BI-CO MATHEMATICS COLLOQUIUM

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"Using mathematics to design cancer vaccines"

Monday, November 19, 2012

Talk at 4:00 – Park 328
Tea at 3:30 – Park 355, Math Lounge

Abstract:

How much?", "How often?", "Where?" The answers to these three questions are crucial in the design of cancer vaccines: treatments designed to trigger an improved immune response to an existing tumor. Mathematical models that describe tumor growth in tissue, the immune response, and the administration of different therapies can suggest treatment strategies that optimize treatment efficacy and minimize negative side-effects. However, the inherent complexity of the immune system and the spatial heterogeneity of human tissue gives rise to mathematical models that pose unique challenges for the mathematician. In this talk I will describe some of theses mathematical challenges as well as our approaches to overcoming them.

This talk is intended for a general audience: no knowledge of biology will be assumed.

BRYN MAWR COLLEGE