

The [Nahrendorf lab](#) is looking to recruit motivated, enthusiastic scientists! Come and join a dynamic research effort focussing on cardiovascular biology, immunology, hematology and imaging. The lab offers a strong environment to pursue exciting research, propelled by team spirit, cutting edge resources and collaborative network that spans continents and local Boston powerhouses. We are ~10 scientists with a common goal: use the fire in our bellies to tackle the big unknown, driven by the world's clinical needs and our intellectual curiosity.

Who are we? We study the role of immunity in cardiovascular health and disease, specifically in atherosclerosis and heart failure. Of particular interest are the function, supply and production of leukocytes, and the signals that regulate hematopoiesis after injuries such as myocardial infarction or stroke. We described that after MI, the spleen releases a large population of ready-made leukocytes that travel to the ischemic heart (Science 2009). We found that MI and chronic stress increases sympathetic nerve activity in the bone marrow. This modulates the hematopoietic stem cell niche, activating migration and proliferation of myeloid progenitor cells (Nature 2012, Nature Medicine 2014, Nature Neuroscience 2018). Resident macrophages, on the other hand, do not derive from circulating cells and promote steady state functions such as cardiac conduction (Cell 2017). We also develop and employ imaging to sample biology non-invasively, using MRI, nuclear, optical and microscopic imaging.

[Dr. Nahrendorf](#) has received clinical training in medicine and cardiology and serves as principal investigator on multiple NHLBI grants, including an R35 Outstanding Investigator Award. He serves as editorial board member of JACC, Circulation Research, European Heart Journal, ATVB, Circulation, among others. He was the Chair of the 2017 Atherosclerosis Gordon Conference and published >250 articles and has an H-index of 83.

The Massachusetts General Hospital (MGH) is the largest and oldest teaching hospital of Harvard Medical School. Comprised of more than 10,000 staff members working across more than 30 institutes, centers and departments, MGH is home to the largest hospital-based research program in the USA. Research has been part of the hospital's mission since its founding more than 200 years ago and has led to innovations such as the use of general anesthesia in surgery, a vaccine for tuberculosis and the modern PET scan. There are approximately 1,200 clinical trials taking place at MGH, stressing the translational opportunities in this environment. Over 50 MGH core facilities bring state-of-the-art resources to biomedical research, many of which, including imaging, flow sorting and sequencing cores are located in the Simches Research Building, the home of the Center for Systems Biology.

The MGH Center for Systems Biology (CSB) is one of the five thematic interdisciplinary Centers at MGH. It is home to over 200 researchers in 12 groups, including the Nahrendorf lab. The mission of CSB (www.csb.mgh.harvard.edu/) is to analyze at a systems level how biological molecules, proteins and cells interact in both healthy and diseased states.

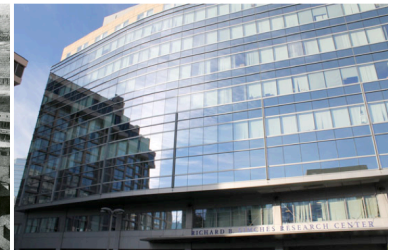
Through a multidisciplinary approach that combines clinical insight with powerful technologies, CSB faculty pursue systems-level research that is at once fundamental and yet immediately linked to the diagnosis and treatment of human disease.

There are many great labs — why us?

- You will be able to shape your research question and strategy and also get a lot of help.
- We are a great team.
- The PI is around, answers your emails and will meet with you frequently.
- You will have access to all resources you need for your project.
- We have a good track record: nobody leaves without a publication.
- We pay above NIH and MGH guidelines.
- MGH is among the top ranked employers in the USA, e.g. providing subsidized health insurance.



Matthias Nahrendorf is a Professor of Radiology at Harvard Medical School and principal investigator at the MGH Center for Systems Biology.



MGH Campus ca. 1821 (left) and the Simches Research Building today (right), home to the Nahrendorf lab.