

NEUROBIOLOGY OF DEPRESSION: FROM MOLECULES TO MOOD

The meeting is funded by: Hope for Depression Research Foundation, NIMH, Wyeth Pharmaceuticals, AstraZeneca Pharmaceuticals, Hoffman-La Roche, Inc., and Johnson & Johnson Pharmaceutical Research

The Banbury Center, Cold Spring Harbor Laboratory, 22-25 March 2009

Organized By: Rene Hen (Columbia University)
Bruce McEwen (Rockefeller University)
Ronald Duman (Yale University)
Husseini Manji (Johnson & Johnson Pharmaceutical Research)

PRELIMINARY PROGRAM

Sunday, 22 March

Afternoon Arrival at Robertson House, Banbury Center, for registration and room assignment

6:00 pm Reception at Robertson House

7:30 pm Dinner at Robertson House

Monday, 23 March

7:15-8:15 am Breakfast at Robertson House

8:50-8:55 am Jan A. Witkowski, Banbury Center, Cold Spring Harbor Laboratory, New York:
Welcome.

8:55-9:00 am Rene Hen, Columbia University, College of Physicians & Surgeons, New York:
Introduction

9:00-12:20 pm **SESSION 1: Treatments and Models**
Chair: Ronald S. Duman, Yale University School of Medicine, New Haven, Connecticut

- 9:00-9:20 am Harold S. Koenigsberg, Mount Sinai School of Medicine, New York:
Does a psychosocial perspective have something to offer neurobiological
research in depression and vice versa.
- 9:20-9:30 am Discussion
- 9:30-9:50 am Dennis S. Charney, Mount Sinai School of Medicine, New York:
Awaiting Title
- 9:50-10:00 am Discussion
- 10:00-10:20 am Huesseini K. Manji, Johnson & Johnson Pharmaceutical Research &
Development, Titusville, New Jersey:
Targeting synaptic and cellular plasticity cascades to develop improved
therapeutics.
- 10:20-10:30 am Discussion
- 10:30-11:00 am Break
- 11:00-11:20 am Charles B. Nemeroff, Emory University School of Medicine, Atlanta, Georgia:
Early life trauma in major depression: a distinct endophenotype.
- 11:20-11:30 am Discussion
- 11:30-11:50 am Bruce S. McEwen, Rockefeller University, New York:
Depression, adaptive plasticity and resilience: insights from animal models.
- 11:50-12:00 pm Discussion
- 12:00-12:20 pm General Discussion
- 12:35 pm Luncheon at Robertson House
- 2:00-5:20 pm **SESSION 2: Imaging/Circuitry**
Chair: Husseini K. Manji, Johnson & Johnson Pharmaceutical Research,
Titusville, New Jersey
- 2:00-2:20 pm Yvette Sheline, Washington University School of Medicine, St. Louis,
Missouri:
Resting state connectivity studies in major depression.
- 2:20-2:30 pm Discussion
- 2:30-2:50 pm Steven F. Maier, University of Colorado, Boulder:
The role of the medical prefrontal cortex in resilience and vulnerability.
- 2:50-3:00 pm Discussion
- 3:00-3:20 pm Mark G. George, Medical University of South Carolina, Charleston, South
Carolina:
Non-invasively modulating prefrontal cortical-subcortical networks to treat
depression: the current evidence for TMS and future directions.
- 3:20-3:30 pm Discussion

- 3:30-4:00 pm Break
- 4:00-4:20 pm Helen Mayberg, Emory University School of Medicine, Atlanta, Georgia:
Deep brain stimulation for treatment resistant depression.
- 4:20-4:30 pm Discussion
- 4:30-4:50 pm Karl Deisseroth, Stanford University, California:
Development and application of optical technologies for probing depression
circuitry.
- 4:50-5:00 pm Discussion
- 5:00-5:20 pm General Discussion
- 6:00 pm Reception at Robertson House
- 7:00 pm Dinner at Robertson House
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Tuesday, 24 March

- 7:15-8:15 am Breakfast at Robertson House
- 9:00-12:20 pm **SESSION 3: Genes and Development**
Chair: Rene Hen, Columbia University, College of Physicians & Surgeons,
New York
- 9:00-9:20 am Kenneth S. Kendler, Virginia Commonwealth University, Richmond:
The genetic epidemiology of major depression.
- 9:20-9:30 am Discussion
- 9:30-9:50 am Jay Gingrich, Columbia University, New York:
Role of developmental serotonin signaling in adult affective function.
- 9:50-10:00 am Discussion
- 10:00-10:20 am Kerry J. Ressler, Emory University, Atlanta, Georgia:
BDNF in prefrontal cortex, amygdala and hippocampus required for extinction
of aversive memories.
- 10:20-10:30 am Discussion
- 10:30-11:00 am Break
- 11:00-11:20 am Michael J. Meaney, McGill University, Montreal, Canada:
Epigenetic mechanisms for the environmental programming of gene expression.
- 11:20-11:30 am Discussion
- 11:30-11:50 am Eric J. Nestler, Mount Sinai School of Medicine, New York:

- 11:50-12:00 pm Epigenetic mechanisms of depression.
Discussion
- 12:00-12:20 pm General Discussion
- 12:35 pm Luncheon at Robertson House
- 2:00-5:50 pm **SESSION 4: Stress and Sex**
Chair: Huda Akil, University of Michigan, Ann Arbor
- 2:00-2:20 pm Ronald S. Duman, Yale University School of Medicine, New Haven,
Connecticut:
Neurotrophic factors in the pathophysiology and treatment of depression.
- 2:20-2:30 pm Discussion
- 2:30-2:50 pm Nuno J. Sousa, University of Minho, Braga, Portugal:
The role of neurogenesis in depression.
- 2:50-3:00 pm Discussion
- 3:00-3:20 pm William Carlezon, Harvard Medical School - McLean Hospital, Belmont,
Massachusetts:
Stress, behavior and hippocampal neurogenesis.
- 3:20-3:30 pm Discussion
- 3:30-4:00 pm Break
- 4:00-4:20 pm Andrew H. Miller, Emory University School of Medicine, Atlanta, Georgia:
Inflammation and its discontents: the role of cytokines in the pathophysiology of
depression.
- 4:20-4:30 pm Discussion
- 4:30-4:50 pm Peter J. Schmidt, NIMH, NIH, Bethesda, Maryland:
Reproduction endocrinology and mood disorders in women.
- 4:50-5:00 pm Discussion
- 5:00-5:20 pm Tracey J. Shors, Rutgers University, Piscataway, New Jersey:
Why are females so smart and yet so susceptible to stress.
- 5:20-5:30 pm Discussion
- 5:30-5:50 pm General Discussion
- 6:15 pm Reception at Robertson House
- 7:15 pm Dinner at Robertson House

Wednesday, 25 March

- 7:15-8:15 am Breakfast at Robertson House
- 9:00-12:30 pm **SESSION 5: New Directions**
Chair: Bruce S. McEwen, Rockefeller University, New York
- 9:00-9:20 am Alfred J. Lewy, Oregon Health Sciences University, Portland:
The circadian misalignment component of sleep and mood disorders.
- 9:20-9:30 am Discussion
- 9:30-9:50 am Rene Hen, Columbia University, College of Physicians & Surgeons, New
York:
Mechanisms underlying the response to antidepressants: responders versus
non-responders.
- 9:50-10:00 am Discussion
- 10:00-10:15 am Break
- 10:15-10:35 am Huda Akil, University of Michigan, Ann Arbor:
Novel molecular targets in mood disorders.
- 10:35-10:45 am Discussion
- 10:45-11:05 am Ziad Nahas, Medical University of South Carolina, Charleston:
Oxytocin for depression.
- 11:05-11:15 am Discussion
- 11:15-11:30 am Break
- 11:30-11:50 am Linda Brady and
Richard Nakamura, National Institute of Mental Health, NIH, Bethesda,
Maryland:
NIH initiatives.
- 11:50-12:00 pm Mark Solms, University of Cape Town, Rondebosch, South Africa:
HDRF perspective.
- 12:00-12:30 pm Conclusion:
Wrap up to stress the unmet medical needs and where basic science should go;
general discussion with inputs from the discussants.
- 12:45 pm Luncheon at Robertson House
- Afternoon departure