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Subject: Research Weekly Updates Sep/18
Date: September 18, 2025 at 8:00 AM
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Dartmouth
GEISEL SCHOOL OF
MEDICINE

Office of
MEDICAL STUDENT
RESEARCH

Weekly Newsletter

Sep 18, 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/>

New Report Describes Rural Health Challenges and Action Steps

<https://geiselmed.dartmouth.edu/news/2025/new-report-describes-rural-health-challenges-and-action-steps/>

Medical Students Share Research Projects at Grand Rounds

<https://geiselmed.dartmouth.edu/news/2025/medical-students-share-research-projects-at-grand-rounds/>

Medical Student Research Fair

The first annual Medical Student Research Fair was successfully held on Sep/4/2025 at DHMC! Thank you to all faculty and departments for your participation and support.

<https://geiselmed.dartmouth.edu/news/2025/geisel-holds-first-annual-md-student-research-fair/>



Featured Opportunities



Internal Medicine - Quantitative Projects

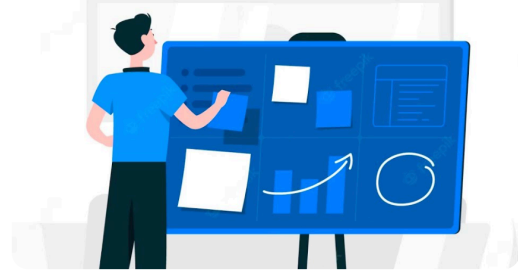
Dr. Catherine Saunders :
Quantitative Projects

ICU Triggers Paper – Analyze quantitative data to study whether palliative medicine consultation trigger models for ICU patients at Dartmouth changed outcomes.

Patient Discussion Topic Preferences Paper – Analyze data on an agenda-setting intervention for palliative medicine patients and care partners to identify preferred discussion topics and characteristics.

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

Qualitative Research



Qualitative Projects

Qualitative Projects

Agenda-Setting in Kidney Disease (ASK) Interviews – Conduct and/or analyze interviews with advanced CKD patients to inform a clinical visit agenda-setting intervention.

Participatory Approach to Qualitative Research (PAQ) Study – Support the consensus-based process to develop guidelines and reporting criteria for engaging patients/public in qualitative research.

Agenda-Setting in Kidney Disease (ASK) Observations – Conduct and analyze observational data from the Nephrology Clinic.

Understanding Interdisciplinary Palliative Care Decision Support – Collect and analyze data describing how palliative care team members help patients and families make hospital-based decisions.

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



Research in Diagnostic Radiology

Robert Jeffery Fellowship

The Robert F. Jeffery Student Fellowship in Radiology is a one-year opportunity for M2, M3 and M4 Geisel students at DHMC , combining clinical, educational, and research experiences. Recipients receive an annual stipend.

Application Deadline: December 15 (for the following year),

<https://geiselmed.dartmouth.edu/student-research/hospital-specialty-specific-research-opportunities/>

Samuel D. Pressman Fellowship in Medical Imaging, Precision Health & AI

This fellowship offers Geisel M.D., Ph.D., M.S., and M.P.H. students the chance to conduct research at the intersection of imaging, AI, and precision health. Fellows receive mentorship from Radiology and CPHAI faculty, present at Grand Rounds, and work toward publication.

Applications Open: Fall 2025 (Updated deadlines and timelines will be shared soon.)

Requirements: Specific Aims (≤ 0.5 pg), Research Proposal (≤ 1.5 pg), CV, and transcript.

Contact: Dr. Jessica Sin – jessica.m.sin@hitchcock.org

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.

Application Now Open: Sept 1, 2025 – Dec 1, 2025

Informational Webinar
October 9, 2025
1PM EST

Application Now Open: Sept 1, 2025 – Dec 1, 2025
[Click to Apply](#)

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.

Informational Webinar
October 9, 2025
1PM EST
[REGISTER](#)





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

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[@NIHClinicalCntr](#)



 **ACD** | New Hampshire



2025 ACP New Hampshire Chapter Annual Scientific Meeting
Friday, October 17, 2025, | Hilton Garden Inn | Lebanon, NH

<https://www.acponline.org/about-acp/chapters-regions/united-states/new-hampshire-chapter/news-meetings#2025>

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.

HVC at Dartmouth: Empowering Students in Research



Heart and Vascular Center
DARTMOUTH HITCHCOCK MEDICAL CENTER





HVC at Dartmouth Health is sharing resources and supporting students to explore their research interests. Monthly meetings are held on the second Monday of each month, 5–6 PM, in the Vascular Surgery Conference Room (subject to change).

Student-focused sessions cover:

- How to find a research mentor
- Exposures, outcomes, and overlooked factors
- Effect size and its importance
- Surviving survival analysis
- Reading and interpreting observational studies

All students, residents, and fellows are welcome. Please let HVC at Dartmouth know if you plan to attend!

Other Research Opportunities Highlight

Dermatology Research (Join Dr. Hayden's Lab)

Interested students may reach out directly to Dr. Hayden to discuss lab research opportunities in dermatology, including ongoing clinical and translational projects.

Discover undergraduate research opportunities in our Dermatology Department. Work alongside expert faculty, gain hands-on experience, and contribute to innovative projects advancing skin science.

<https://geiselmed.dartmouth.edu/dermatology/student/>

Formerly UCSF GreenHealth Lab, now based at Dartmouth Cancer Center, is welcoming students to participate.

Our research focuses on advancing sustainability and equity across the cancer care continuum. Current priority areas include:

- Healthcare Carbon Footprint
- Decarbonizing Cancer Care
- Medical Waste Reduction
- Sustainability and Cost
- Climate Health Equity
- Sustainable Transportation
- Sustainable Radiology
- Climate and Medical Education (Climate MedEd)
- Energy and Medicine

ENGAGEMENT OPPORTUNITIES

Students have the chance to contribute meaningfully by:

- Conducting literature reviews
- Partnering with local, national, and international organizations on advocacy efforts
- Auditing processes across the cancer care continuum
- Cleaning and analyzing data
- Drafting abstracts and manuscripts

Interested? Please contact Katie Lichter at Katie.Lichter@ucsf.edu and include your CV.

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: October 2nd – | 7:00 AM – 8:00 AM

Where: Chilcott

Topic – How to Design a Research Studyby Dr. Timothy Gardner

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

Date: Wednesday, October 22, 2025 , Time: 5:30 PM – 7:30 PM

Location: DHMC – Williamson Levels 3 & 4

Important : Poster Submission Deadline: October 3, 2025 (for printing)

Research Awards



Best Clinical Poster



Best Foundational Poster



Best Medical Education Poster



Best DEI Poster



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.

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



Location: Zoom (Meeting ID: 973 6308 3874 , Password: 324173)

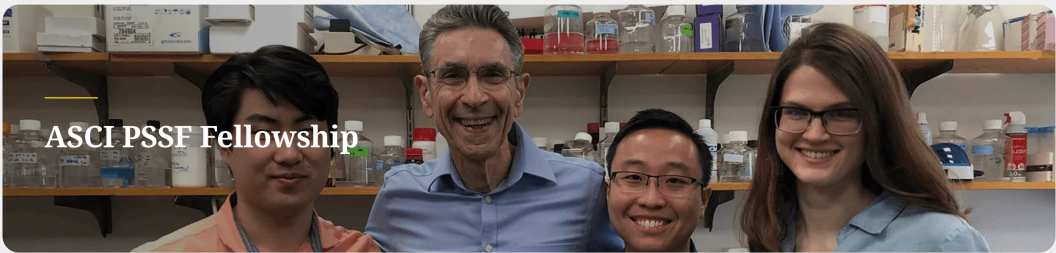
Call for Posters – NECOEM & MaAOHN 2025 Annual Conference

The 2025 Annual Conference of the New England College of Occupational & Environmental Medicine (NECOEM) and the Massachusetts Association of Occupational Health Nurses (MaAOHN) will be held December 4–5 at the Westford Regency Inn & Conference Center, Westford, MA.

A poster session will take place on December 4 from 5:45–7:30 PM.

Abstracts may be submitted electronically via the <https://necoem.org/upcoming-events/annual-conference-2025/poster-session-call-for-abstracts/>. This is a great opportunity to share your research and compete for the first-ever “Outstanding Poster Presentation Award.”

For questions, feel free to contact Michela Capobianco, NECOEM Executive Director, at executive.director@necoem.org.



2026-2027 ASCI PSSF Fellowship

The American Society for Clinical Investigation (ASCI) invites nominations for the 2026-2027 Physician-Scientist Summer/Fellowship (PSSF) program. This 12-month fellowship provides medical students with an immersive, mentored research experience in basic, translational, or applied biomedical research.

Fellows receive a \$42,000 stipend plus \$8,000 for health insurance and travel, access to monthly seminars, and complimentary registration to the AAP/ASCI/APSA Joint Meeting.

Eligibility & Key Points:

- is a single-degree allopathic (MD) or osteopathic (DO) medical student interested in a dual career in research and patient care. They may not be enrolled in a combined MD/PhD program, a PhD program, a PharmD, an ScD program, or have completed a PhD, PharmD, or an ScD in a laboratory-based science.
- may apply during any year of their medical school studies; applicants in the last year of school must defer graduation until the completion of the fellowship year.
- can commit to 12 months of continuous, full-time laboratory research with minimal interruptions.
- is a United States citizen and U.S. permanent resident currently enrolled in a medical school in the United States.

- is not required to have prior laboratory research experience.

More Information : <https://beta.the-asci.org/awards/asci-pssf-fellowship/>

How to Apply:

Interested students should send their CV and a letter of research interest to Medical.Student.Research@dartmouth.edu by September 30, 2025.

7th Neurology Research Day

Friday, November 21, 2025
11:00 am - 4:30 pm
at DHMC (Auditorium E & F)



Come join us to learn more about the remarkable array of research, scholarship and creative activities conducted by faculty, staff and students at Dartmouth Health and Dartmouth College

Neurology Grand Rounds

Keynote Speaker: M. Elizabeth Ross, M.D., Ph.D.

Nathan E. Cumming Professor of Neurology and Neuroscience

Chair, Neuroscience Graduate Program

Director, Center for Neurogenetics

Weill Cornell Medicine

11:00 - 11:50 AM Poster Session & Lunch
(Lunch and afternoon refreshments will be provided)

12:00 - 1:00 PM Neurology Grand Rounds: Dr. M. Elizabeth Ross

1:10 - 2:10 PM Neurology Residents Presentations

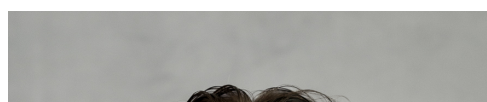
2:30 - 3:30 PM Research update from Neurology, Psychiatry, Neurosurgery, and other departments from DHMC and Dartmouth College

3:30-4:30 PM Poser Session

Sponsored by the Diamond Endowment Program at Department of Neurology
Dartmouth Health and Geisel School of Medicine at Dartmouth College



Student Spotlight





Chad Markey - MD Candidate, Class of 2026

Chad Markey is a fourth-year medical student at the Geisel School of Medicine at Dartmouth. His research focuses on improving psychosocial outcomes for patients with cancer, spanning health services, oncology, and psychiatry. Chad's work has been published in journals including *The Lancet Oncology*, *JAMA Health Forum*, and *Annals of Surgical Oncology*, and he has presented at national and international meetings.

Chad's research journey began after a personal health challenge—a diagnosis of ankylosing spondylitis, which led him to join the Dartmouth Cancer Center as a research fellow. Since then, he has studied cancer care delivery, health disparities, and mental health outcomes for patients receiving advanced cellular therapies such as CAR-T and BiTE. He is currently leading a project examining how pre-existing mental health disorders and psychiatric medications affect hospital outcomes in these patients, with preliminary findings to be presented at the ASH Annual Meeting in December 2025. Clinically, Chad has trained in psycho-oncology, palliative care, and cell transplant medicine, shaping his goal of integrating psychiatry, oncology, and palliative care to support patients and families facing serious illness. He plans to pursue a psychiatry residency with a focus on mental health in oncology.

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.

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.

Ann Surg Oncol (2023) 30:2620–2628
<https://doi.org/10.1245/s10434-023-13099-x>

Annals of
SURGICAL ONCOLOGY
OFFICIAL JOURNAL OF THE SOCIETY OF SURGICAL ONCOLOGY



ORIGINAL ARTICLE – GLOBAL HEALTH SERVICES RESEARCH

The Use of Area-Level Socioeconomic Indices in Evaluating Cancer Care Delivery: A Scoping Review

Chad Markey, BA¹, Oluwaferanmi Bello, BS¹, Meg Hanley, BA¹, and Andrew P. Loehrer, MD, MPH^{1,2,3}

¹The Geisel School of Medicine at Dartmouth, Hanover, NH; ²Department of Surgery, Dartmouth-Hitchcock Medical Center, Lebanon, NH; ³The Dartmouth Institute for Health Policy and Clinical Practice, Lebanon, NH

ABSTRACT

Background. Multiple composite indices of small-area socioeconomic characteristics have been used to examine how neighborhood characteristics influence cancer care, but there is little consensus regarding how to use them. This scoping review aimed to summarize the use of these indices in cancer literature and their association with outcomes.

Methods. A search was conducted to identify studies from 2015 to 2021 that investigated cancer incidence, disease stage at diagnosis, and mortality using area-based indices of deprivation as an independent variable. Studies were screened and assessed for eligibility. Data were extracted regarding the geospatial and statistical use of these indices.

Results. All the inclusion criteria were met by 45 studies. The area level of analysis was at the census tract level in 19 studies (42.3%), the county level in 15 studies (33.3%), the block group level in 6 studies (13.3%), and the ZIP code level in 5 studies (11.1%). Altogether, 18 unique indices were used, with 4 indices used most frequently. Of the studies that used their indices ordinally, 3 defined high and low deprivation dichotomously, 10 used tertiles, 13 used quartiles, and 15 used quintiles. Of the 45 studies, 34 (76%) showed a significant association between area deprivation and cancer-related outcomes.

Conclusions. Neighborhood deprivation indices are most commonly used at the census tract level and ordinally as quintiles. Despite variance in methods, there is a strong

indication that deprived areas are at adverse odds with cancer-related outcomes. Further study investigating deprivation in the context of cancer can inform drivers of inequity and identify potential targets for care delivery and policy interventions.

Inequity in cancer care has been well established by patient socioeconomic status, insurance coverage, race, and geography.^{1–4} Increasingly, studies have examined area measures of socioeconomic factors that capture the overall resources where patients and providers may reside. Instead of examining single measures as an estimate of local area socioeconomic factors (i.e., median income at the ZIP code level), composite indices are one of these tools used to capture multiple factors more broadly into a single measure.

Consensus is limited regarding how to use neighborhood-level indices.¹ What remains unclear is which geographic levels are used most frequently, which measures are commonly used, and which cancer outcomes are evaluated. Some studies geocode patient cohorts to the county as the geographic level of analysis to establish neighborhood socioeconomic status (SES), whereas other studies use census tracts—subdivisions of a county with an average capita of 4000 ideally homogeneous residents. Research also has analyzed neighborhood SES by census block groups, which are subdivisions of a census tract covering a contiguous area of roughly 1500 residents, also ideally socioeconomically homogeneous.⁵

Variability also exists in the methods used to construct the indices, particularly in the choice of neighborhood characteristics used to define deprivation and the statistical analysis of those characteristics.^{2–4,6–12} The variability in methods challenges interpretation of results and cross-comparison between studies using different indices.

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Published Online: 25 January 2023
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e-mail: Andrew.P.Loehrer@hitchcock.org

Congratulations to the 2025-2026 Cohort of MD Research Scholars! 🎉🎊

MD – Class of 2027

- Abigail Dutton
- Matin Bikran
- Aryna Armand
- Cynthia Siego
- Tejas Pruimetla
- Adhitha Narayanan
- Erikson Nichols
- Trey Rogers
- Peggy-Ita Obeng-Nayarkoh
- Jennifer Shah

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- Valentina Fernandez
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- Birkley Lim

GMSJ

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

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



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.

Questions? Reach out to the Medical Student Research Office.



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