



## Learning Lab: The Cell



*Learning Lab: The Cell* is an innovative new space developed by the MIT Museum in collaboration with the MIT Center for Environmental Health Sciences to create a laboratory for self-guided and directed learning in the middle of the MIT Museum.



In addition to daily visits by museumgoers, *Learning Lab: The Cell* is available for scheduled school workshops, teacher trainings, and corporate and adult events that explore DNA, protein synthesis, and current biology research at MIT.

[More information](#)  
[Printable brochure](#)

Specially designed to fulfill the needs of middle school and high school students taking workshops on topics in DNA and protein synthesis taught by outreach staff from the MIT Museum and CEHS, *Learning Lab: The Cell* simultaneously provides fascinating insights into how our living cells work for museum visitors of all ages.

There is a connection between DNA, proteins, cells, and your health.

Well functioning cells contribute to a person's overall health. The root cause of every human disease is found inside our cells. Dysfunctional cells have problems at the molecular level – the level of DNA and protein molecules. Understanding how environmental agents, such as chemicals, smoking, solar radiation, etc., affects these molecules allows scientists to study health and disease with tools never before available to medicine.

This kind of research is conducted at MIT's [Center for Environmental Health Sciences](#) (CEHS), an interdisciplinary network of biologists, chemists, civil and environmental engineers, biological engineers, and microbiologists. Its mission is to investigate how environmental agents affect human health. Researchers at CEHS recognize three components that influence the health outcome of an environmental exposure: 1) the nature of the exposure itself, 2) the duration of that exposure, and 3) how well the organism is genetically equipped to deal with the exposure. A solid grounding in molecular biology underlies this approach to studying health and the environment, including knowledge of processes involving DNA, RNA, and protein synthesis, as illustrated in *Learning Lab: The Cell*.

The [DNA to Proteins workshop](#) is custom designed to be taught in *Learning Lab: The Cell*. This workshop on DNA and protein synthesis is available for middle school, high school, and adult audiences. More information about the DNA Learning Lab is available in our downloadable [Learning Lab: The Cell brochure](#) (pdf).

