Announcing the 2014 Keystone Symposia meeting on:

Parkinson’s Disease: Genetics, Mechanisms and Therapeutics

March 2–7, 2014
Keystone Resort, Keystone, Colorado, USA

Scientific Organizers: Patrick A. Lewis, Thomas Gasser and Marcel P. van der Brug

joint with the meeting on “Alzheimer’s Disease – From Fundamental Insights to Light at the End of the Translational Tunnel”

The conference will:
• Delve into themes and mechanisms that appear to underlie Parkinson’s Disease, including protein aggregation, immune responses and mitochondrial dysfunction;
• Cover our current state of knowledge of the global genetic architecture of Parkinson’s, how this is informing cellular and molecular approaches to the etiology of the disease, and the implications of these discoveries in patient diagnosis and development of novel treatments;
• Explore the commonalities between Parkinson’s Disease and Alzheimer’s through joint sessions with the paired meeting on “Alzheimer’s Disease – From Fundamental Insights to Light at the End of the Translational Tunnel.”

For more information and to view the full program, visit www.keystonesymposia.org/14Q7
**SUNDAY, MARCH 2**

Arrival and Registration

**MONDAY, MARCH 3**

Keynote Address (Joint)

*John Q. Trojanowski*, University of Pennsylvania, USA

*Michel Goedert*, Medical Research Council, UK

Alzheimer’s Disease and Parkinson’s Disease Are Protein Misfolding Diseases

Phenotypic and Genotypic Complexity of AD and PD (Joint)

*Andrew B. Singleton*, NIA, National Institutes of Health, USA

**Genetics of AD and PD**

*Christian C. Raiss*, University of Twente, Netherlands

**Short Talk: Morphological and Functional Heterogeneity of Lewy Body-Like Inclusions in a Cell Model System**

*Tina L. Beckett*, University of Kentucky, USA

**Pathological Overlap of AD and PD**

*Ryan J. Watts*, Denali Therapeutics Inc, USA

**Overcoming Barriers in Alzheimer's Drug Development**

Genome-Wide Association and PD (Q7)

*Andrew B. Singleton*, NIA, National Institutes of Health, USA

**Thomas Gasser**, University of Tübingen, Germany

**GWA Studies in PD: New Pathways and Old Targets**

*Vincent Plagnol*, University College London, Genetics Institute, UK

**Fine-Mapping, Gene Expression and Splicing Analysis of the Disease Associated LRRK2 Locus**

*George T. Kannarkat*, Emory University School of Medicine, USA

**Short Talk: The rs3129882 Single Nucleotide Polymorphism Alters MHC-II Expression and May Increase Susceptibility for Parkinson’s Disease by Modulating Immune Responses**

*Haydeh Payami*, Wadsworth Center, New York State Department of Health, USA

**Interaction between Genes and Environment in PD**

**Genetics of AD (Q8)**

*Virginia M. Y. Lee*, University of Pennsylvania School of Medicine, USA

*Christine Van Broeckhoven*, VIB, University of Antwerp, Belgium

**Genetics of Early-Onset Alzheimer Disease: What Is Missing?**

**Richard Mayeux**, Columbia University, USA

The Search for Functional Genetic Variants in Late-Onset Alzheimer's Disease

**Philip L. De Jager**, Columbia University Medical Center, USA

**Short Talk: Deconstructing the Epigenomic Architecture of the Cortex in Alzheimer's Disease**

**Gerard D. Schellenberg**, University of Pennsylvania, USA

**New AD Risk Factor Genes from GWAS**

**Poster Session 1**

**TUESDAY, MARCH 4**

Biomarkers of AD and PD (Joint)

*Clifford R. Jack*, Mayo Clinic, USA

*Kenneth L. Marek*, Institute for Neurodegenerative Disorders, USA

**Parkinson's Progression Marker Initiative: Developing a Translational Toolbox for Parkinson's Disease**

*Kaj Blennow*, University of Gothenburg, Sweden

**CSF Biomarkers for AD: Approaching the End of the Long Road to Validated and Approved Biomarkers**

*Anna Cartier*, ICB International, Inc., USA

**A Novel Blood-Brain Barrier Permeable PET Ligand for Parkinson’s Disease**

*Juliya Kalinina*, Merck & Co., USA

**Highly Sensitive and Selective Amyloid Oligomer Biomarker Assay Differentiates Alzheimer’s from Non-AD Cerebrospinal Fluid (CSF) and Tissues**

*Thomas J. Montine*, University of Washington Medical Center, USA

**Modifiable Factors Associated with Free Radical Injury in the Aging Brain**

*Alice S. Chen-Plotkin*, University of Pennsylvania School of Medicine, USA

**Unbiased Approaches to Parkinson's Disease Biomarker Discovery**

**Future Opportunities and Obstacles in PD Research (Q7)**

Panel: Combo Therapy for AD (Q8)

*Dennis J. Selkoe*, Harvard Medical School, USA

*Ryan J. Watts*, Denali Therapeutics Inc, USA

**Pros and Cons of Combo Therapy from a Biopharma Drug Discovery and Development Perspective**

*Reisa A. Sperling*, Brigham and Women's Hospital, Harvard Medical School, USA

**Pros and Cons of Combo Therapy from a Clinical Researcher and the Patient's Perspective**

---

* Session Chair † Invited but not yet accepted  Program current as of December 26, 2018. Program subject to change. Meal formats are based on meeting venue. For the most up-to-date details, visit www.keystonesymposia.org/14Q7 and www.keystonesymposia.org/14Q8.
Mitochondrial Biology and the Pathology of PD (Q7)
*Mark R. Cookson*, NIA, National Institutes of Health, USA
Richard J. Youle, NINDS, National Institutes of Health, USA
Role of PINK1 and Parkin on Mitochondria Quality Control in vitro and in vivo
Helene Marie Plun-Favreau, University College London Institute of Neurology, UK
Missing Pieces in the Mitophagy Puzzle
J. Wade Harper, Harvard Medical School / Biogen Idec
Short Talk: Parkin-Dependent Ubiquitin Chain Synthesis in vivo and in vitro
Alex J. Whitworth, University of Sheffield, UK
Drosophila Models of Parkinson’s Disease

AD Biomarkers (Q8)
*Thomas J. Montine*, University of Washington Medical Center, USA
Daniel M. Skovronsky, Eli Lilly and Company, USA
Amyloid Imaging
David M. Holtzman, Washington University, USA
Sleep and Circadian Rhythms: Potential Bidirectional Relationship with Alzheimer’s Disease
Clifford R. Jack, Mayo Clinic, USA
Alzheimer’s Disease Biomarkers
Wendy Wei Qiao Qiu, Boston University School of Medicine, USA
Short Talk: Amylin and its Analog: Potential Diagnostic Test and Therapeutic Drug for Alzheimer’s Disease

Poster Session 2

WEDNESDAY, MARCH 5

What Are the Toxic Species of Tau, Abeta and alpha-Synuclein (Joint)
Karen Hsiao Ashe, University of Minnesota, USA
Relevance of Quaternary Structure to the Functional Effects of beta-Amyloid Oligomers in the Brain
Dennis J. Selkoe, Harvard Medical School, USA
Protein Misfolding in AD and PD: New Mechanistic Insights
Danielle Mor, University of Pennsylvania, USA
Short Talk: The Role of Dopamine in Generating Toxic Oligomeric Conformers of Alpha-Synuclein
Vincent Raussens, Université Libre de Bruxelles, Belgium
Short Talk: Unraveling the Interaction between apoE and Amyloid beta Peptide Using Crosslinking and Mass Spectrometry
Vikram Khurana, Whitehead Institute for Biomedical Research and Massachusetts General Hospital, USA
A-Synuclein Toxicity: Phenotypic Screen from Yeast to Patient iPSc Cells

Transmission of Tau and Abeta (Q8)
*Michael K. Ahlijanian*, Bristol-Myers Squibb, USA
John Q. Trojanowski, University of Pennsylvania, USA
Transmission of Tau Pathology: A New Model for the Progression of Tauopathies
Virginia M. Y. Lee, University of Pennsylvania School of Medicine, USA
Transmission of alpha-Synculein in Parkinson’s Disease
Zeshan Ahmed, Eli Lilly and Company, UK
Short Talk: A Novel in vivo Model of Tau Propagation that Is Suitable for Evaluating the Efficacy of Tau-Based Therapeutic Strategies
Karen Duff, Columbia University, USA
Propagation of Pathology and Functional Decline in AD

Poster Session 3

THURSDAY, MARCH 6

Passive Immunization and Other Novel Therapies to Treat AD and PD (Joint)
*Ryan J. Watts*, Denali Therapeutics Inc, USA
Eliezer Masliah, University of California, San Diego, USA
Passive Immunization Therapies for Parkinson’s Disease

Null
**KEYSTONE SYMPOSIA**

on Molecular and Cellular Biology

**Parkinson’s Disease: Genetics, Mechanisms and Therapeutics (Q7)**
Scientific Organizers: Patrick A. Lewis, Thomas Gasser and Marcel P. van der Brug
Sponsored by Curemark, LLC

**Alzheimer’s Disease – From Fundamental Insights to Light at the End of the Translational Tunnel (Q8)**
Scientific Organizers: John Q. Trojanowski, Charles F. Albright and Hui Zheng

March 2-7, 2014 • Keystone Resort • Keystone, Colorado, USA
Sponsored by AstraZeneca, Genentech, Inc., Pfizer Inc., Roche and Takeda Pharmaceutical Company Limited

Abstract & Scholarship Deadline: November 5, 2013 / Abstract Deadline: December 5, 2013 / Discounted Registration Deadline: January 8, 2014

---

Kurt R. Brunden, University of Pennsylvania, USA  
*Microtubule Stabilizing Drugs to Treat Axonal Transport Failure in AD and PD*

Zdenek Berger, Pfizer, USA  
*Short Talk: Effects of Tool Compounds on Glucocerebrosidase Activity in Human and Mouse Brain Lysates*

Eva Czirr, Alkahest, USA  
*Short Talk: Complement Receptor 3 Deficiency Reduces Alzheimer’s Disease Amyloid Pathology in Mice*

Marc Mercken, Janssen R&D, Belgium  
*Translating Alzheimer’s Disease Science into Breakthrough Therapies*

Michael K. Ahlijanian, Bristol-Myers Squibb, USA  
*Challenges Facing the Development of Disease Modifying Therapies for Alzheimer’s Disease*

---

**LRRK2 Biology and PD Therapeutics (Q7)**

*Marcel P. van der Brug*, Genentech, Inc., USA  
*A State-of-the-Protein View of LRRK2*

Mark R. Cookson, NIA, National Institutes of Health, USA  
*Discovery of LRRK2 Small Molecule Inhibitors for the Treatment of PD*

Anthony A. Estrada, Genentech, Inc., USA  
*Structural Studies on Roco Proteins and Implications for LRRK2 AD Prevention versus Intervention Trials (Q8)*

Reisa A. Sperling, Brigham and Women’s Hospital, Harvard Medical School, USA  
*Secondary Prevention Trials in Preclinical Alzheimer’s Disease*

Leonard Petrucelli, Mayo Clinic Jacksonville, USA  
*Short Talk: HDAC6 Inhibition as a Treatment of Tauopathies*

Mark S. Forman, Merck, USA  
*BACE1 Inhibitors for Alzheimer’s Disease*

*John Q. Trojanowski*, University of Pennsylvania, USA  
*Concluding Remarks*

---

**FRIDAY, MARCH 7**

Departure

---

* Session Chair † Invited but not yet accepted  
Program current as of December 26, 2018. Program subject to change. Meal formats are based on meeting venue. For the most up-to-date details, visit [www.keystonesymposia.org/14Q7](http://www.keystonesymposia.org/14Q7) and [www.keystonesymposia.org/14Q8](http://www.keystonesymposia.org/14Q8).