BIOINFORMATICS AT MICROSOFT RESEARCH

Simon Mercer

Microsoft Research
One Microsoft Way
Redmond, WA 98052, USA

The advancement of the life sciences in the last twenty years has been in part the story of increasing integration of computing with scientific research, a trend that is set to transform the practice of science in our lifetimes. Conversely, biological systems are a rich source of ideas that will transform the future of computing.

In addition to supporting academic research in the life sciences, Microsoft Research is a source of tools and technologies well suited to the needs of basic scientific research - current projects include new languages to simplify data extraction and processing, tools for scientific workflows, and biological visualization.

Computer science researchers also bring new perspectives to problems in biology, such as the use of schema-matching techniques in merging ontologies, machine learning in vaccine design, and process algebra in understanding metabolic pathways.