

Analytical Seminar

Thursday, Feb. 10, 12:15 p.m.

Room 1315 - Chemistry

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Dept. of Chemistry – Director, Genome Center



NEW TECHNOLOGIES FOR THE GENOME AGE

The successful sequencing of the human genome has provided us with the blueprints of life.... but now the likely greater challenge of understanding those blueprints lies squarely before us. Again, information is needed. The molecules that are encoded by the genome come in many different types and forms. We need to know what molecules are where, when, and in what form, how they change with time and in response to internal and external signals, and how they interact with one another. This information is a first step towards developing an understanding of the complex web of networks and pathways that comprise functioning biological systems. As was true for the Genome Project, new technologies are needed to provide this information. This talk will present challenges, opportunities, and progress in the development of such new technologies, with a particular emphasis on surface science, biological mass spectrometry, and the conjunction of the two.