PRESS RELEASE
WINNERS ANNOUNCED
1986/1406H KING FAISAL INTERNATIONAL PRIZE IN MEDICINE

Topic: Diabetes Mellitus

Dr. Gian Franco Botazzo of the Middlesex Hospital, London, is recommended as a co-recipient of the King Faisal International Prize in Medicine, 1406 H. (1986) for Diabetes mellitus for his research on autoimmunity as a major cause of type 1 (insulin-dependent) diabetes.

In a landmark paper published in 1974 Professor Bottazzo and his colleagues showed that type 1 diabetes was associated with the development of antibodies directed against the insulin-producing B cells of the pancreas. This pioneering discovery has opened the way to a flood of investigations in the study of autoimmunity as a basic cause of failure, not only of the islet cells of the pancreas leading to type 1 diabetes mellitus, but also the loss of other endocrine-producing cells such as those in the thyroid and pituitary glands.

Recently Professor Bottazzo has demonstrated the presence of HLA-DR antigens on the surface of the B cells in the early stage of type 1 diabetes mellitus. This link between the genetic background of the sufferer and the development of autoimmunity has once more opened up a new field of exploration that may lead to a new approach to the prevention of diabetes mellitus and perhaps its treatment.

The fundamental contributions made by Professor Bottazzo have been recognized by diabetologists worldwide and fully merit the recommendation that he be a co-recipient of the King Faisal International Prize in Medicine for 1406H. (1986).

Professor E. Renold and Professor Lelio Orci
Professor Albert E. Renold is recommended as a co-recipient of the King Faisal International Prize in medicine, 1406 H. (1986) not only for his
numerous contributions to the understanding of diabetes mellitus, its aetiology and treatment, but also for his role in lending inspiration to the careers of many notable diabetologists and establishing the University of Geneva as a pre-eminent institution for the study of diabetes.

In the late 1940s Professor Renold studied alloxan-induced diabetes and, in 1950, he made a major discovery when he was able to show that adipose tissue was a metabolically active tissue largely under insulin control. These studies led to the development of a widely used insulin bioassay in 1958. In 1963, Professor Renold returned from Harvard university to Geneva, where he began the task of establishing the Institut de Biochemie as a centre devoted to the study of diabetes. He and his team developed elegant animal models to study many aspects of pancreatic endocrine physiology and pathophysiology. Amongst many other contributions, including varied aspects of islet physiology and the action of oral hypoglycaemic agents, Professor Renold was also able to provide early insights into the possible autoimmune nature of insulin-dependent diabetes mellitus.

In 1966 Professor Renold was joined by Dr. Lelio Orci whose outstanding work led to his appointment as professor at the University of Geneva at the early age of 36. Professor Orci is recommended as a co-recipient of the King Faisal International Prize in medicine for his pioneering work on the morphology and cell biology of the islets of Langerhans. Professor Oral's ultra-structural and immuno-histochemical studies of islet cells have elucidated not only their structure, but have also yielded new understanding of their function. His elegant studies demonstrated for the first time the paracrine functions of these cells.

The contributions to science and medicine of the Geneva team headed by Professor Renold have been of immense value to diabetologists throughout the World and have provided major innovations on the basis of which it has been possible for other research workers and clinicians to build.