2021 WHITE COAT CEREMONY

MGH Stanbury Physician-Scientist Program

The Massachusetts General Hospital (MGH) Stanbury Physician-Scientist Pathway (PSP) is shaping the future of medicine by transforming exceptional scientific minds into the next generation of physician-scientist leaders. Founded in 2013, our mission is to provide unparalleled training that empowers internal medicine residents to bridge the worlds of cutting-edge research and patient care. Through this work, our trainees advance discoveries that are already redefining the practice of medicine.

SECURING THE FUTURE OF PHYSICIAN-SCIENTISTS

Physician-scientists drive medical breakthroughs, but their pipeline is at risk. A long training path, heavy clinical demands, and limited funding are forcing many to leave research, threatening the future of innovation.

The Stanbury PSP is changing this. Through intensive mentorship, protected research time, and a strong community, we empower trainees to become leaders in biomedical discovery. Our success is clear. MGH-trained physician-scientists are shaping the future of medicine.

IMPACT SNAPSHOT

$44.2M

Total grant funding awarded to Stanbury PSP alumni

31

Early-stage investigator awards received by Stanbury graduates

111K

Citations of research by Stanbury residents

A gateway for the best of the best

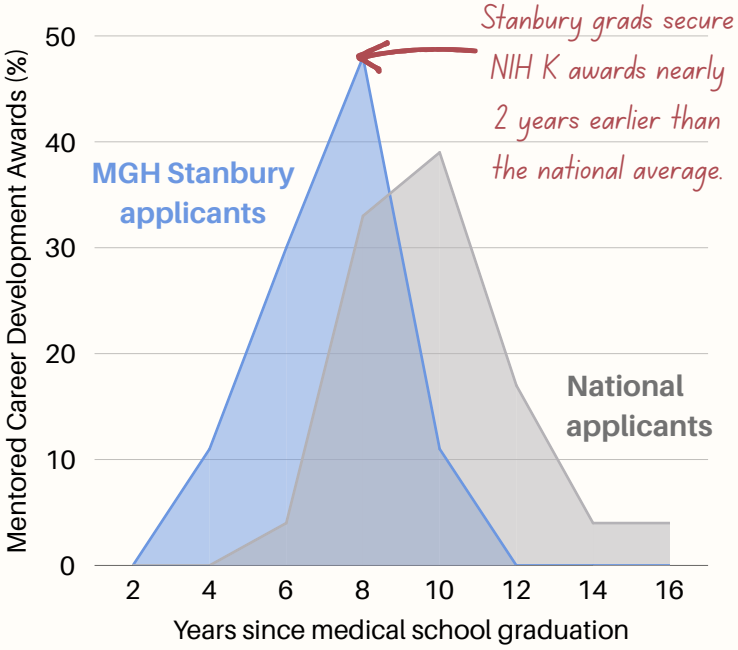
The MGH Stanbury PSP is one of the most competitive and sought-after programs in the country. In the 2024-2025 application cycle, we received 257 applications for just 12 positions, allowing us to select the most exceptional physician-scientist trainees from across the nation. This extraordinary selectivity ensures that we are cultivating a pipeline of future leaders in medicine – **individuals who will not only advance scientific discovery but also strengthen every corner of our clinical and academic mission.**

A PROVEN LAUNCHPAD

With intensive mentorship and a vibrant research environment, Stanbury residents secure prestigious career development awards nearly two years earlier than their peers – demonstrating the impact of early investment in physician-scientists.

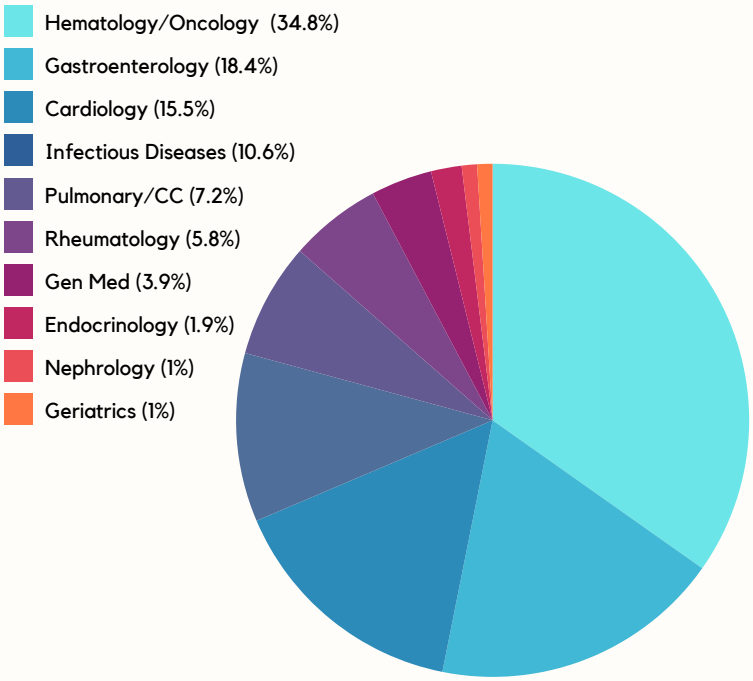
7 months

the avg time between completing clinical fellowship and receiving their notice of award



Adapted from Gallagher et al, "Is it time to reduce the length of postgraduate training for physician-scientists in internal medicine?", JCI Insight, 9(10):e178214, 2024. Stanbury data derived from all funded graduates.

DEVELOPING LEADERS ACROSS THE SPECTRUM OF MEDICINE

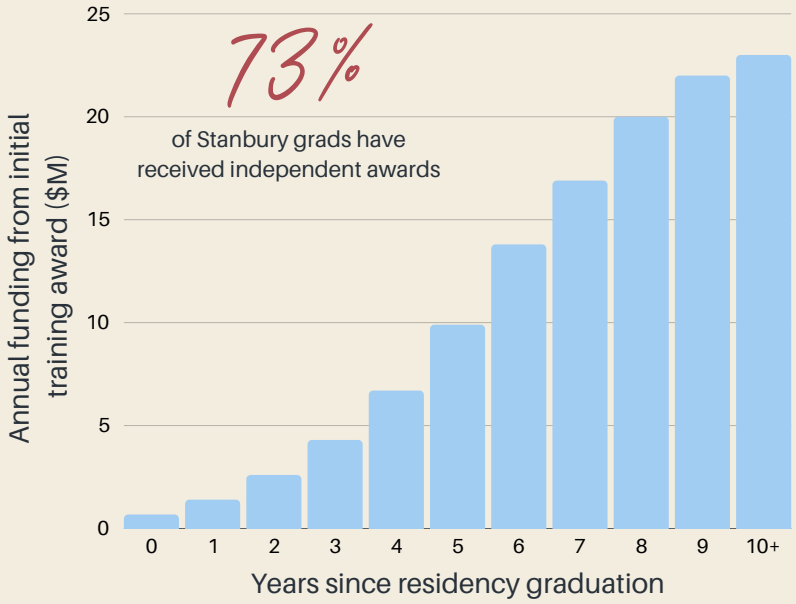


The Stanbury PSP is intentionally designed to cultivate talent across all areas of medicine – not just a single specialty. This comprehensive approach fosters the development of physician-scientist leaders across all disciplines, advancing discovery and innovation wherever patients receive care.

Data derived from all Stanbury graduates and residents participating in the fellowship match (104 individuals, current as of March 2025).

FUNDING AWARDED TO STANBURY GRADUATES

$44,185,055



A Track Record of Remarkable Funding Success

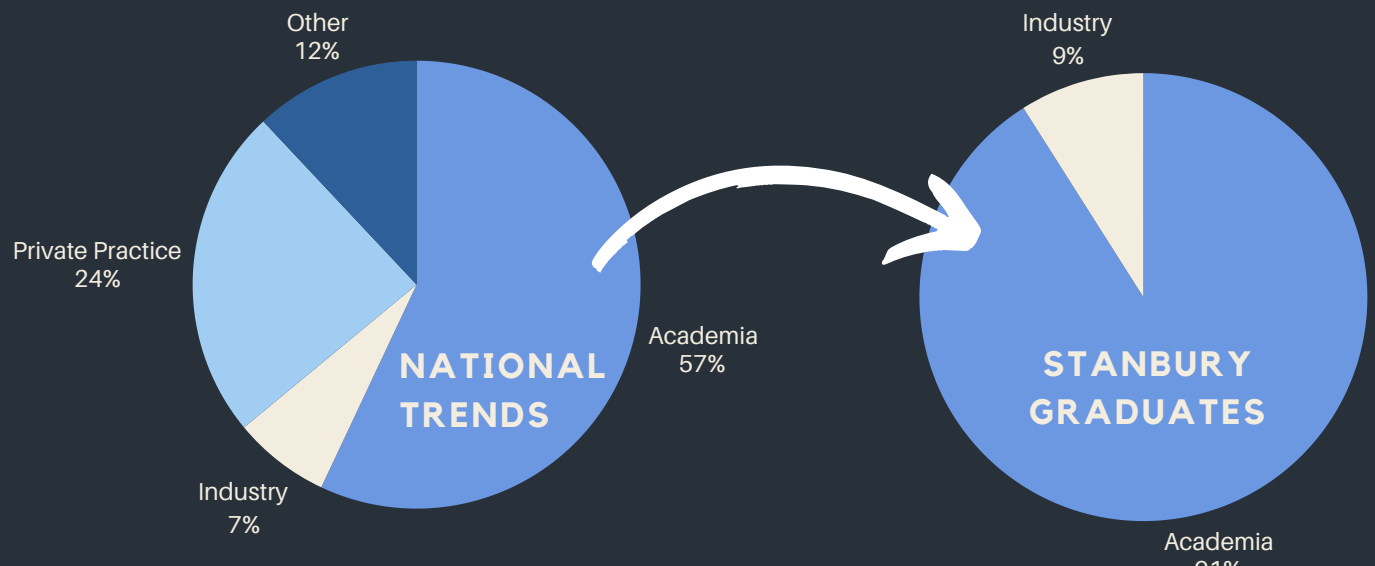
Stanbury PSP graduates don't just succeed – they lead. 73% of our graduates (through 2017) have secured mentored career development awards or endowed professorships, **far exceeding the national average of 40%**. Moreover, they earn these prestigious grants nearly two years before their peers. This track record reflects not only the talent of our trainees, but the strength of the mentorship, environment, and support they receive through the Stanbury program.

EXCEPTIONAL TRAINEES, EXCEPTIONAL FUNDING

- 5 Burroughs Wellcome Fund Awards
- 2 DP5 Awards
- 15 K08 Awards
- 1 K99 Award
- 5 ASCI Awards
- 2 Damon Runyon Fellowships

Fixing the leaky pipeline

Nationally, only 57% of MD/PhD graduates remain in academia, but 91% of our graduates do. Our program isn't just producing physician-scientists, it's ensuring that they stay in research, lead transformative studies, and mentor the next generation from their own independent laboratories. By investing in our training programs, we are safeguarding the future of academic medicine and accelerating discoveries that will change patient care.



Adapted from Brass & Akabas, "The National MD-PhD program outcomes study", JCI Insight, 4(19):e133009, 2019.

Data from all Stanbury PSP graduates, through March 2025.

Fueling Discovery, Shaping Medicine

Stanbury Physician-Scientist Alumni

RAGHU CHIVUKULA, MD, PHD

Assistant Professor of Medicine and Surgery, Harvard Medical School
Assistant Physician, Pulmonary and Critical Care Unit, MGH
Awards: ASCI/Young Physician-Scientist Award (2023), Burroughs-Wellcome Fund Career Award for Medical Scientists (2021)
Graduated: 2016
h-index: 19

Dr. Raghu Chivukula discovered that mutations in NEK10, a previously uncharacterized kinase, cause a Mendeliam form of bronchiectasis by disrupting ciliary length and mucociliary transport. His lab now investigates rare genetic diseases that impair subcellular compartment function, using airway and neuronal models to uncover fundamental mechanisms and therapeutic targets.

RACHEL WOLFSON, MD, PHD

Assistant Professor Department of Cell Biology, Harvard Medical School
Principal Investigator, Wolfson Lab, Harvard Medical School
Awards: ASCI/Emerging Generation Award(2024), Burroughs-Wellcome Fund Career Award for Medical Scientists (2024), NIH K08 (2024)
Graduated: 2022

Dr. Rachel Wolfson discovered that five distinct subtypes of sensory neurons innervate the colon, each responding to different stimuli and playing roles in gastrointestinal function and pain perception. Her lab at Harvard Medical School now investigates the cellular and molecular mechanisms of visceral sensation, aiming to elucidate how sensory neurons detect and respond to internal stimuli in both health and disease.

JACOB LEMIEUX, MD, PHD

Associate Professor of Medicine, Harvard Medical School
Physician-Investigator, Division of Infectious Diseases, MGH
Awards: ASCI/Young Physician-Scientist Award (2025), NIH K99 (2020)
Graduated: 2017
h-index: 34

Dr. Jacob Lemieux has significantly contributed to understanding the genetic diversity and evolution of pathogens, leading research that sequenced 772 SARS-CoV-2 genomes to trace the virus's spread in the Boston area during the initial COVID-19 wave. Currently, his lab investigates the pathogenesis and epidemiology of tick-borne and respiratory pathogens, focusing on identifying microbial genetic factors that influence Lyme disease and COVID-19, using computational and experimental methods.

20

Stanbury grads are Assistant or Associate Professors

$14.7M

in K08 award funding has been awarded to Stanbury grads

57%

of Stanbury alumni receive their first faculty appointment from MGB or HMS affiliated departments

JAIME SCHNEIDER, MD, PHD

Instructor in Medicine, Harvard Medical School
Attending Physician, Center for Thoracic Cancers, MGH
Awards: ASCI/Emerging Generation Award (2025), Breath of Hope/Peg's Fight for Life Research Award (2022)
Graduated: 2018

Dr. Jaime Schneider, as a member of Dr. Marcia Haigis's lab, led research uncovering that the metabolic enzyme GUK1 is crucial for the growth of ALK-positive lung cancers. Her work demonstrated that inhibiting GUK1 significantly slows tumor progression, offering a new avenue for treatment in these lung cancer subtypes (J.L. Schneider et al, GUK1 activation is a metabolic liability in lung cancer, *Cell*, 188 (5): 1248-1264, 2025. PMID: 39919745).

Providing *support* for success

"The Stanbury program had an indelible impact on my career as a physician-scientist. **I received tremendous career guidance and inspiration from my time as a member of the Stanbury program,** and **the community of residents continues to be a source of inspiration and a network that I connect with nearly every week."**

Alexander Bick, MD, PhD
Division Director and Associate Professor, Division of Genetic Medicine, Department of Medicine, Vanderbilt University

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"Stanbury was absolutely fundamental to my development at MGH and then the wider HMS community. The mentorship on picking a primary research mentor for the postdoctoral phase was perhaps some of the most valuable advice I got during residency. **If there is a continued goal to attract and develop career physician-scientists programs like Stanbury are vital to convincing residents they can confidently choose this career path."**

Theodore Pak, MD, PhD
Fellow, Division of Infectious Diseases, Mass General Brigham

MGHStanbury@partners.org

www.massgeneral.org/medicine/internal-medicine/education/residency/physician-scientist

See how Stanbury grads advance the science of medicine

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