yr funding: $231,688
Source: NIH/NINDS

**Publications – peer reviewed, chapters, etc. (not abstracts)**


In Press or Accepted:


The Infectious Diseases (ID) Unit is a group of nine attending physicians dedicated to the diagnosis, management, prevention and investigation of infectious diseases. An additional clinical faculty member was recruited and started in August 2015 bringing our group total up to ten for the first quarter. This past year we provided over 1,600 new inpatient consultations. The outpatient clinics remain vibrant with over 6,200 arrived visits. This effort includes the care of over 480 active patients with HIV in four federally funded Comprehensive Care Clinics in Vermont. In total the ID Unit performed over 15,000 work RVU’s annually. The ID Unit outpatient care includes the international travel clinic, refugee clinic, home IV antibiotics and care for patients with general infectious diseases. The ID unit works collaboratively with the Vermont Department of Health for diagnosis and treatment of tuberculosis and biological and pandemic influenza preparedness. The ID staff includes the UVM Medical Center Hospital Epidemiologist and Director of Infection Prevention, the Department of Medicine’s Associate Director of Residency Training, UVM’s medical student Clerkship Director for the Department of Medicine and the Director of the Vaccine Testing Center at UVM.

In addition to daily teaching rounds with medical students, residents and fellows, the physicians are actively involved in the Attacks and Defenses, Neural Sciences, Generations, Connections, Convergence and Doctoring in Vermont, medicine clerkships and acting internships sections of the Vermont Integrated Curriculum. The ID Unit is the home of a two year fellowship training program. The graduating fellows have a 100% board certification pass rate over the past 15 years. This program includes a year of research that has resulted in abstract presentations at the national ID meetings, peer reviewed publications and book chapters.

Within our unit we have two active research laboratories led by Drs. Huston and Kirkpatrick, which support a number of clinical and basic science research projects including those performed by our two PhD faculty members (Sean Diehl, PhD and Jose Teixeira, PhD), graduate students, laboratory technicians, clinical coordinators and often the 2nd year ID Fellow. Dr. Huston’s work currently centers on the molecular biology and pathogenesis of Entamoeba histolytica, and Cryptosporidium pharmaceutical agent development.

Dr. Kirkpatrick leads The Vaccine Testing Center (VTC). This growing group, (now 24), continues to focus on improving global health through the development and assessment of vaccines. The VTC received significant international media attention in 2016 after the published article in Science Translational Medicine on the NIH’s tetravalent dengue vaccine which demonstrated protective efficacy for the first time in a human model. There was increased media attention for the VTC for its upcoming participation in the NIH-let Zika vaccine clinical trials. The VTC continues to work on understanding the immune correlates of protection and developing candidate vaccines against Dengue, Zika, and enteric
infections. Work on two new awards from the Gates Foundation was begun in 2016; the first is looking at improving the effectiveness of rotavirus vaccines (led by Drs. Kirkpatrick, Diehl, Lee) and the second is developing a model to evaluate candidate drugs against the parasite, Cryptosporidium (led by Drs. Huston, Lyon, Kirkpatrick). Also in 2016, the VTC expanded its global health work by starting dengue vaccine clinical trials with longstanding collaborators in Bangladesh.

In addition to clinical revenues, financial support is provided by grants from the NIH, NIAID, Health Services Research Administration (HRSA), Bill and Melinda Gates Foundation, contracts with regional hospitals and UVM Medical Center directorships.

Faculty

W. Kemper Alston, MD, MPH

Professor

- Interim Director, Infectious Disease Unit
- Hospital Epidemiologist and Medical Director of Infection Prevention
- Chair, Infection Prevention Committee, UVM Medical Center
- Tuberculosis Consultant, State of Vermont
- Medical Director, UVMMC Employee Health
- US Food and Drug Administration, Special Government Employee, Antimicrobial Drugs Advisory Committee
- Chair Infection Prevention Committee, Rutland Regional Medical Center
- Infection Prevention Consultant, Northwestern Medical Center
- HIV care provider, Brattleboro Memorial Hospital, Comprehensive Care Clinic
- Member, Medical Staff Quality Assessment and Improvement Committee, UVMMC
- Member, Infectious Diseases Practice Subcommittee, Pharmacy and Therapeutics Committee, UVMMC

Christopher Grace, MD, FIDSA

Professor Emeritus

- Director at UVMC Part C, HRSA grant for HIV care
- Director at UVMC Part B, HRSA grant for HIV care (Vermont Dept. of Health)
- Consultant: Pandemic Influenza and Bioterrorism, State of Vermont

Christopher D. Huston, MD

Associate Professor of Medicine with Tenure

- Research Interests: Intestinal protozoan infections including E. Histolytica host-parasite infections, Cryptosporidium drug development
- Institutional Biosafety Committee
- Residency Research Committee, Dept. of Medicine
Beth D. Kirkpatrick, MD, DTMH

Professor of Medicine with Tenure

- Director, UVM Vaccine Testing Center
- Research Interests: Vaccine development, vaccine immunology, enteric and flavivirus infections

Sarah Mooney, MBBCh

Assistant Professor of Medicine (July 1 – Sept 30, 2015)

- Clinical Faculty
- Rutland Regional Medical Center attending
- Director, AIDS Education Training

Cindy Noyes, MD

Assistant Professor of Medicine

- Clinical Faculty
- Assistant hospital epidemiologist

Kristen K. Pierce, MD

Associate Professor of Medicine

- Director, Infectious Disease Fellowship Training Program
- Lead Clinical Investigator, Vaccine Testing Center
- Research Interests: Development of Live Attenuated Dengue Vaccines
- Institutional Review Board

Louis B. Polish, MD

Associate Professor of Medicine

- Director, Department of Medicine Inpatient Medicine Clerkship Program
- Co-Chair, Infectious Disease Practice Committee

Mary B. Ramundo, MD

Associate Professor of Medicine

- Associate Program Director, College of Medicine Residency Program
- Department of Medicine, Medical Education Committee
- Chairman, Housestaff Evaluations Committee

**Lindsay M. Smith, MD**
Assistant Professor of Medicine
- Clinical Faculty
- Interests: Antibiotic Stewardship

**Jose E. Teixeira, PhD**
Research Assistant Professor
- Interests: Intestinal protozoan infections including *E. Histolytica* host-parasite infections, Cryptosporidium drug development

**Sean Diehl, PhD**
Assistant Professor
- Associate Chair, UVM Institutional Biosafety Committee
- Interests: Vaccine Development, Dengue and Zika Virus, Human immunology and Immune Memory

**Fellows**

**Porntip Kiatsimkul, MD**
Infectious Disease 1st Year Fellow
- Infectious Disease Fellowship Training Program July 1, 2015 – June 30, 2017

**Krystine Spiess, DO**
Infectious Disease 2nd Year Fellow
- Infectious Disease Fellowship Training Program August 5, 2014 – August 4, 2016
- Research:

**Nurse Practitioners and Physician Assistants:**

**Deborah Kutzko, FNP**
Nurse Manager, Comprehensive Care clinic

- Travel health
- Vermont Refugee Clinic
- AIDS Comprehensive Care Clinic

**Hella Douglas, PsychNP**

Comprehensive Care clinic, HIV patient

- HIV Patient Care, mental health

**Laura Cato, ARNP**

Nurse Practitioner, Comprehensive Care clinic

- Travel health
- Vermont Refugee Clinic
- General ID

**Graduate Students, Post-doctoral Fellows, MD PhD Students:**

Rajiv Jumani – PhD Student, (Huston Laboratory)
Md Mahumul Hasan – PhD Student (Huston Laboratory)
Huy Tu – Graduate Student, Cellular and Molecular Biology Program (Vaccine Testing Center)

**Leadership in Professional Societies:**

Beth Kirkpatrick, MD - American Society of Tropical Medicine and Hygiene
Secretary / Treasurer of America Committee of Clinical Tropical Medicine and Traveler’s health

Christopher Huston, M.D.- American Society for Microbiology, Chair, Division AA (Free-living, symbiotic, and parasitic protists)

**Editorships and Editorial Boards:**

W. Kemper Alston, MD
- External reviewer
  - Annals of Internal Medicine,
  - Clinical Infectious Diseases
  - Infection Control and Hospital Epidemiology

Beth Kirkpatrick, MD
- Section Editor, American Journal of Tropical Medicine and Hygiene 2014-present
- External Reviewer
Christopher Huston, MD

- Editorial Board Member – Infection and Immunity
- External reviewer
  - PLoS Pathogens
  - PLoS Neglected Tropical Diseases
  - PLoS ONE
  - Antimicrobial Agents and Chemotherapy
  - Journal of Infectious Diseases
  - Molecular and Biochemical Parasitology
  - Journal of Clinical Microbiology
  - American Journal of Tropical Medicine and Hygiene
  - Deutsche Forschungsgemeinschaft (DFG) German Research Foundation, German-African Cooperation Projects in Infectology
  - External Advisor, Strategic Advisory Group for Cryptosporidiosis: Cryptosporidium drug development; The Bill and Melinda Gates Foundation; Washington D.C.

**Study Sections and Federal Advisory Boards:**

Christopher Huston, MD

- Ad-Hoc Reviewer National Institutes of Allergy and Infectious diseases
  - 2015/05 MID 1 Microbiology and Infectious Diseases Research Committee; K08 grants, NIAID

**Grants – list all active by faculty member, PI**

Christopher Grace, MD FIDSA
Ryan White Part C Grant for HIV Care
Non-competing grant award
5/1/2015 – 4/30/2016
$ 551,481 Federal HRSA

Christopher Grace, MD FIDSA
Ryan White Care Act Part B
7/1/2015 – 6/30/2016
$240,484 Federal
TB Control and Surveillance, Public Health Preparedness & Response for Bioterrorism
Centers for Disease Control and Prevention Investigations and Technical Assistance
7/1/2015 - 06/30/2016
$26,000.00 Federal

Christopher Huston, MD
Program for Appropriate Technology in Health (PATH) PDS Drug Solutions
Establishment of Cryptosporidium calf infection model and calf pharmacokinetic study
Total Direct Costs $568,349

Christopher Huston, MD
Program for Appropriate Technology in Health (PATH) PDS Drug Solutions
Cryptosporidium strain/species comparative studies
Total Direct Costs $66,853

Christopher Huston, MD
Bill and Melinda Gates Foundation
Structure-guided drug discovery for tuberculosis and malaria Cryptosporidium supplement
Direct Costs $90,272

Christopher Huston, MD
Anacor, Inc.
In vivo testing of boron-based anti-Cryptosporidium screening hits
Direct Costs $42,217

Christopher Huston, MD
Merck-EMD Serono
Screening the Merck Serono mini-library for anti-Cryptosporidium compounds
Direct Costs $8,000

Christopher Huston, MD
California Institute for Biomedical Research (Calibr)
Anticryptosporidial drug discovery
Direct Costs $90,621

Christopher Huston, MD (Co-investigator)
Bill and Melinda Gates Foundation
Using Cryptosporidium human challenge models to advance therapeutics and vaccines
Direct Costs $2,985,288

Christopher Huston, MD
Bill and Melinda Gates Foundation
OPP1132796: Using pharmacokinetic and efficacy studies of nitazoxanide and azithromycin to standardize the calf clinical model of cryptosporidiosis
Direct Costs $739,135

Beth D. Kirkpatrick, MD Principal Investigator
Using Cryptosporidium Human Challenge Models to Advance Therapeutics and Vaccines.
$3,300,000 (2015-2018) Bill and Melinda Gates Foundation

Beth D. Kirkpatrick, MD Principal Investigator
Improving Rotavirus Vaccination: Refining Correlates of Protection and Evaluating Durability.
$2,200,000 (2015-2018) Bill and Melinda Gates Foundation

Beth D. Kirkpatrick, MD Principal Investigator
The Dengue Human Infection Model: Defining Correlates of Protection and Advancing Vaccine Development.
$2,100,000 (2014-2017)

Beth D. Kirkpatrick MD. Co-Principal Investigator
Exploration of the Biologic Basis for Underperformance of OPV and Rotavirus Vaccines in Bangladesh.
$1,450,000 (2010-2016) Bill and Melinda Gates Foundation

Beth D. Kirkpatrick, MD Site Principal Investigator
Operation of a Facility for the Study of Infectious Agents, Vaccines, and Antimicrobials in Adult and Pediatric Human Subjects.
$9,000,000 (2009-2019) National Institutes of Health and Johns Hopkins University

Sarah Mooney, MD
New England AIDS Education Training
7/1/2015 – 6/30/2016
$58,000 Federal sub-award, UMASS

Publications – peer reviewed, chapters, etc. (not abstracts)


PMID 26908742


Division of Nephrology

Executive Summary:

The Division of Nephrology has grown over the past year and now consists of 11 MD providers, including 9 Nephrologists and 2 Transplant Nephrologists, 1 NP and 1 Post-doctoral research fellow. We continue to be the only nephrology presence within the State of Vermont and serve multiple communities where we have outreach clinics and dialysis units.

Service: The multidisciplinary clinics established last year with Transplant Surgery and Urology respectively have continued to flourish and grow. Both have created databases from which quality improvement projects have been initiated. This step enables larger clinical research projects to develop.

Education: Residents in Medicine rotate for 2 weeks on the Nephrology Service. This previously was an inpatient rotation. Starting March 2014, the rotation has been split into a one week in-patient and one week out-patient rotation under the supervision of Varun Agrawal. During the outpatient rotation, residents are exposed to the Home dialysis program, the Chronic dialysis program, Stone Clinic, Transplant Clinic, and chronic kidney disease clinics. They are assigned a topic for presentation on the last Friday of the rotation. Dr Agrawal has solicited feedback from last years graduating residents. This clinic rotation received some of the highest favorable responses. The clinic continues and has been very well received by the medical residents. A survey of this years graduating residents is currently underway. We have opened the outpatient clinic experience to medical students taking an elective rotation on the Nephrology Service. We have not yet received feedback from this group.

Research: Investigator initiated research includes a study of urine electrolytes in patients admitted to the hospital with acute decompensated heart failure (R. Solomon, PI). This study has enrolled ~20 patients to date. A study of urine \( pO2 \) measurements in patients undergoing cardiopulmonary bypass was to start last year but didn’t get off the ground because of a licensing issue. That has been resolved and we expect our first patients to be enrolled this coming summer. This effort comes out of a long-term collaboration between nephrology (R. Solomon) and the cardiothoracic surgical service on efforts to reduce the incidence of acute kidney injury at UVMMC. Zubin Agarwal, a graduating 3rd year resident reviewed our incidence of AKI in the last 500 CABG patients at this institute. The rate was 29% (using KIDIGO criteria). Preoperative hemoglobin, nadir hemoglobin during cardiopulmonary bypass, and the use of interoperative transfusion were all associated with post bypass AKI. The Division is currently enrolling in 5 trials involving diabetic nephropathy (Solomon, PI), one trial involving autosomal dominant polycystic kidney disease (Segal, PI), and a number of trials involving patients on hemodialysis (Rimmer, PI). Finally, our post-doctoral fellow (K. Cheung) is working with members of the Global Health Economics Unit in the Center for Clinical and Translational Science. Their project: Using System Dynamics to Project the End Stage Renal Disease (ESRD) Incidence Rates and Costs in the U.S. under
Alternate Policy and Critical Care Pathway Scenarios has produced a workable model that was presented to an ACO leadership last Fall. The goal is to contain health care costs for patients with chronic kidney disease (which accounts for nearly 1/4 of the total costs in the ACO) through more targeted use of home dialysis, transplantation, and conservative care.

Faculty:

Varun Agrawal, MD  
Assistant Professor  
Medical Director of Barre Dialysis Unit  
Resident education

Shirley Chang, MD (leaving)  
Assistant Professor  
Transplant Nephrology

F. John Gennari, MD  
Emeritus Professor  
Electrolyte disorders

Virginia Hood, MD  
Professor of Medicine  
Acid-base physiology

Osun Kwon, MD (leaving)  
Associate Professor  
Transplant Nephrology

Dana Negoi, MD  
Associate Professor  
Medical Director, St. Albans Dialysis Unit and Home Dialysis Program  
Home based dialysis therapies

Chris Rich, MD (leaving)  
Assistant Professor  
Medical Director, Newport Dialysis Unit  
Immunosuppressive therapy for primary renal diseases

Jeff Rimmer, MD  
Professor of Medicine  
Medical Director Chittenden Dialysis Unit
Hemodialysis

Alan Segal, MD
Associate Professor
Program Director, Renal Fellowship
Sodium and potassium transport within the renal tubule
Hyponatremia/hypotonicity disorders
dominant polycystic kidney disease

Richard Solomon, MD
Professor of Medicine
Director, Division of Nephrology
Acute kidney injury – contrast induced nephropathy
Diabetic kidney disease

Wolfgang Weise, MD
Associate Professor of Medicine
Medical Director, Rutland Dialysis Unit
Primary kidney disease

Fellows:
Ziad Arabi
Adam Horeish
Sree Susarla
Sadik Sharef

PA/NP:
Margaret Butler, APRN

Post doctoral Fellows (Ph.D)
Katherine Cheung, MD

Endowed Professorship
Patrick Professorship (Dr. Solomon)

Leadership in Professional Societies
Kidney Disease Outcome Quality Initiative Education committee, National Kidney Foundation (V. Agrawal)
Lecturer: Acid-base and electrolyte disorders course, American Society of Nephrology national meeting, 2015. (J. Gennari)
Member, ACP Patient Partnership in Health Care Advisory Board (V. Hood)
Member, Sydney University Graduate Union North America Board of Trustees (V. Hood)
President Emerita, American College of Physicians (V. Hood)

Editorships and Editorial Boards
Consulting editor, Teaching Cases: Acid-base and electrolyte disorders, American Journal of Kidney Diseases, reappointed through 2016. (J. Gennari)
Associate Editor, Journal of Medical Case Reports. Nov 2014 to present (V. Agrawal)

Study Section and Federal Advisory Boards
Biomarker Consortium member for fNIH (Dr. Solomon)

Grants (all grant accounts show a positive balance)
Studies in patients with end stage kidney disease.
  The use of Vascugel® for injury to hemodialysis access and during creation of hemodialysis access [Jeff Rimmer, PI].
  Amgen: use of cinacalcet for secondary hyperparathyroidism [J. Rimmer, PI]
  Fermagate and sevelamer in hemodialysis patient with hyperphosphatemia [W. Weise, PI]
  Ferric citrate for patients with ESRD and hyperphosphatemia [D. Negoi, PI]
Studies in patients with diabetic kidney disease aimed as delaying progression.
  AbbVie: SONAR: study of diabetic nephropathy with Atrasentan [R. Solomon, PI]
  Nephrogenix: Pyridorin for prevention of progression of diabetic nephropathy
  Gilead: an AKT agonists for prevention of diabetic nephropathy
  Janssen: SGLT2 inhibition in diabetic nephropathy
  Studies in patients with autosomal dominant polycystic kidney disease
  Use of MRI for following cyst volumes [W. Weise, PI]
  Tolvaptan for slowing progression of autosomal dominant polycystic kidney disease (Segal, PI)
Studies on ‘Choosing Wisely’

Publications
Lisawat P, Gennari FJ. Approach to the hemodialysis patient with an abnormal serum bicarbonate concentration. Am J Kid Dis 2014;64(1) 151-155


Jeremiah R. Brown, Daniel M. Pearlman, Todd A. MacKenzie, Alejandro Recio-Mayoral MD, Vitor O. Gomes, Bokyung Kim MS, Lisette O. Jensen, Christian Mueller, Mauro Maioli,

Richard J. Solomon. Individual patient data meta-analysis of sodium bicarbonate vs normal saline for all-cause mortality hazard after coronary angiography or intervention. (submitted)


The Pulmonary Critical Care Division has had a very successful year in terms of our clinical programs, and our teaching and research efforts.

The Division manages critically ill patients in the Medical Intensive Care Unit, provides inpatient pulmonary and critical care consults, and has a number of sub-specialty clinics including those in interstitial lung disease, cystic fibrosis, lung cancer, and asthma. The Division provides a full range of pulmonary diagnostic services: these include bronchoscopy, pulmonary function testing, evaluation of sleep disorders, lung cancer screening and evaluation, an interventional pulmonary program, and a nationally certified pulmonary rehabilitation program.

The Division has a national and international reputation in research, especially in the areas of asthma, stem cell research, and obesity and lung disease. Members of the Division published over 70 peer reviewed articles during the last year, and obtained significant funding from the NIH (including new RO1 and K23 grants) and foundations. The Division continues to be a leader in the area of Cystic Fibrosis Research, participating in many of the new ground-breaking clinical trials performed by the Cystic Fibrosis Therapeutic Development Network. The clinical research of the Division was also recognized when the site was renewed as a member of the American Lung Association-Airways Clinical Research Centers Network in a highly competitive grant application process that attracted applications from leading research centers across the country. The research program continues to expand, and enjoys considerable success and major recognition.

Members of the Division continue to have major leadership roles on national committees, national grant review committees, and editorial boards for major publications.

The Division is committed to education and training. Drs. Laurie Leclair and Garth Garrison direct the Cardiovascular Respiratory and Renal Foundations Course in the second year of the Medical School curriculum: Dr. Leclair was recognized by the medical students as the top Foundations Course Director, and the course received the award for the top Foundations course this year. Dr. Garrison also directs the Internal Medicine Acting Internship program. Dr. Clouser was recognized by the Medicine Residents as the top sub-specialty medicine teacher. Dr. Huggett, as Assistant Dean for Medical Education is leading major innovations in training the teachers through her leadership of the Teaching Academy. Dr. Jan Carney, as Associate Dean for Public Health leads the very successful MPH program at the University of Vermont.

The last year has been a busy and successful year for the Division as outlined in detail for all members of the Division below.
Faculty

Anne E. Dixon, MA, BM BCh
Professor Medicine
Director, Pulmonary Disease and Critical Care Medicine
Director of Clinical Research, Vermont Lung Center

Gilman Allen III, MD
Professor of Medicine
Director of Critical Care Services

Jason H.T. Bates, PhD DSc
Professor of Medicine
Department of Molecular Physiology & Biophysics

Lynn R. Zanardi Blevins, MD MPH
Assistant Professor of Medicine
Public Health Program

Jan Kirk Carney, MD MPH
Professor of Medicine
Associate Dean for Public Health

Ryan Clouser, DO
Assistant Professor of Medicine
MICU Director

Susan Dunning, MD
Assistant Professor, Department of Medicine & Department of Neurological Sciences
Medical Director, UVM Medical Center Sleep Program & Sleep Laboratory
Fellowship Director, Sleep Medicine

Joshua Farkas, MD
Assistant Professor of Medicine

Garth Garrison, MD
Assistant Professor of Medicine
Co-Director, Lung Cancer Screening Program
Kathryn N. Huggett, PhD
Director, The Teaching Academy at the UVM College of Medicine
Robert Larner, MD ’42 Professor in Medical Education
Assistant Dean for Medical Education
  Curriculum design and evaluation
  Faculty development
  Medical education research

Charles Irvin, PhD
Professor Pulmonary Sciences and Critical Care Medicine
Professor Department of Molecular Physiology & Biophysics
Director, Vermont Lung Center

David Kaminsky, MD
Professor of Medicine
Medical Director, Pulmonary Function Lab
Program Director, Pulmonary and Critical Care Fellowship
  Pulmonary physiology, pulmonary function testing, asthma, COPD

C. Matthew Kinsey, MD, MPH
Assistant Professor of Medicine
Director of Interventional Pulmonary
  -Quantitative imaging and computational modeling for identification of lung cancer
  -Application of endobronchial ultrasound transbronchial needle aspiration for
development of novel precision medicine therapies for lung cancer
  -Interventional trials for COPD

Laurie Whittaker Leclair, MD
Professor of Medicine
Adult CF Program Director, CF Center Member

Prema Menon, MD
Assistant Professor of Medicine

Lennart Lundblad, PhD
Associate Professor
Co-Director, Lung Phenotyping Core
  Lung physiology and pharmacology
  The role of mast cells and bacterial infection
Yolanda Mageto, MD, MPH
Professor of Medicine
Director, Pulmonary Ambulatory Care Clinics
Director, Interstitial Lung Disease Clinic

Polly E. Parsons, MD
E.L. Amidon Professor of Medicine
Chair, Department of Medicine

Matthew E. Poynter, PhD
Professor
Director of the Cellular, Molecular, and Biomedical Sciences Graduate Program
Associate Director of the Vermont Lung Center
Associate Director of the Multidisciplinary Training in Lung Biology T32 Training Grant
  Immunobiology of asthma
  Pathophysiology of obese asthma
  Alcohol-induced immunosuppression

Renee Stapleton, MD, PhD
Associate Professor of Medicine

Benjamin Suratt, MD
Professor of Medicine
Vice Chair, Department of Medicine
Associate Chief, PCCM
Associate Director, PCCM Fellowship Training Program
  Pulmonary complications of cancer survivorship
  Effects of obesity and the metabolic syndrome on lung disease and critical illness

Charlotte Teneback, MD
Assistant Professor
Medical Director, Pulmonary Rehabilitation
Associate Director, Adult Cystic Fibrosis Center
Director, Cystic Fibrosis Therapeutic Development Center
  Cystic fibrosis clinical care and research
  Pulmonary rehabilitation clinical practice and research

Daniel Weiss, MD, PhD
Professor of Medicine
Fellows

Hill Enuh, MD
Radhika Parikh, MD
Sivajothish Kanagalingam, MD
Benjamin Keveson, MD
Timothy Leclair, MD
Lucas Mikulic, MD

Nurse Practitioners and Physician Assistants:

Lily Sender, PA
Sarah Wagner, NP

Graduate Students, Post-doctoral Fellows, MD PhD Students:

Jason H. T. Bates, PhD, DSc
Joshua J. Pothen: MD PhD (graduated with PhD in Bioengineering in May, 2016)
Bradford J. Smith, PhD: post-doc
Catharine L. Hamlington, PhD: post-doc

Lennart Lundblad, PhD
Christa Frodella

Matthew Poynter, PhD
Matthew J. Randall, PhD (post-doctoral fellow)

Renee Stapleton, MD PhD
Prema Menon, MD, Assistant Professor (research mentor)
Timothy Leclair, MD, Senior Fellow (research mentor)
Radhika Parikh, MD, Senior Fellow (research mentor)

Daniel Weiss, MD PhD
Franciska Uhl PhD
Robert Pouliot PhD (starts Aug 2016)
Juan Jose Uriarte PhD (start October 2016)
Lena Thiebes PhD (visiting post-doc 9/16-2/17)

Leadership in Professional Societies:
Gilman Allen, MD
Member of Program Committee for Critical Care Assembly of the American Thoracic Society (ATS). Reviewed > 100 abstracts for Annual 2016 ATS conference

Jason H. T. Bates, PhD, DSc
Chair, Green Mountain Section of the Institute of Electrical & Electronic Engineers (IEEE)  
Co-Chair, Northern New England Chapter of the IEEE Engineering in Medicine & Biology Society

Anne Dixon, MD
Member: American Thoracic Society Finance Committee  
Member: American Thoracic Society Planning and Evaluation Committee  
President, Association of Directors of Pulmonary, Critical Care and Sleep Medicine

Kathryn N. Huggett, PhD
Member, Board of Directors, International Association of Medical Science Educators (IAMSE)  
2017 Conference Program Chair, International Association of Medical Science Educators (IAMSE)  
AAMC Council of Faculty and Academic Societies (CFAS) Junior representative from the Society of Directors of Research in Medical Education

C. Matthew Kinsey, MD MPH
Member, Drug, Device, Development, and Discovery Committee of the American Thoracic Society.

Lennart Lundblad, PhD
Member of the Board of Directors of the Pulmonary research Group

Yolanda Mageto, MD MPH
American Thoracic Society  
Chair Minority Training Awards Subcommittee 2012 – Present  
Chair Membership Committee 2013 – Present

American College of Chest Physicians Member  
FACCP – Fellow of the American College of Chest Physicians 2012 – Present

Society for Critical Care Medicine Member 2012 - Present

Contributing Faculty PILOT Steering Committee France Foundation (Pulmonary Fibrosis identification: Lessons for Optimizing Treatment)

Chair, DSMB Allogeneic Human Cells (hMSC) in Patients with Idiopathic Pulmonary Fibrosis via Intravenous Delivery (AETHER) University of Miami Stem Cell Institute
Chair, DSMB Allogenic Human Cells (hMSC) in Patients with Mild asthma University of Miami Stem Cell Institute

**Renee Stapleton, MD PhD**  
American Thoracic Society  
- Critical Care Assembly Program Committee  
  - Chair-Elect, 2015-2016  
  - Chair, 2016-2017  
- Behavioral Sciences and Health Services Assembly Program Committee, 2012-2015  
- Scientific Advisory Committee (reviews all ATS grants), 2013-present  
- Education Committee, 2013-2016  
- Clinical Year in Review Committee Chair, 2014-2015  
- Unrepresented Patients Working Group, member 2016-present  

Canadian Critical Care Nutrition Clinical Practice Guidelines Committee, External Panel  
Member, 2008-present  


Chair of Data Safety Monitoring Board, “A Phase 2, Multicenter, Randomized, Double-Blind, Comparator-Controlled Study of the Efficacy, Safety, and Pharmacokinetics of Intravenous Ulimorelin (LP101) in Patients with Enteral Feeding Intolerance, Lyric Pharmaceuticals, Inc., 2016-present.

**Daniel Weiss, MD PHD**  
Emeritus Chairman, ATS RCMB Stem Cell Working Group  
Chief Scientific Officer, International Society for Cellular Therapies

**Editorships and Editorial Boards:**

**Jason Bates, PhD, DSc**  
Deputy Editor, Journal of Applied Physiology  
Editorial Board Member, Journal of Clinical Monitoring & Computing
Editorial Board Member, CRC Critical Reviews in Biomedical Engineering

**Kathryn N. Huggett, PhD**
Editorial Board Member, AMA Journal of Ethics

**Lennart Lundblad, PhD**
Proceedings Editor for the Pulmonary Research Group

**Matthew Poynter, PhD**
Editorial Board, American Journal of Respiratory Cell and Molecular Biology

**Daniel Weiss, MD PhD**
Molecular Therapy, Am J Resp Cell and Mol Biology

**Study Sections and Federal Advisory Boards:**

**Jason Bates, PhD, DSc**
Standing member of the NIH RIBT Study Section

**Anne Dixon, MD**
Member, VA Merit Review Panel for Pulmonary, December 2015, June 2016
Roche-Genentech Studies GB28688/GB28689/WB28183/WA29249/WB28182
Member 2013 – present (Chair: Michael Matthay, UCSF)

**Matthew Poynter, PhD**
Member, NIH Lung Cellular, Molecular and Immunology Study Section
Ad hoc member, AIBS FAMRI Study Section

**Renee Stapleton, MD PhD**
American Thoracic Scientific Advisory Committee (responsible for reviewing all ATS grants)
2013-present

**Daniel Weiss, MD PhD**
American Flight Attendant Research Foundation, Canadian CF Foundation

**Major Faculty Awards:**

**Jason Bates, PhD, DSc**
2016 University Scholar
Kathryn N. Huggett, PhD
Distinguished Educator, The Teaching Academy at the University of Vermont College of Medicine. Inducted December 3, 2015.

Laurie Leclair, MD
Outstanding Foundations Course
Foundations Course Director Award
Teaching Academy Faculty Associate

Renee Stapleton, MD PhD
2016 Department of Medicine Resident and Fellow Research Mentor of the Year

Charlotte Teneback, MD
Junior Researcher of the Year 2015, awarded by the UVM medical group

Grants – list all active by faculty member, PI

Jason H. T. Bates, PhD, DSc
R01 HL124052
08/01/2014 – 03/31/2018
NIH/NHLBI Role: PI 3 calendar months
Personalized mechanical ventilation for the injured lung.
$461,523 annual direct costs

P30 GM 103532 PI: Irvin
08/15/10 – 07/31/2016
NIH/NIGMS Role: Co-PI 1.2 calendar months
$716,808 annual direct costs (no-cost extension)

T32 HL076122 PI: Irvin
04/01/04-04/30/19
NIH/NHLBI Role: Co-PI 0.6 calendar months Multidisciplinary Training in Lung Biology
$404,874 annual direct costs

R01 HL130847 PI: Bates/Dixon
03/15/16-2/29/20
NIH/NHLBI Role: Co-PI 3 calendar months
Non-Allergic Late-Onset Asthma of Obesity: Pathophysiology and Therapy
$398,322 annual direct costs
2014 - 2018  New England Public Health Training Center (NEPHTC) Grant. Health Resources and Services Administration (HRSA) (4-year grant $850,000 per year); Carney JK, Principal Investigator, University of Vermont Subcontract, $20,000

Jan Kirk Carney, MD MPH
2014 - 2018 New England Public Health Training Center (NEPHTC) Grant
Health Resources and Services Administration (HRSA) (4-year grant $850,000 per year to Boston University); Jan K. Carney MD MPH, Principal Investigator, University of Vermont Subcontract, $20,000 2015; $50,000 2016


Anne Dixon, MD
R01 HL130847-01  03/01/2016 – 02/29/2020  3.0 Calendar year
Non-Allergic Late-Onset Asthma of Obesity: Pathophysiology and Therapy
Role: MPI (Bates, Dixon)
The goal of this project is to test the hypothesis that late onset, non-allergic asthma developing in the setting of obesity is related to increased airway closure related to changes in the mechanics of the small airways, and that this can be treated with volume elevating therapy.

Pfizer (Dixon)  5/01/2014 – 04/30/2016  1.2 calendar
Biomarkers in Asthma
Role: PI
This is an investigator initiated grant to identify biomarkers associated with asthma control

UVMMG Grant (Dixon)  01/01/2015 - 12/31/2016  0.6 Calendar
Role: PI
Airway Compliance in the Asthma of Obesity
This is a pilot project to determine if the airways of obese late-onset asthmatics are more compliant than obese controls and lean asthmatics.

Kathryn N. Huggett, PhD.

David Kaminsky, MD
Lake Champlain Cancer Research Organization
LCCRO 016 Pilot Project (C3)
Ventilation Heterogeneity on CT Imaging and its Association with Lung Cancer  
PI: David Kaminsky, MD          07/01/16-06/30/17

R34 HL113290-01, NIH/NHLBI  
The Efficacy of Pranayama in COPD  
PI: David Kaminsky, MD (10%)              05/01/12-10/31/16

University of Vermont REACH Award  
Ventilation Heterogeneity and its Association with Lung Cancer  
PI: David Kaminsky, MD          05/1/15-8/31/16

American Lung Association - Asthma Clinical Research Center  
PI: Charles G. Irvin, Ph.D.                    Role on Project: Co-Investigator (5%)            7/1/04-6/30/18

United Therapeutics, Inc.  
Changes in the Diffusing Capacity of the Lung for Carbon Monoxide (DLCO) in Response to Vasodilator Therapy in Patients with Pulmonary Arterial Hypertension  
PI: David Kaminsky, MD (< 5%)             5/1/13-4/30/17

C. Matthew Kinsey, MD MPH
PI: NIH NHLBI K23 “CT Characteristics of Emphysema for Evaluation of Pulmonary Nodules

Laurie Leclair, MD  
Coordination of Mental Health Services for CF Patients and Care givers  
2016-2018
$150,000 (direct)  
The goal of this award is to screen for and coordinate mental health care for individuals/care givers with anxiety/depression.  
Role on Grant: PI

Yolanda Mageto, MD MPH  
2012-Present   PI  
52 week, double blind, randomized ,placebo-controlled trial evaluating the effect of oral BIBF 1120, 150mg twice daily, on annual Forced Vital Capacity decline, in patients with Idiopathic Pulmonary Fibrosis

2012-Present   PI  
A randomized, double blind, Placebo-Controlled, Phase 2 study of the Safety and Efficacy of BMS-986020 in subjects with Idiopathic Pulmonary Fibrosis (Bristol Myers Squibb)

2013-present   A phase 2, Randomized, Double-blind Placebo controlled Study to Evaluate the Safety, Tolerability and Efficacy of FG-3019 in Subjects with Idiopathic Pulmonary Fibrosis (Fibrogen)
2014-Present  PI
A phase II, Randomized, Double-Blind Placebo-Controlled study to assess the efficacy and safety of Lebirkizumab in Patients with Idiopathic Pulmonary Fibrosis (Genentech)

2014-Present  PI
A Treatment Protocol to Allow Patients in the U.S. with Idiopathic Pulmonary Fibrosis Access to Pirfenidone (Intermune)

Prema Menon, MD PhD
PI Improving Communication with Mechanically Ventilated Patients
University of Vermont FISAR Grant
$40,000  2015-2017

PI: Improving Family Satisfaction with Communication in the ICU
UVM Medical Group Research Award
$50,000  2015-2017

Lennart Lundblad, PhD
1R21AI112804-01 (Lundblad)  07/01/2014 – No cost ext.
NIH/NIAID  $150,000
Role: PI
*iNKT cells regulating mast cells: New treatment opportunity for asthma*
The aim of this project is to investigate if iNKT cells are involved in the recruitment and maturation of mast cells in allergic lung disease. We will also elucidate the role of IL-33 signaling from iNKT cells.

Specific Aim 1: To determine if elimination of iNKT cells with iNKT Ab reduces airways hyperresponsiveness and allergen-induced acute bronchoconstriction. Specific Aim 2: To determine if IL-33 signaling is sufficient and necessary for the inflammatory and physiological phenotype.

1R21AI121076-01 (Hill and Lundblad)  3/01/2016 – 12/31/2017
NIH/NIAID
Role: Co-PI
*Toward Rapid, Non-Invasive, Highly Sensitive, Multiplex Detection of Respiratory Pathogens*
This project will address the hypothesis that exhaled breath volatiles can be used to diagnose infections of the lung, and specifically, to distinguish between different pathogens, even during co-infection for acute febrile illnesses. The data from this study is expected to support forthcoming studies in humans and the development of analytical devices for use in the clinic.

NKT Therapeutics Inc. (Lundblad)  07/01/2013 – (no cost ext.)
NKT Therapeutics Inc.  $89,307
Role: PI
*Selective elimination of iNKT cells on the asthmatic phenotype in experimental asthma*
The goal of this pilot project is to study the effects of iNKT cell elimination in mouse model of mast cell – independent allergic airway inflammation. We will determine the role of iNKT cells on airways hyperresponsiveness and the airway inflammation in mice sensitized with ovalbumin.

**Matthew Poynter, PhD.**

K. Grants (Pi in parentheses)

NIH 1R01HL107291 (Poynter) 04/01/2012 – 02/28/2017 3.00 calendar

NIH/NHLBI ADC: $250,000

**Serum Amyloid A3 in Allergic Asthma: An Endogenous Mediator of Disease Severity**

The goal of this project is to determine mechanisms by which pulmonary SAA3 functions to polarize tissue-destructive Th17 responses in severe allergic asthma. In Specific Aim (SA) 1 we will determine quantitative and qualitative patterns of SAA3 expression during the development of allergic asthma in mouse models of disease. In SA2 we will measure the effect of SAA3 on the antigen-specific CD4+ T cell adaptive immune response using wildtype and inducible airway epithelial SAA3-expressing mice, as well as TLR2-, Nlrp3-, IL-1Ra-, and FPR2-deficient mice to determine whether SAA3 promotes Th17 polarization, which receptors are involved, whether the activity is directly upon T cells, and whether the effect of SAA3 is glucocorticoid-sensitive. In SA3 we will establish in vivo the sufficiency and necessity of SAA3 for augmentation of allergic asthma severity, addressing mechanisms implicated from the previous specific aims by which SAA3 worsens lung physiologic and structural allergic asthma phenotypes, including the roles of IL-1, IL-17, and glucocorticoid responsiveness.

NIH 1R01ES021476 (van der Vliet) 06/07/2012 - 02/31/2017 1.20 calendar

NIH/NIEHS ADC: $250,000

**Cigarette smoke-derived electrophilic aldehydes and airway inflammation**

The objectives are to explore the impact of acrolein exposure on allergic sensitization and inflammation and to identify protein targets for alkylation that may relate to these functional alterations. Secondly, we aim to determine the importance of two endogenous detoxification mechanisms (GSTP and hydrogen sulfide) in mitigating these responses.

R21 AI112804 (Lundblad) 07/01/2014 – 06/30/2016 1.00 calendar

NIH/NIAID ADC: $137,500

iNKT cells regulating lung mast cells: new treatment opportunity for asthma

The objective of the proposed studies is to evaluate the effectiveness of a murineized NKT cell-depleting antibody in a house dust mite model of allergic asthma and to determine the contribution of NKT cells to mast cell metaplasia.

R01 HL122383-01A1 (Anathy) 01/01/2015 - 12/31/2019 0.94 calendar

NIH/NHLBI ADC: $250,000

**Endoplasmic reticulum stress signaling in allergen induced airway remodeling**
The over-arching objective of this project is to elucidate the role of the endoplasmic reticulum (ER) in activating allergen mediated death of airway epithelial cells, development of scar in the lung and subsequent decrease in lung function.

VCID Pilot Project (Poynter) 10/01/2015 – 09/30/2016 0.00 calendar
NIH/NIGMS ADC: $49,091
A relevant environmental allergen exposure model for the sensitization to house dust mite and exacerbation of allergic asthma
Role: PI
Our principle objective is to develop an improved mouse model of allergic sensitization that better reflects the natural route, dosing, and duration of allergen exposure experienced by approximately one half of all asthmatics worldwide (house dust mite), with which we can mechanistically dissect its consequences on the most important phenotypes of asthma, specifically methacholine responsiveness, lung remodeling, and immune function, as well as to expose the mice to a battery of asthma-relevant challenges representative of the types that cause disease exacerbation in asthmatic patients.

T32-HL076122 (Irvin) 05/01/2014 - 04/09/2019 0.60 calendar
NIH/NHLBI ADC: $364,962
Multidisciplinary Training in Lung Biology
Role: Co-Director (predoctoral training)
This program supports a group of collaborative and productive pre (4) and postdoctoral (3) trainees who are investigating the causes, diagnosis and cures of debilitating lung disease such as asthma, interstitial lung disease, cystic fibrosis, acute lung injury and infections of the lung.

Renee Stapleton, MD PhD
R01 AG050698, 5/01/2016-2/28/2021
“Improving Palliative Care for Older Seriously Ill Hospitalized Patients and Their Families: A Randomized Trial of an Informed Assent Communication Intervention about CPR”
NIH/NIA Direct: $2,276,543 Role: PI

Department of Medicine Translational Medicine Pilot Award “Nutrition and Exercise in Critical Illness: A Pilot Study”
6/1/16-6/30/17 Direct: $50,000 Role: PI

UVM Frymoyer Scholar Award
“Enhancing Education, Resources, and Opportunities in Biomedical Research for Doctor of Medicine and Doctor of Nursing Practice Students: Creation of a Research Track”
7/01/16-6/30/18 Direct: $25,000 per year for two years Role: PI

UVM College of Medicine Bridge Award, 7/1/15-6/30/17
Phase I Study of Zinc in Severe Sepsis
Direct: $50,000 over 2 years for research, 0.2 FTE salary for each of 2 years
Role: PI

1U01HL102547-01, 7/01/2010-8/31/2016
“A Randomized double-Blind Placebo-Controlled Trial of Ganciclovir/Valganciclovir for Prevention of Cytomegalovirus Reactivation in Acute Lung Injury”
1U01HL102547-01, 7/01/2010-8/31/2016
NIH/NHLBI Per-patient reimbursement Role: Site-Co-PI and Steering Committee Member

Charlotte Teneback, MD
Cystic Fibrosis Therapeutic Development Center Award, January 2015-December 2016. $142,500.

ARC research coordinator support award from the Cystic Fibrosis Foundation. January 2015-December 2016. $142,792.

The SOLUTION study: “A phase 3, randomized, open-label, assessor-blind, non-inferiority, active-comparator study evaluating the efficacy and safety of liprotamase in subjects with cystic fibrosis-related exocrine pancreatic insufficiency.” Anthera Pharmaceuticals. PI. $107,550.00. Current

A prospective observational study in cystic fibrosis patients with chronic respiratory Pseudomonas Aeruginosa infection treated with TOBI Podhaler or other FDA approved inhaled antipseudomonal antibacterial drugs. Novartis. PI. $46,000. Current

A point prevalence study to evaluate the prevalence of antibodies to selected procine viruses in patients with cystic fibrosis who are receiving porcine-derived pancreatic enzyme replacement therapy: A harmonized protocol across sponsors. Abbvie, Aptalis, Janssen. PI. $9,603.00. Current

Daniel Weiss, MD PhD
ACTIVE
R01 HL127144-01 (Weiss, PI) 4/30/15-3/31/20 4.8 calendar
NIH/NHLBI $1,250,000 total direct (requested)
Optimizing Functional Recellularization of Acellular Human Lung Scaffolds
The goal of the current proposal is to provide a detailed assessment of effects and utility of the alginate coatings on lung mechanics and on re-cellularization of the de-cellularized human lung pieces. The proposal was submitted in response to PA-12-284, Exploratory/Developmental Bioengineering Research Grants.

United Therapeutics Inc. (Weiss PI) 11/1/15-10/31/17 2.4 calendar
$353,252 direct
Assessing the immunogenicity of decellularized pig lungs as xenogeneic scaffolds for ex vivo lung bioengineering
The goals of this project are to assess potential immunogenicity of transgenic pig lungs for ex vivo lung bioengineering.

Athersys Inc. (Weiss, PI) 9/1/15-8/31/16 no salary support
$35,000 direct

Effects of Lung BAL Fluid on MSC Behaviors
The major goals of this project are to assess effects of different lung inflammatory environments on release of anti-inflammatory mediators by MSCs. Athersys is funding the laboratory costs for this project.

UVM Department of Medicine/SPARK (Weiss PI) 7/15/15-7/14/16 no salary support
$50,000 direct

Development of a novel alginate pleural sealant
The goal of this project is to further develop an alginate-based pleural sealant patch.

5) DoD Medical Discovery Award (Weiss PI) 3/1/2015-9/30/2016 1.2 calendar
Dept. of Defense $292,360 direct

Development of a novel alginate-based liquid pleural sealant
The goal of this project is to further develop an alginate-based pleural sealant patch.

Vermont Cancer Center Pilot Award (Weiss, PI) 6/15/15-6/14/16 no salary support
$50,000 direct

Development of novel 3D bioprinted scaffolds for reconstructive use in breast cancer patients
The goal of this project is to perform initial materials studies for use in 3D bioprinting of customized breast implants for mastectomy patients.

Cystic Fibrosis Research Grant (DJ Weiss, C dos Santos Co-PIs)
1/1/16-12/31/17 0.5 calendar
$150,000 direct

Optimization of MSC Based Cell Therapies for CF
The major goal of this project is to understand the effect of the CF lung environment on MSC behavior.

BioTek Inc (Weiss PI) 10/1/15-5/31/16 no salary support

High throughput 3D bioprinting of airway models
The major goal of this project is to develop a novel 3D bioprinting approach for human lung airway models.
Publications – peer reviewed, chapters, etc. (not abstracts)


Huggett K.N. and Jeffries, W.B. “Overview of Active Learning Research and Rationale for Active Learning” in A. Fornari and A. Poznanski (eds), How to Guide for Active Learning. International Association of Medical Science Educators; 2015.


Huggett KN. A Faculty Development Blog: Curated and Convenient. Medical Education. 2015; 49:1160-1161. PMID: 26494094 DOI: 10.1111/medu.12863

Huggett KN. General goals of interprofessional education. AAMC Curriculum Inventory in Context. 2016; 3(3). Resource ID 4258. https://www.mededportal.org/icollaborative/resource/4258  (This article was by invitation)


Stapleton RD, Heyland DK. Glycemic control and intensive insulin therapy in critical illness. *Up To Date* online version 16.3. 2007-present. Last updated Feb 2016. Section Editors Polly E. Parsons MD and Adrienne G. Randolph MD MSc; Deputy Editor Kevin C. Wilson MD. Website: [http://www.uptodate.com/online/content/topic.do?topicKey=cc_medi/13045&selectedTitle=1~150&source=search_result](http://www.uptodate.com/online/content/topic.do?topicKey=cc_medi/13045&selectedTitle=1~150&source=search_result)


The members of the Division of Rheumatology and Clinical Immunology provide high quality patient care to residents of Vermont, up-state New York and other contiguous communities, teach UVM Medical Center resident physicians and UVM College of Medicine medical students, and perform both bench and clinical research. Our faculty consists of nine physicians, a clinician pharmacist and a physician’s assistant. The Rheumatology Division and the Osteoporosis Center (a part of our division) welcomed over 12,000 patients, generating more than 20,000 work RVUs for the academic year. In addition to bone densitometry, we have an on-site infusion center for parenteral rheumatologic and osteoporosis medications, and provide point of care diagnostic and procedural (guided injections) musculoskeletal ultrasound. We offer a metabolic bone clinic in addition to our rheumatology services. We have well-established outpatient satellite clinics at Central Vermont Medical Center and Copley Hospital. We cover inpatient consults at the University of Vermont Medical Center on a 24-7 basis.

Our fully accredited rheumatology fellowship program accepts one new fellow annually in a competitive match. The internal medicine residency program incorporated an outpatient rheumatology rotation into the schedule of each resident; they work with each of the faculty thus experiencing a variety of practice styles. Several medical students completed one month elective rotations in our outpatient clinic. Each year we participate in the Vermont Integrated Curriculum Connections course for 2nd year medical students, teaching them rheumatology, metabolic bone disease, and musculoskeletal physical examination skills.

Our faculty engage in clinical research including the use of IL-17 inhibition on psoriatic arthritis, and analysis of Trabecular Bone Score (TBS) in women with breast cancer on aromatase inhibitors and in kidney transplant patients. Our faculty are actively engaged in QI projects that include: incorporation of the Rapid 3 tool (measuring pain and function) into clinic; development of a fracture liaison service for the inpatient hospital; assessment of adherence to EULAR guidelines for treatment of psoriatic arthritis; and participation in the “Treat To Target” TRACTION project, a multi-center national trial with the goal of better patient outcomes and alignment with RA treatment guidelines. We also collaborated with the Division of Immunobiology on effect of IL-6 inhibition on cellular function, and assessment of T cell homeostatic proliferation in patients with RA and SLE.
Faculty
Bonita Libman, M.D.

Professor of Medicine
Division Chief, Rheumatology and Clinical Immunology
Program Director, Rheumatology Fellowship Training Program.

- Connective Tissue Disorders
- Systemic Lupus
- Rheumatoid Arthritis
- Psoriatic Arthritis

Dr. Libman was a member of the American College of Physicians (ACP) MKSAP 17 Rheumatology Committee; after successful publication of the MKSAP 17, she was asked to return as a member of the ACP MKSAP 18 Rheumatology Committee. She developed and implemented the inaugural Rheumatology Research Day, aimed at promoting research through communication and collaboration between clinicians and bench researchers. She is a member of the American College of Rheumatology Student and Resident Outreach Subcommittee and the UVM Graduate Medical Education Committee. She also chairs the UVM Medical Center Medical Records Committee.

Edward Leib, M.D.

Professor Emeritus of Medicine
Director, The Osteoporosis Center, UVM Medical Center

- Osteoporosis and Metabolic Bone Diseases

Dr. Leib, an emeritus professor, specializes in the study and care of individuals with osteoporosis and other metabolic bone diseases. He is an internationally known leading authority on developing guidelines and positions on the appropriate use of bone densitometry. Earlier this year he was a Visiting Professor at New York University (NYU) Rheumatology Division, and presented a seminar on “Assessing Fracture Risk.” He continues to be actively engaged in research, most recently utilizing a new technology for ascertaining fracture risk called trabecular bone score (TBS). In the past year, he co-authored two papers, one on bone status in glucocorticoid treated men and women, and the other on TBS in glucocorticoid induced osteoporosis patients treated with alendronate and teriparatide. He mentored two UVM medical students and a rheumatology fellow in research studies. He is also involved in quality improvement initiatives and is developing an institution wide fracture liaison service that will
improve quality of care to patients with osteoporotic fractures. He directs the Osteoporosis Center and the Metabolic Bone Clinic, and is certified to read bone densitometry by the International Society for Clinical Densitometry. Dr. Leib is a reviewer for several osteoporosis related journals, most notably Bone and Osteoporosis International.

**Grants:**

**Rheumatology Research Foundation**, “Trabecular Bone Score in women with breast cancer on aromatase inhibitors”, with UVM medical student Jeanne Gosselin, $3000

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**Sheldon Cooper, M.D., MACR**

Professor of Medicine

- Rheumatoid Arthritis
- Osteoarthritis
- Regional Rheumatic Syndromes

Dr. Cooper provides care for individuals with arthritis and musculoskeletal problems. He is Principal Investigator for trials that evaluate the effectiveness and mechanism of action of biologic drugs in the treatment of Rheumatoid Arthritis. The focus is on tocilizumab, a monoclonal antibody to the IL-6 receptor. Recent studies have demonstrated that IL-6 blockade reduces the levels of IgG4 antibodies to citrullinated peptides. Current studies are designed to understand how IL-6 blockade alters B-cell function and the role of IgG4 autoantibodies in the pathogenesis of RA. He is also collaborating with Dr. Lau on a research project involving frequency of assessment of liver enzymes in patients treated with methotrexate.

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**Ralph Budd, M.D.**

Professor of Medicine, Microbiology & Molecular Genetics

Director, Immunobiology

- Inflammatory Arthritis
- Systemic Lupus Erythematosus

Dr. Budd and his team have been working on four projects related to the activity of caspases and c-FLIP in the immune system. The first demonstrated that the reason certain viruses took FLIP into their own genome as a short form was that it has the ability to turn off the anti-viral interferon response, whereas,
the full-length long form of c-FLIP does the opposite. Second, they have now linked the level of caspase activity in T cells to their state of metabolism. This has significant implications for which T cells survive an immune response to confer immune memory. The third area is a gene expression study of what genes significantly change expression levels during homeostatic proliferation of T cells. This has implications for why it is important to eliminate these T cells, lest they precipitate autoimmune sequelae. This research is now exploring T cell homeostatic proliferation in patients with rheumatoid arthritis and systemic lupus erythematosus. Another study is on gamma/delta T cells in Lyme arthritis, showing how the levels of c-FLIP in dendritic cells profoundly alter their ability to activate the gamma/delta T cells.

Dr. Budd was invited to give seminars at Dartmouth Medical School, Hanover, NH (May, 2016) and the Kennedy Institute for Rheumatology, Oxford University, Oxford, England (June, 2016)

Dr. Budd is an editor of the Textbook of Rheumatology 9th Edition, the Director of the Vermont Center for Immunology and Infectious Diseases, and has been a member of several NIH study sections. He is a UVM University Distinguished Professor. He is a former Pew Scholar in the Biomedical Sciences and former UVM University Scholar. He is also a member of the Association of American Physicians.

Active Grants:

**T32 AI 055402**
Immunology/Infectious Diseases Training Grant 9/1/05-7/31/21

**P20 GM103496-07**
Vermont Immunobiology/Infectious Diseases Center (COBRE) 8/1/06-6/30/21

**Lupus Research Institute**
RIG-I Regulation of Interferon Signature in SLE

**R21 AI 107298**
Structure and Ligand(s) for Human Synovial TCR-Gamma/Delta 2/1/16-1/31/18

**R21 AI 119979**
Metabolic Regulation of Caspases and Survival in T Cells 3/1/16-2/28/18

**Chi Chi Lau, M.D.**

Associate Professor of Medicine

- Systemic Lupus
- Inflammatory arthritis
- Connective tissue disorders

Dr. Lau has a very busy clinical practice providing excellent care to patients with a variety of complex rheumatic diseases. She is responsible for the Rheumatology Unit’s CME reporting and accounting. She is also involved in teaching second year UVM medical students utilizing the innovative Team Based
Learning technique. Dr. Lau presented a well-received lecture on “Systemic Lupus in Women” to the Women’s Health Conference, Burlington, Vermont in September 2016.

Dr. Lau incorporated the Rapid 3, a pain and function measurement tool useful for QI and clinical studies, into the rheumatology clinic. Working with UVM Medical Center computer services, she was able to incorporate the Rapid 3 directly into PRISM. Dr. Lau is currently working on a research project involving frequency of assessment of liver enzymes in patients treated with methotrexate.

Nicole Hynes, M.D.
Assistant Professor of Medicine

- Inflammatory arthritis
- Connective tissue disorders
- Regional pain syndromes

Dr. Hynes provides outreach specialty care in rural areas of Vermont at Copley Hospital and Central Vermont Medical Center. She was the UVM Team Leader for the TRACTION project, a multi-center trial developed by Dr. Daniel Solomon and others at Brigham and Women’s Hospital that facilitates adoption and adherence of “Treat To Target” principles for RA treatment with goal of better patient outcomes and alignment with RA treatment guidelines.

Narandra Bethina, M.B.B.S.
Assistant Professor of Medicine
Associate Program Director, Rheumatology Fellowship Training Program

- Rheumatoid Arthritis
- Psoriatic Arthritis
- Scleroderma
- Sjogren’s Syndrome
- Musculoskeletal Ultrasound

Dr. Bethina manages patients with multiple rheumatologic conditions. Dr. Bethina is certified in Musculoskeletal Ultrasound by the Ultrasound School of North American Rheumatologists (USSONAR) and is the Rheumatology Division expert in diagnostic and procedural (guided injections) MSK ultrasound. He is an instructor and mentor for USSONAR (Ultrasound School of North American Rheumatologists). He taught at the USSONAR MSK Ultrasound Course at the national ACR meeting.
November 2015, and has been invited to return for the upcoming meeting in November 2016. Dr. Bethina is the Associate Program Director for the Rheumatology Fellowship Program.

**Scott Legunn, M.D.**

Clinical Assistant Professor of Medicine

- Rheumatoid Arthritis
- Polymyalgia Rheumatica/Giant Cell Arteritis
- Psoriatic Arthritis
- Vasculitis

Dr. Legunn provides specialty care for patients with a variety of rheumatologic diseases. He has been active in the teaching program, frequently working with rotating internal medicine residents in clinic and teaching rheumatology fellows and medical students. Working with Dr. Budd, he completed a research project on homeostatic T cell proliferation in patients with rheumatoid arthritis and lupus.

**Suzanne Trost, M.D.**

- Osteoporosis
- Metabolic Bone Disease

Dr. Trost is a board certified endocrinologist with expertise in metabolic bone disease. She is an attending physician at our affiliated institution, Central Vermont Medical Center. She joins Dr. Leib in metabolic bone clinic providing patient care and teaching rheumatology and endocrinology fellows over their two years of training as part of their metabolic bone rotation.

**Amanda G. Kennedy, PharmD, BCPS**

Pharmacist Clinician (Rheumatology/Dermatology), UVM Medical Center Specialty Pharmacy

Associate Professor

Director, Vermont Academic Detailing Program

Dr. Kennedy is an integral member of the Division. She provides expert clinical care to patients who require counseling and information on their medications and educates the division on all aspects of medications we prescribe. She advocated for patient care on May 18, 2016 when she made a presentation with Dr. Charles MacLean to the U.S. House of Representatives in Washington D.C on “Getting the Medications Right: An essential ingredient in achieving the goals of H.R. 4878 – the
Medicare Better Care, Lower Cost Act. Updates from Vermont.” She is very active in research and has focused on quality improvement initiatives. She is the rheumatology division representative on the Department of Medicine Quality Assurance and Improvement Committee. She is a clinical advisory board member for ISMP Medication Safety Alert! Community/Ambulatory Care newsletter, Institute for Safe Medication Practices, Huntingdon Valley, Pennsylvania and is a grant reviewer for the UVM REACH Grant Program.

Grants: **Pfizer, Inc.** “Promoting Shared Decision Making in Rheumatoid Arthritis through Patient Education” $11,344; the purpose of this proof-of-concept project is to design and implement an education program to promote shared decision making and a treat-to-target (T2T) approach for patients with Rheumatoid Arthritis (RA). Dr. Kennedy coordinated the funding and methodology for this project, but is receiving no salary or other financial support for this project. All funding is going directly to the UVM Medical Center Rheumatology clinic.

**Nurse Practitioners and Physician Assistants:**

**Jill Geoffrion, PA-C**

PA Geoffrion sees patients in rheumatology clinic and in metabolic bone disease clinic. She is actively participating in an ongoing pharmaceutical sponsored research trial of secukinumab in psoriatic arthritis.

**Fellows**

**Sahithi Jarugula, M.B.B.S.**

Completed fellowship June 2016

**Syeda Maria Sayeed, M.B.B.S.**

Will complete fellowship in June 2017

**Kateryna Bertuch, M.D.**

Will begin fellowship July 2016

**Publications – peer reviewed, chapters, etc.**


<table>
<thead>
<tr>
<th>Division</th>
<th>Principal Investigator</th>
<th>Sponsor</th>
<th>Project Title</th>
<th>Start</th>
<th>End</th>
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<td>LeWinter, Martin M</td>
<td>University of Arizona</td>
<td>Myofilament Based Mechanisms of Diastolic Dysfunction in HfPEF</td>
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<td>Heart Rate Dependent Remodeling of the Heart – A Safety and Feasibility Study</td>
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<td>01-Apr-16</td>
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<td>Novel Biomarkers of Thrombotic Renal Damage</td>
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<td>Catheter and System Development Proposal: Mapping Tools for Patient</td>
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<td>Metabolic Effects of Prenatal Exposure to Particulate Matter</td>
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<td>Pennsylvania State University</td>
<td>Inspiring Dietitians to Elevate and Advance (IDEA) their Roles as Leaders in Nutrition Care Using Computer Gaming Simulations</td>
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**Total** $1,822,177 $645,217 $2,467,393
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<td>Cushman, Mary</td>
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<td>C-reactive Protein and Stroke Risk in African-Americans and Whites</td>
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<td>Increasing Adherence to Adjuvant Hormonal Therapy Among Breast Cancer Patients: Phase 2 - Pilot Test of Intervention for Feasibility</td>
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Department of Medicine
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Department of Medicine
UVM Research Funding (Direct & Indirect) by Division, FY2012-FY2016