

“THE STATE OF RESEARCH AT THE LARNER COLLEGE OF MEDICINE”

AND THE

DEAN’S EXCELLENCE IN RESEARCH AWARDS CEREMONY



PRESENTED BY
Gordon Jensen, M.D., Ph.D.
Senior Associate Dean for Research

Wednesday, October 27, 2021
4:00 P.M. - 5:00 P.M. • Via Zoom



DEAN'S CELEBRATING EXCELLENCE IN RESEARCH 
EXCELLENCE
IN RESEARCH
CELEBRATION
OCTOBER 25 - 27, 2021

Dean's Excellence in Research Celebration

- I. Welcome by Dean Page**
- II. Remarks by UVM VP for Research, Kirk Dombrowski**
- III. State of Research at LCOM by Senior Associate Dean Jensen**
- IV. Research Awards Celebration**



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State of Research

GORDON L. JENSEN, M.D., PH.D.

SENIOR ASSOCIATE DEAN FOR RESEARCH

THE ROBERT LARNER, M.D. COLLEGE OF MEDICINE

THE UNIVERSITY OF VERMONT



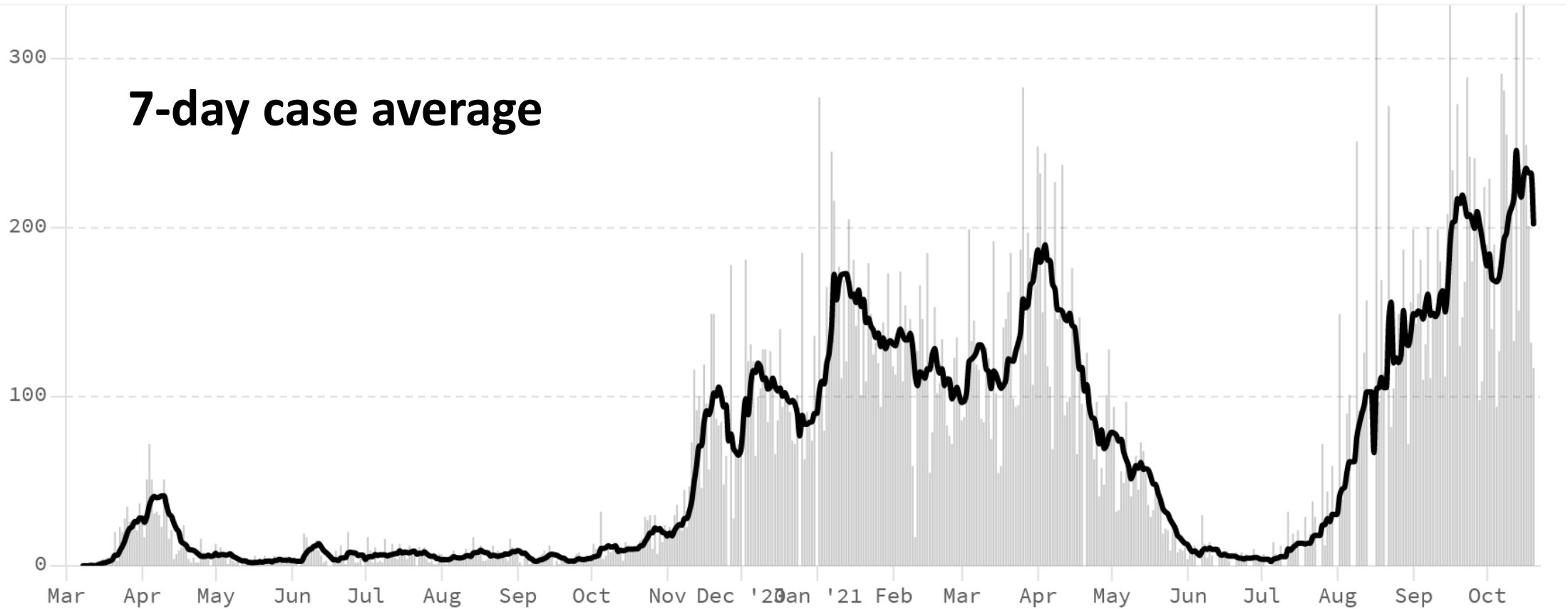
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Research Updates

- I. Pandemic**
- II. Firestone/CBSR**
- III. Faculty hires/recruitments**
- IV. Publications/grants**
- V. COBREs/NNE-CTR**
- VI. CORA**
- VII. Center for Health Services Research**
- VIII. Research cores/services/support**
- IX. Research objectives/opportunities**



COVID-19 Pandemic in Vermont



Phase 3 Safety and Efficacy of AZD1222 (ChAdOx1 nCoV-19) Covid-19 Vaccine

A.R. Falsey, M.E. Sobieszczyk, I. Hirsch, S. Sproule, M.L. Robb, L. Corey, K.M. Neuzil, W. Hahn, J. Hunt, M.J. Mulligan, C. McEvoy, E. DeJesus, M. Hassman, S.J. Little, B.A. Pahud, A. Durbin, P. Pickrell, E.S. Daar, L. Bush, J. Solis, Q.O. Carr, T. Oyedele, S. Buchbinder, J. Cowden, S.L. Vargas, A.G. Benavides, R. Call, M.C. Keefer, **B.D. Kirkpatrick**, J. Pullman, T. Tong, M.B. Isaacs, D. Benkeser, H.E. Janes, M.C. Nason, J.A. Green, E.J. Kelly, J. Maaske, N. Mueller, K. Shoemaker, T. Takas, R.P. Marshall, M.N. Pangalos, T. Villafana, and A. Gonzalez-Lopez, for the AstraZeneca AZD1222 Clinical Study Group.

- Randomized, double-blind, multicenter study assessing the safety, efficacy, and immunogenicity of AZD1222 compared to placebo for the prevention of COVID-19.
- N Engl J Med, 2021 Sep 29; NEJMoa2105290. doi: 10.1056/NEJMoa2105290. Online ahead of print.





Construction underway:
11/6/20 (left) &
3/20/21 (right)



Topping Off & Beam Signing:
4/27/21



Ceremonial Ground Breaking:
9/30/21

~50% completion:
10/18/21



Firestone Medical Research Building: Space Planning



- I. **Holistic approach to space planning to combine available Firestone Medical Research Building (FMRB) and Health Science Research Facility (HSRF) space:**
 - 31,000 NSF assigned of 46,000 NSF available = 68% committed
 - 15,000 NSF uncommitted to support LCOM strategic priorities
- II. **FMRB and HSRF space assignments by building level:**
 - 1: Center for Biomedical Shared Resources (CBSR: Microscopy Imaging Center (MIC), Vermont Integrative Genomics Research (VIGR), Mass Spectrometry, Flow Cytometry, & Vermont Genetics Network (VGN))
 - 2: ~50% assigned to support Redox Biology and Vermont Lung Center (VLC)
 - 3: ~40% assigned to support UVM Cancer Center (UVMCC) EpiTeam
 - 4: Center for Cardiovascular & Brain Health (CCBH)
- III. **MEDPLEX space projected to be vacated:**
 - Given: Pharmacology, VLC, & UVMCC
 - HSRF: MIC, Flow Cytometry, & VIGR
- IV. **Timeline: FMRB occupation process projected to begin December 2022**

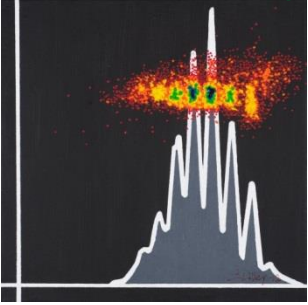


Center for Biomedical Shared Resources

- I. CBSR supported by NIH C06 biomedical facilities grant
- II. Microscopy Imaging Center, VT Integrated Genomics Resource, Flow Cytometry, and Mass Spectrometry
- III. Doug Taatjes, Ph.D., will serve as director
- IV. Nicole DeLance, B.S., will serve as business manager
- V. New website - <https://www.med.uvm.edu/cbsr/home>
- VI. Target opening in new Firestone facility fall 2022



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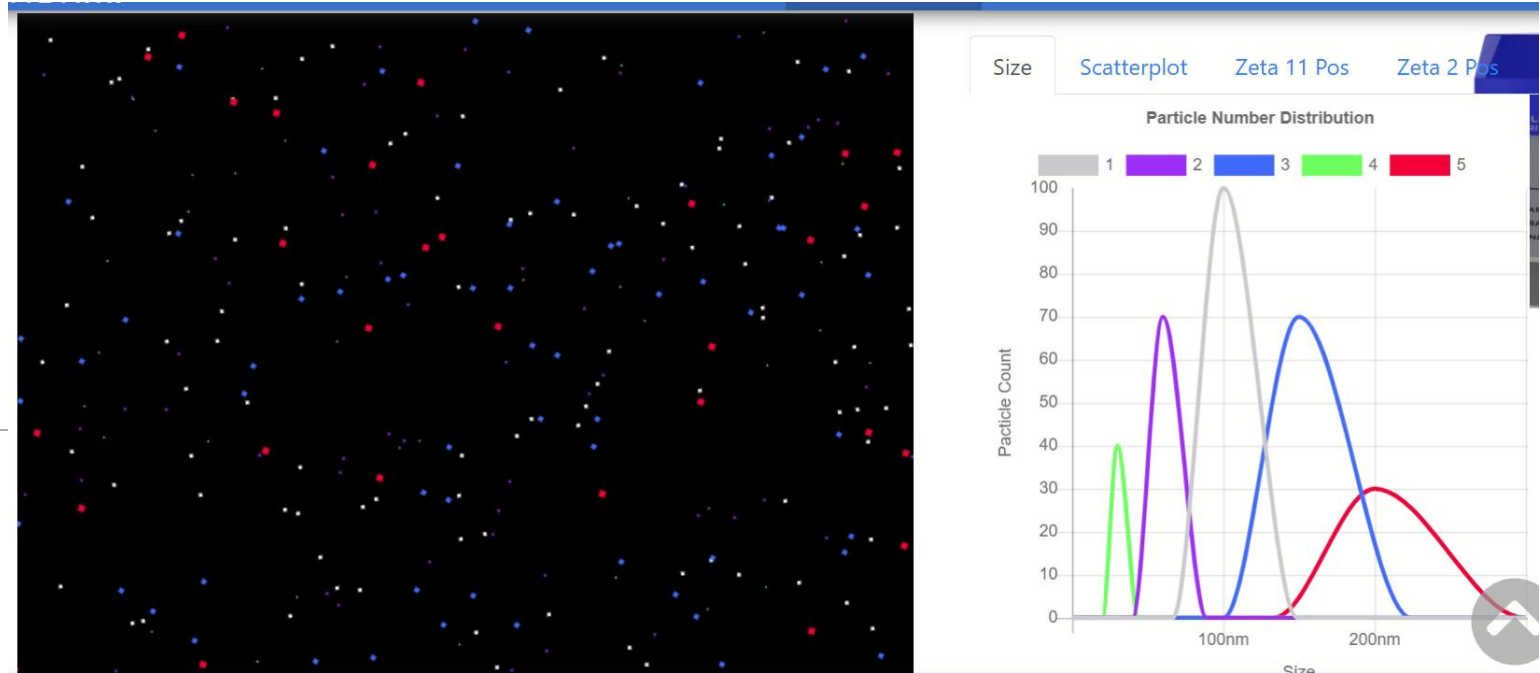


Particle Metrix ZetaView TWIN (Nanoparticle Analyzer)



For the analysis of biological nanoparticles: extra cellular vesicles (EVs), exosomes, virus, virus-like particles:

- Size
- Concentration
- Surface charge (zeta potential)



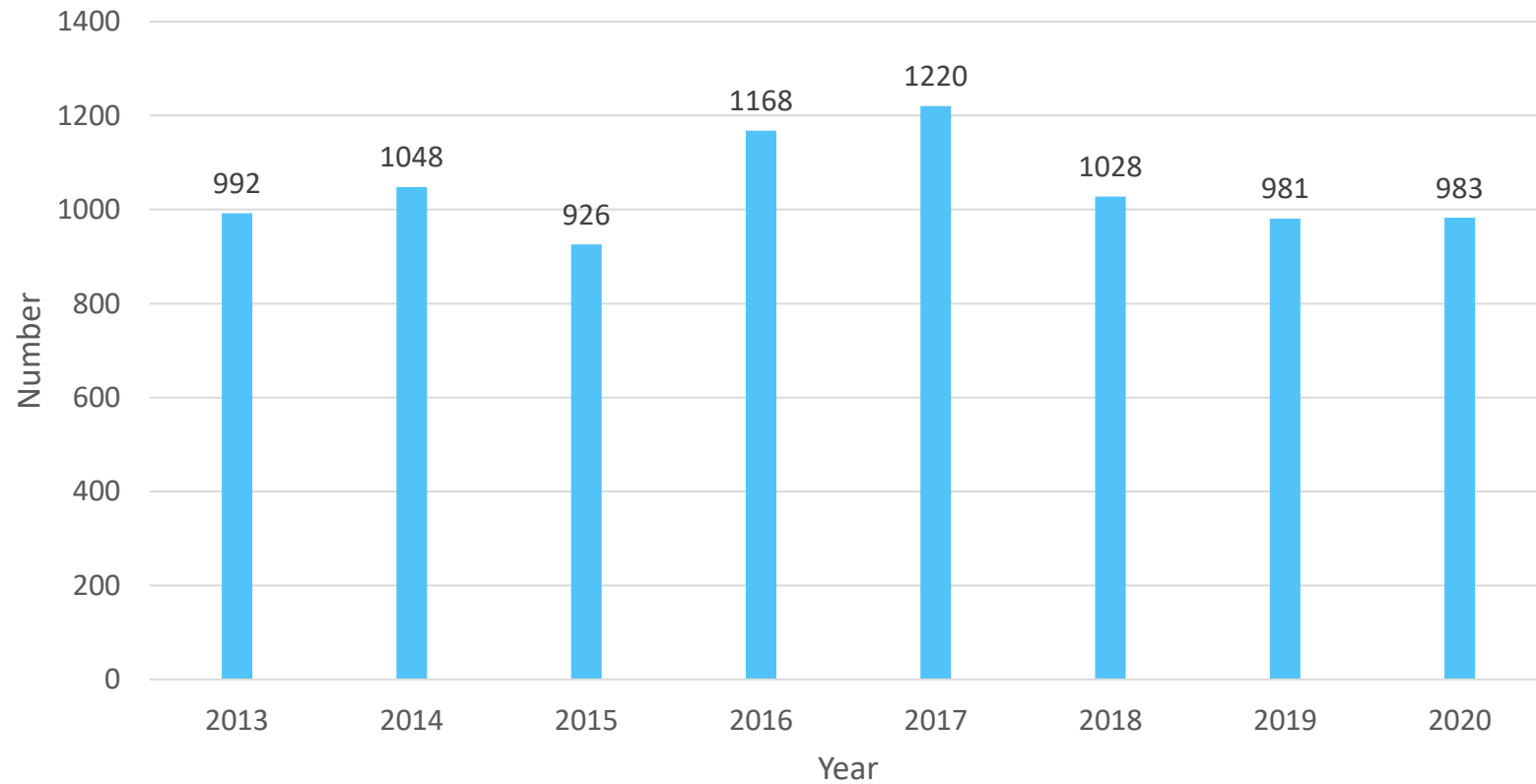
Lasers: 405 nm and 488 nm

LCOM New Faculty Hires

Faculty Hires				
Pathway	FY21	FY 20	FY 19	FY 18
Tenure	3	2	2	2
Research	2	5	8	5
Faculty Scientist	2	1	1	5
Open Recruitments				
Pathway	Current			
Tenure	2			
Research	4			
Faculty Scientist	1			



Peer-reviewed Publications



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Major Individual Grant Awards FY 21

- I. \$5.4M – J. Shaw – VCHIP – VT Health
- II. \$3.9M – S. Higgins – TCORS - NIH
- III. \$2.7M – R. Tracy – RTI International
- IV. \$2.6M – M. Cushman – COBRE - NIH
- V. \$2.3M – S. Higgins – COBRE - NIH
- VI. \$2.2M – B. Kirkpatrick – COBRE – NIH
- VII. \$1.9M – R. Budd – COBRE - NIH
- VIII. \$1.8M – S. Doubleie – program project - NIH
- IX. \$1.7M – H. Garavan - NIH
- X. \$1.6M – G. Stein – NNE-CTR – NIH and \$1.6M program project – NIH

All awards in \$ millions

Total LCOM grant funding FY21 = \$99.5 million



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Center of Biomedical Research Excellence (COBRE) and Clinical Translational Research (CTR) Grants

I. Vermont Center on Behavior and Health

- Stephen Higgins, PI

II. Translational Global Infectious Disease Research

- Beth Kirkpatrick, PI

III. Vermont Center for Cardiovascular and Brain Health

- Mark Nelson, Mary Cushman, PIs

IV. Northern New England Clinical and Translational Research Network

- Gary Stein, PI



Vermont Center on Behavior and Health: Accomplishments

- I. Successful competitive renewal of NIDA T32 pre-doctoral and postdoctoral training program for years 31-35.
- II. Annual national conference on Rural Addiction and Health. Guest edited a special issue of Preventive Medicine by same title, November 2021 issue.
- III. Multiple peer-reviewed articles, with two warranting special note: H. Bolivar et al. JAMA Psychiatry. 2021; Oct 7. 78(10): 1092-1102. S. Heil et al. JAMA Psychiatry. 2021; 78 (10): 1071-1078.
- IV. VCBH Associate Director, Philip Ades, MD, honored with the LCOM Department of Medicine Distinguished Mentor Award.
- V. <http://www.med.uvm.edu/behaviorandhealth/home>



Translational Global Infectious Diseases Research Center Accomplishments

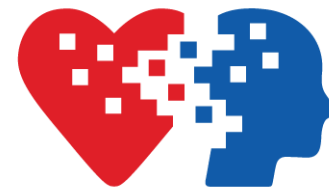


- I.** Recruited three new junior faculty: Dr. Bruno Martorelli-DiGenova (LCOM), Dr. Emily Bruce (LCOM) and Dr. Jean-Gabrielle Young (CEMS).
- II.** Received a competitive NIH NIGMS supplement on modeling for pandemic preparedness, led by Jason Bates and submitted another large NSF planning grant for a center for pandemic preparedness at UVM.
- III.** Awarded four competitive new pilot awards: COVID epitope discovery (Majumdar), refugee health (Gleason), COVID transmission dynamics (Nowak) and SARS lung pathogenesis (Thali).
- IV.** Began new monthly academic sessions focused on infectious disease modeling, vaccinology, grant reviews, and a rotating boot camp (currently on the principles of data management).
- V.** <https://www.med.uvm.edu/tgircobre/home>



Accomplishments

- **Four Project Directors:** 10 manuscripts, 12 presentations
- **Pipeline Investigators:** 30 people from 5 UVM Colleges
- **Highlights**
 - Annual Symposium in June
 - Monthly Conference and Journal Club
 - Cores
 - Study Design and Molecular Epidemiology:
Neil Zakai and Peter Durda
 - Customized Physiology and Imaging:
Todd Clason
 - Website launched:
www.med.uvm.edu/heartbrainhealth

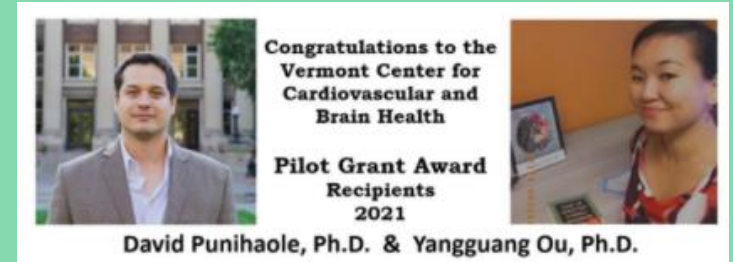


VERMONT CENTER FOR
CARDIOVASCULAR
& BRAIN HEALTH

 @UVMHeartBrain

Pilot Grants: \$200K over 2 years

1st Grant Awarded: Determining the Structural Basis of Amyloid- β Fibril Cytotoxicity



Watch for the RFA for the upcoming Pilot in Dec.

Masayo Koide
2Y grant from Orphan Disease Center
2020 Million Dollar Bike Ride

Osama Harraz
Early Career Editorial Board for
Physiological Reviews (IF 37.3)

Abbie Johnson: 9th percentile on NIH
R01 (1st submission)!

NNE-CTR Accomplishments

I. Notable Pilot Projects

- Impact of social distancing policies on well being of older adults
- Development of messaging to encourage COVID-19 vaccine uptake among rural Americans
- Implementation and validation of Field Assessment Stroke Triage for Emergency Destination (FAST-ED) in a rural EMS region
- Emergency department-initiated buprenorphine intervention for opioid use disorder
- Investigation of food insecurity during the pandemic in collaboration with the Gund Institute

II. Funded Grants

- COVID testing hesitancy
- COVID-19 vaccination hesitancy
- Rural addiction treatment access
- HPV vaccination hesitancy

III. *Submitted 5-year renewal proposal*

IV. <http://www.med.uvm.edu/nne-ctr/home>



Epigenetic Control in Cancer



- I. New program project – funded by NCI at \$9M over 5 years**
- II. Objective - identify new targets for breast cancer prevention and treatment**
- III. Principal investigators - Gary and Janet Stein**
- IV. Participants**
 - Seth Fritze, Karen Glass, Prachi Ghule, Jonathan Gordon, Peter Kaufman, Gary Stein, Janet Stein, Jane Lian, Pamela Vacek, and Donald Weaver
- V. Projects**
 - Compromised epigenetic regulation of genome organization and expression
 - Epigenetic mechanisms controlling genes in breast cancer onset and progression
 - Noncoding RNAs in breast cancer biology and pathology





UVM Center on Rural Addiction

Stacey Sigmon, Ph.D., Director

<https://uvmcora.org/>

Accomplishments:

- 12 Community Rounds webinars with ~1,585 attendees to date.
- Peer-to-peer mentoring and consultations to assist rural providers.
- UVM CORA Best Practices Scholarship Program provides rural practices the opportunity for 2 days of in-person comprehensive training/consultation.
- Provided ~300 presentations to diverse audiences.

In the year ahead:

- Establish a novel, interdisciplinary Clinical Rapid Response Team, to provide direct care to patients in their rural home communities and in partnership with their rural PCPs.
- Launch an Evidence-Based Practices Office Hours platform to aid rural providers with consultations on specific patient cases/clinical issues.
- Continue the UVM CORA Best Practices Scholarship Program.



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Center for Health Services Research

Adam Atherly, Ph.D., Director

I. Research Updates

- Active research projects with UVMHN, OneCare and VT State Government
- Focus on evaluation of care and financing innovation and the effect on outcomes, quality of care and total cost
- New collaboration with University of Southern Maine to focus on regional health delivery questions
- New grant funding from both internal and external sources

II. Data projects

- New DUA to allow LCOM faculty access to full state discharge data including restricted data elements
- VHCURES was linked to both vital statistics and cancer registry
- Behavioral Risk Factor Surveillance Survey with zip code level identifiers

III. <https://www.med.uvm.edu/healthservicesresearch/home>



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Research Cores and Services

<http://med.uvm.edu/research/corefacilites>

LCOM Cores

Microscopy Imaging

Flow Cytometry

VT Integrative Genomics

- DNA Analysis
- Microarray
- Massively Parallel Sequencing
- Bioinformatics

MRI Center

Biostatistics

Office of Clinical Trials Research (OCTR)

Clinical Research Center (CRC)

BSL-3 Facility – development of new shared resource

Organoids – working group looking at options

Other Resources

Grant proposal development and writing

Clinical Trials Management System – acquisition ongoing

Mentorship initiatives

Genomic Medicine Laboratory

Investigational Pharmacy

Medical Simulation Center

VT Advanced Computing Center

Instrumentation and Model Facility

Mass Spectrometry

Proteomics

Biobank

Animal Facilities



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UVM Cancer Center Biobank

I. What is the Biobank?

- UVMCC resource for cancer researchers established 1988
- N = >4600 specimens; many matched tumor/normal patient samples

II. Services provided

- Fresh-frozen surgical specimens and autopsy specimens
- Specimen-associated clinical data
- Biobank database search to match research goals to available specimens

III. How to access

- Medical Director: Donald L Weaver, MD, Associate Medical Director: John DeWitt, MD, PhD
- Technical Director: Mark Evans, PhD; Lead technologist: Christine Adamson
- Website:
<https://www.med.uvm.edu/uvmcancercenter/core-facilities/biobank>



Clinical Research Support - Directed by Kim Luebbers, MSHS, RN, BSN, Asst. Dean for Clinical Research

Office of Clinical Trials Research (OCTR) - FY21

- Regulatory, contact and budget support – 165 Agreements
- Research staff support – 124 projects, supporting 49 unique PIs
- Total profit \$442,173, half of which was returned to the departments
- Research QA review conducted (regular QA review activity has been interrupted by the pandemic)

Clinical Research Center (CRC) - FY21

- Inpatient Research Unit containing the following resources: inpatient beds, research nurses, bionutrition kitchen and nutrition staff, physiology and exercise physiology staff, Informatics (REDCap) and support staff
- 75 projects, supporting 48 unique PIs
- 1,847 outpatient visits in the CRC, 1,210 at the Brickyard Research Clinic and conducted an additional 573 remote follow up visits

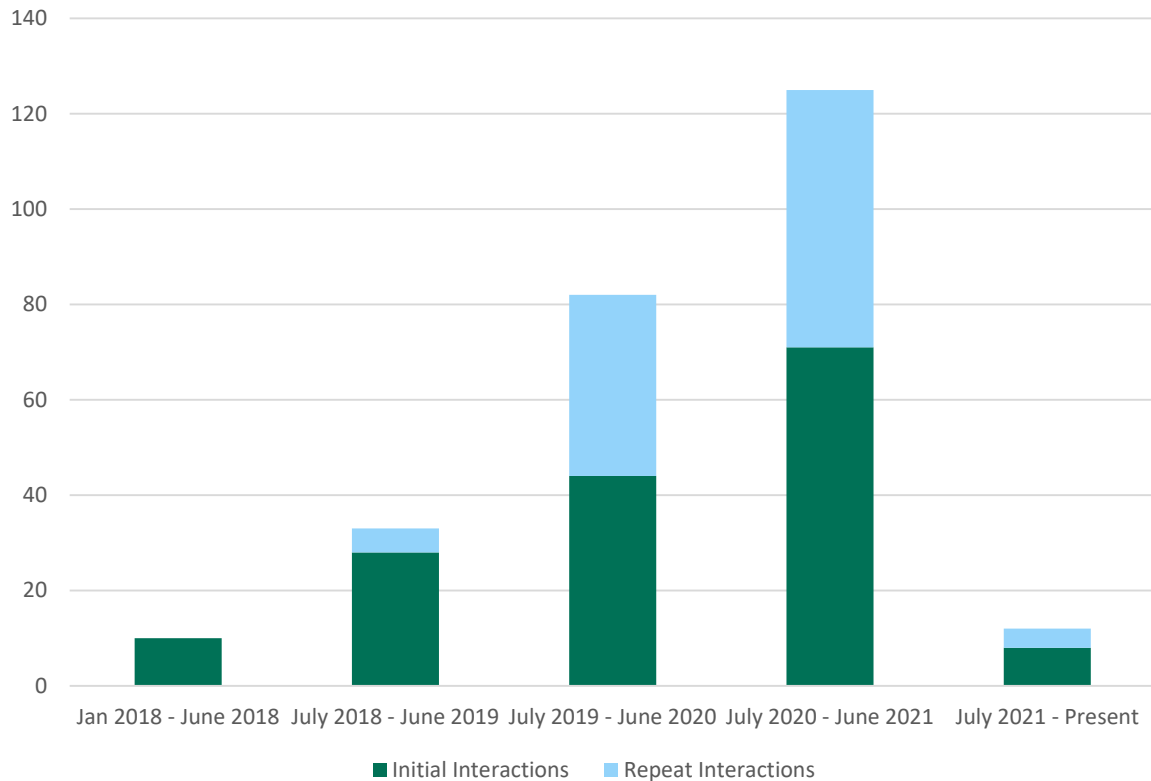


Research Navigators

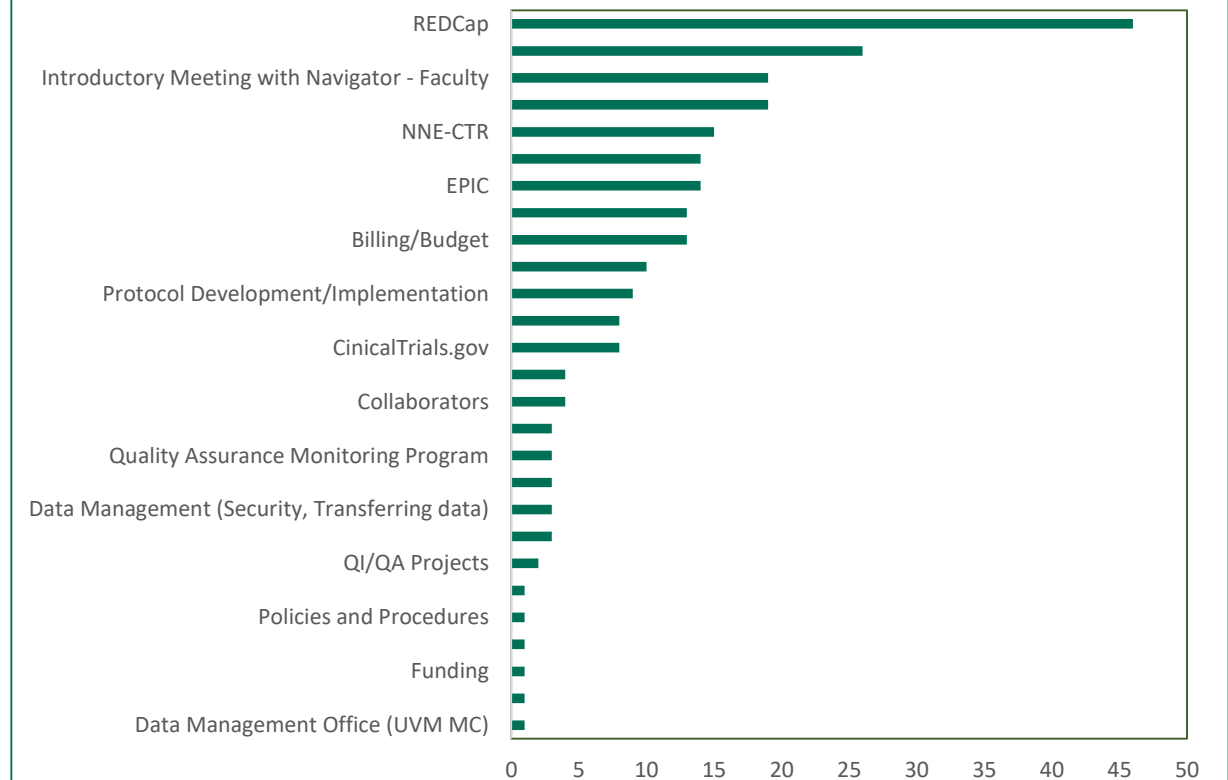
Access via simple online consultation form

<http://www.med.uvm.edu/clinicalresearch/research-navigator>

Navigator Interactions



Types of Services Requested at UVM



Fundamentals in the Conduct of Clinical Research

Required Clinical Research Coordinator Training Program

- Piloted Feb 2020, formally launched August 2020
- Conducted 14 sessions, 147 individuals have participated
 - CITI Clinical Research Coordinator Foundations
 - 10 hours, 4 – 2.5-hour sessions zoom classroom
 - Competency Assessment

New initiatives:

- I. LCOM Summer Research Fellowship Students Fundamentals in the Conduct of Clinical Research – Pilot training program launched spring 2021
- II. PI training program for clinical investigators - pending



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Research Support – Biomedical Statistics

- I. Peter Callas, Ph.D., Core Director**
- II. Biomedical statistics support for consultation**
 - Up to 5 hours of assistance per grant application is available for LCOM faculty members or trainees
- III. Plan to integrate with the Center for Biomedical Shared Resources**
- IV. <https://www.uvm.edu/biostatistics>**



Research Incentive Program

- I.** LCOM budgeted \$1 million per year.
- II.** Amount of incentive based on a percentage of total F&A brought in by each qualified faculty member. Can be used as unrestricted fund or additional pay.
- III.** Monitoring outcomes with faculty working group.
- IV.** Payments for FY21 will be forthcoming.



Salary support for PI's for major institutional grant opportunities

- I. LCOM has budgeted \$100K annually to provide 20-40% effort of PI salary at the NIH cap for a maximum of 3 months to support development and submission of training or other major institutional grant opportunities.**
- II. Should support 3-9 faculty members annually depending upon the award amounts.**
- III. Announcement with instructions has been disseminated.**
 - Maximum 3 page outline application including requested details.
 - Supporting letter from department head.
 - Biosketch in NIH format.
- IV. Ad hoc committee review**
- V. This support mechanism has already been associated with successful COBRE and training grant applications.**



Salary support for PI's of active funded training grants

- I.** LCOM will provide 5% effort for the PI of a funded T32 training grant at the NIH cap for up to 5-years corresponding to the period of grant funding. If there are two Co-PI's, then the salary support can be split.
- II.** NIH T32 pre-doctoral and post-doctoral training grants are eligible.
- III.** To request support please submit the following to the Senior Associate Dean for Research.
 - Copy of training grant award letter.
 - If the grant is anything other than a funded NIH T32, then please provide a description of the training program and funding source.
 - To be eligible for consideration, a training grant must support multiple trainees and it should not provide salary support for PI's or Co-PI's.
- IV.** Training grant PI's are currently being supported by this mechanism. Gary Ward- Microbiology/Immunology T32.



Pilot Research Funds

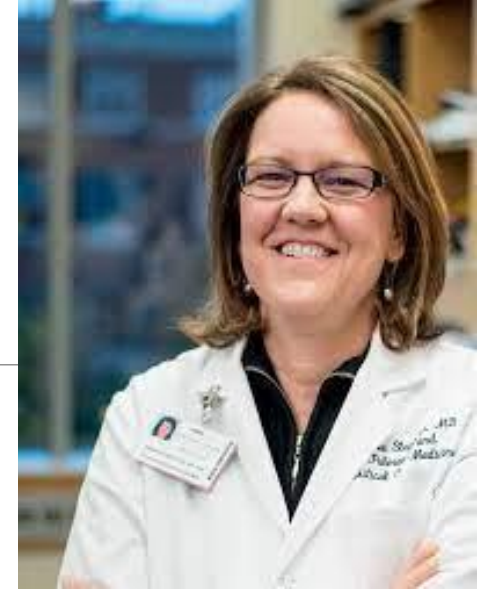
- I. **We have resumed our internal pilot and bridge support programs.**
 - I would like to acknowledge the assistance of Matt Wargo, Ph.D., Chair, and other members of the Research Committee

- II. **In the context of the CBSR grant we will aim to resume targeted pilot funding in 2022 for new methodologies in basic research in conjunction with a research core.**



Medical Student Research

- I. Renee Stapleton, M.D., Ph.D., Director Medical Student Research**
- II. Summer research fellowship program between 1st and 2nd years**
 - Set new record this past year with 41 funded participants
- III. Students are also engaged in research projects in Public Health**
- IV. We are also offering an internally funded research gap year fellowship between years 3 and 4**
- V. Focused on increasing awareness of opportunities**



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UVM Health Network Research Opportunities

I. Network research working group is now meeting regularly

- Working with key leaders/stakeholders
- Providing updates on Network research projects and opportunities
- Electronic data access – working to overcome impediments
 - Covered entity and risk concerns
 - Restrictions on limited data sets containing private health information

II. Priority - enhance clinical trial opportunities/capabilities



Research Objectives Vision 2025

- I. Improve infrastructure**
- II. Provide sustainable shared resources – CBSR, alignment bioinformatics/biostatistics**
- III. Enhance data processing and storage capabilities**
- IV. Focus on current strengths and future opportunities**
- V. Support innovation and entrepreneurship**
- VI. Strengthen mentorship and career development for faculty, students, and trainees**
- VII. Maximize faculty recruitment and retention**
- VIII. Diversify funding portfolio for research support**



State of Research at LCOM

- I. We will disseminate my presentation.
- II. Please reach out with any questions or feedback.
- III. Gordon.jensen@med.uvm.edu



Dean's Excellence in Research Awards



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2021 UVM Medical Alumni Association Distinguished Graduate Alumni Award

- I. Presented yesterday to Junjie Chen, Professor and Chair, Department of Experimental Radiation Oncology, Division of Radiation Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX
- II. Ph.D., University of Vermont, Cell and Molecular Biology, 1993
- III. Significant contributions to the field of genomic stability, especially in the area of DNA damage responsive pathways and cancer biology.
- IV. Award presentation entitled “Random Thoughts Between Experiments”



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Research Laureate Address Earlier Today

“Obesity and Asthma, how Fat affects Flow”



I. Anne Dixon, M.D.

- Professor of Medicine, Dept. of Medicine, Division Pulmonary Disease and Critical Care, Director Vermont Lung Center

II. Highlights

- Paradigm shifting research on obesity and asthma.
- Published >120 peer-reviewed papers in high-impact journals.
- Continuous NIH funding since 2000. PI for multiple NIH grants.
- Mentored >25 medical and graduate students, residents, and fellows.
- Served on multiple grant review panels including NIH K23, and Special Emphasis, and VA grants.

K08,



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Research Celebration Awards Program

- I. Graduate student research showcase awards
- II. Trainee awards - outstanding research publication
- III. UVM Health Network Medical Group
- IV. UVM LCOM Staff
- V. UVM LCOM Faculty

Awards will be forwarded via interoffice mail.



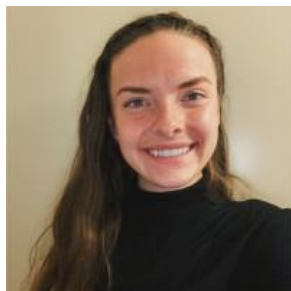
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Graduate Student Research Showcase

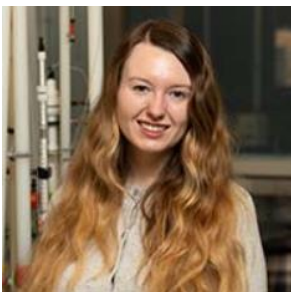
Congratulations to all participants and award recipients!

Junior Graduate Division

First Place: Bryn Loftness
(McGinnis Lab, Psychiatry & Complex Systems)



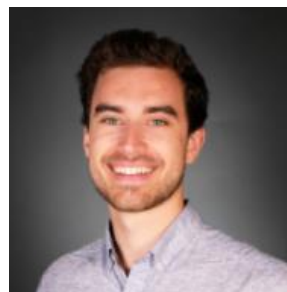
Runner-up: Allison Morrissey
(Lee Lab, MMG & CMB)



Senior Graduate Division

First Place: JJ Bivona
(Poynter Lab, Medicine & CMB)

Runner Up: Jeffrey Brabec
(Mahoney Lab, Neurological Sciences & NGP)



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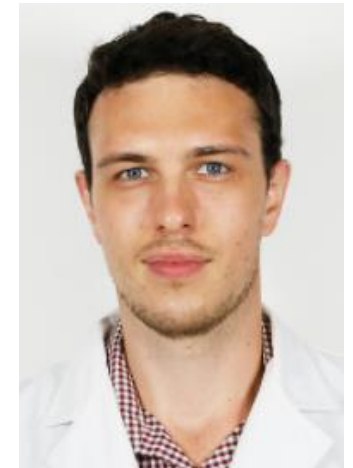
Dean's Excellence in Research Awards

- I. Graduate Student – Outstanding Research Publication
- II. **Leslie Sepaniac** – mentor Jason Stumpff, Ph.D.
- III. **Sepaniac L.A.**, Martin W., Dionne L.A., Stearns T.M., Reinholdt L.G., and Stumpff J., (2021), Micronuclei in Kif18a mutant mice form stable micronuclear envelopes and do not promote tumorigenesis. JCB 220 (11). PMID 34515734



Dean's Excellence in Research Awards

- I. Medical Student – Outstanding Research Publication
- II. Rhys Niedecker, M.S. – mentor Gregory L. Holmes, M.D.
- III. Niedecker, R.W., Kloc, M.L., Holmes, G.L. and Barry, J.M. (2021), Effects of early life seizures on coordination of hippocampal–prefrontal networks: Influence of sex and dynamic brain states. *Epilepsia*, 62: 1701-1714. <https://doi.org/10.1111/epi.16927>



Dean's Excellence in Research Awards

- I. Postdoctoral Fellow – Outstanding Research Publication
- II. Michelle Kloc, Ph.D. – mentor Jeremy Barry, Ph.D.
- III. Kloc, M.L., Daglian, J.M., Holmes, G.L., Baram, T.Z., Barry, J.M.(2021). Recurrent febrile seizures alter intrahippocampal temporal coordination but do not cause spatial learning impairments. *Epilepsia*. 10.1111/epi.17082. PMID: 34562024.



Dean's Excellence in Research Awards

- I. Resident – Outstanding Research Publication
- II. **Stephen Ranney, M.D.** – mentor Ajai K Malhotra, M.D., F.A.C.S.
- III. **Ranney, S.,** Amato, S., Callas, P., Patashnick, L., Lee, T., An, G., Malhotra, A. (2021). Delay in ICU transfer is protective against ICU readmission in trauma patients: a naturally controlled experiment. *Trauma Surgery & Acute Care Open*. 6. e000695. [10.1136/tsaco-2021-000695](https://doi.org/10.1136/tsaco-2021-000695).



UVM Health Network Medical Group

Research Grants

- I. **PI – Sherrie Khadanga, Cardiology;** Mentor – Michael Toth, Medicine; Mentor – Peter Van Buren, Medicine
 - Neuromuscular Electrical Stimulation in Heart Failure Patients to Improve Functional Recovery Following Hospitalization (Neu-Recover)

- II. **PI - Diego Adrianzen-Herrera, Hem/Onc;** Mentor – Neil Zakai, Hem/Onc; Andrew Sparks, Research Biostatistician
 - Identifying patient and treatment factors associated with cardiovascular disease in myelodysplastic syndromes



UVM Health Network Medical Group

Innovation Grant

- I. **PI - Michael Hehir - Neurology;** Mentor - Noah Kolb, Neurology; Bernard Cole, Mathematics and Statistics.
 - Myasthenia Gravis Remote Monitoring System: A Pilot Feasibility Study.



UVM Health Network Medical Group



I. Faculty Practice - Junior Researcher of the Year: Timothy Plante, M.H.S., M.D.

- Assistant Professor of Medicine

II. Highlights

- Received 2 grants as PI and is co-investigator on several other grants.
- Recipient of the UVM Bloomfield Early Career Professorship in Cardiovascular Science.
- Published 29 research articles over 5 years total, which have accumulated 397 citations.
- Served as primary research mentor to 4 UVM medical students.
- Studying hypertension using Electronic Health Record data and translational approaches.



UVM Health Network Medical Group

I. Faculty Practice - Senior Researcher of the Year: Roger Soll, M.D.

- H. Wallace Professor of Neonatology

II. Highlights

- Vice President of the Vermont Oxford Network & Director of Network Clinical Trials.
- Coordinating editor of Cochrane Neonatal.
- Author/co-author of 39 Cochrane Reviews, 167 peer-reviewed papers and 14 book chapters.
- National and international leader in neonatal clinical trials and health services research.



Dean's Excellence in Research Awards

- I. **Research Laboratory Staff**
- II. **Susan Richardson** – Nominated by Valerie Harder, Pediatrics



Dean's Excellence in Research Awards

- I. Clinical Research Coordinator Staff
- II. **Alexander Friend** – Clinical Research Coordinator, Nominated by Melissa Davidson, Anesthesiology
- III. **Patricia Lutton** – Clinical Research Coordinator, Nominated by Beth Kirkpatrick/Mary Claire Walsh, Microbiology and Molecular Genetics



Dean's Excellence in Research Awards



I. Dean's Research Mentorship Award

II. Jason Bates Ph.D. – nominated by Medicine Research Committee

- Professor of Medicine, Dept. of Medicine, Division Pulmonary Disease and Critical Care

III. Highlights

- Dr. Bates has mentored 36 post-doctoral trainees (23 M.D. & 13 Ph.D.), 25 graduate students (7 masters and 18 PhD), numerous undergraduate and high school students, and 4 junior faculty NIH K-Awardees.
- Over the past 22 years at UVM, his mentees have included 17 postdocs, 16 graduate students and 4 junior faculty. Many of these individuals are gone on to prominent research careers.
- Dr. Bates was the founder of the Bioengineering PhD Program at UVM and until recently was the Graduate Coordinator of that program.
- Dr. Bates has been a long-standing Co-PI of the T32 Training Grant in Lung Biology and Disease (PI: Matthew Poynter).



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Dean's Excellence in Research Awards



I. Dean's Clinical Trials Research Award

II. Richard Soloman, M.D. – nominated by Medicine Research Committee

- Patrick Professor of Medicine, Dept. of Medicine, Chief, Division of Nephrology

III. Highlights

- His first prospective randomized clinical trial was a seminal paper published in the NEJM that examined the role of fluid administration in prevention of contrast-related acute kidney injury (AKI).
- Over 28 years he conducted larger, multicenter, prospective randomized trials that explored the role of different contrast agents, use of sodium bicarbonate and atrial natriuretic peptide, and more recently, low frequency ultrasound to prevent contrast associated AKI.
- Dr. Solomon has designed and managed many of the national multicenter trials looking to prevent AKI as well as being site PI for trials to slow progression of chronic kidney disease using angiotensin receptor blockers, and mineralocorticoid receptor blockers.



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Dean's Excellence in Research Awards



I. Dean's Rising Star New Investigator Award (Assistant Professor)

II. Michael Previs, Ph.D. - nominated by David Warshaw

- Assistant Professor, Department of Molecular Physiology and Biophysics

III. Highlights

- Applied state of the art proteomic and biophysical techniques to investigate the molecular basis of cardiac and skeletal muscle contractile function in human health and disease.
- He has 33 peer-reviewed papers and has published in high-impact journals like Journal of Molecular and Cellular Cardiology, Journal of General Physiology and PNAS.
- He has contributed to mechanistic understanding of how a cardiac contractile protein regulator, MyBP-C, operates at the molecular level. His findings provide critical clues as to why genetic mutations in this protein are the leading cause of cardiac hypertrophy and offer a molecular mechanistic target for therapeutic intervention.



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Dean's Excellence in Research Awards



I. Dean's Mid-Career Investigator Award (Assoc. Professor)

II. Jason Stumpff, Ph.D. - nominated by David Warshaw

- Associate Professor, Molecular Physiology and Biophysics

III. Highlights

- Research program focused on understanding how chromosomes are moved and organized during cell division from the single molecule to whole organism level.
- Better understanding of mechanisms that preserve genomic integrity, and also identification of new molecular targets for cancer therapy.
- Competitive research awards: Leukemia and Lymphoma Society Special Fellow Award, March of Dimes Basil O' Connor Starter Scholar Research Award, and Susan G. Komen Career Catalyst Research Award. Principal investigator of 2 current NIH R01s.
- Published 41 peer-reviewed papers.



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LARNER COLLEGE OF MEDICINE

Dean's Excellence in Research Awards



I. Dean's Research Laureate Award (Professor)

II. Yvonne Janssen-Heininger, Ph.D. - nominated by Mark Fung

- Professor of Pathology and Laboratory Medicine

III. Highlights

- Recipient of prestigious R35 Outstanding Investigator Award by NIH (2017). Awarded sixteen R01 grants.
- Named University Scholar at UVM (2018).
- Issued 5 US Patents and 2 International Patents.
- Published 217 papers and 15 book chapters; papers cited 6,365 times.
- Recipient of the LCOM Dean's Research Mentor Award (2017).
- Supervised the research of 29 graduate students, 11 post-doctoral fellows, and 9 undergraduate students.



Acknowledgments

- I. Chris Berger, Elizabeth Dohrman, Erin Montgomery, Joann McVeigh, Vicki Gilwee, and Bruce Kimball
- II. All of our award nomination reviewers and judges

***To all of our research faculty, staff, and trainees:
Thank you for your many contributions to our research mission.
Gordon Jensen***



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