



Dartmouth
GEISEL SCHOOL OF
MEDICINE

Office of
MEDICAL STUDENT
RESEARCH

Weekly Newsletter

Sep 4, 2025

The Student Research Office is actively supporting medical students throughout their research journey, serving as a central resource to help navigate onboarding requirements and connect with opportunities across departments. The office regularly shares active research projects and offers guidance on how to get involved.

Students are strongly encouraged to visit the office at **Remsen 230** for any research-related information and to begin their research journey.

Contact: Medical.Student.Research@dartmouth.edu



Recent News

Geisel Launches Learning Collaboratives for Flourishing in Medical Education

<https://geiselmed.dartmouth.edu/news/2025/geisel-launches-learning-collaboratives-for-flourishing-in-medical-education/>

John T. Mullen Named William N. and Bessie Allyn Professor in Surgery at Geisel School of Medicine

<https://geiselmed.dartmouth.edu/news/2025/john-t-mullen-named-william-n-and-bessie-allyn-professor-in-surgery-at-geisel-school-of-medicine/>

DARTMOUTH HITCHCOCK MEDICAL CENTER

Medical Student Research Fair 2025

Join us for the 1st Annual Medical Student Research Fair, featuring representatives from departments across Geisel, including both foundational and clinical sciences.

DATE: THURSDAY, SEPTEMBER 4, 2025
TIME: 5 PM - 7 PM
LOCATION: DHMC (AUDITORIUM G AND THE CHILCOTT ATRIUM)

Refreshments and foods will be provided.

Featured Opportunities



Community and Family Medicine

Faculty: Milan Satcher, MD

Dr. Satcher is a family physician-researcher at DH and TDI, focusing on improving care transitions and healthcare utilization for populations affected by the criminal legal system and substance use disorders.

- Linkage to primary care, substance use treatment, and social services during reentry to rural communities
- Rapid scoping review of self-management interventions for adults experiencing incarceration and reentry



Neurology

1. HOBSCOTCH Program

Investigator: Dr. Elaine Kiriakopoulos, Neurology
HOBSCOTCH (HOMe-Based Self-Management and Cognitive Training CHanges Lives) supports patients with neurodegenerative conditions. Dr. Kiriakopoulos is expanding the model to new populations.

Student Responsibilities: Serving as a memory coach or assisting with home-based memory training for patients.

2. ALS Retrospective Chart Review

Investigator: Dr. Mark A. Garret, Neurology
Participate in a chart review study focusing on ALS patients to identify trends in disease progression and treatment outcomes.

Student Responsibilities:
Conducting retrospective chart reviews.



Manuscript Writing Projects (Dr. Karen Hyuck)

Cutaneous Tuberculoma Case Series – Literature search, references, formatting, proofing, and cover letter for a case series on occupationally acquired cutaneous tuberculoma.

Post-Traumatic Pleiomorphic Adenoma Case Report – Literature search, formatting, proofing, and cover letter.

Abstract and Poster Development – Prepare for New England College of Occupational and Environmental Medicine (topics TBD; focus on work as a social determinant of health).

Serotonin Syndrome in Long COVID – Develop a new manuscript on serotonin syndrome in a patient with long COVID on multiple pulmonary medications.

Students interested in these research opportunities are encouraged to contact Medical.Student.Research@dartmouth.edu for more information and guidance.

NIH Medical Research Scholars Program (MRSP)

The NIH Medical Research Scholars Program (MRSP) is a comprehensive, year-long research enrichment opportunity for creative, research-focused medical, dental, and veterinary students. The program takes place at the NIH intramural campus in Bethesda, MD.

Applications open on **September 1st, 2024**, and the deadline to apply is **December 2nd, 2024**. This is an externally reviewed program. For more information and to apply, please visit the NIH MRSP website.

More information can be found at: [NIH Medical Research Scholars Program \[cc.nih.gov\]](https://cc.nih.gov).

National Institutes of Health Medical Research Scholars Program

The premier pre-doctoral training program, shaping the future of health by inspiring careers in biomedical research as clinician-scientists

World Class Research

Access to the technical and clinical resources of over 300 NIH laboratories

Mentorship

Close supervision of research project by senior NIH investigator

Career Development

Curriculum of lectures, rounds, journal clubs, and leadership forums

Networking

Connect with leading national experts across varied career fields

Eligibility

For U.S. citizens and permanent residents currently enrolled in an LCME accredited medical, AOA accredited osteopathic, CODA accredited dental, or AVMA accredited veterinary programs, and in their 2nd, 3rd, or 4th year. Interested students should have strong interest in conducting basic, clinical, or translational research.

Application Opens September 1st
Application Deadline is
December 1, 2025



Office of Clinical Research Training
and Medical Education
Contact: MRSP@mail.nih.gov



Follow us!
@NIHClinicalCntr





Angelo Volandes, MD, MPH
Anna Gundlach Huber
Professor of Medicine
Geisel School of Medicine at
Dartmouth
Vice Chair for Research
Department of Medicine

Medicine Grand Rounds

Friday, September 12, 2025
8:00 - 9:00 AM
Auditorium H

“Finding the Meaning of Life and Death in Healthcare”

Step into Grand Rounds reimagined. See how cinematic artistry and cutting-edge healthcare research can ignite a sense of purpose. We travel beyond medicine's daily routines and ask deeper questions: What calls you to heal? Where do you find meaning in life and death? Powerful patient stories and breakthrough discoveries will rekindle the ideals that set you on this path—no matter your discipline. Experience how storytelling and shared decision-making empower families and care partners to navigate life's most meaningful choices with clarity and compassion.

This session is more than a lecture. It will be a film festival, research showcase, and philosophical salon all in one. We call on every member of our community to remember: healing is not just a profession—it's a sacred trust. Arrive ready to be moved. Expect to be challenged. Leave renewed.

All Dartmouth faculty, residents, students, and staff are invited to rediscover hope, deepen empathy, and unite around the enduring mission of our healing professions and the humanities that inspire them.

Please note: In-person attendance is strongly recommended given the highly visual nature of the presentation. This lecture will not be recorded.

Clinical Quality Symposium

BUILDING & EXPANDING
COLLABORATIVE SYSTEMS
FOR *Maternal Health*



LAKE MOREY RESORT, VT



OCTOBER 28,
2025



2025 Clinical Quality Symposium: Maternal Health

Date: Tuesday, October 28, 2025 | **Time:** 8:00 AM – 4:30 PM

Location: Lake Morey Resort, Fairlee, VT

<https://www.eventzilla.net/e/maternal-health-convening-2138654127>

2025 ACP New Hampshire Chapter Annual Scientific Meeting

Friday, October 17, 2025, | Hilton Garden Inn | Lebanon, NH

Interested in Global Health?

The **Center for Global Health Equity (CGHE)** is accepting applications for the **2025–26 Co-designed Community-based Internship (CCI)** from **Aug 15–Sept 15, 2025**.

This program offers students the chance to collaborate with international partners on research, education, advocacy, or clinical projects that advance health equity in underserved communities.

Key Details:

Internships: Dec 15, 2025–Jun 15, 2026

Minimum In-Country Time:

- o **Summer break:** At least 6 weeks
- o **M3 or M4 electives:** At least 4 weeks
- o **MPH students:** 4–6 weeks

Funding: \$3,200–\$4,000 (based on duration)

Applications require faculty and host sponsor statements. Only currently enrolled students are eligible.

Clinical Research ECHO – Project ECHO | MaineHealth

 Clinical Research ECHO Sessions		
Register to receive notices and Zoom link invites to the series Contact us if you are interested in presenting a case during a session		
Date	Subject	Didactic
September 24	Partnering with private industry for funding research	Todd Keiller, Director IP & Tech Transfer – MH
October 22	Getting Started in Research Knowing then what I know now	Irwin Brodsky, MD - MH
December 3	Consenting of vulnerable populations	Melanie Locher, Director, IRB - UVM
January 28	Biostats 101 – part 1 Chi-square vs T-tests	Brianna Taylor, PhD - MH & Roux Inst
February 25	Biostats 101 – part 2 Linear vs Logistic regression	Peter Callas, PhD - UVM
March 25	Data visualization part 1 Graphs for common data types	Jonathan Emery, MS - UVM
April 22	Data visualization part 2 Graphs for complex data	Jessica Dibiase, MPH - MH
May 27	FDA audits and cautionary tales	Kim Luebbbers, Director, Clinical Trials - UVM

Investigators/Researchers interested in presenting their projects for feedback can participate. Each case is discussed for 15 minutes after the didactic session, with advice from presenters and participants.

Contact: Ivette F. Emery, PhD | 603-387-2329 | Ivette.Emery@mainehealth.org

Other Research Opportunities Highlight

Pathology research projects open to medical student participation-

- George Zanazzi, MD PhD- novel diagnostics for skeletal muscle and peripheral nerve pathology
- Lou Vaickus, MD PhD- genomics and genome informatics, cytology, machine learning
- Parth Shah, MD- genomics and genome informatics,, hematology oncology, machine learning
- Shrey Sukhadia, PhD- “Combining multiomic and multimodal techniques for early prediction of treatment-outcomes and prevent recurrence in cancer”
- Nidhi Shah, MBBS- pediatrics, genomics

For More : <https://geiselmed.dartmouth.edu/student-research/active-medical-student-research-opportunities/>

Looking for something else?

To learn about additional ongoing research projects, **visit our website** or **reach out to our office**. <https://geiselmed.dartmouth.edu/student-research>

We're here to help you find opportunities that match your interests and goals.

Upcoming Events

Research Education Series

Co-curricular interdisciplinary seminars

When: September 4th– | 7:00 AM – 8:00 AM

Where: Chilcott

Topic - How to Start Clinical Research by Dr. Timothy Gardner

Medical Student Research Fair –

When: Thursday, September 4, 2025 at 5:00 PM

Where: DHMC (Auditorium G and Chilcott Atrium)

Dartmouth Health Biomedical Research Day

When: Wednesday, October 8, 2025 | 8:00 AM – 5:00 PM

Where: Dartmouth Hitchcock

A full-day event highlighting innovative biomedical research across departments.

Open to all faculty, staff, trainees, and students.

Annual Medical Student Research Poster Night

When: Wed, October 22, 2025 | 5:30 PM –7:30 PM

Where: DHMC , Williamson Levels 3 & 4

Celebrate the research achievements of your peers and share your own work at this key Geisel tradition.

7th Neurology Research Day

Date: Friday, November 21, 2025

Time: 11:00 AM – 4:30 PM

Location: DHMC, Auditorium E & F

Join us for the 7th Annual Neurology Research Day, featuring presentations from medical students, residents, and faculty, highlighting cutting-edge research in neurology and neuroscience.

Upcoming Public Health Webinar with Dr. Peter Hotez

Join us on September 23, 2025, from 4:00–5:00 PM EST on Zoom for an engaging discussion with Dr. Peter Hotez, Dean of the National School of Tropical Medicine at Baylor College of Medicine in Houston, TX. He also serves as Professor in the Departments of Pediatrics and Molecular Virology & Microbiology.

Dr. Hotez is a world-renowned vaccine scientist, biochemist, and pediatrician who has led groundbreaking efforts in developing vaccines for several parasitic infections. This webinar will discuss vaccine development , disease virulence and the current state of public health.



Date: September 23, 2025



Time: 4:00–5:00 PM EST

Call for Student Poster Presentations – Northern New England MedTech Collaborative Conference

Are you working on an innovative project in medical science or technology?
Interested in sharing your work with experts and peers while receiving valuable feedback?

Students are invited to present their research at the **Northern New England MedTech Collaborative Conference** on **November 12, 2025**, at the **Roux Institute in Portland, ME**. This is a great opportunity to showcase your work, gain feedback from experts, and connect with peers and professionals in medical innovation.

Deadline to submit: October 6, 2025.

Submit here: [Poster Submission Link](#).

Questions? Contact Alessandra.C.Bryan.MED@dartmouth.edu.



Student Spotlight



Alessandra Bryan - MD Candidate, Class of 2028

Alessandra is a second-year medical student at the Geisel School of Medicine at Dartmouth with diverse research experience. As an undergraduate in upstate New York, she studied ecology and evolution, publishing findings from her senior thesis, *“The Evolution of Coat Color in Eastern Gray Squirrels,”* in *Urban Ecosystems*.

Before medical school, Alessandra spent two years as a clinical research coordinator in Anesthesiology at DHMC, contributing to retrospective reviews and PCORI-funded trials. She co-authored a published manuscript comparing years of potential life lost from COVID-19 and the opioid crisis in Northern New England. Alessandra developed a strong interest in manuscript preparation and editing and, she currently serves as a Quality Associate Analyst for *Regional Anesthesia & Pain Medicine*, reviewing manuscripts during final peer review. As a medical student, Alessandra remains very interested in medical device development but also continues to explore different realms of clinical research. Alessandra is also part of a medical innovation team developing an expandable endotracheal tube and recently collaborated with Urology to publish *“Pain Management Strategies for Kidney Stone Patients”* in *Urologic Clinics of North America*.

Scholarly Manuscripts by Geisel Students

Geisel students continue to drive innovation through research, contributing to peer-reviewed publications across clinical medicine, global health, and more. Their scholarly work reflects a deep commitment to scientific inquiry and

advancing patient care. Each year, our students co-author numerous manuscripts, showcasing their passion for discovery and academic excellence. <https://geiselmed.dartmouth.edu/student-research/research-papers-by-geisel-students/>

Students are requested to submit their published manuscripts to be archived in the Student Manuscript section of the website.

Current Developments in Nutrition 9 (2025) 104547



American Society for Nutrition
Advancing research
improving health

Current Developments in Nutrition

CDN

journal homepage: <https://cdn.nutrition.org/>



Nutrition and exercise physiology

Impact of Dietary Intake and Cardiorespiratory Fitness on Glycemic Variability in Adolescents: An Observational Study

Mingliang Ge¹, Stephanie R Lebby², Shivani Chowkwale², Caleb Harrison^{3,4}, Grace M Palmer², Keith J Loud⁵, Diane Gilbert-Diamond^{1,5,6}, Mary Ellen Vajravelu^{3,4}, Jennifer L Meijer^{1,2,5,6,*}

¹ Department of Epidemiology, Geisel School of Medicine, Dartmouth College, Hanover, NH, United States; ² Section of Obesity Medicine, Center for Digestive Health, Dartmouth Hitchcock Medical Center, Lebanon, NH, United States; ³ Center for Pediatric Research in Obesity and Metabolism and Division of Pediatric Endocrinology and Diabetes, University of Pittsburgh School of Medicine, Pittsburgh, PA, United States; ⁴ UPMC Children's Hospital of Pittsburgh, Pittsburgh, PA, United States; ⁵ Department of Pediatrics, Geisel School of Medicine, Dartmouth College, Hanover, NH, United States; ⁶ Department of Medicine, Geisel School of Medicine, Dartmouth College, Hanover, NH, United States

ABSTRACT

Background: Cardiorespiratory fitness (CRF), estimated by maximum oxygen consumption (VO₂ max) during exercise, is worsening among adolescents and associated with a decline in metabolic health into adulthood. Glycemic patterns may provide a mechanism between CRF and health.

Objectives: This study assessed the feasibility of measuring glycemic patterns using continuous glucose monitoring (CGM) in adolescents, aged 14–22 y, to estimate the relationship between VO₂ max and glucose patterns.

Methods: Healthy adolescents (n = 30) were recruited for a treadmill VO₂ max test and to complete the following activities for 7–10 d: 1) wear a Dexcom G6 CGM, 2) complete ≥3 24-h dietary recalls, and 3) complete 1 at-home oral glucose tolerance test (OGTT, 75 g glucose). Glycemic patterns were extracted as mean glucose, the coefficient of variance, the mean amplitude of glycemic excursions, and the mean of daily differences. The 2-h glucose responses to the OGTT and individual meals were extracted. Statistical analyses evaluated the relationship between VO₂ max and 1) overall glycemic patterns and 2) the maximum glucose level and AUC response to OGTT and meals, stratified by sex.

Results: Participant feasibility demonstrated that 90% completed CGM data (n = 27), 87% ≥7 d of CGM data (n = 26), 97% attempted OGTT (n = 29), and 93% completed ≥3 dietary recalls (n = 28). Most participants had normal BMI (70%) with an even distribution of sex (44% male). Males exhibited an inverse relationship between VO₂ max and overall mean glucose ($\beta = -7.7$, $P = 0.04$). Males demonstrated an inverse relationship between VO₂ max and 1) maximum glucose ($\beta = -29$, $P = 0.006$) and AUC ($\beta = -2702$, $P = 0.001$) in response to the OGTT and 2) AUC ($\beta = -1293$, $P = 0.03$) in response to meals. No association was observed between VO₂ max and glucose patterns in females.

Conclusions: A sex-specific relationship between VO₂ max and glycemic patterns was observed, suggesting a unique metabolic capacity during late adolescence by sex.

This trial was registered at clinicaltrials.gov as NCT05845827.

Keywords: continuous glucose monitoring, 24-h dietary recalls, acute response, adolescents, maximum oxygen consumption, physical activity

Abbreviations: BCH, British Columbia Children's Hospital; CGM, continuous glucose monitoring; CRF, cardiorespiratory fitness; CV, coefficient of variance; CVD, cardiovascular disease; ENMO, Euclidean Norm Minus One; HbA1c, hemoglobin A1c; HEI, Healthy Eating Index; MAGe, mean amplitude of glycemic excursions; MODD, mean of daily difference; MPA, moderate physical activity; MVPA, moderate-to-vigorous physical activity; NCC, Nutrition Coordinating Center; NDSR, Nutritional Data System for Research; OGTT, oral glucose tolerance test; PA, physical activity; RER, respiratory exchange ratio; T2D, type 2 diabetes; VO₂ max, maximum oxygen consumption; VPA, vigorous physical activity.

* Corresponding author. E-mail address: jen@hnutritions.com (J.L. Meijer).

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Student Voice in Research

Reflections from Vishva Natarajan, M2 Student (Award Winner of a National Fellowship for AI in Brain Tumor Research)

“As a medical student, I’ve learned that IRB and RIDGe approvals can take 3–4 months, making them the biggest bottleneck in chart-review research. Starting early is essential if you want to take full advantage of the summer for concentrated work. Keeping protocols broad enough to cover multiple data pulls can save time and make projects more efficient. Mastering the regulatory side of research is just as important as running statistics, and taking ownership of the

IRB process is one of the best ways to contribute meaningfully to a research team."

GMSJ Coming Soon!

GMSJ is a student-led publication dedicated to showcasing the research, insights, and perspectives of medical students. It offers a hands-on opportunity to gain experience in academic publishing, including research dissemination, peer review, and scholarly writing—valuable skills for future careers in academic medicine.

GMSJ welcomes submissions from all fields of research relevant to medicine and healthcare, including but not limited to:

- Clinical Medicine and Practice
- Public Health and Epidemiology
- Biomedical and Basic Science Research
- Medical Education and Training
- Health Policy and Ethics
- Nutrition and Lifestyle Medicine
- Medical Technology and Device Development

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<https://gmscholars.com/index.php/gmsj/index>

THE FOUNDERS & EDITORS-IN-CHIEF



Aryna C. Armand, MS
Geisel School of Medicine at Dartmouth College

Aryna Armand is a third-year medical student at the Geisel School of Medicine with a strong foundation in research and biotechnology. She earned her bachelor's degree in Biology from the University of San Diego, where she conducted bench research on molecular mechanisms involved in cancer biology, sparking her passion for scientific discovery. She later earned her master's in Biotechnology from Johns Hopkins University.

Aryna's research experience spans basic science, clinical research, and surgical innovation. At Children's Hospital Los Angeles, she contributed to translational research projects aimed at improving pediatric neuroblastoma outcomes, and at Geisel, she is involved in research within the plastic surgery department, focusing on advancements in reconstructive techniques. Her interests include plastic surgery, medical device development, and the integration of technology in surgical innovation, with a focus on improving patient care and expanding access to life-changing procedures.

Contact: aryna.c.armand@gmscholars.com



Matin Bikaran, BS
Geisel School of Medicine at Dartmouth College

Matin Bikaran is a third-year medical student at the Geisel School of Medicine at Dartmouth with a strong foundation in research and clinical medicine. He earned his bachelor's degree in Microbial Biology with Highest Distinction from the University of California, Berkeley.

Matin's research experience spans interventional radiology and immunology. At UCSF, he led an NIH RO1-funded project in genomic immunology, and at Geisel, he is exploring innovative radiological techniques for the treatment of complex medical conditions. His interests include interventional radiology, oncology, and the intersection of clinical medicine and innovation, with a focus on advancing patient care and outcomes.

Contact: matin.bikaran@gmscholars.com



The Office of Medical Student Research provides access to multiple datasets that can be used for population-based research. These resources allow students and researchers to explore specific questions related to public health, health outcomes, and healthcare utilization. Whether you're conducting a retrospective analysis or generating new hypotheses, these datasets offer valuable tools to support your research.

Resource link :

<https://geiselmed.dartmouth.edu/student-research/datasets-for-research/>

Questions? Reach out to the Medical Student Research Office.



PubMed Basics Workshop

This is an online event. Learn how to effectively search PubMed in this online session hosted by **Dana Biomedical Libraries at Dartmouth.**



September 8, 2025



12:00–12:45 PM (ET)



Presenter: Elaina Vitale



Info [link](#) and [Register Here](#)



Geisel School of Medicine at Dartmouth
Office of Student Research
66 College St. , Remsen Medical Science Building , Room 230
Hanover, NH 03755-1404
603-646-5551

