

## ***Michael J. Cima***

### ***Professor and Faculty Director, Lemelson-MIT Program***

Michael J. Cima, of the Department of Materials Science and Engineering and the Koch Institute for Integrative Cancer Research, is faculty director of the Lemelson-MIT Program. As the faculty director, Cima oversees strategic planning in support of the program's goals, which include enabling and inspiring young people to pursue creative lives and careers through invention.

Cima earned a B.S. in chemistry in 1982 (phi beta kappa) and a Ph.D. in chemical engineering in 1986, both from the University of California at Berkeley. As an assistant professor, he received the Norton chair in the Materials Science and Engineering Department at MIT in 1988. Cima became director of the Ceramics Processing Research Laboratory in 1989 and received a tenured appointment from MIT in 1992, followed by a promotion to full professor in 1995. He was elected a fellow of the American Ceramics Society in 1997. Cima was awarded the Sumitomo Electric Industries Chair at MIT in 1997. He also serves as faculty advisor to the MIT Glass Lab.

The author or co-author of over 190 scientific publications, Cima is a recognized expert in the field of materials processing who holds 45 patents. He is actively involved in materials and engineered systems for improvements in human health such as treatments for cancer, metabolic diseases, trauma, and urological disorders. He has been the principle investigator on several large defense research projects and many other sponsored research programs at MIT. His research led to the development of chemically derived epitaxial oxide films for HTSC coated conductors. Through his consulting work, Cima has been a major contributor to the development of high-throughput systems for discovery of novel crystal forms and formulations of pharmaceuticals. Cima co-invented MIT's three-dimensional printing process.

Cima's current research is primarily focused in four areas: advanced forming technology, ceramic thin film processing, MEMS devices for medical electronics and drug delivery, and high-throughput development methods for formulations of materials. He and collaborators are developing implantable MEMS devices for unprecedented control in the delivery of pharmaceuticals and implantable diagnostic systems.

Cima has extensive entrepreneurial experience: he co-founded four companies in the health technologies field. Cima is co-founder and a director of MicroChips Inc., a developer of micro-electronic based drug delivery and diagnostic systems, and T2 Biosystems, a medical diagnostics company. He took two sabbaticals to act as senior consultant and a management team member at Transform Pharmaceuticals Inc., a company that he helped start and that was ultimately acquired by Johnson and Johnson Corporation. Most recently, Cima co-founded Entra Pharmaceuticals, a specialty pharmaceutical company.