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.”

Discounted Abstract Deadline: November 5, 2013
Student/Postdoc Scholarship Application Deadline: November 5, 2013
Abstract Deadline: December 5, 2013
Discounted Registration Deadline: January 8, 2014

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
  Short Talk: Cerebrovascular Pathology and Neuroinflammatory Changes in a Novel Mouse Model of Mixed Dementia

  **Dennis W. Dickson**, Mayo Clinic, 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
  Genetics of AD and PD

  **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**, Neurology UAB, 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
  Short Talk: A Novel Blood-Brain Barrier Permeable PET Ligand for Parkinson's Disease

  **Juliya Kalinina**, Merck & Co., USA
  Short Talk: 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

  **Charles F. Albright**, Editas Medicine, USA

  **Michael K. Ahijianian**, Bristol-Myers Squibb, 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

  **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 vitro and in vivo

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
Amyloid Imaging

Daniel M. Skovronsky, Eli Lilly and Company, 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

Pluripotent Stem Cells and Inherited PD (Q7)

*Patrick A. Lewis, University of Reading, UK
Unraveling the Interaction between apoE and Amyloid beta Peptide Using Crosslinking and Mass Spectrometry

Dimitri Krainc, Northwestern University, USA
Alpha-Synuclein Dysfunction in Pluripotent Stem Cell Derived Neurons

Birgitt Schuele, Parkinson’s Institute, USA
Short Talk: Mitochondrial Dysfunction in Patient-Derived LRRK2 Stem Cell Models

Propagation of Pathology and Functional Decline in AD

Passive Immunization and Other Novel Therapies to Treat AD and PD (Joint)

*Ryan J. Watts, Denali Therapeutics Inc, USA
Microtubule Stabilizing Drugs to Treat Axonal Transport Failure in AD and PD

* Session Chair † Invited but not yet accepted Program current as of September 15, 2019 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.
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

Warren D. Hirst, Pfizer Neuroscience Research Unit, USA
Short Talk: Development of Assays to Measure LRRK2 Levels and Activity in Sporadic Parkinson’s Disease Brain

Arjan Kortholt, University of Groningen, Netherlands
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