7th Annual International Conference
Clinical Trials on Alzheimer's Disease
November 20, 2014 – Day One

Research Highlights

All abstracts are available in the *Journal of the Prevention of Alzheimer's Disease* web site: http://www.jpreventionalzheimer.com/.

OC 2: Resveratrol is Safe and Well-Tolerated and Stabilizes Plasma and CSF A40 Levels in Mild-Moderate AD

R Scott Turner, MD, PhD from Georgetown University reported on the Resveratrol Study. This phase II, placebo controlled, double-blind, multi-site clinical trial, tested the safety and effectiveness of resveratrol, a compound found in red wine and red grapes, in individuals with mild to moderate Alzheimer's disease. Resveratrol's actions mimic those of caloric restriction in delaying or preventing many age-related diseases, including Alzheimer's, in animal models.

To evaluate the effects of high-dose pure, synthetic resveratrol, the investigators measured the levels of different forms of amyloid in plasma and cerebrospinal fluid (CSF) before and after treatment. Resveratrol crossed the blood brain barrier and altered the levels of Abeta40 in plasma and CSF. Given its safety, ability to enter the central nervous system, and its biomarker effects, further studies of resveratrol are warranted.

OC 3: A Phase II Clinical Trial on GV-971 in Patients with Alzheimer's

Scientists from China (Shanghai Green Valley Pharmaceuticals; Shanghai Institute of Material Medica Chinese Academy of Science; Ocean University of China) presented data supporting the use of a compound extracted from seaweed for the treatment of mild-to-moderate Alzheimer's disease. The compound, GV-971, is an oligosaccharide (a short chain of sugar molecules) that appears to prevent the aggregation and deposition of amyloid-beta, the protein that forms plaques in the brains of people with AD.

Shifu Xiao, MD, PhD, the lead investigator and professor of geriatric psychiatry from Shanghai Jiaotong University School of Medicine, presented the results of a phase II clinical trial of GV-971, which was designed to test safety and effectiveness. The trial randomized 255 patients between the ages of 50 and 85 years to three groups: low-dose (600 mg), high-dose (900 mg), and placebo. Before receiving the experimental treatment, patients were on placebo for 4 weeks and underwent tests of cognition, function, and behavior. After 24 weeks of treatment, these tests were repeated to determine if there was any change in any of these measures. A subgroup of patients also had positron emission tomography (PET) scans to assess glucose metabolism in areas of the brain that are particularly affected in AD. Data were also collected regarding the incidence of adverse events. The most frequent drug related adverse events reported were insomnia (3.6 percent and 1.2 percent in 600 mg and 900 mg, respectively), rash and

North America: Amy Martin Vogt, 202-999-7127 amartinvogt@gymr.com
Europe/Asia: Bénédicte Clement, +33 6 10 25 38 96 ctad@ant-congres.com

itchiness (3.6 percent and 2.4 percent in 600 mg and 900 mg respectively). The reported adverse events in the treatment group were mild and comparable to the placebo group, leading to the conclusion that the drug was safe and well-tolerated.

OC 6: Amyloid PET Imaging Results from a Study to Evaluate the Impact of Crenezumab on Fibrillar Amyloid in patients with mild-moderate Alzheimer's Disease
Stephen Salloway, MD, PhD from Butler Hospital and Brown University presented results from the BLAZE study of crenezumab which looked at deposition of beta amyloid in the brain using positron emission tomography (PET) scans. Crenezumab is an investigational, fully humanized, monoclonal antibody designed to target all forms of beta amyloid. Discovered by Swiss biotechnology company AC Immune, crenezumab is being developed by Genentech, a member of the Roche Group.

Using the standard technique for analyzing amyloid PET scans, Dr. Salloway reported no difference between the treatment groups receiving a low dose of the drug injected under the skin, a high dose infused intravenously, and placebo.

However, in exploratory analysis using an alternative technique in collaboration with Eric Reiman from the Banner Alzheimer Institute suggested less beta amyloid accumulation in the high dose group after 18 months of treatment (OC 9: Analysis of Amyloid-beta PET changes from the crenezumab anti-Aβ phase 2 trial using a pre-specified cerebral white matter reference region-of-interest).

OC 28: Baseline Patient Characteristics from the Phase 3 Scarlet RoAD Trial, a Study of Gantenerumab in Patients with Prodromal AD (Rescheduled from Friday, November 21, 2014)
SCarlet RoAD is the first study to test the efficacy of an anti-amyloid antibody in patients with prodromal AD. This early stage of AD is defined by amnestic mild cognitive impairment and amyloid pathology as assessed by low levels of CSF Aβ42. Phillip Scheltens, MD reported encouraging early screening data related to CSF amyloid pathology and the identification of patients that could most likely benefit from treatment with gantenerumab.

Symposium 1
The Collaboration for Alzheimer's Prevention (CAP); Advancing the Evaluation of Alzheimer's Prevention Therapies
Background: After a number of studies showed that damage to the brain begins as much as 10 or 20 years before Alzheimer's patients begin to show signs of memory loss and other impairments; and that by the time symptoms appear, extensive degeneration of the brain has occurred, scientists began to design treatment strategies that tackle the disease in people who are still cognitively normal but at high risk of developing the disease. Several different approaches for identifying individuals at high risk led to the design of four different treatment research programs. Today, each of the four prevention trials in the CAP collaboration — DIAN TU, API, A4 and the TOMORROW STUDY — reported real-time updates on their progress, including enrollment numbers and recruitment strategies.

Full Roster of Presentations:

KEYNOTE 1: Where Do We Stand with Respect to Alzheimer's disease treatment trials?

North America: Amy Martin Vogt, 202-999-7127 amartinvogt@gymr.com
Europe/Asia: Bénédicte Clement, +33 6 10 25 38 96 ctad@ant-congres.com

Rachelle S. Doody, M.D.,Ph.D. Director, Alzheimer's Disease and Memory Disorders Center Baylor College of Medicine-Department of Neurology, Houston, TX – USA

SYMPOSIUM 1 : The Collaboration for Alzheimer's Prevention (CAP): Advancing the evaluation of Alzheimer's prevention therapies

Randall Bateman, M.D., Charles F. and Joanne Knight Distinguished Professor of Neurology, Washington University School of Medicine

1. Dominantly Inherited Alzheimer's Disease Trials Unit (DIAN-TU): The Launch of Prevention trials

   Randall J. Bateman, MD[1] Santacruz AM[1], Mills SL[1], Benzinger TL[2], Buckles VD[1], Clifford D[1], Fagan AM[1], Farlow M[3], Goate AM[4], Morris JC[1], Rossor MN[5], Salloway S[6], Snider J[1], Snyder P[7], Xiong C[7], for the DIAN-TU Washington University School of Medicine, St. Louis, MO, USA.

   (1) Neurology Department, Washington University School of Medicine, St. Louis, MO, USA (2) Radiology Department, Washington University School of Medicine, St. Louis, MO, USA(3) University of Indiana, Indianapolis, IN, USA(4) Psychiatry and Genetics Department, Washington University School of Medicine, St. Louis, MO USA(5) University College of London, England(6) Lifespan, Providence, Rhode Island, USA (7) Biostatistics, Washington University School of Medicine, St. Louis, MO USA

2. The Alzheimer's Prevention Initiative

   Dr. Pierre Tariot, MD[1] Lopera F[2], Langbaum JB[1], Ho C[3], Suliman S[3], Cho W[3], Paul R[3], Rios SR[2], Ayutyanont N[1], Jakimovich L[1], Langlois C[1], High N[1], Reiman EM[1]

   (1) Banner Alzheimer's Institute (2) University of Antioquia (3) Genentech

3. Anti-Amyloid Treatment in Asymptomatic Alzheimer's study (A4)

   Reisa Sperling, MD[1] Gessert D[2], Belsha A[2], Matthews G[2], Rentz D[1], Johnson K[1], Donohue M[1], Salmon D[3], Karlawish J[2], Downing AM[4], Sethuraman G[4], Siemers E[4], Aisen P[2] for the Alzheimer's Disease Cooperative Study

   (1) Center for Alzheimer Research and Treatment, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA Department of Neurology, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA Departments of Neurology, Massachusetts General Hospital, Harvard Medical School, Boston, MA, USA Radiology, Massachusetts General Hospital, Harvard Medical School, Boston, MA, USA (2) University of California, Alzheimers Disease Cooperative Study, San Diego, CA, USA (3) Department of Medical Ethics and Health Policy, University of Pennsylvania, Philadelphia, PA, USA(4) Eli Lilly and Company, Indianapolis, IN, USA

4. TOMMORROW Study

Kathleen A. Welsh-Bohmer, PhD[1] Daniel K. Burns, PhD[2], Stephen K. Brannan, MD[3], Ferenc Martenyi, MD[4] and Kumar Budur, MD, MS[3] for the TOMMORROW investigators

(1) Departments of Neurology and Psychiatry, Duke University, Duke Bryan ADRC, Durham, NC, USA (2) Zinfandel Pharmaceuticals, Inc., Durham, NC, USA (3) Takeda Pharmaceuticals International, Inc., Deerfield, IL, USA (4) Takeda Development Center Americas, Inc., Deerfield, IL, USA

ORAL COMMUNICATIONS SESSION

OC1. A Phase 2 Randomized Double-blind Placebo-controlled Study of Vanutide Cridificar Vaccine (ACC-r001) in Patients with Mild-to-Moderate Alzheimer's Disease

Nzeera Ketter[1], Enchi Liu[1] , Jianing Di[1], Lawrence S Honig[2], Ming Lu[1], Gerald Novak[1], John Werth[3] , Ghislaine LePrince[3], Anna Shadman[1], David Moriarty[1] and H Robert Brashear[1]

(1) Janssen Alzheimer's Immunotherapy Research and Development,(2) Columbia University, Department of Neurology (3) Pfizer Clinical Sciences, Global Innovative Pharma Business (4)

OC2. Resveratrol is safe and well-tolerated and stabilizes plasma and CSF A40 levels in mild-moderate AD.

R. Scott Turner, MD, PhD[1], Ronald G. Thomas, PhD[2], Suzanne Craft, PhD[3], Christopher H. van Dyck, MD[4], Jacobo Mintzer, MD[5], Brigid Reynolds, NP[1], James Brewer, MD, PhD[2], Robert Rissman, PhD[2], Rema Raman, PhD[2], Paul Aisen, MD[2]

(1) Department of Neurology, Georgetown University, Washington, DC, USA (2) University of California, San Diego, CA, USA (3) Wake Forest University, Winston-Salem, NC, USA (4) Yale University, New Haven, CT, USA (5) Roper St. Francis Healthcare, Charleston, SC, USA

OC3. A Phase II Clinical Trial on GV-971 in Patients with Alzheimer's Disease.

Shifu Xiao, MD[1, 2], Tao Wang, MD[1], Xianliang Xin, PhD[3], Yu Ding, PhD[3], Meiyu Geng, PhD[4]

(1) Department of Geriatric Psychiatry, Shanghai Mental Health Center, School of Medicine, Shanghai Jiaotong University, Shanghai, China (2) Alzheimer's Disease and Related Disorders Center, Shanghai Jiaotong University, Shanghai, China (3) Shanghai green valley pharmaceutical co., LTD, Shanghai, China (4) State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai, China.

OC4. A 5-HT6 antagonist in advanced development for the treatment of mild and moderate Alzheimer's disease: Lu AE58054

Alireza Atri, MD, Massachusetts General Hospital, USA

OC5. The effect of hypertension and APOE genotype on beta-amyloid accumulation as measured with 18F-florbetapir in older adults.

Karen M. Rodrigue, PhD[1], Ming Lu, MS, MPH, MB[2], Abhinay D. Joshi, MS[2], Michael J. Pontecorvo, PhD[2], Michael D. Devous Sr., PhD[2], Mark A. Mintun, MD[2] and the Alzheimer's Disease Neuroimaging Initiative investigators.

(1) Center for Vital Longevity, School of Behavioral and Brain Sciences, The University of Texas at Dallas, Dallas, TX; (2) Avid Radiopharmaceuticals Inc., Philadelphia, PA.

OC6. Amyloid PET imaging results from a study to evaluate the impactof crenezumab on fibrillar amyloid in patients with mild-to-moderate Alzheimer's Disease

Stephen Salloway, MD, MS[1], William Cho, MD[2], David Clayton, PhD[2], Lee Honigberg, PhD[2], Christina Rabe, PhD[2], Michel Friesenhahn, MA[2], Michael Ward, PhD[2], Flavia Brunstein, MD[2], Shehnaaz Suliman, MD[2], Carole Ho, MD[2], Robert Paul, MD, PhD[2]

(1) Neurology and the Memory and Aging Program, Butler Hospital, Department of Neurology and Psychiatry, The Warren Alpert Medical School of Brown University, Providence, RI, USA (2) Genentech, Inc., South San Francisco, CA, USA

OC7. European Prevention of Alzheimer's Dementia (EPAD) Project: An international platform to deliver proof of concept studies for secondary prevention of dementia.

Ritchie CW[1], Lovestone S, Molinuevo JL, Diaz C, Satlin A, Van der Geyten S and Truyen L on behalf of the EPAD Project Partners.

(1) Centre for Mental Health, Imperial College, London, UK

OC8. Testing Subgroup Analyses and Enrichment in AD Clinical Trials Using a Meta-database

Richard E. Kennedy, MD, PhD[1], Gary R. Cutter, PhD,[2] Guoqiao (Peter) Wang, MS[2], Lon S. Schneider, MD[3]

(1) Division of Gerontology, Geriatrics, and Palliative Care, University of Alabama at Birmingham, USA (2) Department of Biostatistics, University of Alabama at Birmingham, USA (3) Departments of Psychiatry and Neurology, Keck School of Medicine of USC, Los Angeles, CA, USA

OC9. Analysis of Amyloid-beta PET changes from the crenezumab anti-Aβ phase 2 trial using a pre-specified cerebral white matter reference region-of-interest

Eric M. Reiman MD[1], Kewei Chen PhD[2], William Cho, MD[3], David Clayton, PhD[3], Lee Honigberg, PhD[3], Christina Rabe, PhD[3], Michel Friesenhahn, MA[3], Michael Ward, PhD[3], Flavia Brunstein, MD[3],

Shehnaaz Suliman, MD[3], Carole Ho, MD[3], Robert Paul, MD, PhD[3]

(1) Banner Alzheimer's Institute and Banner Research, Translational Genomics Research Institute, University of Arizona, and Arizona Alzheimer's Consortium, Phoenix AZ, USA (2) Banner Alzheimer's Institute, Arizona Alzheimer's Consortium, Department of Mathematics and Statistics, Arizona State University, Phoenix, AZ, USA. (3) Genentech, Inc., South San Francisco, CA, USA

OC10. Identifying factors of activities of daily living important for cost and caregiver outcomes in Alzheimer's disease

Catherine Reed, PhD[1], Mark Belger, MSc[1], J. Scott Andrews, PharmD[2], Bruno Vellas, MD, PhD[3], Josep Maria Haro, MD, PhD[4]

(1) Eli Lilly and Company Limited, Windlesham, UK (2) Eli Lilly and Company, Indianapolis, IN, USA (3) Toulouse University Hospital, Toulouse, France (4)Parc Santari Sant Joan de Déu, CIBERSAM, Universitat de Barcelona, Barcelona, Spain

OC11. A Simulation Study Comparing Slope Analysis with Endpoint Analysis for Analyzing Cognition Data in Clinical Trials of Alzheimer's Disease

Yun-Fei Chen, PhD[1], Xiao Ni, PhD[1], Adam Fleisher, MD[1,2], Wei Zhou, MS[1], Paul Aisen, MD[2], Richard Mohs, PhD[1]

(1)Neuroscience, Eli Lilly and Co., Indianapolis, IN, USA (2)Department of Neuroscience, University of California, San Diego, CA, USA

OC12. Alzheimer's Prevention Registry: A shared resource to the scientific community to facilitate enrollment in studies

Jessica B. Langbaum, PhD[1], Eric M. Reiman, MD[1],Nellie High, MA[1], Paul S. Aisen, MD[2], Marilyn S. Albert, PhD[3], Meryl Comer[4], Jeffrey L. Cummings, MD[5], Jennifer J. Manly, PhD[6], Ronald C. Petersen, MD PhD[7], Reisa A. Sperling, MD[8], Gabrielle Strobel[9], Michael W. Weiner, MD[10], Pierre N. Tariot, MD[1]

(1) Banner Alzheimer's Institute, Phoenix, AZ, USA (2) Alzheimer's Disease Cooperative Study, University of California San Diego, San Diego, CA, USA (3) Department of Neurology, Johns Hopkins University School of Medicine, Baltimore, MD, USA (4) Geoffrey Beene Foundation Alzheimer's Initiative, Washington, DC, USA (5) Cleveland Clinic Lou Ruvo Center for Brain Health, Las Vegas, NV, USA (6) Department of Neurology, Columbia University College of Physicians and Surgeons, New York, NY, USA (7) Department of Neurology, Mayo Clinic, Rochester, MN, USA (8) Department of Neurology, Harvard Medical School, Boston, MA, USA (9) Alzforum, Cambridge, MA, USA (10) Department of Radiology and Biomedical Engineering, University of California San Francisco, San Francisco, CA, USA

OC13. Lupron in Combination with an Acetylcholinesterase Inhibitor Halts Cognitive Decline in Women with Alzheimer's Disease Over a 48-week study

Richard L. Bowen[1], George Perry[2,3], Chengjie Xiong[4], Mark A. Smith[3] and Craig S. Atwood[5,6,7]

(1) OTB Research, Charleston, SC, USA (2) UTSA Neurosciences Institute and Department of Biology, University of Texas at San Antonio, TX, USA (3) Department of Pathology, School of Medicine, Case Western Reserve University, Cleveland, OH USA (4) Department of Biostatistics, Washington University School of Medicine, St. Louis, MO, USA (5) Department of Medicine, University of Wisconsin-Madison School of Medicine and Public Health, Madison, WI, USA (6) Geriatric Research, Education and Clinical Center, Veterans Administration Hospital, Madison, WI, USA (7) School of Exercise, Biomedical and Health Sciences, Edith Cowan University, Joondalup, WA, Australia.

OC14. In vivo Braak staging for tangles: quantitative regional profiles of 18F-AV-1451 (T807) tau PET images recapitulate key features of the Braak histopathological staging protocol

Adam J. Schwarz, PhD[1], Bradley B. Miller, MD[1], James Dickson, PhD[2], Michael Navitsky, PhD[2], Abhinay Joshi, PhD[2], Sergey Shcherbinin, PhD[1], Michael D. Devous Sr., PhD[2], Daniel Skovronsky, MD, PhD[1,2], Mark Mintun, MD[2]

(1) Eli Lilly and Company, Indianapolis IN, USA (2) Avid Radiopharmaceuticals, Philadelphia PA, USA

OC15. Prognostic Value of ^{18}F-florbetapir Scan: A 24-Month Follow up Analysis Using ADNI Data

Ming Lu,MS ,MPH ,MB[1], Michael J. Pontecorvo, PhD[1], Andrew Siderowf, MD, MSCE[1], Abhinay D. Joshi, MS[1], Michael D. Devous, Sr., PhD[1], Mark A. Mintun, MD[1]

(1) Avid Radiopharmaceuticals, Inc, Philadelphia, PA, USA

OC16. Defining Trajectories of Cognitive and Functional Change over 24 Months Using ADNI Data: Patients with Negative or Positive beta-Amyloid Status

Paula T. Trzepacz, MD[1], Helen Hochstetler, PharmD[1], Shufang Wang, PhD[1], Peng Yu, PhD[1], Michael Case, MS[1], Jeannie-Marie Leoutsakos, PhD[2], David B. Henley, MD[1], Elisabeth Degenhardt, MSN[1], Constantine Lyketsos, MD[2]

(1) Eli Lilly and Company, Indianapolis, IN, USA (2) Johns Hopkins University and Johns Hopkins Bayview, Baltimore, MD, USA

OC17. Do beliefs on the pathogenetic role of amyloid modulate the use of amyloid-PET in the clinic?

Marina Boccardi, PsyD, PhD,[1] Michela Pievani, MS, PhD,[1] Clarissa Ferrari, MS, PhD, [1] Cristina Festari PsyD,[1], Cristina Muscio, PsyD,[1], Daniele Altomare, PhD,[1] Anna Tarallo, PsyD,[1] Patrizio Pasqualetti, MS,

PhD,[2] Samantha Galluzzi, MD,[1] Barbara Borroni, MD,[3] Alessandro Padovani, MD,[3]Giovanni B Frisoni MD[1,4] and the INDIA-FBP working group.

(1) Laboratory of Epidemiology, Neuroimaging and Telemedicine, IRCCS Centro San Giovanni di Dio Fatebenefratelli, The National Center for Research and Care of Alzheimer's and Mental Diseases, Brescia, Italy. (2) AFaR-CRCCS, Ospedale Fatebenefratelli, Isola Tiberina, Rome, Italy. (3) Nuclear Medicine, University of Brescia and Spedali Civili di Brescia, Brescia, Italy. (4) Centre for Neurodegenerative Disorders, Neurology Unit, University of Brescia, Brescia, Italy. (5) Memory Clinic and LANVIE-Laboratory of Neuroimaging of Aging, University Hospitals and University of Geneva, Geneva, Switzerland.

KEYNOTE 2 : New directions for Alzheimer's Disease Drug Trials

Russel Katz, MD, former Director of the Division of Neurology Products, FDA – USA

OC18. Shifting balance from neurodegeneration to regeneration of the brain with a neurotrophic compound: A novel therapeutic approach for the treatment of Alzheimer disease and related conditions

Khalid Iqbal, S. Faraz Kazim, and Silvia Bolognin

Inge Grundke-Iqbal Research Floor, New York State Institute for Basic Research in Developmental Disabilities, Staten Island, NY, U.S.A.

OC19. Animal Pharmacology Studies to Support Repositioning BBB-Penetrant p38 MAPKα inhibitor (VX-745) as a Potential AD Therapeutic

John Alam, MD EIP Pharma

LLC, Cambridge, MA USA

OC20. Passive immunotherapy of tauopathy targeting pSer413-tau : A pilot study in mice

Takami Tomiyama, PhD[1], Tomohiro Umeda, PhD[1], Hiroshi Eguchi, MSc[2], Yuichi Kunori, PhD[2], Yoichi Matsumoto, PhD[2], Taizo Taniguchi, MD, PhD[3], Hiroshi Mori, PhD[1]

(1) Department of Neuroscience, Osaka City University Graduate School of Medicine, Osaka, Japan (2) Teijin Institute for Bio-medical Research, Teijin Pharma Limited, Hino, Japan (3) Faculty of Pharmaceutical Sciences, Himeji Dokkyo University, Himeji, Japan

OC21. A new mouse model of AD showing neurofibrillary tangles in the absence of tau mutations

Tomohiro Umeda, PhD[1,2], Takami Tomiyama, PhD[1,2], Satomi Maekawa, MSc[1], Tetsuya Kimura, PhD[3], Akihiko Takashima, PhD[3], Hiroshi Mori, PhD[1,2]

(1)Department of Neuroscience, Osaka City University Graduate School of Medicine, Osaka, Japan
(2)Core Research for Evolutional Science and Technology, Japan Science and Technology Agency, Japan
(3)Department of Aging Neurobiology, Center for Development of Advanced Medicine for Dementia, National Center for Geriatrics and Gerontology, Obu, Japan