

2022
ISSUE

ANNUAL
NEWSLETTER FOR
POTENTIAL
MENTORS

R38 MGH Next-Gen Physician-Scientist Through Stimulating Access to Research in Residency Program (StARR)

Current Residents

ELIZABETH
GAY, MD



Beth joined the R38 program in July 2022 following her PGY2 year in the Department of Medicine. Under the mentorship of Dr. B. Taylor Thompson, she will focus on heterogeneity in sepsis: identification of subgroups and treatable traits.

DAVID LEE,
MD, MPH, MMSc

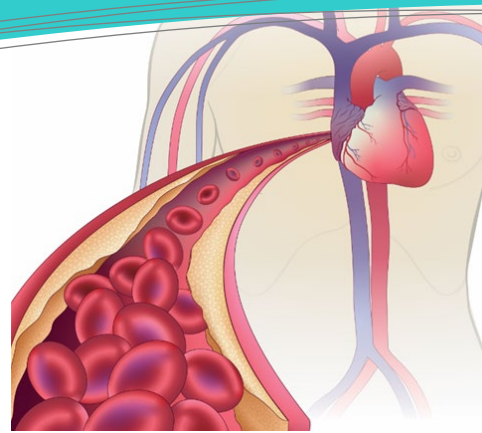


David, a medicine resident, joined the R38 program in July 2022 following a research year through the MGH Next-Gen PSTP program. Under the mentorship of Dr. Irene Ghobrial (DFCI), Gad Getz (MGH/Broad), and Timothy Rebbeck (DFCI), he is focusing on the immunological, genomic, and epidemiological links between race, obesity, and multiple myeloma.

Check out our [website](#)



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this issue

Overview of Program

Trainee Successes

Announcements

Revitalizing the Physician-Scientist Pipeline.

In July 2020, the National Heart, Blood, and Lung Institute awarded Massachusetts General Hospital an R38 application to enable internal medicine residents an opportunity to take a year off from residency to dedicate to research in the areas of regenerative medicine, cardiac and pulmonary disease. The MGH Next-Gen StARR has selected two 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

- Benjamin Medoff, MD
- Pradeep Natarajan, MD, MMSc
- Jay Rajagopal, MD
- David Scadden, MD
- Melissa Suter, PhD

External Advisory Board

- Juan Celedón, MD, DrPh
- Nadia Handel, MD, MPH
- Christine Seidman, MD
- Joseph Wu, MD, PhD

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. Internal medical residents apply for the R38 program in December and are selected by January. Participants receive salary support (in agreement with the MGB PGY payscale) and \$11,500 for coursework, professional development opportunities, travel, and other costs (e.g., computers, software, books)

Before Starting:

- Creation of Individual Development Plan (IDP)

During Program:

- 80% effort toward research (20% clinical)
- 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

Alumni Residents

JULIAN HAIMOVICH, MD

Julian was in the R38 program from July 2020 to June 2021. Under the mentorship of Dr. Steven



Lubitz, his research utilized artificial intelligence of the electronic health record to predict cardiovascular disease. He is currently a cardiology fellow at MGH.

ADAM JOHNSON, MD

Adam was in the R38 program from July 2021 to June 2022. Under the mentorship of Dr. Rajeev



Malhotra, he studied the cellular mechanism of vascular calcification and altered vascular compliance. He is currently a cardiology fellow at MGH.

MICHAEL KELLY, MD

Mike was in the R38 program from July 2021 to June 2022. Under the mentorship of Dr. Peggy



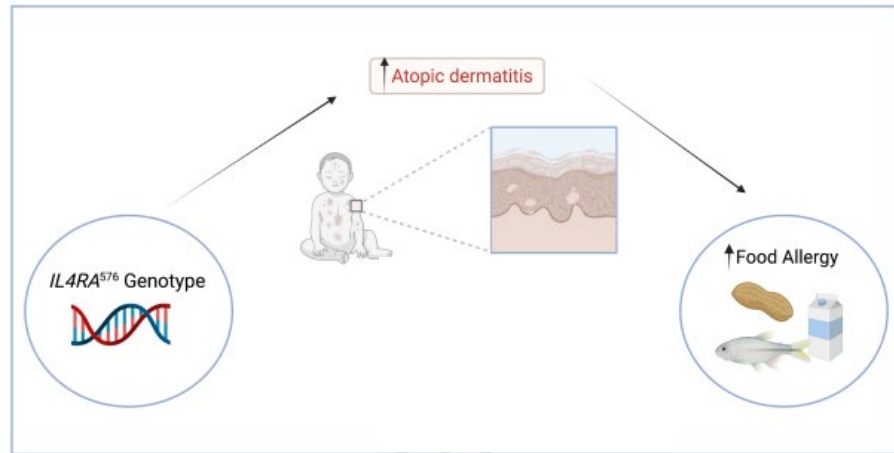
Lai, he studied the environmental, allergic, and infectious triggers of asthma in a school-based cohort. He is currently PGY4 resident in the Meds-Peds program.

KATHERINE TAKVORIAN, MD, MPH

Kate was in the R38 program from July 2020 to June 2021. Under the



mentorship of Dr. Jennifer Ho, she studied metabolite profiles of incident cancer in the Framingham Heart Study. She is currently an attending physician at MGH.



Adapted from Mike Kelly's paper published during his time in the R38 program: [Banzon et al., 2022](#).

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:

- 9 primary articles (3 first author)
- 8 manuscripts under review (6 first author)
- 12 oral presentations
- 4 poster presentations
- Conferences attended:
 - American College of Cardiology's Annual Scientific Session & Expo
 - American Heart Association Annual Meeting
 - AAMC Annual Meeting
 - American Thoracic Society International Conference.
- Abstract scholarship to ATS meeting

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. Steve 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 June 2022, Dr. Pradeep Natarajan agreed to serve on the ISC!

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

Selected Publications

Banzon TM*, Kelly MS* (Co-First Author), ... Lai PS. Atopic dermatitis mediates the association between an *IL4RA* variant and food allergy in school-aged children. *J Allergy Clin Immunol.* 2022 May 16:S2213-2198(22)00487-1. PMID: [35589010](#).

Haimovich JS, Cui J, Yeh RW, Ferris TG, Hsu J, Wasfy JH. Expansion of insurance under the affordable care act and invasive management of acute myocardial infarction. *Cardiovasc Revasc Med.* 2022 Jun 39:90-96. PMID: [34756520](#).

Liu EE, Suthahar N, Paniagua SM, Wang D, Lau ES, Li SX, Jovani M, Takvorian KS, ..., Ho JE. Association of Cardiometabolic Disease With Cancer in the Community. *JACC CardioOncol.* 2022 Mar 15;4(1):69-81. PMID: