



MISSION

The mission of the Koch Institute (KI) is to apply the tools of science and technology to improve the way cancer is detected, monitored, treated and prevented.

APPROACH

We bring together scientists and engineers – in collaboration with clinicians and industry partners – to solve the most intractable problems in cancer. Leveraging MIT's strengths in technology, the life sciences and interdisciplinary research, the KI is pursuing scientific excellence while also directly promoting innovative ways to diagnose, monitor, and treat cancer through advanced technology.

HISTORY

The Koch Institute facility was made possible through a \$100 million gift from MIT alumnus David H. Koch. Our new building opened in March 2011, coinciding with MIT's 150th anniversary. Our community has grown out of the MIT Center for Cancer Research (CCR), which was founded in 1974 by Nobel Laureate and MIT Professor Salvador Luria, and is one of seven National Cancer Institute-designated basic (non-clinical) research centers in the U.S.

SCOPE

The Koch Institute is a unique community of extraordinarily dynamic and diverse researchers working together to advance cancer research. This group includes cancer biologists; chemists; materials science, chemical and biological engineers; computer scientists and others, all dedicated to bringing the most advanced science and technology to bear in the fight against cancer.

Our faculty members have earned the most prestigious national and international science honors, notably:

- Five current and former faculty have been awarded the Nobel Prize
- 17 current faculty members have been elected to the National Academy of Sciences
- Nine current faculty members have been elected to the National Academy of Engineering
- 11 current faculty members have been elected to the Institute of Medicine of the National Academies
- Nine current and former faculty members have been awarded the National Medals of Science or Technology and Innovation
- 10 current faculty members are Howard Hughes Medical Institute Investigators

Working with the faculty are more than 170 postdoctoral fellows and associates; 70 principal research scientists; approximately 70 technical assistants, associates, lab aides, and managers; more than 170 graduate students and 100 undergraduates, and more than a dozen visiting scientists and students, for a total research force of more than 1,000 individuals. The KI comprises more than 50 laboratories, located at its purpose-designed facility in Kendall Square and across the MIT campus.

CLINICAL FOCUS

Strategic research at the KI is focused on five target areas viewed as critical for rapid progress toward controlling cancer:

- Developing nanotechnology-based cancer therapeutics
- Creating novel devices for cancer detection and monitoring
- Exploring the molecular and cellular basis of metastasis
- Advancing personalized medicine through systematic analysis of cancer pathways and drug resistance linked to individual cancers
- Engineering the immune system to fight cancer

Research and development in each of these target areas involves cross-disciplinary teams of faculty, students, and staff – and also encompasses collaborations with clinical centers and industry.

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