The Jacques Loeb Centre for the History and Philosophy of the Life Sciences was inaugurated in March 2008. It supports advanced research covering topics related to the life sciences. The Centre pursues a broad range of investigations into the history and philosophy of modern research. The proceedings of its annual international workshops have been published as special editions and sections of leading scientific and historical journals. Seminars provide an interdisciplinary forum for historians and philosophers of science, as well as scientists, to present and discuss new research, with a special focus on the life sciences.

The Centre offers post-doctoral and graduate fellowships in the history and philosophy of modern biological, biochemical and medical sciences. Particular attention is given to the history of ideas and practices in modern life sciences, to the role of individuals in scientific advancement, and also in dead ends, to the role of Jewish scientists in 19th- and 20th-century German science, to scientific practices, achievements, and failures, to the individual and social-political backgrounds, and to the mutual interactions of science and politics.



For further information and updates please visit http://in.bgu.ac.il/en/loeb or contact iloebcentre@bgu.ac.il.



# **Jacques Loeb Centre**

for the History and Philosophy of the Life Sciences

# Sixth International Workshop

The Changing Concept of the Gene:

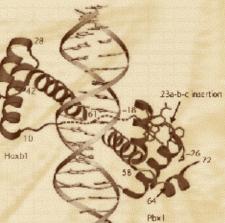
Recurrent Debates on the

Causal Role of Genes

# May 20-21, 2013

Ilse Katz Institute for Nanoscale Science and Technology (Bldg. 51) BGU Marcus Family Campus, Beer-Sheva

The history of epigenetics is linked with the redy of evoution and development. But during the pass (3) years, the neaning of the term "epigenetics" has itself (4) dergone an evolution that parallels our dramatically in Coused under-



# Monday, May 20

#### 9:30 - 10:15

Conference registration and coffee

#### 10:15 - 10:30

Greetings and opening remarks

**Prof. Rivka Carmi**, President, Ben-Gurion University of the Negev

**Prof. Jerry Eichler**, Department of Life Sciences, Ben-Gurion University of the Negev

Prof. Ute Deichmann, Director, Jacques Loeb Centre for the History and Philosophy of the Life Sciences, Ben-Gurion University of the Negev

## 10:30 - 12:45

# I. Causality of Gene Regulation and a Reflection on its History

Chair: **Anthony S. Travis**, The Hebrew University of Jerusalem and Jacques Loeb Centre

## 10:30

**Eric Davidson**, California Institute of Technology

Causality of Gene Regulation in Animal Biology

## 11:15

**Ute Deichmann**, Ben-Gurion University of the Negev

The Concept of the Causal Role of Chromosomes and Genes in Heredity and Development and Its Opponents from Darwin to Lysenko

#### 12:00

**Stephen Small**, New York University

How Gene Regulation Mechanisms Establish Body Plans in Developing Embryos

Comments: **Siegfried Roth**, University of Cologne

#### 12:55 - 14:00

Lunch break

#### 14:00 - 15:30

II. Novel Concepts of Genomic Complexity and *de novo* Evolution of Genes and their Historical Background

Chair: **Bertrand Jordan**, CoReBio PACA, Marseille

## 14:0

Michel Morange, École Normale Supérieure, Paris

The Genome as a Multi-Purpose Structure

#### 14:45

**Diethard Tautz**, Max Planck Institute for Evolutionary Biology, Plön

De novo Evolution of Genes

## 15:30 - 16:00

Coffee break

#### 16:00 - 17:30

# III. Genes and Complex Diseases

Chair: **Eyal Gur**, Ben-Gurion University of the Negev

#### 16:00

**Bertrand Jordan**, CoReBio PACA, Marseille

Genes and Non-Mendelian Diseases: Dealing with Complexity

#### 16:45

Rivka Carmi, Ben-Gurion University of the Negev

Lessons on Genes (and Genies)
Learned from the Negev Bedouins

#### 18:00

Musical interlude, reception and dinner (at the University) for invited speakers

# Tuesday, May 21

#### 9:15 - 10:45

# IV. Genes, Epigenetics and its Evolution

Chair: **Dan Mishmar**, Ben-Gurion University of the Negev

#### 9:15

**Gary Felsenfeld**, National Institutes of Health, Maryland

The Evolution of Epigenetics

#### 10:00

Ellen Rothenberg, California Institute of Technology

Remembrance of Things Past, and Constructive Forgetting: Transcription Factor-Directed Remodeling of Epigenetic Marks in Development

## 10:45 - 11:15

Coffee break

# 11:15 - 13:30

V. DNA, Race, and the Questions of the 'Jewish Difference' and Genetics as a Tool for Historians

Chair: Isaac (Yanni) Nevo, Ben-Gurion University of the Negev

#### 11:15

**Myles Jackson**, New York University

The CCR5-Delta32 Allele:
Reintroducing Race at the Level
of DNA

#### 12:00

Snait Gissis, Tel Aviv University

Biological Conceptualization of 'Jewish Difference' – 1945-2012. The Work of Israeli Population-Geneticists

## 12:45

**Sophie Kohler**, Ben-Gurion University of the Negev

Genes as an Historical Archive

#### 13:30 - 14:45

Lunch break

#### 14:45 - 17:00

VI. The Changing Concept of the Gene and its Philosophical and Social Implications

Chair: **Dan Nicholson**, Tel Aviv University

#### 14:45

Raphael Falk, The Hebrew University of Jerusalem

The Rise and Fall of the Gene

#### 15:30

**Nils Roll-Hansen**, University of Oslo

Whatever Happened to Wilhelm Johannsen's Genotype?

#### 16:15

Garland E. Allen, Washington University, St. Louis

Mechanistic Materialism and the Classical Gene: Scientific and Social Consequences

# 17:00 - 17:30

VII. Round-Table Discussion

#### 19:00

Dinner for invited speakers