Molecular Engineering: Building a new approach to engineering research and education

The University of Chicago has launched a powerful approach to engineering research and education with the establishment of the Institute for Molecular Engineering (IME). IME is building a faculty to translate molecular science into technology, engineering systems from the molecular-level up. Engineering complements and partners with science, adding design, invention and fiscal reality to the discovery-driven mentality of science, leading to innovations and solutions to current and future societal needs in energy, healthcare, information technology, sustainability and more. IME breaks from tradition in having the character of both an academic unit and an interdisciplinary research institute. Faculty expertise in IME will span all the necessary tools to build functional molecular systems, from synthesis of new materials, to device fabrication, to manipulating biology and advanced computing methods.

In contrast to established engineering schools and colleges, where emphasis is placed on a narrow engineering “toolkit” (mechanical, electrical, chemical, etc), IME is merging multiple disciplines into one unit.

To demonstrate this approach, examples of work from our laboratory at the IME, using peptide-lipid conjugate molecules (peptide amphiphiles), will be discussed relating to multi-functional surfaces, DNA-binding peptide assemblies, and protein analogous micelles for cancer and cardiovascular therapeutics.

יום שלישי, י"ב בחשוון תש"ע, 27 בנובמבר 2012
הרצאה תחל בשעה 14:30
местון אולם 51 בכונכוןולגרי (51) אולום 015
לפני ההרצאה יוגש כיבוד קל (14:00)