

INTERNATIONAL SYMPOSIUM

Regulatory Aspects of the Kinases of Carbohydrate Metabolism

PROGRAM

Thursday, July 20th

09.00 — 09.05 TITO URETA. Wellcome and Introductory Remarks.

SESSION I

In vivo Regulatory Properties
Chairman: Dr. Hermann Niemeyer

09.05 — 09.50 DANIEL E. ATKINSON (University of California, Los Angeles).
The adenine nucleotides in metabolic regulation.

09.50 — 10.35 ERNESTO BUSTAMANTE (Universidad Cayetano Heredia, Lima).
Mitochondrial hexokinase: key to the high aerobic glycolysis of tumor cells.

SESSION II

Regulation of Glucokinase levels
Chairman: Dr. Athel Cornish-Bowden

11.00 — 11.45 HERMANN NIEMEYER (Universidad de Chile, Santiago).
Adaptive properties of liver glucokinase.

11.45 — 12.30 DERYCK G. WALKER (University of Birmingham, Birmingham).
Structural and developmental aspects of hepatic glucokinase.

SESSION III

Kinetics of Glucose Phosphorylating Enzymes
Chairman: Dr. Daniel E. Atkinson

15.00 — 15.45 OCTAVIO MONASTERIO (Universidad de Chile, Santiago).
Kinetic mechanism of glucokinase. Order of addition of the substrates using 2-deoxyglucose as the sugar substrate.

15.45 — 16.30 MARIA L. CARDENAS (Universidad de Chile, Santiago).
Kinetic cooperativity of glucokinase with glucose.

16.30 — 17.15 ATHEL CORNISH-BOWDEN (University of Birmingham, Birmingham).
Mammalian hexokinases. A system for the study of co-operativity in monomeric enzymes.

The 45 min period assigned to each speaker includes 10 min for questions and discussion.

Friday, July 21st

SESSION IV

Ontogeny and Phylogeny of Hexokinases and Glucokinase

Chairman: Dr. Deryck G. Walker

- 09.00 — 09.45 **NICOLA C. PARTRIDGE** (University of Western Australia, Nedlands).
Factors regulating the appearance of glucokinase in neonatal rat liver.
- 09.45 — 10.30 **TITO URETA** (Universidad de Chile, Santiago).
Phylogenetic and ontogenetic studies of glucose phosphorylating isozymes.

SESSION V

The Role and Properties of Pyruvate Kinases

Chairman: Dr. Alberto Sols

- 11.00 — 11.45 **JAIME EYZAGUIRRE** (Universidad Católica de Chile, Santiago).
Studies on bacterial pyruvate kinase: properties of the enzyme from Pseudomonas and Thermus thermophilus.
- 11.45 — 12.30 **ARSENIO MORAN** (Universidad de Concepción, Concepción).
Effect of phenylalanine and alanine on the pyruvate kinase from Concholepas concholepas muscle.
- 12.30 — 13.15 **JOSEPH KATZ** (Cedars-Sinai Medical Center, Los Angeles).
The role of pyruvate kinase in the regulation of gluconeogenesis.

SESSION VI

The Role of Phosphofructokinases

Chairman: Dr. Joseph Katz

- 15.00 — 15.45 **JORGE BABUL** (Universidad de Chile, Santiago).
The significance of phosphofructokinase allostery.
- 15.45 — 16.30 **GOPI A. TEJWANI** (Ohio State University, Columbus).
The role of phosphofructokinase in muscle contraction.
- 16.30 — 17.15 **ALBERTO SOLS** (Universidad Autónoma, Madrid).
The Pasteur effect in the allosteric era.