

## BIOINFORMATICS

The urgency of anticipating and preparing for terrorist attacks became obvious on September 11, 2001. In response to the need for fast, accurate real-time detection and identification of emerging chemical and biological agents, the Department of Homeland Security (DHS) is currently funding the development of new technologies in this area.

The Information Sciences Division received DHS funding for a collaborative project with Professor Andrew Ellington of the University's Department of Chemistry and Biochemistry and Professor Homme Hellinga of Duke University. The objective of this project is the rapid development of sensors for new types of chemical and biological warfare agents. ISD has completed the development of a secure Beowulf cluster and Biosafety Level 2 lab for numerical computation and investigation of biochemical properties of emerging chemical and biological threats. These facilities became operational in FY06.

In addition, ISD is collaborating on a new DARPA project in collaboration with The University of Texas at Austin, Vanderbilt University, the University of Wisconsin, and the Oak Ridge National Laboratory to design a protein whose functionality may be modified via an optical switch.

For further information regarding SPD's work in bioinformatics, please contact:

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