

## Session 1B

# Enzyme Catalysis and Engineering

**TIMOTHY C. DODGE<sup>1</sup> AND GISELLA M. ZANIN<sup>2</sup>**

*<sup>1</sup>Genencor International, Palo Alto, CA*

*<sup>2</sup>State University of Maringa, Maringa, PR, Brazil*

The focuses of this Session were identification, modification, development, and cost-effective production and use of enzymes to achieve numerous biological and chemical transformations.

In this session, excellent presentations showed interesting new developments, including advances in the discovery of new microorganism screening techniques, of fungi systems for expressing thermophilic enzymes; enhancements in the hydrolysis of lignocellulosic materials with improved cellulase systems, with reduced enzyme absorption, newly selected enzymes, and lower process costs achievements.

With these significant scientific and technological advances we have seen, the utilization of biomass for the production of fuels and chemicals comes ever closer to reaching the dream of full-fledged economical competitiveness and widespread adoption by ecologically conscious administrations.