



Dartmouth
GEISEL SCHOOL OF
MEDICINE

Office of
MEDICAL STUDENT
RESEARCH

Weekly Newsletter

Sep 11, 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/>

New Report Describes Rural Health Challenges and Action Steps

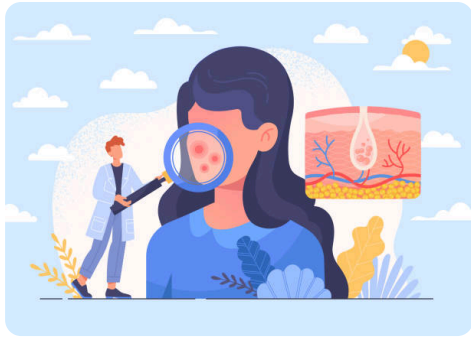
<https://geiselmed.dartmouth.edu/news/2025/new-report-describes-rural-health-challenges-and-action-steps/>

Medical 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.



Featured Opportunities



Dermatology Lab Opportunity

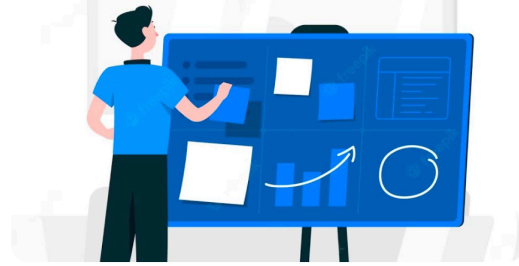
Join Dr. Hayden's Lab

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/>

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.



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.

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

**Informational Webinar
October 9, 2025**

1PM EST

REGISTER <https://events.gcc.teams.microsoft.com/event/26525df6-6603-45d6-b767-e8b3d9673e1e@14b77578-9773-42d5-8507-251ca2dc2b06>

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

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

Follow us!
[@NIHClinicalCntr](#)





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.

HVC at Dartmouth: Empowering Students in Research

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>

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HVC at Dartmouth: Empowering Students in Research



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

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/>

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 Study by 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

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.

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)

2025 NNE-ACC Annual Meeting

For more : <https://nneacc.org/event-6224501>



2025 NNE-ACC Annual Meeting

September 13, 2025

Grappone Conference Center, Concord, New Hampshire

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 [Call for Abstracts link](#). 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.



Student Spotlight



Isabella Pompa - MD Candidate, Class of 2028

As an undergraduate, Isabella worked in the Denis Lab at Boston University School of Medicine, where she studied the biological mechanisms driving cancer progression in patients with metabolic disease. For her honors thesis, she investigated the role of exosomes in modulating liver cancer patients' responses to immune checkpoint inhibitor therapy. During her gap years, she worked in the Kamran Lab in the Department of Radiation Oncology at Massachusetts General Hospital, examining the interplay between radiation and antitumor immunity, mechanisms of radiotoxicity and radioresistance, and the representation of diverse populations in clinical trials, genomic databases, and

medical education. She is currently continuing her work in the Kamran Lab, focusing on cancer mortality trends and disparities.

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.

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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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.

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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.



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