

**CURRENT DIRECTIONS IN
INSULIN-LIKE GROWTH
FACTOR RESEARCH**

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CURRENT DIRECTIONS IN INSULIN-LIKE GROWTH FACTOR RESEARCH

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PREFACE

The study of the insulin-like growth factor (IGF) family has become an exciting area of investigation. Initially, this family consisted of ligands (insulin, IGF-I and IGF-II) and receptors (the insulin receptor, the type I or IGF-I receptor and the type II or IGF-II/M-6-P receptor). Subsequently, it was discovered that six specific binding proteins (IGFBPs 1-6) play a major role in the actions of this growth factor family. In addition, there are now more potential receptors when one considers the possible roles of the insulin-receptor related receptor (IRR) and hybrid receptor dimers composed of insulin and IGF-I receptor (half-receptors).

Another important aspect of this area of research is the realization that the IGFs are not only essential for normal growth and development but, in addition play an important role in the normal specialized function(s) of all tissues of the body, including the nervous system, skeleton, reproductive system, kidney, and the immune system, to name but a few.

The development of recombinant human IGF-I for clinical testing has been a major breakthrough for investigators. Potential uses include wound healing, reversal of catabolic states, diabetes, bone remodeling, recovery from acute renal failure and many others. Further investigations in this area will determine both its use and its potential hazards.

These proceedings follow the very successful meeting of the IVth International Symposium on Insulin and Insulin-like Growth Factors held in Woods Hole, Massachusetts, in April, 1993. The meeting was held under the auspices of the American Diabetes Association and supported by educational grants from Ciba-Geigy, Genentech, Kabi Pharmaceuticals, Eli Lilly, and the Upjohn Company. This compilation of reviews should give the reader insights into the current research in the field as well as future directions.

Derek Le Roith, M.D., Ph.D.
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