

Introduction

The Fourth World Conference on Diabetes Research was held in Athens, Greece, from 15–19 March 1997, bringing together some 140 scientists from 13 countries. A premium was placed on the sharing of ideas with the call for a penetrating look into the future of diabetes research. Participants spent most of their time working in small groups, covering the major guiding themes in contemporary diabetes research (Group I: Metabolism and insulin action; II: The beta cell: from normal development to surrogates; III: Complications: from genetics to therapy; IV: New horizons in diabetes treatment and management; V: Immunology/genetics/transplantation). Each group held several work sessions, spanning the spectrum from the most molecular to the most clinical of fields and emphasizing our view that there must be no barrier dividing pure from applied research. The contents page of this Supplement reflects this well. On several occasions, two groups convened together to exchange ideas in an area of common interest. This provided an additional forum for cross-fertilization between disciplines. Experts from outside the diabetes arena helped us think beyond the confines of our own speciality, lending extra strength to this interdisciplinary current. Throughout the meeting participants were encouraged to consider the impact of their research on the patient with diabetes, a now common refrain in many medical schools and in keeping with the determination of JDFI.

This Supplement contains reports from the working sessions. Leading young scientists in diabetes research were invited to serve as “rapporteurs”. They wrote these summaries in association with the respective Chairs of each session. The reports consist of a brief overview of the field followed by vignettes of the work presented during the session. They conclude with a look to the future, providing in telegraphic form a charge for the next few years of research. The list of areas that need attention is daunting and

many of the immediate, let alone the long term, goals for providing improved patient care remain elusive, as does the additional goal of protecting future generations from development of the disease. As Dr. Arthur Rubenstein (University of Chicago) reminded the Conference in his opening lecture, diabetes remains a major world public health problem and its impact on the individual and the family is still devastating. However, far from abdicating, the lay community is demonstrating a new, yet stronger, fighting spirit, as reflected in the words of the Patron of JDFI (HRH Princess Benedikte of Denmark) who sees this Conference as encouraging progress towards “the conquest of the disease” and speaks of the need to consider “every means, however unlikely” in our research efforts. The challenge to the research community is evident: translate the results of research more effectively to the patient’s bedside. This Conference provided tangible evidence that this is happening. The JDFI firmly believes that it is the synergy between basic and applied research (just as between the lay and scientific communities), rather than commitment to applied or targeted research alone, that will allow us to reach our goals the fastest. This combined effort will demand increased financial support. In the closing lecture of the Conference, Dr. Mark Poznansky (The John P. Robarts Research Institute, London, Ontario) described the new Canadian model for channelling investment funds into the academic research arena, underlining in turn that Universities, and possibly even private foundations such as JDFI, must reach a new understanding with the business world in order to ensure continued support for diabetes research in the new millennium.

It is our hope that this Supplement will serve two purposes. The first is to allow specialists in one field of diabetes research to become better acquainted and ultimately more involved with the current status of other fields and to discover their colleagues’

targets for research over the next few years. Aside from simply educating specialists and broadening their understanding of diabetes research, we hope that this Supplement may foster new interdisciplinary collaboration as the Conference itself has already done. The second purpose is to help the research community at large, and its sponsors, whether government or private such as the JDFI, to appreciate the complexity of the problem at hand and to identify areas of particular promise that deserve additional support, be they intellectual or financial.

This meeting was organised and sponsored by the Juvenile Diabetes Foundation International and was endorsed by the US National Institutes of Health (National Eye Institute; National Heart, Lung and Blood Institute; National Institute for Allergy and Infectious diseases; National Institute for Diabetes and Digestive and Kidney Diseases), The European Association for the Study of Diabetes and The Medical Research Council of Canada. We are most grateful to the JDF Hellas affiliate for making the event possible both in terms of financial support and

organization, and to Dr. Michael Steffes (University of Minnesota) for his help as Special Advisor to the Conference. We thank the following corporate sponsors for their generous support: Novo-Nordisk A/S Pharmaceuticals (Presenting Sponsor); Eli Lilly & Company (Plenary Session sponsor); Amylin Pharmaceuticals, Bayer Corporation, Becton Dickinson & Company, Boehringer Mannheim GmbH, Bristol-Myers Squibb Company, Lifescan Inc., Novartis Pharmaceuticals (Workgroup Sponsors); Hoechst AG, Groupe de Recherches Internationales Servier, Pfizer-US Pharmaceutical Group, Wyeth-Ayerst International Inc. (Rapporteur Sponsors). We offer our special and heartfelt thanks to the following JDF International Board members for their additional and most precious support: Susan Alberti (Australia), Anthony Reeves (UK), Robert and Renee Samuels (USA).

Finally, we thank Ms. Sara King, Director of Research of the JDFI, and the JDFI staff for all they did to make this meeting such a truly rewarding and memorable occasion.

Paul Czernichow, M. D.
Hôpital Robert Debré
Paris, France
Scientific co-Chair

Philippe Halban, Ph.D.
University Medical Center
Geneva, Switzerland
Scientific co-Chair

Caroline Lurie
JDF International
New York, New York, USA
Lay Chair

J. Denis McGarry, Ph.D.
University of Texas Southwestern Medical Center
Dallas, Texas, USA
Scientific co-Chair

Ali Naji, M. D., Ph.D.
Hospital of the University of Pennsylvania
Philadelphia, Pennsylvania, USA
Scientific co-Chair

Christos Bartsocas, M. D.
University of Athens
Athens, Greece
Local Chair