

## CURRICULUM VITAE

**Pierre Marcel Joseph DE MEYTS, M.D., Ph.D., F. A. C. E.**

Citizenship: Belgian

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Marital Status: Married (Dr Ewa Rajpert-De Meyts)

Child: Daniel, October 27, 1972

### **CURRENT TITLES**

#### **Managing Director**

De Meyts R&D Consulting SPRLU  
Avenue Reine Astrid 42  
B-1950 Kraainem  
Belgium  
Email: pierre.demeyts@gmail.com

#### **External consultant**

Departement of Diabetes Biology and Hagedorn Research Institute  
Novo Nordisk A/S  
Niels Steensens Vej 1  
DK-2820 Gentofte  
Denmark  
Email: pdm@novonordisk.com

#### **Professor Emeritus**

Catholic University of Louvain  
Science Faculty, Biochemistry Unit, Department of Chemistry  
Bâtiment Lavoisier  
Place Louis Pasteur, 1  
1348 Louvain-la-Neuve  
Belgium

### **EDUCATION AND CLINICAL TRAINING**

**Undergraduate Education:**

1956-1962 "Humanités Anciennes - Section Latin-Mathématiques", Athénée Royal de Verviers, Belgium.

**Graduate Education:**

1962-1969 M.D., University of Liège Medical School, Belgium "Docteur en Médecine, Chirurgie et Accouchements" "Grande Distinction" (Magna cum Laude).

**Postgraduate Education and Clinical Training:**

1969-1972 Assistant in the Department of Internal Medicine (Medical and Clinical Pathology) - University of Liège, Hôpital de Bavière. "Candidat-Spécialiste" in Internal Medicine 1972 -Mention Très Bien. Clinical Training in Endocrinology, Diabetes, Rheumatology, Renal Dialysis.

1976-1977 Army Physician - Intensive Care Unit, Department of Cardiology, Brussels Military Hospital (Col. Kesteloot, Professor of Cardiology at the Catholic University of Louvain) - 13 months half time.

1995 Agrégé de l' Enseignement Supérieur (Doctoral thesis), Medicine Faculty, Catholic University of Louvain, Belgium.  
Thesis title: The structural basis of insulin and insulin-like growth factor I (IGF-I) receptor binding and negative cooperativity, and its relevance to mitogenic versus metabolic signaling.

**EMPLOYMENTS, FELLOWSHIPS**

1967-1968 "Élève Assistant" in the Department of Physiology, University of Liège.

1969-1970 Specialization Fellowship from the "Fonds de la Promotion Médicale", University of Liège.

1970-1974 Research Assistant (Aspirant) of the National Fund for Scientific Research (Belgium).

1973-1974 PHS International Postdoctoral Fellowship of the National Institutes of Health, Bethesda, MD, USA.

1975 Visiting Associate, National Institutes of Health, Bethesda, MD, USA.

1975-1976 Solomon A. Berson Research and Development Award of the American Diabetes Association (at NIH).

- 1975-1980 Senior Research Assistant (Chargé de Recherches) of the National Fund for Scientific Research (Belgium).
- 1976-1977 Army Service in the Military Hospital of Brussels, Department of Cardiology (Prof. H. Kesteloot).
- Nov. 1976-June 1986 Research Associate at the International Institute of Cellular and Molecular Pathology (Brussels), Hormone and Metabolic Research Unit.
- Oct. 1980-June 1986 Research Associate (Chercheur Qualifié) of the National Fund for Scientific Research (Belgium) (tenured position).
- Oct. 1980-Sep. 1983 Docent (Associate Professor) at the Vrije Universiteit Brussels, Dept. of Endocrinology and Metabolism.
- Oct. 1984-Sept. 2010 Invited lecturer, then part-time Professor, at the Science Faculty, Biochemistry Unit, Department of Chemistry, Catholic University of Louvain, Louvain-la-Neuve, Belgium.
- June 1984-June 1985 Sabbatical leave at the Beckman Research Institute of City of Hope, Department of Molecular Genetics, Duarte, CA., USA.
- June 1986-Sept. 1990 Director, Department of Diabetes, Endocrinology and Metabolism, City of Hope National Medical Center. Associate Director, Department of Molecular Genetics, Beckman Research Institute of City of Hope, Duarte, CA, USA.
- June 1986-Sept.1990 Clinical Professor of Medicine, University of Southern California.
- Sept.1990–May 2000 Director of Research, Hagedorn Research Institute, Novo Nordisk A/S, Gentofte, Denmark.
- May 2000-Dec. 2010 Scientific Director, Receptor Systems Biology Laboratory, Hagedorn Research Institute, Novo Nordisk A/S, Gentofte, Denmark
- Nov. 2000 –Nov. 2005 Adjunct Professor of Experimental Endocrinology, Health Sciences Faculty, University of Copenhagen.
- Jan. 2007- 2011 Guest Lecturer, Health Sciences Faculty, University of Copenhagen.
- Jan, 2011 – present: Managing Director, De Meyts R&D Consulting SPRLU, Kraainem, Belgium.

**PRIZES, AWARDS, HONORS**

- 1955 Vermeil Medal in writing contest of Veterans of King Albert
- 1959 Prize at International Drawing Contest from Groupement International des Fabricants de Papier Peint.
- 1962 Special Prize of the Belgian Government (Medal "L' effort")
- 1971 "Lauréat du Concours de Bourses de Voyages" (Laureate of Travel Fellowship Contest) for a thesis entitled: "Étude critique des méthodes radioisotopiques de dosage de l'ACTH en vue de leur application à l'étude des relations structure-activité de la molécule".
- 1978 Alumni Prize of the "Fondation Universitaire" (Belgium).
- 1979 Diaz Cristobal Prize of the Spanish Diabetes Association (shared with Jesse Roth).
- 1981 Oskar Minkowski Prize of the European Association for the Study of Diabetes.
- 1983 Assubel Prize (Belgium).
- 1985 The first honorary "Alice and Ray Kroc Lecture" at the Whittier Institute for Diabetes and Endocrinology, La Jolla, CA, USA.
- 1992 Medal of the University of Liège, Belgium.
- 1994 Honorary Member of Diabetes Unit of Hospital Dr Domingo Guzman Lander, Barcelona, Venezuela.
- 1995 Quinquennial Joseph Maisin Scientific Prize for the Biomedical Sciences of the Belgian National Fund for Scientific Research.
- 1996 The Rappaport Lecture, Faculty of Medicine, Technion, Haifa, Israel.
- 1996 Who's Who in Science and Engineering.
- 1997 Fellow of the American College of Endocrinology.
- 1997 Guest Professor, Ulm University.
- 2000 Who's Who in the World
- 2001 Medal of the Egyptian Diabetes Association
- 2002 Prize Christoffel Plantin, Belgium.

- 2002 Who's Who in Medicine and Health Care
- 2004 Gold Medal of 75th Anniversary of "Association des Amis de l'Université de Liège"
- 2005 American Association of Clinical Endocrinologists 2005 Frontiers in Science Award
- 2006 Hillblom Scholars lecture, UCLA, April 26, 2006
- 2006 Elected to ScanBalt Academy
- 2007 Medal of Facultad de Medicina, Universidad Autonoma de Nuevo Leon, Mexico.

### **CIVIC DISTINCTIONS**

- 1989 Knight of the Order of the Crown (Chevalier de l'Ordre de la Couronne), Belgium.
- 1994 Cross of Knight of the Order of Leopold (Croix de Chevalier de l'Ordre de Leopold), Belgium.

### **MEMBERSHIPS**

Honorary Member, Société des Sciences Médicales du Luxembourg  
 Belgian Society for Cell Biology (Board Member)  
 American Diabetes Association  
 Endocrine Society (USA)  
 European Association for the Study of Diabetes  
 International Diabetes Federation  
 Growth Hormone Research Society  
 NIH Alumni Association  
 American Association of Clinical Endocrinologists  
 American College of Endocrinology  
 The Protein Society  
 Danish Biochemical Society  
 Scandinavian Society for the Study of Diabetes  
 American Society of Biochemistry and Molecular Biology  
 International Society for Insulin-like Growth Factor Research  
 European Society for Paediatric Endocrinology  
 European Federation of Biotechnology  
 International Society for Systems Biology

### **SCIENTIFIC COMMITTEES**

- 1978 INSERM committee (France) on "Pharmacologie Moléculaire".

- 1983-1984           Expert for the European Communities to write report on Computer Graphics (recommending European policy).
- 1987-1990           Research Peer Review Committee, American Diabetes Association California Affiliate.
- 1988-1991           Medical Science Review Committee, Juvenile Diabetes Foundation International.
- 1991-present        Scientific Committee, International Symposium on Insulin Receptors and Insulin Action
- 2000 -              Member of INSERM International Experts Team.
- Foreign expert for evaluation of Government-funded Inter-university Attraction Pole (Belgium).
- 2005 -              Executive Committee, International Receptor Tyrosine Kinase Networks Consortium.

#### **ADMINISTRATIVE COMMITTEES**

- 1980-1986           Management Committee, International Institute of Cellular and Molecular Pathology, Brussels.
- Chairman, Information Committee, International Institute of Cellular and Molecular Pathology, Brussels.
- Seminar Committee, International Institute of Cellular and Molecular Pathology, Brussels.
- Faculty Council, Medicine Faculty, Catholic University of Louvain, Brussels.
- 1986-1990           Promotions Committee, Division of Biology, Beckman Research, Institute of the City of Hope, Duarte, CA, USA.
- 1987-1990           Intellectual Property Committee, City of Hope National Medical Center, Duarte, CA, USA.
- 1987-1990           Institutional Review Board, City of Hope National Medical Center, Duarte, USA, CA.
- 1988-1990           Biomedical Research Support Grant Committee, City of Hope National Medical Center, Duarte, CA.

1988-1990	Research Animal Care Committee, City of Hope National Medical Center, Duarte, CA, USA.
1992-1994	Health Care Research Committee, Novo Nordisk
1995-1997	Diabetes Research Council, Novo Nordisk
1995-2000	Health Care Discovery Management, Novo Nordisk
2000-2001	Diabetes Strategy Group, Novo Nordisk
2000	International Scientific Advisory Board, Future Portfolio Marketing, Novo Nordisk
2001 – 2009	Member of the Board (Conseil d'Orientation) of the Institute of Life Sciences, Catholic University of Louvain, Belgium.
2008 – 2010	Member of Scientific Advisory Board of Danish Technical University

### **EDITORIAL AND ADVISORY BOARDS**

European Journal of Biochemistry (1980-1982)  
Diabète et Métabolisme (1980-1982)  
Peptide and Protein Reviews  
Biochemical Journal (1981-1982)  
Molecular and Cellular Endocrinology (1982-1983)  
Molecular Physiology (Managing Editor, preclinical section) (1983-1985)  
Journal of Cellular Biochemistry (Associate Editor, 1989-1999)  
Growth Regulation (1991-1999)  
Endocrinology (1991-1994)  
Journal of Biological Chemistry (1995-2000)  
Annales Academiae Medicae Silesiensis (Poland) (2005- )  
Chief Editor, Frontiers in Molecular and Structural Endocrinology (2010- )  
Associate Editor, Frontiers in Systems Physiology (2010- )

### **GRANT SUPPORT**

1976	Travel grant from the Endocrine Society.
1978	Grant 2.5 FA-22.458 from the Belgian National Fund for Scientific Research (FNRS).
1978-1983	Grant 3.4519.78 from the Belgian Fund for Medical Scientific Research (FRSM).
1980	Grant 1.5.134.81F from the Belgian National Fund for Scientific Research (FNRS).

1984-1988	Grant from the Belgian Fund for Medical Scientific Research (FRSM).
1984-1985	Grant STI-017-J-C (CD) from the European Economic Community.
1984	Grant from the KROC Foundation.
1986	Grant from the Diabetes Research and Education Foundation.
1988	Grant from the American Diabetes Association, California Affiliate.
1988	NIH Biomedical Research Support Grant S07 RR05471.
1989-1991	Grant from the Juvenile Diabetes Foundation International.
1996-2005	Grant from the Danish Medical Research Council (Danish Center for Growth and Regeneration).
2002-2003	Grant from the Bio+IT Programme, Medicon Valley Academy/Øforsk/IT Øresund.
2003-2006	PhD grant from Medicon Valley Academy (for Shaukat Mahmmood).
2004-2007	PhD grant from Danish Ministry of Science, Technology and Innovation (for Soetkin Versteyhe)
2004-2007.	PhD grant from Danish Ministry of Science, Technology and Innovation (for Maja Jensen)
2005-2008.	PhD grant from Danish Ministry of Science, Technology and Innovation (for Jane Palsgaard)
2005-2008	PhD grant from Danish Ministry of Science, Technology and Innovation (for Lisbeth Gauguin)
2005	Grant from Danish Diabetes Association
2007-2010	PhD grant from Danish Ministry of Science, Technology and Innovation (for Angela Manegold Svendsen)
2008-2011	PhD grant from Danish Ministry of Science, Technology and Innovation (for Louise Knudsen)

**RESEARCH CONTRACTS WITH INDUSTRY/VARIOUS ORGANIZATIONS**



- 1980-1985 Servier Laboratories, France. Studies on the mode of action of sulfonylureas.
- 1980 Eli Lilly, USA. Studies on recombinant insulin.
- 1980 Kabivitrum, Sweden. Studies on recombinant growth hormone.
- 1981 Belgian Ministry of Public Health. Receptor studies in epidemiological study of diabetics in Malta.
- 1982 Eli Lilly, UK. Receptor studies with anti-insulin antibodies.
- 1982-1984 Schering AG. Receptor studies in women treated with contraceptives.
- 1983 Eli Lilly, USA. Studies on anti-insulin antibodies in diabetic patients.
- 1983 Belgian Institute of Radioelements. Preparation, characterization and quality control of <sup>125</sup>I-A14-monoiodoinsulin.
- 1988 Genentech, USA. Studies on mechanism of action of human growth hormone.

#### **INVITED LECTURES AT INTERNATIONAL SYMPOSIA**

- 1972 Hannover, Germany. 18th Symposium Deutsches Gesellschaft für Endokrinologie: Round Table on ACTH in Blood.
- 1975 Squaw Valley, USA. Session Chairman and invited speaker at the ICN-UCLA Winter Conference on Cellular and Molecular Biology on Cell Surface Receptors.
- Baltimore, USA. 9th Miles International Symposium on Cell Surface Receptors for Viruses, Antigens and Antibodies, Polypeptide Hormones and Small Molecules.
- Bellagio, Italy. Faculty Member, Session Chairman and Invited Speaker at the NATO Advanced Study Institute on Surface Membrane Receptors, Interface between Cells and their Environment.
- 1976 NIH, Bethesda, USA. Fogarty International Center Symposium on Biochemistry of Cell Surfaces.
- Hamburg, Germany. Symposium Lecture and Workshop lecture at the 5th International Congress of Endocrinology.

- St. Louis, USA. 1976 Research Symposium of the American Diabetes Association.
- Brussels, Belgium. Symposium de Diabétologie Servier.
- 1977 Titisee, Germany. International Titisee Conference on "Receptor-Signal Transmission".
- Padua, Italy. Convegno Europeo sul Metabolismo.
- Santa Inez, USA. Kroc Foundation Workshop on the Liver Cell Plasma Membrane.
- Zürich, Switzerland. 11th Acta Endocrinologica Congress, Satellite Symposium on Evolving Concepts of Hormone Receptors.
- Copenhagen, Denmark. Symposium Lecturer and Poster Session Chairman at the 11th FEBS Meeting.
- Seillac, France. INSERM Conference on Hormone Action.
- 1978 Lorne, Melbourne (Australia). Protein and Polypeptide Workshop.
- Brussels, Belgium. Joint Meeting of the French and Belgian Biochemical Societies.
- Lyon, France. Foundation Mérieux, Symposium on the Pathobiology of Viral Diseases.
- Beerse, Belgium. Symposium on Receptors of Dopamine Antagonists: new biochemical approaches.
- NIH, Bethesda, USA. Fogarty International Workshop on Physical and Chemical Aspects of Cell Surface Events in Cellular Regulation.
- 1979 München, Germany. 12th Acta Endocrinologica Congress.
- USA (15 cities) National Tour Speaker of the American Association of Clinical Chemists.
- Canberra, Australia. Opening Lecture on "The Receptor Concept" at the Triennial Conference on Cardiovascular Receptors of the Australian National Heart Foundation.
- Tredbo, Australia. Meeting of the Endocrine Society of Australia.

Paris, France. Institut National des Sciences et Techniques Nucléaires. Symposium sur "Les Récepteurs Hormonaux, Applications Physiologiques, Pharmacologiques et Pathologiques".

San Diego, CA, USA. Opening Lecture and Concluding Remarks at the Symposium on Current Concepts of Receptors and their Clinical Relevance.

Aachen, Germany. International Symposium on Insulin.

Vienna, Austria. 10th Congress of the International Diabetes Federation.

Bischenberg, France. 4th European Meeting on Hormones and Cell Regulation.

London, England. Annual Meeting of the British Biophysical Society: Symposium on "Receptors at Cell Surfaces".

1980

Titisee, Germany. International Conference on Drug Action at the Molecular Level: differences between agonists and antagonists.

New Orleans, LA, USA. Joint Biological Chemistry and Biophysics Meeting: Minisymposium on Receptor Regulation.

Les Arcs, France. DGRST Meeting on Membrane Receptors.

Paris, France. Journées Annuelles de Diabétologie de l'Hôtel-Dieu.

Paris, France. Hôpital Necker. Symposium sur les Récepteurs Hormonaux.

Paris, France. 13th World Congress of the International Academy of Pathology, Round Table on Membrane Receptors.

Rome, Italy. 1st International Symposium on the Insulin Receptor.

Palafrugel, Spain. 6th Annual Meeting of the International Study Group of Diabetes in Children and Adolescents.

Athens, Greece. 1st International Symposium on Biosynthetic Human Insulin.

1981

Brussels, Belgium. 29th Colloquium Protides in the Biological Fluids.

Padua, Italy. 3rd European Symposium on Metabolism.

Paris, France. Deuxième Congrès Français d'Endocrinologie.

Symposium organizer: "Actualités sur l'insuline".

Amsterdam, Netherlands. European Association for the Study of Diabetes: 16th MINKOWSKI LECTURE "The Multiple Affinity States of the Insulin Receptor and their Physiological Implications".

1982

Paris, France. Réunion Internationale d'Anesthésie et de Réanimation.

Paris, France. Journées de Diabétologie de l'Hôtel Dieu.

Paris, France. Symposium sur l'insuline biosynthétique humaine (Lilly).

Ulm, Germany. The Islets of Langerhans in Modern Endocrinology.

Tours, France. Meeting of I.N.R.A.

London, England. CIBA Symposium on Insulin.

Saxton's River, USA. FASEB Conference on Receptors.

Gargellen, Austria. Meeting on Gesellschaft für Histochemie.

Nairobi, Kenya. 11th International Diabetes Federation Congress.

Santiago de Compostella, Spain. Symposium on Biosynthetic Human Insulin.

1983

Göttingen, Germany. Symposium on Insulin Receptors.

Meriden, New Hampshire, Gordon Conference on Cyclic Nuclotides (main lecture).

Brussels, Belgium. 15th FEBS Meeting.

Shanghai, China. Meeting of the Chinese Biochemical Society on "Insulin and Active Peptides".

Sydney, Australia. Congress of the International Union for Physiological Sciences.

Rome, Italy. 2nd International Symposium on Insulin Receptors.

Oslo, Norway. European Association for the Study of Diabetes. Chairman of Insulin Receptor Session.

- 1984 London, England. International Society for Drug Research.
- London, England. European Association for the Study of Diabetes. Chairman of Insulin Receptor Session.
- Egham, Surrey, England. Lilly International Workshop on Type II Diabetes.
- 1985 Ludwigshafen, Germany. 19th Deidesheimer Lectures.
- Nice, France. European Diabetes Discussion Group on Oral Antidiabetic Agents.
- Madrid, Spain. 12th Meeting of the International Diabetes Federation.
- Rotterdam, Netherlands. Symposium of the Dutch Diabetes Society on Type II Diabetes.
- 1986 Berlin, Germany. Meeting of the Federation of European Biochemical Societies.
- San Francisco, CA, USA. Genentech Workshop on Human Growth Hormone.
- Seoul, Kwangchu and Pusan, Korea. Meetings of the Korean Diabetes Association.
- Bangkok, Thailand. Asia and Oceania Meeting of Endocrinology. Chairman of Satellite Meeting on Type II Diabetes and Sulfonylureas.
- 1987 Paris, France. 3rd Colloquium INSERM/Direction de la Pharmacie et du Médicament Session "Biotechnologies".
- Aachen, Germany. International Symposium on Insulin and Insulin Action.
- 1988 Tübingen, Germany. Annual Meeting of the German Diabetes Society.
- Kyoto, Japan. 8th International Congress of Endocrinology.
- Kyoto, Japan. Insulin and Receptors. Satellite of the 8th International Congress of Endocrinology, Session Chairman.
- Sydney, Australia. 13th International Diabetes Federation Congress, Symposium Speaker and Session Chairman.

- 1989 Titisee, Germany. Titisee Conference on Drug Action.
- Sun City, South Africa. Society of Endocrinology, Metabolism and Diabetes, Symposium Lecturer and Chairman, Plenary Lecturer.
- Oslo, Sweden. Nordic Symposium on Genes and Gene Products in the Development of Diabetes Mellitus.
- York, United Kingdom. Conference on Insulin, Structure, Chemistry and Biology. 20th Anniversary of Insulin Structure Determination, Lecturer and Session Chairman.
- Lisbon, Portugal. Meeting of the European Association for the Study of Diabetes. Chairman of the Insulin Receptor Session.
- 1990 Copenhagen, Denmark. Danish Society for Internal Medicine, 75th Anniversary Meeting.
- Copenhagen, Denmark. Chairman of Symposium on Insulin Receptors, Glucose Transporters and Insulin Resistance at the 26th Annual Meeting of the European Association for the Study of Diabetes.
- Ulm, Germany. Symposium on Insulin Receptors, Glucose Transporters and Glucose Sensors.
- 1991 Park City, USA. Keystone Symposium on Insulin Receptors and Insulin Action.
- Amsterdam, Netherlands. Second International hGH Symposium.
- Washington D.C., USA. Symposium on Insulin Analogues at the 14th International Diabetes Federation Congress.
- 1992 Stockholm, Sweden. Second Toronto-Stockholm Symposium on Perspectives in Diabetes Research.
- 1993 Nice, France. INSERM DEA Course on “Systèmes de Communications Intracellulaires en Endocrinologie - Facteurs de Croissance et Signalisation”.
- Istanbul, Turkey. Minkowski Prize Winner Symposium, European Association for the Study of Diabetes.
- Istanbul, Turkey. EASD Congress. Chairman of Insulin Action Session.
- 1994 Park City, USA. Keystone Symposium on Molecular Mechanisms common to types I and II Diabetes.

Nice, France. INSERM DEA Course on “Systèmes de Communications Intracellulaires en Endocrinologie - Facteurs de Croissance et Signalisation”

Paris, France. International Growth Hormone Symposium.

Brussels, Belgium. Invited lecture at the Belgian Royal Academy of Medicine.

Skagen, Denmark. Session chairman at Scandinavian Diabetes Meeting.

Vanderbilt University, Nashville, U.S.A. Minisymposium on Insulin Secretion and Insulin Action.

New Orleans, USA. American Diabetes Association Annual Meeting. Symposium speaker, Council on Molecular, Cellular and Biochemical Aspects of Diabetes.

Copenhagen, Denmark. Danish Medical Society, 75th Jubilee Meeting.

Düsseldorf, Germany. European Association for the Study of Diabetes, session Chairman.

Toyama, Japan. Study Group on Molecular Diabetes Mellitus.

Orlando, USA. New York Academy of Sciences Conference on Receptor Activation by Antigens, Cytokines, Hormones and Growth Factors (Conference Chair, speaker).

Kobe, Japan. 15th International Diabetes Federation Meeting. Rolf Luft Symposium.

Nara, Japan. Nara Conference on Insulin Action and its Disorders.

Puerto La Cruz, Venezuela. I Congreso Bolivariano de Educación Diabetológica.

1995

Mainz, Germany. International Symposium on Glucose Metabolism and Growth Factors.

Nice, France. INSERM DEA Course on “Systèmes de Communications Intracellulaires en Endocrinologie - Facteurs de Croissance et Signalisation”

Aurangabad, India. 4th Novo Nordisk Diabetes Update (plus lectures in Cochin and Bangalore).

Sesto Alta Val Pusteria, Italy. 5th International Course on Theoretical and Practical Aspects of the Treatment of Diabetic Children, ISPAD.

Warwick, U.K. 14th Joint Meeting of the British Endocrine Societies and Federation of European Endocrine Societies, joint session with British Diabetes Association.

Brussels, Belgium. European Ligand Assay Society.

Salamanca, Spain. XVIIth Congress of Spanish Society of Pediatric Endocrinology.

Washington, D.C. Annual Meeting of the U.S. Endocrine Society.

Oxford, U.K. First Annual EASD/JDF Oxford Conference: New Developments of Insulin Therapy.

Stockholm, Sweden. 31st Annual Meeting of EASD. Plenary Lecturer.

Santiago de Compostella. International Symposium on Growth. 500th Anniversary of the University of Santiago de Compostella.

Alexandria, Egypt. Third Alexandria International Diabetes Days, Egyptian Union of Diabetic Associations.

Boston, USA Beth Israel Hospital/Harvard/MIT Clinical Investigator Training Program.

Beijing, China. Chinese Diabetes Association. Steno Course. NIDDM update.

1996

Doorwerth, Netherlands. Clinical Days of the Dutch Society of Endocrinology. Second Novo Nordisk lecture.

Beer Sheva, Israel. Third Insulin-like Growth factor Meeting, Ben-Gurion University of Negev.

Yaounde, Cameroon. 5th Congress of Panafrican Diabetes Study Group.

Brussels, Belgium. Société Royale de Chimie. Congress on Structure and Biology of Receptors: Key Role in Design of New Drugs.

Vienna, Austria. Mayo - Novo Nordisk Symposium.



Vienna, Austria. Annual Meeting of European Association for the Study of Diabetes. Chairman of Insulin Action Session.

Cluj-Napoca, Romania. Romanian Academy of Medical Sciences. Postgraduate Course on Basic and Applied Endocrinology and Diabetes.

Uzes, Languedoc, France. European Society for Pediatric Endocrinology Summer School.

Hong Kong. Diabetes towards the new Millenium. 3rd International Diabetes Federation Western Pacific Regional Congress.

1997

Göteborg, Sweden. Symposium on "The paradoxes of growth hormone action".

Copenhagen, Denmark. Sixth International Workshop on Lessons from Animal Diabetes.

Helsinki, Finland. IDF Congress. Invited symposium lecturer and chairman of Insulin Action session.

Umeå, Sweden. EU/ COST Meeting on Molecular Mechanisms in the Etiology of NIDDM. Keynote speaker.

Stockholm, Sweden. European Society for Pædiatric Endocrinology/Lawrence Wilkins Pediatric Endocrine Society. Invited Chairman.

Nice, France. Symposium in honour of Pierre Freychet.

Paris, France. Societe Française d'Endocrinologie. Symposium on Growth Disorders.

Brussels, Belgium. Symposium for the 80th birthday of Nobel laureate C. de Duve.

Amsterdam, Netherlands. Symposium for 50th Anniversary of Dutch Endocrine Society.

London, UK. UMDS Growth Factor Group. Keynote Speaker.

1998

Jerusalem, Israel. VIIth International Symposium on Insulin Receptors and Insulin Action.

Carthagen de Indias, Colombia. 10th Congress of Asociacion Latinoamericana de Diabetes (ALAD)

- Dar-es-Salaam, Tanzania. 6th Pan African Diabetes Study Group Congress.
- Padova, Italy. 7th European Symposium on Metabolism.
- Bombay, India. 9th Triennial National Congress on Diabetes. Also lectures in Delhi and Madras.
- Châtenay-Malabry, France. Inaugural Symposium of IFR-Institut de Signalisation et Innovation Thérapeutique.
- 1999 London, UK. Novartis Symposium on Mechanisms and Biological Significance of Pulsatile Hormonal Secretion.
- Paris, France. 40emes Journées de Diabétologie de l'Hôtel-Dieu (Session Chairman).
- Nice, France. European Community COST Meeting on Insulin Signalling in Muscle and Other Major Insulin Target Tissues.
- Warsaw, Poland. 38<sup>th</sup> ESPE Meeting. Session Chairman.
- Brighton, UK. 5<sup>th</sup> International Symposium on Insulin-like Growth Factors (Session Chairman and discussion leader).
- 2000 Aachen, Germany. Alcuin Symposium on "Insulin and Related Proteins - From Structure to Function and Pharmacology" - in honor of Axel Wollmer's retirement.
- Brussels, Belgium. Catholic University of Louvain Doctoral School Programme on Receptors.
- München, Germany. 35th Annual Meeting of the German Diabetes Association. Symposium on Insulin- structure and function.
- 2001 Belfast, Ireland. 20<sup>th</sup> Joint Meeting of the British Endocrine Societies.
- Casablanca, Morocco. 7<sup>th</sup> Panafrican Diabetes Study Group Congress.
- Montpellier, France. Meeting of ALFEDIAM.
- Davos, Switzerland. Novo Nordisk Growth Hormone Meeting.
- Geneva, Switzerland. Diabetes Dialogue. The First International Interactive Diabetes Conference. Symposium Chairman and invited speaker.

- Louvain-la-Neuve, Belgium. Symposium for 60<sup>th</sup> birthday of Prof. R. Crichton.
- Oxford, UK. 2001 Oxford Symposium on Insulin/Type 1 diabetes.
- Alexandria, Egypt. Egyptian Diabetes Association. International Diabetes Days.
- 2002
- Keystone, USA. "Symposium on Diabetes Mellitus: Molecular Mechanisms, Genetics and New Therapies". Chairman of session on "Early signaling events".
- Gotland, Sweden. Skandinavisk hGH Symposium "Fra barn til voksen. Hvordan sikres kontinuiteten I væksthormonbehandling og opfølgning af patienter I skiftet fra barn til voksen".
- Sklaska Poreba, Poland. International Symposium on Metals in the Environment.
- Prague, Czech Republic. Novo Nordisk Pharma Belgium Symposium on Insulin Analogues.
- Lille, France. Novo Nordisk and CHU Lille Symposium on Growth.
- Brisbane, Australia. Steno Hagedorn Down Under Workshop.
- 2003.
- Phoenix, USA. Insulin Detemir US Investigators Meeting.
- Geneva, Switzerland. Second Novo Nordisk Diabetes Dialogue Conference.
- Brussels, Belgium. Special FEBS Meeting on Signal Transduction. Chairman and Lecturer, Workshop on Insulin and IGF-I receptors.
- Köln, Germany. German Endocrine Society.
- Paris, France. 18<sup>th</sup> International IDF Congress. Chairman of session on New Insulin Pathways in Insulin Action.
- London, UK. Novartis Symposium No 263. Biology of IGF-I: Its interaction with insulin in health and disease.
- 2004
- Toronto, Canada. Diabetes Dialogue Canada.
- Amsterdam, Netherlands. Nurses Diabetes Dialogue 2004.

San Francisco, California. CHI International Conference on Systems Biology.

Reims, France. Meeting of the French Endocrine Society.

Heidelberg, Germany. 6th International Systems Biology Conference.

Copenhagen, Denmark. BIOTECH Forum Science Conference.

Nice, France. IXth International Symposium on Insulin Receptors and Insulin Action. Member of Scientific Committee, Session Chairman.

Jeju Island, Korea. Meeting of the Korean Diabetes Association.

Bethesda, Maryland. NIH Symposium in honor of Jesse Roth and Phil Gorden.

2005

Yokohama, Japan. RIKEN Receptor Tyrosine Kinases Consortium Meeting.

Phillip Island, Australia. 2005 Lorne Conference on Protein Structure and Function.

Copenhagen, Denmark. Diabetes Dialogue 2005. Chairman.

Dallas, Texas. Novo Nordisk Diabetes Summit 2005.

New York City, USA. New York Academy of Sciences. Metropolitan Diabetes Society.

Washington D.C., USA. AACE Annual Meeting. Frontiers in Science award lecture.

Maynooth, Ireland. Systems Biology Workshop.

Oxford, UK. 2005 Oxford Symposium on New Therapeutic Concepts in Diabetes. Keynote speaker.

Chicago, USA. The Donald F. Steiner Symposium. Exploring pancreatic beta cells, insulin biology and protein processing.

Delphi, Greece. 2000 Years of Diabetes Mellitus. Satellite Symposium of 41st EASD Meeting.

Athens, Greece. Novo Nordisk Satellite Symposium of 41st EASD Meeting.

- Taormina, Sicily. IGF-I and cancer.
- Bangkok, Thailand. International Diabetes Federation Western Pacific Region Meeting.
- 2006
- Pisa, Italy. Artificial Insulin Delivery – Pancreas and Islet Transplantation.
- Villars-sur-Ollon, Switzerland. European Conference on Brain Research.
- Prague, Czech Republic. 33rd European Symposium on Calcified Tissues. Session on Systems Biology.
- 6th International Congress of Systems Biology, Yokohama, Japan.
- Roskilde University, Denmark. Workshop on mathematical modelling of membrane processes in animal cells.
- Ebberup, Denmark. PhD Summer School 2006, PhD graduate school of Metabolism at Syddanske Universitet. Functional genomics and proteomics as applied to metabolic diseases.
- 2007
- Tenerife, Spain. SysBioMed Workshop and Summer School.
- Ventura, California. Gordon Conference on Insulin-like Growth factors in Physiology and Disease.
- Baltimore, USA. Update on Diabetes 2007.
- Stockholm, Sweden. Xth International symposium on Insulin receptors and Insulin action. Member of organizing committee and session chair.
- Bertinoro, Italy. First Bertinoro Systems Biology Meeting. Systems biology meets the clinic.
- Gentofte, Denmark. The Steno 75-year/Hagedorn 50-year anniversary symposium.
- Hinxton, UK. Joint RTK Consortium and European Bioinformatics Institute 2007 workshop. Proteomics and phosphoproteomics of receptor tyrosine kinase (RTK) signalling networks. Invited speaker and session chair.
- Monterrey, Mexico. Annual Symposium of School of Medicine of Universidad Autonoma de Nuevo Leon and the “Dr. Jose E. Gonzalez” University Hospital. Pushing the boundaries of science.
- Amsterdam, The Netherlands. 43<sup>rd</sup> EASD Annual Meeting. Lecture.

- Ulm, Germany. Research Training Group “Molecular Diabetes and Endocrinology”
- Cairns, Australia. International Peptide Conference.
- 2008 Berlin, Germany. SysBioMed Diabetes Workshop.
- Tokyo, Japan. Tokyo International Forum on Future Challenges in Systems Biology
- Wellington, New Zealand. 7<sup>th</sup> International Diabetes Federation Western Pacific Region Congress.
- Copenhagen, Denmark. EFSD/JDRF/Novo Nordisk Meeting on “The difficult life of the beta cell – from basics to therapy”.
- Sant Feliu de Guixols, Spain. ESF Research Conference on Systems Biology.
- Cannes, France. Ingenuity Systems European User Group.
- Maui, Hawaii. 5<sup>th</sup> International Conference on Relaxin and related Peptides.
- Portofino, Italy. Systems Biology Workshop.
- Oxford, UK. 2008 Oxford Symposium on Diabetes – The Future. Keynote Lecture.
- Göteborg, Sweden. The 9<sup>th</sup> International Conference on Systems Biology.
- Rome, Italy. 44<sup>th</sup> EASD Annual Meeting. Poster session chair.
- Cambridge, UK. Keystone Symposium on Structural Biology and Mechanisms of Activation of Membrane Receptors.
- Berlin, Germany. Systems Biology against Metabolic Syndrome Workshop.
- Santiago de Compostella, Spain. International Symposium on “Diagnosing and treating Diabetes”.
- Sibiu, Romania. Romanian Diabetes Federation Meeting.
- Zeist, Netherlands. TNO Workshop on Systems Biology.
- Brussels, Belgium. Symposium in honor of Prof. Jean-Marie Ketelslegers.
- 2009 Leesburg, Virginia, USA. Endocrine Society/American Diabetes Association Working group on Individualizing Therapy in Type 2 Diabetes.

Brussels, Belgium. Symposium in honor of Prof. Louis Hue.

Copenhagen, Denmark. Det Medicinske Selskab. Temadag. Danske forskere – er de vandbaerere eller superstjerner?

Gentofte, Denmark. Ph.D. course. Molecular genetics in metabolic diseases.

Dublin, Ireland. Molecular Medicine Ireland Course. Techniques and strategies in molecular medicine.

Warwick, UK. EPSRC Symposium Workshop. From molecules to bodies:: spanning levels of biological organisation in medicine.

2010 York, UK. Biochemical Society Symposium on Systems Biochemistry.

Dubai, UAE. Novo Nordisk Diabetes Update Asia

Copenhagen, Denmark. August Krogh 100<sup>th</sup> Anniversary Symposium (session chair and speaker)

Edinburgh; Scotland. International Congress of Systems Biology (session chair).

Copenhagen, Denmark. Faculty of Health Sciences, University of Copenhagen. Insulin, a hallmark in science, health and innovation. Symposium in honor of Donald F. Steiner.

2011 Leiden, Netherlands. Lorentz Center. Workshop: New Biology and Society: Opportunities, Challenges and Myths.

Bethesda, MD, USA. NIDDK Workshop: Drug Response – A tool for understanding the systems biology of type 2 diabetes..

Mt Ste Odile, France. 36<sup>th</sup> European Symposium on Hormones and Cell regulation. GPCRs: pharmacology, physiology and pathology.

La Rochelle, France. Journées Atlantiques Diabète.

Copenhagen, Denmark. 5th SHARE Symposium on Synergy in Human and Animal Research in Systems Biology and Pharmacology.

Hinxton, UK. EMBL- EBI Industry Programme Workshop: Systems Biology in Drug Discovery and Development.

Paris, France. University Paris Descartes. Course on Insulin Bioengineering.

Gentofte, Denmark. Retirement Symposium for Pierre De Meyts.

**ORGANIZATION OF CONGRESSES AND SYMPOSIA**

- 1971 Member of the Scientific Committee of the 2nd International Symposium on Protein and Polypeptide Hormones, Liège, Belgium.
- 1978 Organizer of European Workshop on Insulin Structure in Relation to Insulin Receptor Binding and Biological Activity, Brussels, Belgium.
- 1979 Member of the Program Committee of the 2nd International Insulin Symposium, Aachen, FRG.
- Organizer of Belgian Society for Cell Biology Meeting: "The plasma membrane and its interface", Brussels, Belgium.
- 1981 Organizer and Chairman of a Symposium on "Actualités sur l'insuline" at the Deuxième Congrès d'Endocrinologie, Paris, France.
- 1983 Organizer and Chairman of a Symposium "Receptor Modulation and Post-Receptor Events" at the 29th International Congress of the International Union for Physiological Sciences, Sydney, Australia.
- 1984 Organizer and Chairman of a Symposium on Insulin and Insulin-like Growth Factors, Receptors and Mediators, at the IUPHAR 9th International Congress of Pharmacology, London, England.
- Member of the Program Organizing Committee and Session Chairman of the 7th International Congress of Endocrinology, Quebec City, Canada.
- 1986 Organizer and Chairman of a Symposium on Current Trends in Diabetes and Insulin Action, to honour Dr. Rachmiel Levine on his 75th birthday in Pasadena, CA, USA.
- 1988 Organizer and Chairman of a Symposium on the Structure and Function of the Insulin Receptor at the 13th International Diabetes Federation Congress in Sydney, Australia.
- 1989 Co-organizer of Titisee Conference on Drug Action, Titisee, Germany.
- Organizer and Chairman of Fifth Annual Southern California American Diabetes Association Research Conference in Los Angeles, USA.



- 1991 Organizer and Chairman of a Symposium on Receptors for Insulin, IGFI and Growth Hormone at the Annual Meeting of the Danish Biochemical Society in Fuglsø, Denmark.
- 1993 Member of Scientific Committee of 5th International Symposium on Insulin Receptors and Insulin Action, München, Germany.
- 1994 Organizer of Workshop on Insulin Receptor at Keystone Symposium on Molecular Mechanisms Common to Types I and II Diabetes in Park City, USA.
- Organizer of New York Academy of Sciences Conference on Receptor Activation by Antigens, Cytokines, Hormones and Growth Factors, in Orlando, USA (co-organizers: Jossi Schlessinger, Marc Feldmann and David Naor).
- 1995 Member of Scientific Advisory Board, 3rd International Novo Nordisk Symposium on Glucose Metabolism and Growth Factors, Mainz, Germany.
- Member of Scientific Committee, 75th Anniversary Symposium, "Towards the Discovery of Insulin", Turkish Diabetes Association, Cappadocia, Turkey.
- Organizer of EASD Training Course for Young Investigators at Hagedorn Research Institute, Denmark.
- 1996 Organizer of VIth International Symposium on Insulin Receptors and Insulin Action in Copenhagen, Denmark.
- Member of the Program Organizing Committee of the 10th International Congress of Endocrinology (San Francisco).
- 1997 Member of Scientific Advisory Committee of Sixth International Workshop on Lessons from Animal Diabetes, Copenhagen, Denmark.
- Member of Scientific Committee of International Islet Cell Workshop, Helsingør, Denmark.
- 1998 Member of International Scientific Committee, VIIth International Symposium on Insulin Receptors and Insulin Action, Jerusalem, Israel.
- 2001 Member of International Scientific Committee, VIIIth International Symposium on Insulin Receptors and Insulin Action, Geneva, Switzerland.

- Co-organizer and co-chairman of Diabetes Dialogue. The First International Interactive Diabetes Conference. Geneva, Switzerland.
- 2003 Co-organizer and co-chairman of Diabetes Dialogue. The Second International Interactive Diabetes Conference, Geneva, Switzerland.
- 2004 Member of International Scientific Committee, IXth International Symposium on Insulin Receptors and Insulin Action, Nice, France.
- 2005 Co-organizer and co-chairman of Diabetes Dialogue. The Third International Interactive Diabetes Conference, Copenhagen, Denmark
- Co-organizer of the Donald F. Steiner Symposium. Exploring pancreatic beta cells, insulin biology and protein processing, Chicago, USA
- 2006 Organizer of Receptor Tyrosine Kinase Consortium Symposium on Systems Biology, Gentofte, Denmark.
- Member of Program Committee, 6th International Congress of Systems Biology, Yokohama, Japan.
- 2007 Member of International Scientific Committee, Xth International Symposium on Insulin Receptors and Insulin Action, Stockholm, Sweden.
- Co-organizer and Chair, Fourth Diabetes Dialogue Conference, Lisbon, Portugal.
- 2008 Member of International Programme Committee, Second Hamilton Institute International Workshop on Systems Biology, Maynooth, Ireland.
- Organizer (with Briony E. Forbes and Tom L. Blundell) of Keystone Symposium on Structural Biology and Mechanisms of Activation of Membrane Receptors, Cambridge, UK.
- Co-organizer and Chair, Fifth Diabetes Dialogue Conference, Istanbul, Turkey.
- 2009 Chair of Scientific Committee, EFBIC EU-China Diabetes workshop, Bagsværd, Denmark.
- Member of Scientific Committee of 34<sup>th</sup> European Symposium on Hormones and Cell Regulation, Mt Ste Odile, France.

- Co-organizer and Chair, Sixth Diabetes Dialogue Conference, Istanbul, Turkey.
- Co-organizer and Chair, 7<sup>th</sup> Diabetes Dialogue Conference, Paris, France.
- 2010 Member of Scientific Committee, 11<sup>th</sup> International Conference on Systems Biology, Edinburgh, Scotland.
- Member of International Scientific Committee, XIth International Symposium on Insulin Receptors and Insulin Action, Naples, Italy.
- Member of Scientific Committee of 35<sup>th</sup> European Symposium on Hormones and Cell Regulation, Mt Ste Odile, France.
- Co-organizer and Chair, 8<sup>th</sup> Diabetes Dialogue Conference, Paris, France.
- 2011 Member of Scientific Committee of 36<sup>th</sup> European Symposium on Hormones and Cell Regulation Conference, Mt Ste Odile, France.
- Co-organizer and Chair, 9<sup>th</sup> Diabetes Dialogue Conference, Barcelona, Spain.
- Member of Scientific Committee, SBI International Conference in Systems Medicine, Dublin, Ireland.
- 2012 Organizer, 37<sup>th</sup> European Symposium on Hormones and Cell Regulation, Mt Ste Odile, France.
- Co-organizer and chair, 10<sup>th</sup> Diabetes Dialogue Conference, Istanbul, Turkey.

### EDUCATIONAL MATERIAL

**Insulin: Molecular Structure and Cellular Actions.** 16mm colour film with soundtrack / Video. 18 minutes. Script and Scientific Direction by **P. De Meyts**. Scientific advisor: Pierre Courtoy. Molecular Graphics by R.J. Feldmann and T.K. Porter. Produced by Rainbow Visual Communications, Brussels, for Hoechst AG.

Palmares: Rating “Magna cum laude”

Prize for excellent trick shot

Prize for excellent script at Marburg 1984 Medikinale

Gold Medal and rating “Summa cum laude”

Prize for excellent trick shot

Prize for creative excellence at Parma 1985 Medikinale International

Rating "Very good" at Hannover 1987 XII German Industrial Film Festival

**Pathogenesis of Type 1 and Type 2 Diabetes Mellitus.** 16mm colour film with soundtrack/ Video. 30 minutes. Script and Scientific Direction by **P. De Meyts** and G.F.Bottazzo. Produced by Rainbow Visual Communications, Brussels, for HoechstAG.

## PUBLICATIONS

**The number of citations in the Science Citation Index (Web of Knowledge - All Databases, unless otherwise indicated) is mentioned for papers cited at least 20 times.**

**Total number of citations (as of February 16<sup>th</sup>, 2012): 7874 (not including book ref. 192).**

**Average citations per article: 41**

**h-index: 41.**

1. **De Meyts, P.** (1965) Action des ions Magnesium et Calcium sur l'intestin isolé du rat. *Rev. Belge Pathol.* 31:245.
2. **De Meyts, P.** and Cession-Fossion, A. (1966) Action des ions Magnesium et Calcium sur l'hypertension artérielle adrenergique chez le rat. *C.R. Soc. Biol.* 160:204.
3. **De Meyts, P.,** Cession-Fossion, A. and Cession, G. (1966) Action des ions Magnesium et Calcium sur l'hypertension artérielle générale déclenchée chez le rat par l'adrenaline. *Arch. Internat. Physiol. Biochim.* 74:733.
4. **De Meyts, P.** and Cession-Fossion, A. (1966) L'ephedrine comme amine sympathico mimétique à action indirecte chez le rat. *C.R. Soc. Biol.* 160:2224.
5. **De Meyts, P.** (1967) La pseudo-ephedrine comme amine sympathico mimétique à action indirecte chez le rat. *C.R. Soc. Biol.* 161:487.
6. **De Meyts, P.** and Cession-Fossion, A. (1967) La D(-) ephedrine et la L(+) pseudo-ephedrine en tant qu'amines sympathico mimétiques à action indirecte chez le rat. *C.R. Soc. Biol.* 161:1162.
7. **De Meyts, P.** and Cession-Fossion, A. (1968) Actions vasomotrices de la D(-) ephedrine et de la L(+) pseudo ephedrine chez le rat. *Arch. Internat. Pharmacodyn. Ther.* 174:233.
8. **De Meyts, P.** and Cession-Fossion, A. (1968) Sur l'hypotension artérielle générale provoquée chez le rat par les ephedrines. *Bull. Soc. Roy. Sci. Liège.* 37:366.
9. Franchimont, P., Legros, J.J., Deconinck, B., **De Meyts, P.,** Goulart, M., Ketelslegers, J.M. and Schaub, C. (1970) Anterior pituitary function in human fetal life. *Symp. Dtsch. Ges. Endokrinol.* 16:47.
10. **De Meyts, P.** and Franchimont, P. (1970) Explorations dynamiques de la sécrétion d'ACTH. *Rev. Franc. Endocrinol. Clin.* 11:143.

11. Franchimont, P., Hendrick, J.C., and **De Meyts, P.** (1971) The use of immuno-adsorbents in the radioimmunoassay of LH and ACTH. In: Kirkham and Hunter (eds.) Radioimmunoassay Methods. Churchill-Livingstone, p. 416.
12. Franchimont, P., **De Meyts, P.**, Ketelslegers, J.M., and Legros, J.J. (1971) Exploration radioimmunologique de l'intégrité de l'axe hypothalamohypophysaire. In: Les Adénomes Hypophysaires Secrétants - Endocrinopathies et Immunologie. Ann. Endocrinol., (Paris), Masson.
13. **De Meyts, P.** (1971) Étude critique des méthodes radioisotopiques de dosage de l'ACTH en vue de leur application à l'étude des relations structure-activité de la molécule. Thesis for the Concours de Bourses de Voyages, University of Liège.
14. **De Meyts, P.**, Hendrick, J.C. and Franchimont, P. (1972) Interactions of labeled ACTH fragments with silica in extraction procedures. In: M. Margoulies (ed) Structure-activity relationships of protein and polypeptide hormones", Excerpta Medica, 2.
15. Cicognani, A., Pirazzoli, P., **De Meyts, P.**, Tassoni, P., Bernardi, F., and Cacciari, E. (1973) Comportamento della corticotropinemia e della corsioleemia nell'ipoglicemia provocata da insulina. Valutazione dell'ACTH plasmatico mediante metodo radioimmunologico. Minerva Pediatrica 25:683.
16. Franchimont, P., Legros, J.J. and **De Meyts, P.** (1973) Exploration radioimmunologique des fonctions hypophysaires. Gazette Medicale de France 80:827.
17. **De Meyts, P.**, Roth, J., Neville Jr., D.M., Gavin III, J.R. and Lesniak, M.A. (1973) Insulin interactions with its receptors: experimental evidence for negative cooperativity. Biochem. Biophys. Res. Comm. 55:154  
**Citations: 646**
18. Cacciari, E., Cicognani, A., Pirazzoli, P., **De Meyts, P.**, Tassoni, P., Salardi, S., Zappulla, F. (1974) GH and ACTH secretion in insulin-induced hypoglycemia in normal children. Folia Endocrinologica, 27:247-258.
19. Gavin III, J.R., Roth, J., Neville Jr., D.M., **De Meyts, P.** and Buell, D.N. (1974) Insulin-dependent regulation of insulin receptors concentrations: a direct demonstration in cell culture. Proc. Natl. Acad. Sci. (USA) 71:84.  
**Citations: 1156**
20. Roth, J., Kahn, C.R., Lesniak, M.A., Gorden, P., **De Meyts, P.**, Megyesi, K., Neville Jr., D.M., Gavin III, J.R., Soll, A.H., Freychet, P., Goldfine, I.D., Bar, R.S. and Archer, J.A. (1975) Receptors for insulin, NSILA-s, and growth hormone: application to disease states in man. Rec. Progr. Horm. Res. 31:95.
21. **De Meyts, P.** and Roth, J. (1975) Cooperativity in ligand binding: a new method of graphic analysis. Biochem. Biophys. Res. Comm. 66:1118.  
**Citations: 466**

22. Limbird, L.E., **De Meyts, P.** and Lefkowitz, R.J. (1975)  $\beta$ -adrenergic receptors: evidence for negative cooperativity. *Biochem. Biophys. Res. Comm.* 64:1160.  
**Citations: 122**
23. **De Meyts, P.**, Bianco, A.R. and Roth, J. (1976) Site-site interactions among insulin receptors: characterization of the negative cooperativity. *J. Biol. Chem.* 251:1877.  
**Citations: 637**
24. **De Meyts, P.** (1976) Insulin and growth hormone receptors in human cultured lymphocytes and peripheral blood monocytes. In: M. Blecher (ed.) *Methods in Receptors Research*, A.I. Laskin and H.A. Last (eds.) *Methods in Molecular Biology*, M. Dekker, New York, p. 301.  
**Citations: 270** (Note: absent from Web of Science database)
25. **De Meyts, P.** (1976) Cooperative properties of hormone receptors in cell membranes. *J. Supramol. Struct.* 4:241.  
**Citations: 160**
- 25bis **De Meyts, P.** (1976) Cooperative properties of hormone receptors in cell membranes. In: G.L. Nicolson, M.A. Raftery, M. Rodbell and C.F. Fox (eds.) *Progress in Clinical and Biological Research*, 8, *Cell Surface Receptors*, p. 201. (same as 25)
26. Fussganger, R.D., Kahn, C.R., Roth, J. and **De Meyts, P.** (1976) Degradation of insulin by human peripheral granulocytes. Demonstration of specific receptors with high affinity. *J. Biol. Chem.* 251:2761.  
**Citations: 72**
27. **De Meyts, P.** (1976) The negative cooperativity of insulin receptors: a model for the regulation of hormone recognition by target cell. In: L.R.F. Beers, Jr. and E.G. Basset (eds.) *Cell Membrane Receptors for Viruses, Antigens and Antibodies, Polypeptide Hormones and Small Molecules*. Proc. 9th Miles International Symposium, p. 17.
28. **De Meyts, P.** (1976) Cooperative regulation of hormone binding affinity for cell surface receptors. In: R.A. Bradshaw, W.A. Frazier, R.C. Merrel, D.I. Gottlieb and R.A. Hogue-Angeletti (eds.) *Surface Membrane Receptors -Interface Between Cells and Environment*. NATO Advanced Study Institute Series, Plenum Press, p. 215.
29. Roth, J. Kahn, C.R., **De Meyts, P.** Gorden, P. and Neville Jr., D.M. (1976) Receptors for insulin and other peptide hormones in disease states. In: J.S. Bajaj (ed.) *Insulin and Metabolism*. North Holland Publ., Elsevier, *Excerpta Medica*, p. 73.
30. Simon, J., Freychet, G., Rosselin and **De Meyts, P.** (1977) Enhanced binding affinity of chicken insulin for receptors in rat liver membranes and human lymphocytes: Relationships to the kinetic properties of the hormone-receptor interaction. *Endocrinology* 100:115.

**Citations: 43**

31. Bar, R.S., Gorden, P., Roth, J., Kahn, C.R. and **De Meyts, P.** (1976) Fluctuation in the affinity and concentration of insulin receptors on circulating monocytes of obese patients; effect of starvation, refeeding or dieting. *J. Clin. Invest.* 58:1123.  
**Citations: 500**
32. Van Obberghen, E., **De Meyts, P.** and Roth, J. (1976) Cell surface receptors for insulin and human growth hormone: effect of microtubule and microfilament modifiers. *J. Biol. Chem.* 251:6844.  
**Citations: 68**
33. **De Meyts, P.**, Roth, J., Van Obberghen, E. and Waelbroeck, M. (1976) Hormonal control of the affinity of polypeptide hormone receptors by negative cooperativity and dissociation rate modulation. In: *Proceedings, Vth Intern. Congress Endocrinology*, North Holland Publ., Elsevier, Excerpta Medica, p. 378.
34. **De Meyts, P.**, Kahn, C.R., Roth, J. and Bar, R.S. (1976) Hormonal regulation of the affinity and concentration of hormone receptors in target cells. *Metabolism* 25:11 (Suppl. 1):1365.  
**Citations: 23**
35. Ginsberg, B.H., Kahn, C.R., Roth, J. and **De Meyts, P.** (1976) Insulin-induced dissociation of receptor into subunits: Possible molecular concomitant of negative cooperativity. *Biochem. Biophys. Res. Comm.* 73:1068.  
**Citations: 92**
36. Kahn, C.R., **De Meyts, P.**, Ginsberg, B.H. and Roth, J. (1976) Cooperative properties of hormone receptors. In: G. Rosselin (ed.) *Hormonal Receptors in Digestive Tract Physiology*. North Holland Publ., p. 103.
37. Roth, J., Kahn, C.R., **De Meyts, P.** and Gorden, P. (1976) Biological relevant regulation of the affinity and concentration of insulin receptors. In: J.H. Clark, W. Klee, A. Levitzki and J. Wolff (eds.) *Dahlem Workshop on Hormone and Antihormone Action at the Target Cell*, Life Science Research Report, p. 87.
38. **De Meyts, P.** and Waelbroeck, M. (1978) The structural basis of insulin-receptor binding and cooperative interactions. In: *Membrane Receptors, Proceedings 11th FEBS Meeting, Copenhagen*, Pergamon Press, p. 319.
39. **De Meyts, P.** Van Obberghen, E., Roth, J., Brandenburg, D. and Wollmer, A. (1978) Mapping of the residues responsible for the negative cooperativity of the receptor binding region of insulin. *Nature* 273:504.  
**Citations: 202**
40. Kahn, C.R., Goldfine, I.D., Neville Jr., D.M. and **De Meyts, P.** (1978) Alterations in insulin binding induced by changes in vivo in the level of glucocorticoids. *Endocrinology* 103:1054.  
**Citations: 289**



41. Muggeo, M., Bar, R.S., Roth, J., Harrison, L.C., **De Meyts, P.** and Kahn, C.R. (1978) Pathophysiology of insulin receptor in man. In: G. Crepaldi et al. (eds.) *Diabetes, Obesity and Hyperlipidemias*. Academic Press, p. 101.
42. Van Obberghen, E., **De Meyts, P.** and Roth, J. (1979) Inhibition of insulin receptor binding by dimethylsulfoxide. *Biochem. Biophys. Acta* 582:486.
43. Muggeo, M., Ginsberg, B.H., Roth, J. Neville Jr., D.M., **De Meyts, P.** and Kahn, C.R. (1979) The insulin receptor in vertebrates is functionally more conserved during evolution than insulin itself. *Endocrinology* 104:1393.  
**Citations: 146**
44. Muggeo, M., Van Obberghen, E., Kahn, C.R., Roth, J., Ginsberg, B.H., **De Meyts, P.**, Emdin, S.D. and Falkmer, S. (1979) The insulin receptor and insulin of the Atlantic hagfish: extraordinary conservation of binding specificity and negative cooperativity in the most primitive vertebrate. *Diabetes*, 28:175  
**Citations: 60.**
45. **De Meyts, P.** (1979) The negative cooperativity of insulin receptor; what do we know about its mechanism? In: C. De Lisi (ed.) *Physical Chemical Aspects of Cellular Regulation*. Elsevier Publ., p. 69.
46. Waelbroeck, M., Van Obberghen, E. and **De Meyts, P.** (1979) Thermodynamics of the interaction of insulin with its receptor. *J. Biol. Chem.*, 254:7736.  
**Citations: 82**
47. **De Meyts, P.** and Rousseau, G.G. (1980) Receptor concepts: a century of evolution. *Circ. Res.*, 46 (Suppl. 1):3.
48. Eastman, R.C., Lesniak, M.A., Roth, J., **De Meyts, P.** and Gorden, P. (1979) Regulation of receptor by homologous hormone enhances sensitivity and broadens scope of radioreceptor assay for human growth hormone. *J. Clin. Endo. Metab.*, 49:262.
49. Piron, M.A., Michiels-Place, M., Waelbroeck, M. and **De Meyts, P.** (1980) Structure-activity relationships of insulin-induced negative cooperativity among receptor sites. In: D. Brandenburg and A. Wollmer. (eds.) *Insulin Chemistry-Structure and Function of Insulin and Related Hormones*. Walter De Gruyter and Co., pp. 371-391.
50. **De Meyts, P.** (1980) Insulin receptors: experimental validation of the negative cooperativity concept. In: J.E. Dumont and J. Nunez (eds.) *Hormones and Cell Regulation*. North Holland, pp. 107.
51. **De Meyts, P.** (1980) Le récepteur insulinique et le concept de coopérativité négative. In: *Comptes-rendus des Journées Annuelles de Diabétologie de l'Hôtel-Dieu*, Flammarion Médecine-Sciences, pp. 253.

52. Keefer, L.M., Piron, M.A. and **De Meyts, P.** (1981) Human insulin prepared by recombinant DNA techniques and native human insulin interact identically with insulin receptors. *Proc. Natl. Acad. Sci., (USA)* 78:1391.
53. **De Meyts, P.**, Halban, P. and Hepp, K.D. (1981) In vitro studies on biosynthetic human insulin: an overview. *Diabetes Care*, 4:144.  
**Citations: 24**
54. Keefer, L.M., Piron, M.A. and **De Meyts, P.** (1981) Receptor binding properties and biological activity in vitro of biosynthetic human insulin. *Diabetes Care*, 4:209.
55. Retegui, L.A., **De Meyts, P.** and Masson, P.L. (1981) Monoclonal antibodies against growth hormone: effects on the hormone interaction with specific cell surface receptors. *Protides of the Biological Fluids, Proceedings of the 29th Colloquium*, p. 827.
56. Keefer, L.M., Piron, M.A., **De Meyts, P.**, Gattner, H.G., Diaconescu, C. and Brandenburg, D. (1981) Impaired negative cooperativity of the semi-synthetic analogues human (LeuB24)-and (LeuB25)-insulins. *Biochem. Biophys. Res. Comm.*, 100:1229.  
**Citations: 42**
57. Jonczyk, A., Keefer, L.M., Naithani, V.K., Gattner, H.G., **De Meyts, P.** and Zahn, H. (1981) Preparation and biological properties of (LeuB24, LeuB25) human insulin. *Hoppe-Seyler Z. Physiol. Chem.* 362:557.
58. Keefer, L.M. and **De Meyts, P.** (1981) Glycosylation of cell surface receptors: tunicamycin treatment decreases insulin and growth hormone binding to different levels in cultured lymphocytes. *Biochem. Biophys. Res. Commun.* 101:22.  
**Citations: 38**
59. **De Meyts, P.** (1981) Insulin receptors and diabetes. *Medicographia*, Vol. 3, No. 3, 8.
60. Halban, P.A., Philippe, J., Jaryc, D. Assal, J.P., Berger, M. **De Meyts, P.**, Offord, R.E. and Renold, A. (1982) A probe for insulin receptors in vivo: injection of semisynthetic tritiated insulin in rats and man. In: *Current Views on Insulin Receptors*, Proc. Ist. Intern. Symposium on Insulin Receptors. Academic Press. pp. ??p
61. **De Meyts, P.** and Hanoune, J. (1982) Plasma membrane receptors and function. In: I.M. Arias (ed.) *The Liver: Pathology and Pathophysiology*. Raven Press, New York, p. 551.
62. Retegui, L.A., **De Meyts, P.**, Pena, C. and Masson, P.L. (1982) The same region of human growth hormone is involved in its binding to various receptors. *Endocrinology* 111:668.  
**Citations: 22**

63. Grigorescu, F., Lambert, B., and **De Meyts, P.** (1982) L'utilité clinique de la mesure des récepteurs insuliniques sur les érythrocytes. In "Comptes-rendus des Journées Annuelles de Diabétologie de l'Hotel-Dieu", Flammarion Médecine-Sciences, pp 31-34.
64. **De Meyts, P.**, Grigorescu, F. and Lambert, B. (1983) The role of insulin receptors in the hypoglycemic effects of slyfonylureas: the status of 1982. In: E.F. Pfeiffer (ed.) Rationale for Sulfonylurea Therapy. Elsevier, Excerpta Medica, pp. 71.
65. Marchand, E., Grigorescu, F., Buyschaert, M., **De Meyts, P.**, Ketelslegers, J.M., Brems, H., Nathan, M.C. and Lambert, A.E. (1983) The hypoglycemic effect of a sulfonylurea (gliclazide) in moderate type II diabetes is not accompanied by changes in insulin action and insulin binding to erythrocytes. *Molecular Physiol.* 4:83.
66. **De Meyts, P.** (1983) Insulin receptors. In: W. Gepts, J.R. Thomas and H.M. Brems. (eds.) Update on Diabetes Mellitus. Proceedings of a Symposium., Brussels, Servier Benelux, pp. 37.
67. Van Schravendijk, C.F.H., Hooghe-Peters, E.L., **De Meyts, P.** and Pipeleers, D.G. (1984) Identification and characterization of insulin receptors on fetal-mouse brain cortical cells. *Biochem. J.*, 220:165.  
**Citations: 42**
68. **De Meyts, P.** (1984) Insulin: molecular structure and cellular actions. Hoechst Publ.
69. Retegui, L., Keefer, L.M., Fryklund, L. and **De Meyts, P.** (1984) Monoclonal antibodies and specific cell receptors do not discriminate between human growth hormone prepared by DNA recombinant techniques and the native hormone. *Acta Physiol. Latinoam.* 34:193.
70. Van Schravendijk, C.F.H., Foriers, A., Hooghe-Peters, E.L., Rogiers, V., **De Meyts, P.**, Sodoyez, J.C. and Pipeleers, D.G. (1985) Pancreatic hormone receptors on islet cells. *Endocrinology*, 117:841.  
**Citations: 80**
71. Smal, J., Closset, J., Hennen, G. and **De Meyts, P.** (1985) Receptor binding and downregulatory properties of human growth hormone 22,000-Mr and its natural 20,000-Mr variant on IM-9 human lymphocytes. *Biochem. J.* 225:284.  
**Citations: 42**
72. **De Meyts P.** and Bottazzo, G.F. (1985) Focus on diabetes. Aetiology and pathogenesis of diabetes mellitus. Hoechst publ.
73. **De Meyts, P.**, Hallez, S., Gu, J.L., Merchez, M., Economidis, I., Rousseau, G.G., Van Snick, J., Spinel, C., Squifflet, J.P., Ravoet, A.M., De Bruyere, M., Willard, K., Vessiere, F., Lemoine, C., Boon, T., Toyoda, H., Chen, F. and Shively, J. (1986) Aberrant expression of HLA-DR determinants on human thyroid cells

- treated with phytohemagglutinin and gamma- interferon, and on human melanoma cells: demonstration with a binding assay using a new 125I-monoclonal antibody against the HLA-DR beta-chain (MAb-03-D7). In "Autoimmunity: experimental and clinical aspects", Ann. N.Y. Acad. Sci., 475:359-360.
74. Luyckx, A.S., Gaspard, U.J., Romus, M.A., Grigorescu, F., **De Meyts, P.** and Lefebvre, P.J. (1986) Carbohydrate metabolism in women who used oral contraceptives (OCs) containing levonorgestrel or desorgestrel: a six month prospective study. *Fertility and Sterility*, 45:635-642.
75. Smal, J., Closset, J., Hennen, G. and **De Meyts, P.** (1986) The receptor binding properties of the 20K variant of human growth hormone explain its discrepant insulin-like and growth promoting activities. *Biochem. Biophys. Res. Commun.*, 134:159-165.  
**Citations: 40**
76. Ilondo, M.M., Dehart, I. and **De Meyts, P.** (1986) A rapid method for the preparation of 125I-labeled human growth hormone for receptor studies, using reverse-phase high performance liquid chromatography. *Biochem. Biophys. Res. Commun.*, 134:671-677.
77. Ilondo, M.M., Courtoy, P.J., Geiger, D.G., Carpentier, J.L., Rousseau, G.G. and **De Meyts, P.** (1986) Intracellular potassium depletion in IM-9 lymphocytes suppresses the slowly dissociating component of human growth hormone binding and the downregulation of its receptors, but does not affect insulin receptors. *Proc. Natl. Acad. Sci.*, 83:6460-6464.  
**Citations: 28**
78. Fischer, W.H., Saunders, D., Brandenburg, D., Diaconescu, C., Wollmer, A., Dodson, G., **De Meyts, P.** and Zahn, H. (1986) Structure-function relationship of shortened [Leu B25] insulins, semisynthetic analogues of a mutant human insulin. *Hoppe-Seyler Biol. Chem.*, 367:999-1006.
79. Smal, J., Closset, J., Hennen, G. and **De Meyts, P.** (1987) Growth hormones 22K and 20K - Correlation between binding to receptors and direct biological effects on rat adipocytes. (in french) *Reprod. Nutr.* 27:521-522.
80. Smal, J., Closset, J., Hennen, G. and **De Meyts, P.** (1987) Receptor binding properties and insulin-like effects of human growth hormone and its 20K variant in rat adipocytes. *J. Biol. Chem.*, 762:11071-11079.  
**Citations: 56**
81. Buyschaert, M., Mpoy, M., Ketelslegers, J.M., Lavielle, R., Thomas, J.R., **De Meyts, P.** and Lambert, A.E. (1987) Effects of gliclazide on plasma glucose, insulin and C-peptide levels in response to meals of different composition in Type II diabetes. A summary of the results. *IDF Bulletin*.

82. Smal, J. and **De Meyts, P.** (1987) Role of kinase C in the insulin-like effects of human growth hormone in rat adipocytes. *Biochem. Biophys. Res. Commun.*, 147:1232-1240.
83. **De Meyts, P.**, Smal, J., Ilondo, M.M., Closset, S. and Hennen, G. (1988) Receptors and biological effects of human growth hormone (hGH) and its natural 20,000-mol. wt. variant (20 K hGH). In "Human Growth Hormone, Progress and Challenges", (Ed., L. Underwood), M. Dekker, Now York, pp. 1-24.
84. Gu, J.L., Goldfine, I.D., Forsayeth, J.R. and **De Meyts, P.** (1988) Reversal of insulin-induced negative cooperativity by monoclonal antibodies that stabilize the slowly dissociating ("Ksuper") state of the insulin receptor. *Biochem. Biophys. Res. Commun.*, 150:694-701.  
**Citations: 27**
85. Wang, C.C., Goldfine, I.D., Fujita-Yamaguchi, Y., Gattner, H.G., Brandenburg, D., and **De Meyts, P.** (1988) Negative and positive site-site interactions, and their modulation by pH, insulin analogs and monoclonal antibodies, are preserved in the purified insulin receptor. *Proc. Natl. Acad. Sci.*, 85:8400-8404.  
**Citations: 22**
86. Smal, J. and **De Meyts, P.** (1989) Sphingosine, an inhibitor of protein kinase C, suppresses the insulin-like effects of growth hormone in rat adipocytes. *Proc. Natl. Acad. Sci.*, 86:4705-4709.  
**Citations: 62**
87. Smal, J. and **De Meyts, P.** (1989) Acridine orange, an inhibitor of protein kinase C, abolishes insulin and growth hormone stimulation of lipogenesis in rat adipocytes. *FEBS Letters*, 244:465-468.  
**Citations: 28**
88. Shymko, R.M., Gonzales, N.S., Backer, J.M., White, M.F., and **De Meyts, P.** (1989) Binding kinetics of mutated insulin receptors in transfected cells grown in suspension culture. Application to the Tyr Phe 960 insulin receptor mutant. *Biochem. Biophys. Res. Commun.* 164:191-198.
89. **De Meyts, P.**, Gu, J-L., Smal, J., Kathuria, S., Gonzales, N., Rotella, C.M. and Shymko, R.M. (1989) The insulin receptor gene and its product: structure and function. Nordisk Symposium "Genes and gene products in the pathogenesis of diabetes mellitus". (Eds., J. Nerup et al.), Elsevier Publ., p. 185-203.
90. **De Meyts, P.**, Gu, J.L., Shymko, R.M., Kaplan, B.E., Bell, G.I. and Whittaker, J. (1990) Identification of a ligand-binding region of the human insulin receptor encoded by the second exon of the gene. *Molecular Endocrinology*, 4:409-416.  
**Citations: 92**
91. Ilondo, M.M., Vanderschueren-Lodweyckx, M., **De Meyts, P.** and Eggermont, E. (1990) Serum growth hormone levels measured by radioimmunoassay and

- radioreceptor assay: a useful diagnostic tool in children with growth disorder? *J. Clin. Endo. Metab.*, 70:1445-1451.
92. Hwang, D.L., Lev-Ran, A., Tay, Y.C. and **De Meyts, P.** (1990) Hepatotoxicity induced by diethylnitrosamine causes no significant disturbances of systemic glucose homeostasis in rats. *Horm. Metab. Res.* 22:462-466
93. Ilondo, M.M., Smal, J., **De Meyts, P.** and Courtoy, P.J. (1991) Comparison of the effects of hypertonic sucrose and intracellular potassium depletion on growth hormone receptor binding kinetics and down-regulation in IM-9 cells: Evidence for a sequential block of receptor-mediated endocytosis. *Endocrinology* 128:1597.  
**Citations: 20**
94. Gu, J.L. and **De Meyts, P.** (1991) The structure and function of the insulin receptor. In: *Retrospect and prospect of protein research*, (Eds. Li Zai-ping, Lu Zi-xian and Zhang You-shang) World Scientific Publishing Co, Singapore, p. 120-125.
95. Ilondo, M.M. Vanderschueren-Lodeweyckx, M. and **De Meyts, P.** (1991) Measuring growth hormone activity through receptor and binding protein assays. *Horm. Res.* 36 (Suppl. 1):21-26.
96. Ilondo, M.M., Vanderschueren-Lodeweyckx, M., Courtoy, P.J. and **De Meyts, P.** (1992) Cellular processing of growth hormone in IM-9 cells: evidence for exocytosis of internalized hormone. *Endocrinology* 130, 2037-2044.  
**Citations: 22**
97. Ilondo, M.M., Vanderschueren-Lodeweyckx, M. and **De Meyts, P.** (1992) Diagnostic aspects of growth hormone receptor assays. *J. Ped. Endocrinol.* 5, 23-30.
98. Andersen, A.S., Kjeldsen, T., Wiberg, F.C., Vissing, H., Schäffer, L., Rasmussen, J.S., **De Meyts, P.** and Møller, N.P.H. (1992) Identification of determinants that confer ligand specificity on the insulin receptor. *J. Biol. Chem.* 267, 13681-13686.  
**Citations: 68**
99. **De Meyts, P.** (1992) Structure of growth hormone and its receptor: an unexpected stoichiometry. *TIBS*, 17, 169-170.
100. Davidson, J.K., Fineberg, S.E., **De Meyts, P.**, Fineberg, N.S. and Galloway, J.A. (1992) Immunological and metabolic responses of patients with history of antibody-induced-beef-insulin resistance to treatment with beef, pork, human, and sulfated beef insulin. *Diabetes Care* 15, 702-704.
101. Grønskov, K., Vissing, H., Shymko, R.M., Tornqvist, H. and **De Meyts, P.** (1993) Mutation of arginine 86 to proline in the insulin receptor alpha subunit causes lack of transport of the receptor to the plasma membrane, loss of binding affinity and a constitutively activated tyrosine kinase in transfected cells. *Biochem. Biophys. Res. Commun.* 192, 905-911.

102. **De Meyts, P.** (1993) The diabetogenes concept of NIDDM. In "New Concepts in the Pathogenesis of NIDDM", ed. by C.G. Östenson, S. Efendic, and M. Vranic, *Adv. Exp. Med. Biol.*, vol. 334, Plenum Press, New York and London, pp 89-100.
103. **De Meyts, P.**, Christoffersen, C.T., Latus, L.J., Carbonnelle, C., Wallach, B., Grønskov, K., Gu, J.L., Vissing, H. and Shymko, R.M. (1993) Negative cooperativity at the insulin receptor 1973-1993: New insights into the structural basis of site-site interactions. *Exp. Clin. Endocrinol. Leipzig*, 101, S.2, 17-19.  
**Citations: 23**
104. Sehested, B., Welinder, B., Hjorth, S., Skriver, L. and **De Meyts, P.**(1993) The growth hormone (GH)-binding protein cloned from human IM-9 lymphocytes modulates the downregulation of GH receptors in IM-9 lymphocytes and the biological effects of the hormone in Nb2 lymphoma cells. *Endocrinology*, 133, 2809-2817.  
**Citations: 25**
105. **De Meyts, P.** (1994) Insulin and its receptor. In "Encyclopedia of Molecular Biology", Sir J. Kendrew, ed., Blackwell Scientific Publications, pp 549-552.
106. **De Meyts, P.** (1994) The structural basis of insulin and insulin-like growth factor-I (IGF-I) receptor binding and negative cooperativity, and its relevance to mitogenic versus metabolic signaling. *Diabetologia*, 37: (suppl. 2):S135-S148.  
**Citations: 162**
107. **De Meyts, P.** and Nerup, J. (1994) Endokrine sygdomme: Introduktion og almene principper (in Danish). *Medicinsk Kompendium (Danish Textbook of Internal Medicine)*; eds.: I. Lorenzen, G. Bendixen and N. E. Hansen. Nyt Nordisk Forlag Arnold Busck, publ., Copenhagen, pp. 2059-2070.
108. Ilondo, M.M., Damholdt, A., Cunningham, B., Wells, J.A., **De Meyts, P.** and Shymko, R.M (1994). Receptor dimerization determines the effects of growth hormone in primary rat adipocytes and cultured IM-9 lymphocytes. *Endocrinology*, 134: 2397-2403.  
**Citations: 90**
109. Christoffersen, C., Bornfeldt, K.E., Rotella, C.M., Gonzales, N., Vissing, H., Shymko, R.M., ten Hoeve, J., Groffen, J., Heisterkamp, J. and **De Meyts, P.** (1994) Negative cooperativity in the insulin-like growth factor-I (IGF-I) receptor and a chimeric IGF-I/insulin receptor. *Endocrinology*, 135:472-475  
**Citations: 46**
110. Ilondo, M. M., **De Meyts, P.** and Bouchelouche, P. (1994) Human growth hormone increases cytosolic free calcium in cultured IM-9 lymphocytes: a novel mechanism of growth hormone transmembrane signalling. *Biochem. Biophys. Res. Commun.* 202:391-397  
**Citations: 31**

111. **De Meyts, P.**, Wallach, B., Christoffersen, C. T., Ursø, B., Grønskov, K., Latus, L. J., Yakushiji, F., Ilondo, M. M. and Shymko, R. M. (1994) The insulin-like growth factor-I receptor. Structure, ligand binding mechanism and signal transduction. *Hormone Research*, 42:152-169.  
**Citations: 163**
112. **De Meyts, P.** (1994) Récepteurs et mécanismes d'action de l'insuline et des facteurs de croissance insulino-semblables. *Bull. Acad. Méd. Bel.*, 149, 181-194.
113. Flyvbjerg, A., Alberti, K.G.M.M., Froesch, E. R., and **De Meyts, P.**, Von Zür Mühlen, Ørskov, H. (1995) Preface. In "Glucose metabolism and growth factors". *Metabolism*, 44, suppl.4, in press.
114. **De Meyts, P.**, Christoffersen, C.T., Ursø, B., Wallach, B., Grønskov, K., Yakushiji, F. and Shymko, R.M. (1995) Role of the time factor in signaling specificity. Application to mitogenic and metabolic signaling by the insulin and insulin-like growth factor-I receptor tyrosine kinases. In "Glucose metabolism and growth factors", *Metabolism*, 44, suppl.4, 1-11.  
**Citations: 34**
115. **De Meyts P.** (1995) Note biographique. Fonds National de la Recherche Scientifique Belge: Prix Quinquennaux 1991-1995, pp. 44-58.
116. Naor, D. and **De Meyts, P.** (1995) Introduction. In "Receptor Activation by Antigens, Cytokines, Hormones and Growth Factors", *Ann. N.Y. Acad. Sci.*, 766:xiii-xv.
117. Ish-Shalom, D., Tzivion, G., Christoffersen, C.T., Ursø, B., **De Meyts, P.** and Naor, D. (1995) Mitogenic potential of insulin on lymphoma cells lacking the IGF-I receptor. In "Receptor Activation by Antigens, Cytokines, Hormones and Growth Factors", *Ann. N.Y. Acad. Sci.*, 766:409-415.
118. **De Meyts, P.**, Ursø, B., Christoffersen, C. T. and Shymko, R. M. (1995) Mechanism of insulin and IGF-I receptor activation and signal transduction specificity. Receptor dimer crosslinking, bell-shaped curves and sustained versus transient signaling. In "Receptor Activation by Antigens, Cytokines, Hormones and Growth Factors", *Ann. N. Y. Acad. Sci.*, 766:388-401.  
**Citations: 46**
119. Wabitsch, M., Heinze, E., Hauner, H., Shymko, R.M., Teller, W. M., **De Meyts, P.** and Ilondo, M.M (1996) Biological effects of human growth hormone on rat adipocyte precursor cells in primary culture. *Metabolism*, 45:34-42.  
**Citations: 32**
120. Wabitsch, M., Braun, S., Hauner, H., Heinze, E., Ilondo, M. M., Shymko, R. M., **De Meyts, P.** and Teller, W. M. (1996) Mitogenic and antiadipogenic properties of human growth hormone in human adipocyte precursor cells in primary culture. *Pediatric Research*, 40:450-456.  
**Citations: 41**



121. Gill R., Wallach, B., Verma, C., Ursø, B., De Wolf, E., Grötzinger, J., Murray-Rust, J., Pitts, J., Wollmer, A. **De Meyts, P** and Wood, S (1996). Engineering the C-region of human insulin-like growth factor-1: Implications for receptor binding. *Protein Engineering*, 9:1011-1019.  
**Citations: 22**
122. Heding, A., Gill, R., Ogawa, Y., **De Meyts, P.** and Shymko, R. M., (1996) Biosensor measurement of the binding of insulin-like growth factors I and II and their analogues to the insulin-like growth factor-binding protein-3. *J. Biol. Chem.*, 271:13948-13952.  
**Citations: 49**
123. **De Meyts, P.** (guest editor) (1996) VIth International Symposium on Insulin Receptors and Insulin Action. Molecular and Clinical Aspects. Copenhagen, May 6-10, 1996. *Exp. Clin. Endocrinol. Diab.* 104 (suppl. 2) 189 pp.
124. **De Meyts, P.**, Christoffersen, C. T., Tornqvist, H. and Seedorf, K. (1996) Insulin receptors and insulin action. *Curr. Opinion Endocr. Diab.*, 3:369-377.
125. **De Meyts, P.** and Seedorf, K. (1997) The mechanism of insulin receptor binding, activation and signal transduction. In "Contributions of Physiology to the Understanding of Diabetes", Eds. Zahnd, G. and Wollheim, C., Springer-Verlag Berlin, pp 89-107.
126. Ish-Shalom, D., Christoffersen, C. T., Vorwerk, P., Sacerdotti-Sierra, N., Shymko, R. M., Naor, D. and **De Meyts, P.** (1997) Mitogenic properties of insulin and insulin analogues mediated by the insulin receptor. *Diabetologia*, 40:S25-S31.  
**Citations: 63 (79 in Scopus)**
127. Shymko, R. M., **De Meyts, P.** and Thomas, R. (1997) Logical analysis of timing-dependent receptor signalling specificity. Application to the insulin receptor metabolic vs mitogenic signalling pathways. *Biochem. J.*, 326, 463-469.  
**Citations: 28**
128. Joshi, R. L., Bucchini, D., Jami, J. and **De Meyts, P.** (1998) Les souris mutantes dépourvues d'IRS-2 ont la même résistance périphérique à l'insuline et le même défaut de sécrétion d'insuline que les diabétiques humains de type 2. *Médecine/Sciences*, 14:644-646.
129. Lamothe, B., Baudry, A., Christoffersen, C. T., **De Meyts, P.**, Jami, J., Bucchini, D. and Joshi, R. L: (1998) Insulin receptor-deficient cells as a new tool for dissecting complex interplay in insulin and insulin-like growth factors. *FEBS Letters* 426:381-385.
130. Christoffersen, C. T., Tornqvist, H., Vlahos, C. J., Bucchini, D., Jami, J., **De Meyts, P.** and Joshi, R. L. (1998) Insulin and insulin-like growth factor-I receptor

- mediated differentiation of 3T3-F442A cells into adipocytes. Effects of PI 3-kinase inhibition. *Biochem. Biophys. Res. Commun.*, 246:426-430.
131. Lamothe, B., Baudry, A., Desbois, P., Lamotte, L., Bucchini, D., **De Meyts, P.**, and Joshi, R. (1998) Genetic engineering in mice: impact on insulin signalling and action. *Biochem. J.*, 335:193-204.  
**Citations: 33**
132. Pierreux, C. E., Ursø, B., **De Meyts, P.**, Rousseau, G. G. and Lemaigre, F. P. (1998) Inhibition by insulin of glucocorticoid-induced gene transcription: involvement of the ligand binding domain of the glucocorticoid receptor and independence from the phosphatidylinositol 3-kinase and mitogen-activated protein kinase pathways. *Mol. Endo.* 12:1343-1354  
**Citations: 20**
133. Shymko, R. M., Dumont, E., **De Meyts, P.**, and Dumont, J. E. (1999) Timing-dependence of insulin-receptor mitogenic versus metabolic signalling: a plausible model based on coincidence of hormone and effector binding. *Biochem. J.* 339: 675-683  
**Citations: 31**
134. Gill, R., Verma, C., Wallach, B., Ursø, B., Pitts, J., Wollmer, A., **De Meyts, P.** and Wood, S. (1999) Modelling of the disulphide-swapped isomer of human insulin-like growth factor-1: Implications for receptor binding. *Protein Engineering*, 12:297-303.
135. Holst, P. A. and De Meyts, P. (1999) Molecular basis of insulin receptor activation, signal transduction and signalling specificity. In "Insulin resistance, metabolic diseases and diabetic complications", G. Crepaldi, A. Tiengo and S. Del Prato, eds. *Excerpta Medica International Congress Series*, vol. 1177 (ICS 1177), pp 75-81.
136. Vorwerk, P., Christoffersen, C. T., Müller, J., Vestergaard, H., Pedersen, O. and **De Meyts, P.** (1999) Alternative splicing of exon 17 and a missense mutation in exon 20 of the insulin receptor gene in two brothers with a novel syndrome of insulin resistance (Congenital Fiber Type Disproportion Myopathy). *Hormone Res.* 52:211-220.
137. **De Meyts, P.** and Shymko, R. M. (2000) Timing-dependent modulation of insulin mitogenic versus metabolic signalling. In: "Mechanisms and biological significance of pulsatile hormone secretion", Novartis Foundation Symposium n° 227, 46-60.
138. **De Meyts, P.** (2000) A short history of insulin. *Catalyzer*, 11:2-3.
139. Geddes, S., Holst, P., Grotzinger, J., Gill, R., Nugent, P., **De Meyts, P.**, Wollmer, A., Wood, S. and Pitts, J. (2001) Structure-function studies of an IGF-I analogue that can be chemically cleaved to a two-chain mini-IGF-I. *Prot. Engineering* 14:61-65.

140. **De Meyts, P.** and Whittaker, J. (2002) Structure-function relationships of insulin and insulin-like growth factor-I receptor binding. In "Insulin and related proteins. From structure to function and pharmacology". M. Federwisch, M.L. Dieken, and P. De Meyts, eds. Kluwer Publ. Dordrecht, The Netherlands, pp 131-149.
141. **De Meyts, P.** (2002) Insulin and insulin-like growth factors: the paradox of signaling specificity. *Growth Hormone and IGF Research*, 12:81-83.
142. Ben-Yair, L., Slaaby, R., Herman, A., Cohen, Y., Biener, E., Moran, N., Yoshimura, A., Whittaker, J., **De Meyts, P.**, Herman, B. and Gertler, A. (2002) Preparation and expression of biologically active prolactin and growth hormone receptors and suppressor of cytokine signaling (SOCS) proteins 1, 2, 3 and 6, tagged with cyan and yellow fluorescent protein. *Protein expression and purification*, 25:456-464.
143. Hamer, I., Foti, M., Emkey, R., Cordier-Bussat, M., Philippe, J., **De Meyts, P.**, Maeder, C., Kahn, C. R., Carpentier, J. L. (2002) An arginine to cysteine<sup>252</sup> mutation in insulin receptors from a patient with severe insulin resistance inhibits receptor internalization but preserves signaling events. *Diabetologia*, 45:657-667.  
**Citations: 20**
144. Schmidt, A., Chakravarty, A., Brommer, E., Fenne, B. D., Siebler, T., **De Meyts, P.** and Kiess, W. (2002) Growth failure in a child showing characteristics of Seckel syndrome: possible effects of IGF-I and endogenous IGFBP-3. *Clin. Endo.* 57: 293-299.
145. **De Meyts, P.** and Whittaker, J. (2002) Structural biology of insulin and IGF-I receptors: implications for drug design. *Nat. Rev. Drug Discov.* 1: 769-783.  
**Citations: 213**
146. Gill, R., Verma, C., Pitts, J., **De Meyts, P.**, Wollmer, A. and Wood, S. (2002) Structure and function of human IGF-I. *Recent Res. Devel. Protein Eng.*, 2:105-134
147. Ursø, B., Ilondo, M. M., Holst, P. A., Christoffersen, C. T., Ouwens, M., Giorgetti, S., Van Obberghen, E., Naor, D., Tornqvist, H., **De Meyts, P.** (2003) IRS-4 mediated mitogenic signalling by insulin and growth hormone in LB cells, a murine T-cell lymphoma devoid of IGF-I receptors. *Cellular Signalling* 15:385-394.
148. Chen, J.-W., Ledet, T., Ørskov, H., Jessen, N., Lund, S., Whittaker, J., **De Meyts, P.**, Larsen, M. B., Christiansen, J. S. and Frystyk, J. (2003) A highly sensitive and specific assay for determination of IGF-I bioactivity in human serum. *Am. J. Physiol. Endocrinol. Metab.* 284:E1149-E1155.  
**Citations: 55**
149. Gray, S., Stenfeldt-Mathiasen, I., and **De Meyts, P.** (2003) The insulin-like growth factors and insulin-signalling systems: an appealing target for breast cancer therapy?. *Horm. Metab. Res.* 35:857-871.

150. **De Meyts, P.**, Palsgaard, J., Sajid, W., Theede, A.-M., and Aladdin, H. (2004) Structural biology of insulin and IGF-1 receptors. *Novartis Foundation Symposium* 262:160-176.
151. **De Meyts P.** and Mahmood, S. (2004) A new high-throughput screening methodology for the discovery of molecules with insulin-like properties? *International Diabetes Monitor*, 16:38-39.
152. Huang, K., Xu, B., Hu, S.-Q., Chu, Y.-C., Hua, Q.-X., Yang, Y., Li, B., Wang, R.-Y., Nakagawa, S., Theede, A.-M., **De Meyts, P.**, Katsoyannis, P. G., Weiss, M. A. (2004) How insulin binds: the central B-chain  $\alpha$ -helix contacts the N-terminal domain of the insulin receptor  $\alpha$  subunit. *J. Mol. Biol.*, 341:529-550.  
**Citations: 45**
153. **De Meyts, P.** (2004) My favorite molecule. Insulin and its receptor: structure, function and evolution. *BioEssays*, 26:1351-1362.  
**Citations: 67**
154. **De Meyts, P.** (2005) Une brève histoire de l'insuline et de ses analogues. *Réseaux Diabète*, 23 :32-36.
155. **De Meyts, P.** (2005) A scientist and a cartoonist: how Chuck came to be. *IUBMB Life*, 57:251-252.
156. Gray, S.G. and **De Meyts, P.** (2005) Role of histone and transcription factor acetylation in diabetes pathogenesis. *Diabetes/Metabolism Research and Reviews*, 21:416-433.  
**Citations : 44**
157. **De Meyts, P.** (2005) Le récepteur de l'insuline: structure et fonction. *La Revue Médicale de Liège*, 60 :5-6, 286-290.
158. **De Meyts, P.** (2005) L'image du mois: L'hexamère d'insuline humaine. *La Revue Médicale de Liège*, 60:5-6, 285.
159. Sakaki, Y., Kholodenko, B. N., Hatakeyama, M, Kitano, H, Kolch, W, **De Meyts, P.**, Yarden, Y., Westerhoff, H, Wiley, H. S. (2005). The International Consortium on Systems Biology of receptor Tyrosine Kinase Regulatory Networks. *Systems Biology*, 152:53-54.
160. **De Meyts, P.**, Palsgaard, J. and Sajid, W. (2005) L'insuline: structure, fonction et evolution. *Médecine clinique endocrinologie et diabète*. In press.
161. Sakaki, Y., Kholodenko, B. N., Kitano, H, Kolch, W, **De Meyts, P.**, Yarden, Y., Westerhoff, H, Wiley, H. S., Hatakeyama, M. (2005). White paper : The International Receptor Tyrosine Kinase Networks Consortium. *The Scientist* 19:8-9.

162. **De Meyts, P.**, Sajid, W., Palsgaard, J., Gauguin, L., Theede, A.-M., Aladdin, H. and Whittaker, J. (2007) Insulin and IGF-I receptor structure and binding mechanism. In *Mechanisms of insulin action*, eds, R.C. Landes/Eurekah, publ., pp 1-32 .
163. Delaine, C., Alvino, C.L., McNeil, K.A., Mulhern, I.D., Gauguin, L., **De Meyts, P.**, Jones, E.Y., Brown, J., Wallace, J.C. and Forbes, B.E. (2007). A novel binding site for the human IGF-II/mannose 6-phosphate receptor (IGF2R) on IGF-II. *J. Biol. Chem.* 282:18886-18894.
164. Al-sarraf, N., Reiff, J.N., Hinrichsen, J., Mahmood, S., Teh B.T., McGovern, E., **De Meyts, P.**, O'Byrne, K.J., and Gray S.G. (2007). DOK4/IRS-5 expression is altered in clear cell renal cell carcinoma. *Int. J. Cancer*, 121:992-998.
165. **De Meyts, P.** (2007). Structural biology of the insulin receptor interaction and implications for drug design. *Am. Pharm. Rev.*, 10:63-66.
166. Huang, K., Chan, S.J., Hua, Q.-X., Chu, Y.-C., Wang, R.-Y-, Klaproth, B., Jia, W., Whittaker, J., **De Meyts, P.**, Nakagawa, S., Steiner, D. F., Katsoyannis, P. G., and Weiss, M. A. (2007). The A-chain of insulin contacts the insert domain of the insulin receptor: photocrosslinking and mutagenesis of a diabetes-related crevice. *J. Biol. Chem.*, 282:35337-35349.  
**Citations: 21**
167. Jensen, M., Hansen, B., **De Meyts, P.**, Schäffer, L. and Ursø, B. (2007). Activation of the insulin receptor by insulin and a synthetic peptide leads to divergent metabolic and mitogenic signaling and responses. *J. Biol. Chem.* 282:35179-35186.
168. Gauguin, L., Klaproth, B., Sajid, W., Andersen, A.S., Forbes, B. E., and **De Meyts, P.** (2008). Structural basis for the lower affinity of the insulin-like growth factors for the insulin receptor. *J. Biol. Chem.* 283:2604-2613.
169. Svendsen A.M, Vrecl, M., Ellis, T. M., Heding, A., Boggild Kristensen, J., Wade, J. D., Bathgate, R. A. D., **De Meyts, P.** and Nøhr, J., (2008). Cooperative binding of insulin-like peptide 3 to a dimeric relaxin family peptide receptor 2. *Endocrinology*, 149:1113-1120.
170. De Meyts, P. (2008) The insulin receptor: prototype of dimeric, allosteric membrane receptors. *Trends Biochem. Sci.*, 33:376-384.  
**Citations: 29**
171. Jensen, M., Palsgaard, J., Borup, R., **De Meyts, P.** and Schäffer, L. (2008). Activation of the insulin receptor (IR) by insulin and a synthetic peptide has different effects on gene expression and cell proliferation in IR-transfected L6 myoblasts. *Biochem. J.*, 412:435-445.
172. Svendsen A.M, Zalesko, A., Kønig, J., Vrecl, M., Heding, A., Boggild Kristensen, J., Wade, J. D., Bathgate, R.. A. D., **De Meyts, P.** and Nøhr, J. (2008) Negative

- cooperativity in H2 relaxin binding to a dimeric relaxin family peptide receptor 1. *Mol. Cell Endo.*, 296:10-17.
173. Palsgaard, J., Brown, A., Walker, M. and **De Meyts, P.** (2009) Gene regulation by insulin and insulin-like growth factor 1 in primary human skeletal myoblasts and myotubes. *Growth Hormone and IGF-I Research*, 19:168-178.
  174. Gauguin, L., Delaine, C., Alvino, C., McNeil, K.A., Forbes, B.E., and **De Meyts, P.** Alanine scanning of a putative receptor binding surface of IGF-I (2008) *J. Biol. Chem.* 283:20821-20829.
  175. Wolkenhauer, O., Fell, D., **De Meyts, P.**, Blühtgen, N., Hertzfel, H., Le Novère, N., Höfer, T., Van Leeuwen, I. (2008) Advancing systems biology for medical applications. *European Science Foundation Science Policy Briefing #35*, December 2008.
  176. Kiselyov, V.V., Versteyhe, S. and **De Meyts, P.** (2009) Harmonic oscillator model of the insulin and IGF-I receptors allosteric binding and activation. *Mol. Sys. Biol.*, 5:243.
  177. Jensen, M. and **De Meyts, P.** (2009) Molecular mechanisms of differential intracellular signaling from the insulin receptor. *Vitamins and Hormones*, 80:51-75.
  178. Svendsen A. M., Vrecl, M., Knudsen, L., Heding, A., Wade, J. D., Bathgate, R. A. D., **De Meyts, P.**, and Nøhr, J. (2009) Dimerization and negative cooperativity in the relaxin family peptide (RXFP) receptors. *Ann. N. Y. Acad. Sci*, 1160:54-59..
  179. **De Meyts, P.**, Gauguin, L., Svendsen, A. M., Sarhan, M., Knudsen, L., Nøhr, J. and Kiselyov, V. V. (2009) Structural basis of allosteric ligand-receptor interactions in the insulin/relaxin peptide family: implications for other receptor tyrosine kinases (RTKs) and G protein-coupled receptors (GPCRs). *Ann. N. Y. Acad. Sci*, 1160:45-53.
  180. Mahmood, S., Borup, R., Tornqvist, H., **De Meyts, P.**, and Gray, S.G. (2009) Gene expression profiling of human adipocyte responses to insulin and IGF signaling. *The Open Diabetes J.*, 2:5-17.
  181. Wolkenhauer, O., Fell, D., **De Meyts, P.**, Blühtgen, N., Hertzfel, H., Le Novère N., Höfer, T., Schürle, K., van Leeuwen, I. (2009) SysBiomed report. Advancing systems biology for medical applications. *IET Systems Biology*, 3:131-136..
  182. Sajid, W., Holst, P. A., Andersen, A. S., Conlon, J. M., Whittaker, J., Chan, S. J. and **De Meyts, P.** (2009) Structural basis of the aberrant receptor binding properties of hagfish and lamprey insulins. *Biochemistry*, 48:11283-11295. .
  183. Palsgaard, J., Brøns, C., Dominguez, H., Friederichsen, M., Jensen, M., Storgaard, H., Spohr, C., Torp-Pedersen, C., Borup, R., **De Meyts, P.**, and Vaag, A. (2009) Gene expression in skeletal muscle biopsies from people

- with type 2 diabetes and relatives: differential regulation of insulin signalling pathways. PLoS ONE, 4(8): e6575. doi:10.1371/journal.pone.0006575
184. **De Meyts P.** and Waseem S. Evolutionary role of the insulin signaling system in the regulation of reproduction, metabolism and lifespan (2009). Obesity and Metabolism, in press.
  185. Liu, M., Wan, Z.-L., Chu, Y.-C., Aladdin, H., Klaproth, B., Choquette, M., Hua, Q.-X., Mackin, R.B., Rao, J.S., **De Meyts, P.**, Katsoyannis, P.G., Arvan, P., and Weiss, M.A. (2009) The crystal structure of a “non-foldable” insulin. Impaired folding efficiency and ER stress despite native activity. J. Biol. Chem., 284:35259-35272
  186. Versteyhe, S., Blanquart, C., Hampe, C., Mahmood, S., Christeff, N., **De Meyts, P.**, Gray, S.G., and Issad, T. (2010). IRS-5 and -6 are poor substrates for the insulin receptor. Molec. Medicine Reports, 3:189-193.
  187. Sajid, W., Kulahin, N., Schluckebier, G., , Ribel, U., Henderson, H., Tatar, M., Hansen, B. F., Manegold Svendsen A., Kiselyov, V. V., Nørgaard, P., Wahlund, P.-O., Brandt, J., Kohanski, R., Andersen, A. S., and **De Meyts, P.** (2011). Structural and biological properties of the Drosophila insulin-like peptide 5 show evolutionary conservation. J. Biol. Chem. 286:661-673.
  188. Van Duyvenvoorde, H.A., Van Doorn, J., Koenig, J., Gauguin, L., Oostdijk, W., Wade, J.D., Karperien, M., Ruivenkamp, C.A., Losekoot, M., Van Steene, P.A., Walenkamp, M.J., Noordam, C., **De Meyts, P.**, and Wit, J.M. (2011). The severe short stature in two siblings with a heterogeneous IGF-I mutation is not caused by a dominant negative effect of the putative truncated protein. Growth. Horm. IGF Res. 21:44-50.
  189. Metzger, F., Sajid, W., Saenger, S., Staudemaier, C., Van der Poel, C., Sobotka, B., Schuler, A., Savitxki, M., Poirier, R., Tuerck, D., Schick, E., Schaubman, A., Hesse, F., Amrein, K., Loetscher, H., Lynch, G.S., Hoeflich, A., **De Meyts, P.**, Schoenfeld, H.J. (2011). Separation of fast from slow anabolism by site-specific PEGylation of insulin-like growth factor-I (IGF-I). J. Biol. Chem. 286:19501-19510.
  190. Knudsen, L., De Meyts, P. and Kiselyov, V.V. (2011). Insight into the molecular basis for the kinetic differences between the two insulin receptor isoforms. Biochem. J. 440:397-403.
  191. Versteyhe, S., Klaproth, B., Schjerling, C.K., Palsgaard, J., Jensen, M., Gray, S.G., **De Meyts, P.** (2012). IGF-I, IGF-II and insulin stimulate different gene expression responses through binding to the IGF-I receptor: Frontiers. Mol. Struct. Endo, to be submitted.

## **BOOKS**

192. Naor, D; Feldmann, M; Schlessinger, J. and **De Meyts, P.**, editors (1995) "Receptor Activation by Antigens, Cytokines, Hormones and Growth Factors", Ann. N.Y. Acad. Sci., 766.  
**Citations: 935**
193. Federwisch, M., Dieken, M.L., and **De Meyts, P.** editors. (2002) "Insulin and related proteins. From structure to function and pharmacology". Kluwer Publ. Dordrecht, The Netherlands



**THESES SUPERVISED****Catholic University of Louvain, Belgium**

**Magali Waelbroeck** (1978) : Etude des bases thermodynamiques de la liaison de l'insuline à son récepteur membranaire (Concours des Bourses de Voyages).

**Magali Waelbroeck-Frauman** (1980): Thermodynamic analysis of insulin binding to its membrane receptor (PhD thesis).

**Marie-Agnès Piron** (1981): Etude des relations entre la structure et la fonction de l'insuline chez les Vertébrés (PhD thesis).

**Michèle Masquelier** (1981): L'insuline porteuse d'une substitution isolée Phe-Leu en B24 ou B25 est-elle un antagoniste de l'action biologique de l'insuline native? (Annex thesis to PhD thesis).

**Sophie Hallez** (1983): Mise au point d'une technique d'étude de la liaison de l'insuline aux adipocytes isolés et étude du couplage entre activité biologique de l'insuline et de certains analogues coopératifs ou non coopératifs (Master's thesis).

**Catherine Janssens** (1984): Le diabète et le sport: mise au point d'une technique d'étude de la liaison de l'insuline à ses récepteurs et de l'activité biologique de l'hormone dans les adipocytes humains isolés (Master's thesis).

**Christiane Weissberger** (1984): Etude des propriétés biologiques de quelques insulins modifiées synthétiques (Laborant thesis).

**Sophie Hallez-Liesse** (1986): Anticorps monoclonal anti-HLA-DR: propriétés et applications (PhD thesis).

**Jean Smal** (1986): Etude des propriétés biologiques de l'hormone de croissance humaine et de son variant 20K (PhD thesis).

**M. Mapoko Ilondo** (1988): Cellular receptors for human growth hormone: quantitative aspects and clinical applications (Thèse d'agrégation).

**University of Copenhagen**

**Claus Tornby Christoffersen** (1994): Properties of the insulin receptor and the insulin-like growth factor-I receptor (Speciale thesis; co-supervisor: Jan Christiansen).

**Brenda Wallach** (1995): Structure-function relationships of high affinity insulin and IGF-I binding to their respective receptors (PhD thesis; co-supervisor: Per Nygaard).

**Karen Grønskov** (1995): Investigation of the insulin and IGF-I receptor tyrosine kinases using mutated receptors (PhD thesis; co-supervisor: Leif Søndergaard).

- Anders Juul** (1995): Serum levels of insulin-like growth factor (IGF) binding protein 3 and IGF-I in healthy children, adolescents and adults (Ph.D. thesis, main supervisors: Niels-Erik Skakkebaek, Jørn Müller)
- Birgitte Ursø** (1996): Analysis of the mitogenic signalling in response to insulin and other growth factors in LB cells, a murine T-cell lymphoma devoid of IGF-I receptors (PhD thesis; co-supervisor: Berthe Willumsen).
- Patricia Ann Holst** (2000): Interaction of insulin and insulin analogues with the insulin receptor: relationship between structure, binding kinetics and biological function (PhD thesis; co-supervisor: Per Nygaard).
- Anne-Mette Jensen** (2000): Analysis of structure-activity relationships of the insulin molecule by alanine-scanning mutagenesis (Speciale thesis; co-supervisor Per Nygaard).
- Anders Chakravarty** (2001): Receptor binding mechanism of insulin and IGF-I: Studies with ligand analogues and mutated receptors (PhD thesis; co-supervisor Niels-Erik Skakkebaek).
- Jane Palsgaard** (2003): Receptor binding properties of 25 different hystricomorph-like human insulin analogs (Speciale thesis, co-supervisor Elisabeth Bock).
- Jacob Lademann** (2004): Structure-function relationships of the insulin molecule by site-directed mutagenesis: replacement of acidic residues by basic residues in a newly discovered receptor-binding surface (Bachelor's thesis, co-supervisor Per Nygaard).
- Julie Overgaard** (2004): Mapping of the receptor-binding epitopes of the insulin molecule by site-directed mutagenesis (Bachelor's thesis, co-supervisor Per Nygaard).
- Johanne Nørvig Reiff** (2004): Evaluating the role of histone deacetylase inhibitors in the regulation of members of the Wnt signalling pathway (Bachelor's thesis, co-supervisors Steven Gray and Per Nygaard).
- Maja Jensen** (2004): Binding properties of three insulin mimetic peptides (Speciale thesis, co-supervisor Elisabeth Bock).
- Waseem Sajid** (2004): Validation of bivalent crosslinking model for insulin binding (Speciale thesis, co-supervisor Robert Nielsen).
- Lisbeth Gauguin** (2005): Structural basis for the lower affinity of the insulin-like growth factors for the insulin receptor (Speciale thesis, co-supervisor Vladimir Berezin).
- Shaukat Mahmood** (2006): Molecular basis of insulin and insulin-like growth factors signalling specificity (Ph.D. thesis, co-supervisor Niels-Erik Skakkebaek).
- Angela Manegold Svendsen** (2006): Kinetics of INSL3 binding to LGR8 and dimerization of GPCRs (Speciale thesis, co-supervisor Ian Henry Lambert)
- Johanne Nørvig Reiff** (2007): Structural biology and molecular evolution of the insulin receptor interaction (Speciale thesis, co-supervisor Robert Nielsen).

- Iben Wilkelskjeld** (2007): Karakterisering af vector pVT102-u med genet *Amphioxus* Insulin-Like Peptide samt udtrykkelse af dette protein (Bachelor's thesis, co-supervisor Birthe B. Kragelund).
- Louise Knudsen** (2007): Correlation between kinetic aspects of insulin, insulin analogues and aspects of intracellular signalling (Master's thesis, co-supervisor Martin Berchtold).
- Soetkin Versteyshe** (2007): The molecular basis of the signalling specificity of insulin, IGF-I and IGF-II (Ph.D. thesis, co-supervisor Jens F. Rehfeld).
- Maja Jensen** (2007). Insulin mimetic peptides. From binding on the cell surface to end-point biological effects (PhD thesis, co-supervisor Bo van Deurs).
- Julie Kønig** (2007). Studies of ligands and receptors of the insulin superfamily – receptor interactions of a mutant IGF-I and relaxin-like peptides (Master's thesis, co-supervisor Lonne Rønnow-Jessen).
- Jane Palsgaard** (2008). Differential gene regulation by insulin and IGF1 in human skeletal muscle: implications for type 2 diabetes (Ph.D. thesis. Co-supervisors: Bo Falck Hansen and Jens Rehfeld).
- Lisbeth Gauguin** (2008). Structural basis for the specific interaction of insulin and insulin-like growth factors with their receptors (Ph.D. thesis, co-supervisor Niels-Erik Skakkebak).
- Waseem Sajid** (2009). Structure, function and evolution of the ligands and receptors of the insulin peptide family (Ph.D. thesis, co-supervisor Jørgen Vinten).
- Mazen Sarhan** (2009). Kinetic properties of the epidermal growth factor receptor interaction: comparison with the insulin receptor interaction. (Master's thesis, co-supervisor Martin Berchtold).
- Wickie Søndergaard** (2009). Structural biology of the pH-dependence and endocytosis of insulin analogues. (Master's thesis, co-supervisor Birthe B. Kragelund).
- Caroline Becker Warzecha** (2010). Insulin, X10, IGF-I og GLP-1's regulering af cellecycclus I budspunktet  $\beta$ -celler. (Bachelor thesis, co-supervisor Ian H. Lambert).
- Iben Wilkenskjeld** (2010). *In vitro* evolution of *Amphioxus* insulin to Human insulin. Master's thesis, co-supervisors Jane Nøhr Larsen and Gert Dandanell).
- Sarah Nørklit Roed** (2011). Receptor dimerization and binding profile of the incretin glucagon-like peptide-1 (Master's thesis, co-supervisors Jane Nøhr Larsen and Birthe B. Kragelund).
- Angela Manegold Svendsen** (2011). Molecular basis for the mitogenic effects of insulin and insulin analogues. (Ph.D. thesis, co-supervisors Jan Nøhr Larsen, Anders Juul and Domenico Accili)

**Louise Knudsen** (2011). Dissecting the mitogenic signalling pathways of insulin and insulin analogues (Ph.D. thesis, co-supervisors Blagoy Blagoev, Martin Olecsievicz and Jane Nøhr Larsen).

**Sofia Winge** (2011). Control of cyclin G2, p27<sup>Kip1</sup> and Bad by insulin analogues as potential key mechanisms for induction of mitogenesis and cell survival (Master's thesis, co-supervisor Vladimir Berezin).

**Anne Ørgaard** (2011). Binding and dimerization studies on the glucagon receptor. (Master's thesis, co-supervisors Jane Nøhr Larsen and Jens Juul Holst).

**Anne Bøg Jeppesen** (2011). The potential inhibitory role of metformin in the mitogenesis mediated by insulin and its analogues. (Master's thesis, co-supervisors Waseem Sajid and Ian Henry Lambert).

### **Danish Technical University**

**Anders Heding** (1996): Kinetic properties of insulin and IGF-I analogues binding to receptors and binding proteins. Studies using a surface plasmon resonance-based biosensor (ATV PhD thesis; co-supervisors Ronald M. Shymko, Lauge Schäffer and Ib Søndergaard).

**Tine Glendorf** (2005): Structure-function analysis of the insulin molecule by site-directed mutagenesis (Speciale thesis, co-supervisor Karin Hammer).

### **Eberhard-Karls-Universität Tübingen (Germany)**

**Rosanna Hellmich** (2001): Interaction of insulin and insulin analogues with the insulin receptor. Relationship between structure and binding kinetics ("Diplomarbeit" for Faculty of Biology).

### **IMC University of Applied Science Krems (Austria)**

**Anna Maria Zalesko** (2007): Binding kinetics of H2 relaxin to RXFP1 and dimerization of RXFP1 (Diploma thesis in Medical and Pharmaceutical Biotechnology).

