James R. Killian Jr. Faculty Achievement Award
Citation for Tyler Jacks

The James R. Killian Jr. Faculty Achievement Award was established in 1971 "to recognize extraordinary professional accomplishments by full-time members of the MIT faculty." It is the highest award the faculty can bestow upon one of its members. The recipient is chosen by a faculty committee from candidates nominated by their peers for outstanding contributions to their fields, to MIT, and to society.

The Killian Award Committee is pleased to recognize Tyler Jacks, the David H. Koch Professor of Biology and the director of the Koch Institute for Integrative Cancer Research at MIT, as the recipient of the 2015-16 James R. Killian Jr. Faculty Achievement Award.

Long a leader in the MIT cancer research community, Professor Jacks was an early pioneer in genetically engineering mouse models that closely replicate the human disease. This achievement has allowed certain types of tumors to be studied with greater reliability, and by the mid-1990s, Professor Jacks emerged as an international leader in this sub-field of cancer research. Between 2000 and 2014, his laboratory published more than 180 research articles, including work on tumor suppressor genes and tumor initiation in lung and muscle. Today, the models he has developed are used in laboratories around the world, contributing to a better understanding of disease pathogenesis and progression, and enabling the testing of novel anti-cancer strategies.

Both in and out of the lab, Professor Jacks is described by colleagues as a bold and visionary leader. His nominators say that it takes a village of passionate and dedicated people to invent solutions for the many cancers that affect our society, and this is exactly what he has created in building 76. Yet, as one colleague commented, "[s]uccesses like the Koch Institute do not just happen—they are created through dynamic leadership."

In 2001, Professor Jacks was selected to direct the MIT Center for Cancer Research. Seven years later, he transformed it into today's Koch Institute for Integrative Cancer Research. His game-changing goal was to bring together cancer biologists and engineers in a collaborative model to improve cancer diagnosis and therapies. Faculty and students cite his mentorship and his commitment to bridging the different cultures, languages, and research agendas of these two worlds. Less than a decade later, the Koch Institute houses dozens of faculty research groups and serves as an organizing body for more than 500 researchers across MIT. Over a dozen companies have been created through discoveries and patents from the Institute, new diagnostic tests and therapies have either been approved or are in clinical trials, and top cancer institutes are hiring MIT engineers as faculty members for the first time. The KI model is universally acclaimed.

Professor Jacks received BA and PhD degrees from Harvard University and the University of California at San Francisco respectively, before joining the MIT Faculty in 1992. In the years since, he has been recognized with numerous awards. In 2002, he was named a Howard Hughes Investigator. In 2005, he received the Paul Marks Prize for Cancer Research. In 2009, he was elected to two of the nation's most prestigious academies, the National Academy of Sciences and the Institute of Medicine. That same year, he was elected president of the American Association of Cancer Research, the oldest and largest cancer research organization in the world. In 2011, he was appointed chair of the National Cancer Institute's National Cancer Advisory Board, and in 2012, he was elected to the American Academy of Arts and Sciences.

With the 2015-16 Killian Award, the committee acknowledges the impact that multidisciplinary research and community effort can have on addressing society's greatest challenges. We honor Professor Tyler Jacks for his influence on the field of cancer research and his visionary leadership of the Koch Institute.

Roberto Rigobon
Chair,
Killian Award Committee