

"NIMBioS: a National Institute fostering Research and Education at the interface of Mathematics and Biology"

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A unique collaboration of federal agencies is sponsoring a national center that is fostering new research that applies mathematics and computational science to diverse problems in the life sciences. The National Science Foundation, US Department of Homeland Security and US Department of Agriculture are formal sponsoring agencies, with additional support from the National Center for Medical Intelligence. I will describe the variety of methods used at NIMBioS to foster interdisciplinary research to address fundamental as well as applied questions in biology, with a particular focus on efforts in animal infectious diseases. Research activities at NIMBioS are chosen through a community-driven process whereby requests for NIMBioS support are submitted by the broad scientific research community and vetted through an external advisory board. Project requests are assessed based upon their potential for developing transformative science, responding to national needs, and incorporation of an interdisciplinary perspective requiring expertise across the mathematical and life sciences. Activities supported include Working Groups which meet several times over the course of two years, Investigative Workshops, Tutorials focused on quantitative topics of interest to biologists, and short-term visits to support collaborations with NIMBioS resident scholars and others. NIMBioS sponsors an array of educational activities from K-12 projects through postdoctoral and sabbatical fellowship opportunities, and I will provide a glimpse of these as well.