

2023  
ISSUE

ANNUAL  
NEWSLETTER FOR  
POTENTIAL  
MENTORS

# R25 MGH Next-Gen Physician-Scientist Training Program (PSTP)

## Current Residents

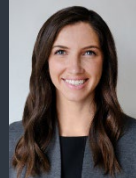
### DAVID CRON, MD, MS

David joined the R25 program in July 2023 following two years of research in the Department of Surgery. Under the mentorship of Dr. Heidi Yeh, he will focus on improving equity in access to liver and kidney transplantation.



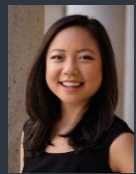
### SAMANTHA LANDINO, MD

Sam joined the R25 program in July 2022 following her PGY3 year in the Department of Surgery. Under the mentorship of Dr. Joren Madsen, she will focus on new approaches for inducing lung allograft tolerance.



### SELENA LI, MD

Selena joined the R25 program in July 2023 following her PGY3 year in the Department of Surgery. Under the mentorship of Dr. Seyed Alireza Rabi, she will focus on the biochemical profiling of blood from machine-perfused donor hearts and lungs.

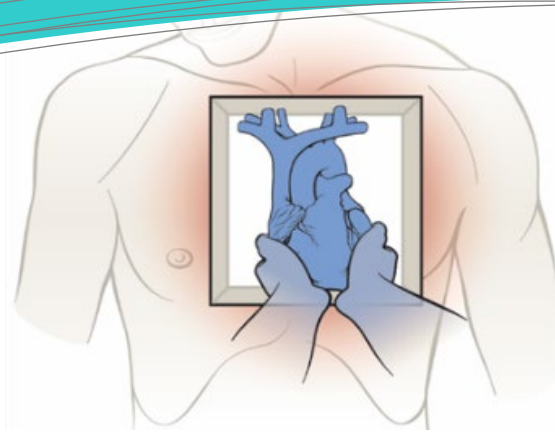


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## this issue

Overview of Program

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## Revitalizing the Physician-Scientist Pipeline

Our third year was extremely successful with residents focusing on post-inflammatory hyperpigmentation, lung allograft tolerance, and hepatitis C treatment in liver disease progression. Our resident scholars and alumni presented their work worldwide, including France, Tokyo, Washington DC, California, and Colorado. The MGH Next-Gen PSTP has selected three highly motivated surgical residents to support during the current 2023-2024 research year, which started in July.

### MEET OUR LEADERSHIP!

Program Director: Jay Vyas, MD, PhD

#### Internal Steering Committee

- Ruanne Barnabas, MBChB, DPhil
- Amy Barczak, MD
- Marcia Goldberg, MD
- Joren Madsen, MD, DPhil
- Bruce Walker, MD

Program Manager: Becca Ward, PhD

### PROGRAM OVERVIEW

The primary goal of the program is to train residents to be physician-scientists who can advance medical science in a broad range of areas from basic science to clinical investigations. Surgical and medical residents apply for the R25 program in December and are selected by January. Participants receive salary support (in agreement with the MGB PGY payscale) and \$10,000 for coursework, professional development opportunities, travel, and other costs (e.g., computers, software, books).

#### *Before Starting:*

- Creation of an Individual Development Plan

#### *During Program:*

- 90% effort toward research
- Monthly programmatic curriculum
- RCR training
- Weekly meetings with mentors
- Routine meetings with leadership
- Prepare publications
- Presentations at conferences

#### *After Program:*

- Prepare publications
- Presentations at conferences
- Annual Survey

## Alumni Residents

### TAYLOR COE, MD (2020-2021)

Dr. Coe recently completed her residency and is currently a fellow in abdominal transplant and hepatopancreatobiliary surgery at the University of Toronto.

### CLAIRE DE CRESCENZO, MD (2021-2022)

Dr. de Crescenzo is currently finishing her last year as a surgical resident.

### ADAEZE EZEFOR, MD (2022-2023)

Dr. Ezeofor recently started her dermatology residency at Hofstra University in NY.

### GREGORY FRICKER, MD (2022-2023)

Following his research year, Dr. Fricker has returned to his final year in the medical-pediatrics residency program at MGH.

### DAVID LEE, MD, MPH, MSc (2021-2022)

Dr. Lee just finished another research year through the NHLBI R38 Next-Gen StARR program, received an ASH HONORS award, and is currently completing his last year of medical residency.

### CYNTHIA MILLER, MD (2020-2022)

Dr. Miller conducted one more year of research under the mentorship of Dr. Joren Madsen. She returned to her clinical training in the surgical residency program.

### RACHEL WOLFSON, MD, PHD (2020-2021)

Dr. Wolfson is currently a fellow in the MGH gastroenterology fellowship program.

General Brigham  
Manifestations of Drug Rash with Eosinophilia and Systemic Symptoms (DRESS) Syndrome in Pediatric Patients  
Dr. A. Ezeofor, M.D., M.P.H., M.Sc., Harvard Medical School, Boston, MA, USA  
Dr. S. Landino, M.D., M.P.H., M.Sc., Harvard Medical School, Boston, MA, USA  
Dr. L. Franko, M.D., M.P.H., M.Sc., Harvard Medical School, Boston, MA, USA

| Characteristic                   | Number of Patients | Percentage |
|----------------------------------|--------------------|------------|
| Age at onset (median, range)     | 10.5 (3-16)        |            |
| Sex (M:F)                        | 10:10              | 50%:50%    |
| Eosinophil count (median, range) | 1.5 (0.5-3.5)      |            |
| Systemic symptoms (n=10)         |                    |            |
| Fever                            | 10                 | 100%       |
| Rash                             | 10                 | 100%       |
| Lymphadenopathy                  | 8                  | 80%        |
| Organ involvement                | 7                  | 70%        |
| Eosinophilic esophagitis         | 2                  | 20%        |
| Eosinophilic colitis             | 2                  | 20%        |
| Eosinophilic pneumonia           | 2                  | 20%        |
| Eosinophilic myocarditis         | 1                  | 10%        |
| Eosinophilic meningitis          | 1                  | 10%        |
| Eosinophilic pericarditis        | 1                  | 10%        |
| Eosinophilic vasculitis          | 1                  | 10%        |
| Eosinophilic leukoencephalopathy | 1                  | 10%        |
| Eosinophilic myelitis            | 1                  | 10%        |
| Eosinophilic encephalomyelitis   | 1                  | 10%        |
| Eosinophilic myelomalacia        | 1                  | 10%        |
| Eosinophilic myelopathy          | 1                  | 10%        |
| Eosinophilic myeloneuropathy     | 1                  | 10%        |
| Eosinophilic myelomalacia        | 1                  | 10%        |
| Eosinophilic myelopathy          | 1                  | 10%        |
| Eosinophilic myeloneuropathy     | 1                  | 10%        |



Dr. Adaeze Ezeofor (2022-2023) presenting at the International Societies for Investigative Dermatology meeting in Tokyo, Japan, May 2023 (left). Dr. Sam Landino with co-resident Lynze Franko at the AATS in Los Angeles, CA (right).

### TRAINEE SUCCESSES

Although the COVID-19 pandemic complicated initiation of this program, our resident-investigators have accomplished many of their goals while in the program. Successes include:

- 18 primary articles (9 pending)
- 8 review articles
- 26 oral presentations
- 19 poster presentations
- Selected conferences

attended in 2022-2023: 103<sup>rd</sup> Annual Meeting of the American Association for Thoracic Surgery, American Academy of Dermatology Annual Meeting, American Society of Hematology (ASH) Annual Meeting, InterLymph Annual Meeting, International Society for Heart and Lung Transplantation Meeting, The Liver Meeting 2022.

- ASH Hematology Opportunities for the Next Generation of Research Scientists (HONORS) Award (D. Lee)
- Marshall K. Bartlett Surgical Research Fellowship (S.

### HIGHLIGHTS: FROM 2022-2023

Feedback from exit interviews:

- Resident scholars all voiced their satisfaction with the program.
- They enjoyed learning the inner workings of academic medicine, mentorship, and networking opportunities.
- Feedback from last year led to new monthly curriculum topics (e.g., scholar-selected topic).

Drs. Marcia Goldberg and Jay Rajagopal provided a wonderful seminar on being an MD only in academic medicine.

Drs. Jay Vyas and Pierre Ankomah provided their thoughts on mentoring as a seasoned physician-scientist and early career fellow, respectively.

We sent out monthly emails highlighting scholar accomplishments, upcoming seminars of interest, and relevant resources.

### ANNOUNCEMENTS

In November 2022, Dr. Amy Barczak agreed to serve on the ISC!

We combined our Twitter account with other Resident Scholar Programs in the DOM! Follow us [@MGHResScholar](https://twitter.com/MGHResScholar)

### Selected Publications from the past year

de Crescenzo CM, ..., Yeh H. The effect of language on access to timely COVID-19 vaccination of solid abdominal organ transplant recipients. *Transpl Int.* 2023; 36:10888. PMID: [36865665](https://pubmed.ncbi.nlm.nih.gov/36865665/).

Miller CL, Madsen JC. Targeting IL-6 to prevent cardiac allograft rejection. *Am J Transplant.* 2022; 22 Suppl 4(Suppl 4):12-17. PMID: [36453706](https://pubmed.ncbi.nlm.nih.gov/36453706/).

Cowan A, ..., Lee DJ, ..., Ghobrial IM. Personalised progression prediction in patients with monoclonal gammopathy of undetermined significance or smouldering multiple myeloma (PANGEA): a retrospective, multicohort study. *Lancet Haematol.* 2023; 10(3):e203-e212. PMID: [36858677](https://pubmed.ncbi.nlm.nih.gov/36858677/).