Design, Technology and Entrepreneurship (DTE)
Graduate School of Biomedical Sciences
Mount Sinai Institute of Technology

What is DTE:

Design, Technology, and Entrepreneurship (DTE) is a new multi-disciplinary training area (MTA) focused on education in the discovery, design, development, and delivery of technology-based solutions to critical biomedical problems

Goal of DTE:

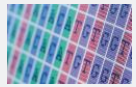
To foster exploration and development of innovative technologies, models, designs, techniques, and methods that have the potential to substantially advance biomedical research by infusing principles and concepts from quantitative sciences to transform our understanding of biological, clinical and translational sciences

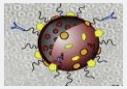
Unique qualities of DTE:

- Problem-based interdisciplinary training in biological sciences, engineering design, and social sciences relevant to technology development
- Focused hands-on DTE core curriculum
- Advanced elective courses leveraging academic and industrial partnerships
- Strong research focus, combining the rigor of quantitative analysis and the creativity of engineering design and entrepreneurship with the power of biological scientific hypothesis testing, applied towards advancing basic and translational biomedical sciences

DTE will produce graduates with the technical expertise and practical experience to drive novel science from original biologic insight all the way through the commercial development process.


digital medicine

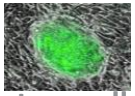

genomics

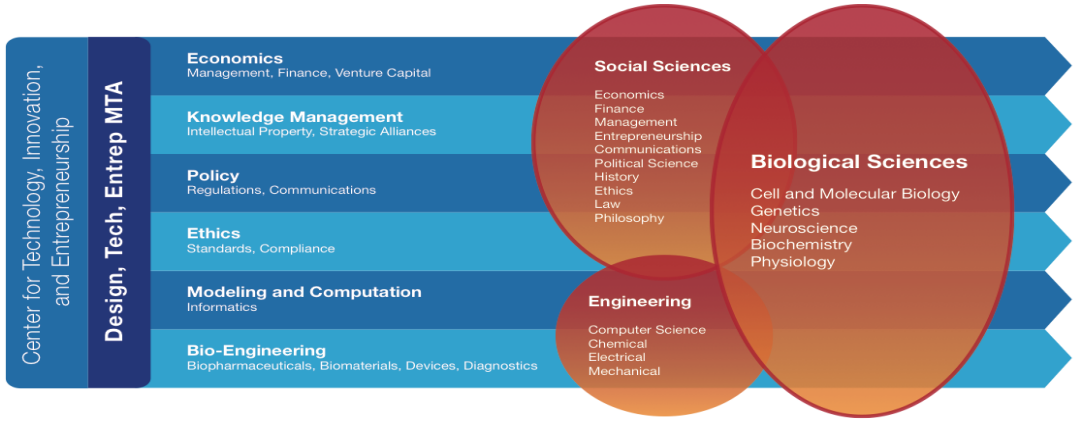

nanomedicine


neuroengineering


tissue engineering


biomedical imaging


stem cell technologies



Meet the DTE Directors


James Iatridis


Kevin Costa

contact us: dte@mssm.edu
http://msit.mssm.edu/education

Icahn School of Medicine at Mount Sinai

Graduate School of Biomedical Sciences

Design, Technology and Entrepreneurship (DTE) Graduate Courses

BSR 1900: DTE Makers Studio I – Prototype Design A hands-on team-building studio course designed to explore different ways of solving biomedical problems by using technology to create physical models—will require each student to design and make a component of a larger system being developed by the class as a team

BSR 1901: DTE Makers Studio II – Computational Economics The second part of the DTE hands-on studio course. Makers II is designed to teach students how to develop a computer model of the economic value of a key technology and its impact on modern biomedicine. Topics include pharmacogenomics, rational drug design, and digital medicine

BSR 5900/5901: DTEx-I and -II A two-semester course sequence designed to extend the BMS Core by discussing weekly topics in the context of DTE's focus on the purpose-driven 4D approach to solving biomedical problems

BSR 3003: The Q.E.D. Project The Q.E.D. Project provides a hands-on, team-based, technology development experience. Over the course of the academic year, student-led teams will learn to define a specific problem, invent a technology-based solution to the problem, and build a prototype solution for it.

BSR 2003: Thinking Science An elective course introducing the various styles used when attacking a scientific problem, and how these styles are influenced by the background of the investigator, focusing on selected topics in which multiple experts interactively discuss their strategies with students

BSR 6805: Fundamentals of Nanomedicine Combined lecture and laboratory elective course covers the synthesis of multifunctional nanoparticles, techniques for NP characterization, applications in imaging (optical, CT and MRI) and applications in therapy (drug delivery, gene therapies, and tissue engineering)

QUICK FACTS

- Mount Sinai is the largest health system in New York
- GSBS ranks 3rd nationally in NIH funding per principal investigator
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- Over 300 basic science and clinical research training faculty
- Located in Manhattan's Upper East Side, across the street from Central Park
- All doctoral students receive a support package including:
  - stipend ($34,000 in 2015-16)
  - tuition waiver
  - medical insurance
  - subsidized housing

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