

2022
ISSUE

ANNUAL
NEWSLETTER FOR
POTENTIAL
MENTORS

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

Current Residents

ADAEZE EZEFOR, MD

Adaeze joined the R25 program in July 2022 following her intern year in the Department of



Medicine. Under the mentorship of Drs. Daniela Kroshinsky and David Fisher, she will focus on clinical measures of post-inflammatory hyperpigmentation.

GREGORY FRICKER, MD

Greg joined the R25 program in July 2022 following his PGY3 year in the joint Medicine and



Pediatrics residency program. Under the mentorship of Dr. Raymond Chung, he will focus on the effect of hepatitis C treatment on liver disease progression and liver disease related morbidity.

SAMANTHA LANDINO, MD

Sam joined the R25 program in July 2022 following her PGY3 year in the Department of



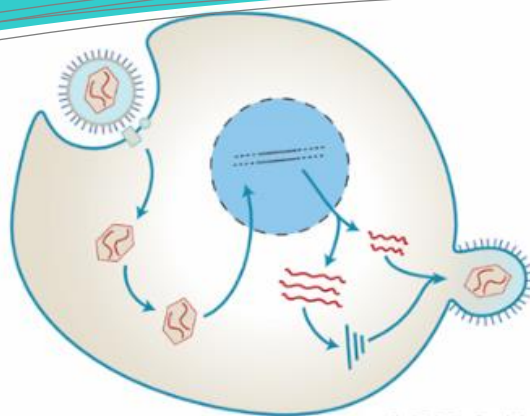
Surgery. Under the mentorship of Dr. Joren Madsen, she will focus on new approaches for inducing lung allograft tolerance.

Check out our [website](#)

Follow us on Twitter:



@MGH_PSTP



Revitalizing the Physician-Scientist Pipeline.

In 2019, the National Institutes of Allergy and Infectious Diseases awarded Massachusetts General Hospital an R25 application to enable residents from the Departments of Medicine and Surgery an opportunity to take a year off from residency to dedicate to research in the areas of infectious diseases and immunology. We pushed our first year off until July 2020 to sync with the academic calendar. The MGH Next-Gen PSTP has selected three highly motivated residents to support each year. We began our third year in July 2022.

MEET OUR LEADERSHIP!

Program Director: Jay Vyas, MD, PhD

Internal Steering Committee

- Steve Calderwood, MD (*Chair*)
- Ruanne Barnabas, MBChB, DPhil
- Marcia Goldberg, MD
- Joren Madsen, MD, DPhil
- Bruce Walker, MD

Program Manager: Becca Ward, PhD

this issue

Overview of Program

Trainee Successes

Announcements

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 Individual Development Plan (IDP)

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

Taylor was in the R25 program from July 2020 to June 2021



from the Department of Surgery. Under the mentorship of Dr. James Markmann, she studied liver xeno-transplantation using genetically modified pigs. She is currently a PGY5 surgical resident.

CLAIRE DE CRESCENZO, MD

Claire was in the R25 program from July 2021 to June 2022



from the Department of Surgery. Under the mentorship of Dr. Laurence Rahme, she studied the prevention and eradication of graft infection and ischemic wounds in a murine model. She is currently a PGY4 surgical resident.

DAVID LEE, MD, MPH, MSc

David was in the R25 program from July 2021 to June 2022



from the Department of Medicine. Under the mentorship of Dr. Irene Ghobrial (DFCI), he focused on the immunological, genomic, and epidemiological links between race, obesity, and multiple myeloma. He is continuing his research in the MGH Next-Gen StARR program.

CYNTHIA MILLER, MD

Cindy was in the R25 program from July 2020 to June 2022



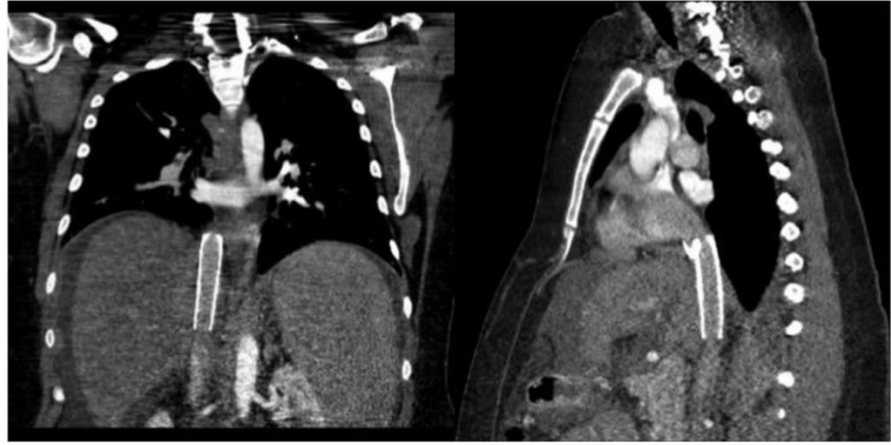
from the Department of Surgery. Under the mentorship of Dr. Joren Madsen, she studied the induction of long-term heart & lung allograft tolerance in non-human primates. She is currently conducting a third year of research.

RACHEL WOLFSON, MD, PHD

Rachel was in the R25 program from July 2020 to December 2021 from the Department of



Medicine. Under the mentorship of Dr. David Ginty (HMS), she studied sensory innervation of the gastrointestinal tract. She is currently a PGY3 medical resident.



Adapted from Taylor Coe's paper published during her time in the R25 program: [Coe et al., 2020](#)

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:

- 13 primary articles (7 pending)
- 5 review articles
- 16 oral presentations
- 9 poster presentations
- Selected conferences attended: Klarman Cell Observatory Conference, American Society of Hematology Annual Meeting, International Society for Heart and Lung Transplantation Meeting, American Society of Transplant Surgeons Annual Meeting
- Acceptance into the Center for Faculty Development Leadership Development Program for Researchers
- Association for Surgical Education and Leadership 2021-2022
- Women in Thoracic Surgery Speed Mentoring Event

HIGHLIGHTS FROM 2021-2022

Feedback from exit interviews:

- Residents all expressed their enjoyment during the program.
- They enjoyed the flexibility and independence allowed by the program.
- Feedback from first year led to the development of new didactics and more opportunities to network with peers.

Dr. Calderwood provided a wonderful seminar on mentoring.

Drs. Amy Barczak and Peggy Lai provided their thoughts on being an MD in academic medicine.

Our trainees were finally able to attend in-person conferences!

ANNOUNCEMENTS

In May 2022, Dr. Ruanne Barnabas agreed to serve on the ISC!

We started a Twitter account to highlight successes in the program! Follow us [@MGH_PSTP](#)

Selected Publications

Coe TM, ..., Markmann JF. Liver transplantation with suprahepatic caval anastomosis including inferior vena cava stent. *Transpl Rep.* 2020; 5(4):100062. PMID: [34485756](#).

Choi S, Hachisuka J, Brett MA, Magee AR, Omori Y, Iqbal NU, Zhang D, DeLisle MM, Wolfson RL, ..., Ginty DD. Parallel ascending spinal pathways for affective touch and pain. *Nature.* 2020; 587(7833):258-263. PMID: [33116307](#).

Miller CL, Madsen JC. IL-6 Directed Therapy in Transplantation. *Curr Transplant Rep.* 2021; 3:1-14.. PMID: [34099967](#).

El-Khoury H*, Lee DJ*, ..., Ghobrial IM. Prevalence of monoclonal gammopathies and clinical outcomes in a high-risk US population screened by mass spectrometry: a multicentre cohort study. *Lancet Haematol.* 2022; 9(5):e340-e349. PMID: [35344689](#).