Stephen J. Haggarty, PhD
Associate Professor, Harvard Medical School
Director, Chemical Neurobiology Laboratory
MGH Departments of Neurology & Psychiatry
Center for Genomic Medicine
Boston, Massachusetts, USA

NAS Next Generation Researchers Initiative, 3rd Committee Meeting | Cambridge, MA | July 13, 2017

Personal Scientific Background

- UBC Science One multidisciplinary B.Sc., Vancouver, B.C.
- Summer research program at Cold Spring Harbor "URP"
- Summer research at UBC

- Ph.D. in Biochemistry, Harvard University, Cambridge, MA

- Fellow, Broad Institute (Chemical Biology Program), Cambridge, MA

- Instructor → Assistant Professor → Associate Professor
  Departments of Neurology & Psychiatry, Massachusetts General Hospital, Harvard Medical School, Boston, MA

- 2007: First NIH funding as Principal Investigator
- 2017: Named MGH Research Scholar

MASSACHUSETTS GENERAL HOSPITAL
RESEARCH INSTITUTE

Mass General Research Institute

- 2014: launched to serve as an umbrella organization for ongoing research efforts.
- The mission to **promote, support & guide** MGH'S diverse research enterprise.
- 2017: Mass General Research Institute is home to the **largest hospital-based** research enterprise in the United States.

MASSACHUSETTS GENERAL HOSPITAL
RESEARCH INSTITUTE

Mass General Research Institute

- Takes place in over **30 departments, centers & institutions** across the institution.
- Occupies 1.25M square feet of space in Boston, Charlestown & Cambridge.
- The Research Institute is powered by a research community of **10,000 people**, including:
  - 2,000+ principal investigators leading research teams
  - 3,700+ scientists and research staff
  - 1,500+ post-doctoral research fellows
  - 600+ graduate students
  - 700+ support staff

MASSACHUSETTS GENERAL HOSPITAL
RESEARCH INSTITUTE

Opportunities & Challenges for Building a Career in Academic Medical Centers

- **Translational** research & opportunity for **impact**.
- Continued opportunities for **day-to-day training**.
- Encourages **diversification of skills** beyond traditional academic department.
- Favors researchers interested in **multidisciplinary team science & collaboration**.
- Consistent cycle of grant writing & publication to support own salary & those in research group along with research expenses.

MASSACHUSETTS GENERAL HOSPITAL
RESEARCH INSTITUTE

Building a Career on "Soft Money" Positions in Academic Medical Centers

- Requires covering up to 95% of salary (varies by Department/Institution) from research grants, teaching, &/or administrative responsibilities.
- Funding comes principally from external grants (NIH, NSF), contracts, & philanthropy.
- Reduced teaching responsibilities (if desired) that allow for more research time & grant writing.
- Potential for reduced sense of job security.

MASSACHUSETTS GENERAL HOSPITAL
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Critical Role for Internal Institutional Funding & Bridge Support at MGH

- Executive Committee on Research (ECOR) at MGH provides over **$12M/y in internal research support** for ~150 grants to bridge the gap during delays or lags in funding.
- **2016→ 78 Principal Investigators**: interim/bridge funding support from ECOR totaling $5.8M/y.
- **2017→ 8 MGH Research Scholars**: each receives $100,000 per year for 5 years, bringing total number of researchers supported to 50.
- Concerns over **long-term sustainability** of support given increased fiscal constraints.

MASSACHUSETTS GENERAL HOSPITAL
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Next-Generation Researchers

- Investment in the **future of health** for the world.
- Interest in science & commitment to a career in research begins at a **young age** (e.g. high-school, undergraduate, summer programs).
- Transition of early career researchers into an independent research career requires **sustained mentorship** (intellectual, financial commitment).
- Importance of exposure to **diverse research environments** (university, academic medical centers, industry) informs opportunities & paths.
- Teaching adaptability & rewarding mentorship.
- A career in science as a **team sport**.

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