

Special Issue: Biotechnology

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Biotechnology includes traditional fermentation, biocatalysis, and genetic engineering. Biocatalysis uses catalysts, such as whole microbial cells or enzymes, in aqueous or nonaqueous systems, in their free or immobilized forms, for the production of useful chemicals. Biocatalytic processes are now used for the production of valuable specialty chemicals for pharmaceutical, agricultural, flavor and fragrance, nutritional, and chemical industries.

On April 30, 1996, at the 87th AOCS Annual Meeting & Expo in Indianapolis, Indiana, two symposium sessions on "Biocatalysis" were held with fifteen invited speakers from all over the world. The program included lipxygenase, production of a novel trihydroxy unsaturated fatty acid, biocatalytic synthesis of chiral compounds by lipase, chiral enzymatic acylation, enzymatic synthesis of terpene esters, harvesting fatty acids from oil by lipase, synthesis of polyhydric alcohol-fatty acid ester, production of fatty acid ethyl esters, enrichment of long-chain polyunsaturated fatty acids, enrichment of omega-3 fatty acids, synthesis of structured lipid containing docosahexaenoic acid (DHA) and caprylic acid, pro-

duction of DHA and docosapentaenoic acid, selectivity of the enzyme acyl-transfer process, and protein engineering and development of new industrial enzymes.

The symposium was very successful and the discussion continued into the evening. As we did last year, we published the symposium papers in this Biotechnology Special Issue. One review paper by Li and Parish from another Biotechnology Division symposium on "Biochemistry of steroids" is also included.

Hopefully, this will stimulate further research activities in Biotechnology.

Finally, I would like to express thanks to my symposia cochairpersons, Dr. Greg Whited and Dr. Doug Hayes, for their assistance. We also appreciate the financial support to this symposium by Bristol-Myer Squibb Co., Genencor International, Inc., Schering-Plough Research Institute, and Loders-Croklaan, Unilever Company. Financial support by the Agriculture Research Service, USDA to the "Biochemistry of steroids" symposium is also appreciated.

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