

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

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CURRENT DIRECTIONS IN INSULIN-LIKE GROWTH FACTOR RESEARCH

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SPRINGER SCIENCE+BUSINESS MEDIA, LLC

Library of Congress Cataloging-in-Publication Data

Current directions in insulin-like growth factor research / edited by
Derek LaRoith and Mohan K. Raizada.

p. cm. -- (Advances in experimental medicine and biology ; v.
343)

"Proceedings of the Fourth International Symposium on Insulin,
IGFs, and Their Receptors, held April 20-23, 1993, in Woods Hole,
Massachusetts"--Copr. p.

Includes bibliographical references and index.

ISBN 978-1-4613-6301-9 ISBN 978-1-4615-2988-0 (eBook)

DOI 10.1007/978-1-4615-2988-0

1. Somatomedin--Congresses. 2. Insulin-like growth factor-binding
proteins--Congresses. I. LaRoith, Derek, 1945-. II. Raizada,
Mohan K. III. International Symposium on Insulin, IGFs, and their
Receptors (4th : 1993 : Woods Hole, Mass.) IV. Series.

QP552.S65C87 1993

612'.015756--dc20

93-46649

CIP

Proceedings of the Fourth International Symposium on Insulin, IGFs, and Their Receptors, held April
20-23, 1993, in Woods Hole, Massachusetts

ISBN 978-1-4613-6301-9

© 1993 Springer Science+Business Media New York

Originally published by Plenum Press, New York in 1993

Softcover reprint of the hardcover 1st edition 1993

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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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CONTENTS

STRUCTURE, EXPRESSION, AND REGULATION OF THE IGF-I GENE	1
M.L. Adamo, S. Neuenschwander, D. LeRoith, and C.T. Roberts, Jr.	
DIFFERENTIAL REGULATION OF IGF-I LEADER EXON TRANSCRIPTION	13
J.M. Pell and R.S. Gilmour	
INSULIN AND IGF-I ANALOGS: NOVEL APPROACHES TO IMPROVED INSULIN PHARMACOKINETICS	25
L.J. Slieker, G.S. Brooke, R.E. Chance, L. Fan, J.A. Hoffmann, D.C. Howey, H.B. Long, J. Mayer, J.E. Shields, K.L. Sundell, and R. D. DiMarchi	
ANALYSIS OF THE INTERACTION OF IGF-I ANALOGS WITH THE IGF-I RECEPTOR AND IGF BINDING PROTEINS	33
M.A. Cascieri and M.L. Bayne	
SYNTHESIS AND CHARACTERIZATION OF IGF-II ANALOGS: APPLICATIONS IN THE EVALUATION OF IGF RECEPTOR FUNCTION AND IGF-INDEPENDENT ACTIONS OF IGF-BPS	41
Y. Oh, H.L. Müller, H. Zhang, N. Ling, and R.G. Rosenfeld	
TOWARDS IDENTIFICATION OF A BINDING SITE ON INSULIN- LIKE GROWTH FACTOR-II FOR IGF-BINDING PROTEINS	55
L.A. Bach, S. Hsieh, K. Sakano, H. Fujiwara, J.F. Perdue, and M.M. Rechler	
TRANSCRIPTIONAL AND POST-TRANSCRIPTIONAL REGULATION OF THE HUMAN IGF-II GENE EXPRESSION	63
J.S. Sussenbach, R.J.T. Rodenburg, W. Scheper, and P. Holthuisen	
SIGNIFICANT SPECIES DIFFERENCES IN LOCAL IGF-I AND -II GENE EXPRESSION	73
C.A. Bondy, E. Chin, and J. Zhou	

TRANSCRIPTIONAL REGULATION OF THE INSULIN RECEPTOR GENE PROMOTER	79
C. McKeon	
THE REGULATION OF IGF-I RECEPTOR GENE EXPRESSION BY POSITIVE AND NEGATIVE ZINC-FINGER TRANSCRIPTION FACTORS	91
H. Werner, C.T. Roberts, Jr., and D. LeRoith	
CELL CYCLE CONTROL BY THE IGF-1 RECEPTOR AND ITS LIGANDS	105
R. Baserga, P. Porcu, M. Rubini, and C. Sell	
THE INSULIN RECEPTOR FAMILY	113
K.A. Seta, K.S. Kovacina, and R.A. Roth	
IRR: A NOVEL MEMBER OF THE INSULIN RECEPTOR FAMILY	125
V.M. Watt, P. Shier, J. Chan, B.A. Petrisor, and S.K. Mathi	
MOLECULAR PROPERTIES OF INSULIN/IGF-1 HYBRID RECEPTORS	133
J.E. Pessin	
IMMUNOLOGICAL STUDIES OF TYPE I IGF RECEPTORS AND INSULIN RECEPTORS: CHARACTERISATION OF HYBRID AND ATYPICAL RECEPTOR SUBTYPES	145
M.A. Soos, B.T. Nave, and K. Siddle	
INSULIN LIKE GROWTH FACTOR 1 RECEPTOR SIGNAL TRANSDUCTION TO THE NUCLEUS	159
S.A. Rosenzweig, B.S. Oemar, N.M. Law, U.T. Shankavaram, and B.S. Miller	
MOLECULAR CLONING OF pp120/ ECTO-ATPase, AN ENDOGENOUS SUBSTRATE OF THE INSULIN RECEPTOR KINASE	169
S.M. Najjar, N. Philippe, S.I. Taylor, and D. Accili	
THE INSULIN-LIKE GROWTH FACTOR-II/MANNOSE-6- PHOSPHATE RECEPTOR: STRUCTURE, FUNCTION AND DIFFERENTIAL EXPRESSION	175
W. Kiess, A. Hoefflich, Y. Yang, U. Kessler, A. Flyvbjerg, and Bruno Barenton	
PARENTAL IMPRINTING OF THE GENES FOR IGF-II AND ITS RECEPTOR	189
C. Polychronakos	

MULTIHORMONAL REGULATION OF IGFBP-1 PROMOTER ACTIVITY	205
D.R. Powell, P.D.K Lee, and A. Suwanichkul	
INSULIN-LIKE GROWTH FACTOR BINDING PROTEIN-1: IDENTIFICATION, PURIFICATION, AND REGULATION IN FETAL AND ADULT LIFE	215
T.G. Unterman	
RAPID REGULATION OF INSULIN-LIKE GROWTH FACTOR BINDING PROTEIN-1 TRANSCRIPTION BY INSULIN <i>IN VITRO</i> AND <i>IN VIVO</i>	227
M.M. Rechler, G.T. Ooi, D. Suh, and L. Tseng	
IGF BINDING PROTEIN-3 AND THE ACID-LABILE SUBUNIT: FORMATION OF THE TERNARY COMPLEX <i>IN VITRO</i> AND <i>IN VIVO</i>	237
R.C. Baxter	
ROLE OF POST TRANSLATIONAL MODIFICATIONS IN MODIFYING THE BIOLOGIC ACTIVITY OF INSULIN LIKE GROWTH FACTOR BINDING PROTEINS	245
D.R. Clemmons	
CELLULAR ACTIONS OF INSULIN-LIKE GROWTH FACTOR BINDING PROTEIN-3	255
C.A. Conover, J.T. Clarkson, S.K. Durham, and L.K. Bale	
GENE EXPRESSION OF THE IGF BINDING PROTEINS DURING POST-IMPLANTATION EMBRYOGENESIS OF THE MOUSE: COMPARISON WITH THE EXPRESSION OF IGF-I AND -II AND THEIR RECEPTORS IN RODENT AND HUMAN	267
A.G.P. Schuller, J.W. van Neck, D.J. Lindenbergh-Kortleve, C. Groffen, I. de Jong, E.C. Zwarthoff, and S.L.S. Drop	
HORMONAL REGULATION OF INSULIN-LIKE GROWTH FACTOR BINDING PROTEIN-1 EXPRESSION AND THE DEVELOPMENT OF TRANSGENIC MOUSE MODELS TO STUDY IGFBP-1 FUNCTION	279
L.J. Murphy, D. Barron, and C. Seneviratne	
LIMITED PROTEOLYSIS OF INSULIN-LIKE GROWTH FACTOR BINDING PROTEIN-3 (IGFBP-3): A PHYSIOLOGICAL MECHANISM IN THE REGULATION OF IGF BIOAVAILABILITY	293
M. Binoux, C. Lalou, C. Lassarre, C. Blat, and P. Hossenlopp	

EFFECTS OF INSULIN-LIKE GROWTH FACTOR 1 (IGF-I) ADMINISTRATIONS ON SERUM IGF BINDING PROTEINS (IGFBPS) IN PATIENTS WITH GROWTH HORMONE DEFICIENCY	301
N. Hizuka, K. Takano, K. Asakawa-Yasumoto, I. Fukuda, T. Suzuki, H. Demura, C. Shimojoh, and K. Shizume	
METABOLIC EFFECTS OF rhIGF-1 IN NORMAL HUMAN SUBJECTS	311
N.J. Rennert, S.D. Boulware, D. Kerr, S. Caprio, W.V. Tamborlane, and R.S. Sherwin	
IGFS AND MUSCLE DIFFERENTIATION	319
J.R. Florini, D.Z. Ewton, K.A. Magri, and F.J. Mangiacapra	
IGF-II IN THE PATHOGENESIS OF RHABDOMYOSARCOMA: A PROTOTYPE OF IGFS INVOLVEMENT IN HUMAN TUMORIGENESIS	327
C.P. Minniti and L.J. Helman	
THE PHYSIOLOGY AND PATHOPHYSIOLOGY OF IGF-I IN THE KIDNEY	345
R. Hirschberg	
REGULATION OF IGFBP-4 AND -5 EXPRESSION IN RAT GRANULOSA CELLS	367
X.-J. Liu and N. Ling	
INSULIN-LIKE GROWTH FACTOR (IGF) BINDING PROTEIN-1 IS AN ANTIGONADOTROPIN: EVIDENCE THAT OPTIMAL FOLLICLE-STIMULATING HORMONE ACTION IN OVARIAN GRANULOSA CELLS IS CONTINGENT UPON AMPLIFICATION BY ENDOGENOUSLY-DERIVED IGFs	377
E.Y. Adashi, C.E. Resnick, R.G. Rosenfeld, D.R. Powell, R. Koistinen, E.M. Rutanen, and M. Seppala	
INSULIN-LIKE GROWTH FACTOR-I AND INSULIN-LIKE GROWTH FACTOR BINDING PROTEINS IN THE ZUCKER FATTY RAT: A CASE FOR DIFFERENTIAL TISSUE REGULATION	387
M.C. Gelato and M. Berelowitz	
CHARACTERIZATION OF THE IGF REGULATORY SYSTEM IN BONE	397
S. Mohan and D.J. Baylink	

REGULATION OF IGF ACTIVITY IN BONE 407
T.L. McCarthy and M. Centrella

INDEX 415