17th Annual Meeting
February 19 – 21, 2015
Georgetown University Hotel and Conference Center
3800 Reservoir Road, NW
Washington, DC

Vision Statement
To advance the science of neurotherapeutics and
to improve and accelerate the development
of new treatments.

Schedule-At-A-Glance

Thursday, February 19, 2015
8:15 a.m. – 4:30 p.m. Joint Scientific Educational Session with ISCTM
Fairmont Hotel
Fairmont Ballroom

5:00 p.m. – 7:30 p.m. Registration
Business Center, West Lobby

6:00 p.m. – 7:30 p.m. Welcome Reception
Grand Ballroom - Salon H

Friday, February 20, 2015
7:30 a.m. – 8:30 a.m. Continental Breakfast

7:30 a.m. – 6:30 p.m. Registration
Business Center, West Lobby

8:00 a.m. – 12:30 p.m. General Session – Neuroinflammation
Grand Ballroom - Salons A/B

12:30 p.m. – 1:25 p.m. Special Interest Topics Networking Luncheon
Grand Ballroom - Salon H
(Ticket required)

1:30 p.m. – 5:30 p.m. Pipeline Session
Grand Ballroom - Salons A/B

5:30 p.m. – 7:15 p.m. Networking Reception, Information Exchange and Poster Presentation
Grand Ballroom - Salon H

and Poster Presentation

7:30 p.m. – 9:00 p.m. Dinner Symposium:
Grand Ballroom - Salon H
Current Status and Future Opportunities in Generic Drugs
(Ticket required)

Saturday, February 21, 2015
8:00 a.m. – 4:30 p.m. Registration

8:30 a.m. – 9:00 a.m. Continental Breakfast

8:45 a.m. – 9:45 a.m. General Session:
What's New in Orphan Drug Development?
(Ticket required)

9:00 a.m. – 11:50 a.m. Lifestyle as Neurotherapeutics
Grand Ballroom - Salons A/B

12:00 p.m. – 4:30 p.m. Lifestyle as Neurotherapeutics
Grand Ballroom - Salons A/B

All events take place at the Georgetown University Hotel & Conference Center
unless otherwise noted.

Program Book
asent.org
American Society for Experimental NeuroTherapeutics

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Biogen, Idec.

Marc Walton, MD, PhD  
Janssen Research Foundation

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Schedule-At-A-Glance ............................................................... Back Cover
THURSDAY, FEBRUARY 19, 2015

8:15 a.m. – 4:30 p.m. Joint Scientific Educational Session with ISCTM
Traumatic Brain Injury – Treatment Development

6:00 p.m. – 7:30 p.m. ASENT Annual Meeting Welcome Reception

FRIDAY, FEBRUARY 20, 2015

8:00 a.m. – 12:30 p.m. Neuroinflammation – Ways in Which the Immune System Affects the Brain

Program
Chair: Richard Ransohoff, MD, Biogen Idec, Inc.

8:00 a.m. – 8:05 a.m. Presidential Welcome
Howard Federoff, MD, PhD
Georgetown University Medical Center

8:05 a.m. – 8:30 a.m. NINDS Office of Translational Research: New Programs to Support Therapy and Device Discovery and Development
Rajesh Ranganathan, PhD
NINDS/NIH

8:30 a.m. – 9:10 a.m. Introduction and Overview of Neuroinflammation
Richard Ransohoff, MD
Biogen Idec, Inc.

9:10 a.m. – 9:50 a.m. Neural-Immune Interactions Regulating Brain Development and Plasticity: Implications for Health and Disease
Dorothy Schafer, PhD
Children’s Hospital Boston

9:50 a.m. – 10:30 a.m. Antibody-Mediated Mechanisms in Brain Development and Disease
Angela Vincent, MBBS (Hon PhD Bergen) FRCPath, FMedSci, FRS
University of Oxford

10:30 a.m. – 10:45 a.m. Break
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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| 10:45 a.m. – 11:25 a.m. | **Regulation of Immune Responses in Paraneoplastic Neurologic Disorders**  
Nathalie Blachère, PhD  
Rockefeller University |
| 11:25 a.m. – 12:05 p.m. | **B cells as Therapeutic Targets in Multiple Sclerosis**  
Amit Bar-Or, MD, FRCPC  
Montreal Neurological Institute and Hospital |
| 12:05 p.m. – 12:30 p.m. | **Panel Discussion**                                                  |
| 12:30 p.m. – 1:25 p.m. | **Special Interest Topics**  
**Networking Luncheon** |
| 1:30 p.m. – 5:30 p.m. | **Pipeline Session**  
Co-chairs: Kathleen Clarence-Smith, MD, PhD; Roger Porter, MD; Rajesh Ranganathan, PhD, NINDS |
| 1:30 p.m. – 3:20 p.m. | **Oral Presentations** |
| 3:20 p.m. – 3:40 p.m. | **Break** |
| 3:40 p.m. – 5:30 p.m. | **Oral Presentations (Continued)** |
| 5:30 p.m. – 7:15 p.m. | **Networking Reception, Information Exchange and Poster Presentation** |
**Program Schedule (Continued)**

**FRIDAY, FEBRUARY 20, 2015**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>7:30 p.m. – 9:00 p.m.</td>
<td><strong>Dinner Symposium – Current Status and Future Opportunities in Generic Drugs: Industry, Investigator, and Regulatory Perspectives</strong>&lt;br&gt;Grand Ballroom - Salon A/B</td>
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<td>7:30 p.m. – 8:15 p.m.</td>
<td><strong>Overview of Generic Drugs</strong>&lt;br&gt;Ray Urbanski, MD, PhD&lt;br&gt;LNR BioPharma Consulting, LLC</td>
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<td>8:15 p.m. – 8:25 p.m.</td>
<td><strong>Issues with Generic Antiepileptic Drugs</strong>&lt;br&gt;William Theodore, MD&lt;br&gt;NIH</td>
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<tr>
<td>8:25 p.m. – 8:45 p.m.</td>
<td><strong>FDA Regulatory Science Interests and Generic Drugs</strong>&lt;br&gt;Larissa Lapteva, MD&lt;br&gt;FDA</td>
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<tr>
<td>8:45 p.m. – 9:00 p.m.</td>
<td><strong>Panel Discussion</strong></td>
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**Continuing Medical Education Statement and Session Objectives (Continued)**

- Mark Gordon, MD**:  Boehringer Ingelheim Pharmaceuticals, Inc., employee
- Martha Morrell, MD**:  NeuroPace, Inc., employee
- Roger Porter, MD**:  AurimMed, stockholder
- Richard Ransohoff, MD**:  Biogen Idec, Inc., employee
- Raymond W. Urbanski, MD, PhD<br>Mylan, Inc., served as Chief Medical Officer
- Marc Walton, MD, PhD**:  Janssen Research and Development, employee

**American Society for Experimental NeuroTherapeutics**

**American Society for Experimental NeuroTherapeutics**
American Society for Experimental NeuroTherapeutics

Program Schedule (Continued)

SATURDAY, FEBRUARY 21, 2015

8:30 a.m. – 9:00 a.m. ASENT Annual Business Meeting

9:00 a.m. – 11:50 a.m. What’s New in Orphan Drug Development?

Grand Ballroom - Salon A/B

Program Chair: Petra Kaufmann, MD, MSc, NIH/NCATS

<table>
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<th>Time</th>
<th>Presentation</th>
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<tr>
<td>9:00 a.m. – 9:05 a.m.</td>
<td>Opening Remarks</td>
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<td>Petra Kaufmann, MD, MSc, NIH/NCATS</td>
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<td>9:05 a.m. – 9:20 a.m.</td>
<td>Review of Rare Disease Drug Development: FDA Perspectives</td>
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<td>Andrew Mulberg, MD, FAAP, CPI</td>
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<td>9:20 a.m. – 9:30 a.m.</td>
<td>The Role of the Patient &amp; Advocate in Public-Private Partnerships to Advance Orphan Drug Development</td>
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<td>Ronald Bartek, Friedrich’s Ataxia Research Alliance</td>
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<tr>
<td>9:30 a.m. – 9:40 a.m.</td>
<td>From the Doctor’s Office to Drug Development: a Clinician-researcher Perspective to Orphan Drug Development</td>
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<td>Jinsy Andrews, MD, Cytokinetics, Inc., employee</td>
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<td>9:40 a.m. – 9:50 a.m.</td>
<td>An Industry Perspective on Orphan Drug Development</td>
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<td>Bernard Ravina, MD, MS, Voyager Therapeutics, Inc.</td>
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<tr>
<td>9:50 a.m. – 10:00 a.m.</td>
<td>Exploring Global Opportunities in Rare Diseases</td>
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<td>Cristina Csimma, PharmD, MHP, Csimma, LLC</td>
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<td>10:00 a.m. – 10:10 a.m.</td>
<td>Orphan Drug Development, NCATS Perspective</td>
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<td>Petra Kaufmann, MD, MSc, NIH/NCATS</td>
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<tr>
<td>10:10 a.m. – 10:30 a.m.</td>
<td>Break</td>
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<tr>
<td>10:30 a.m. – 11:50 a.m.</td>
<td>Panel Discussion featuring:</td>
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<td>Increased recent orphan drug activities and the lessons learned</td>
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<td>Importance of multiple stakeholder collaboration and models that work</td>
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<td>Public-Private partnerships that advance orphan drug development</td>
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<td>How do we approach an increasing number of companies in a rare disease space when the population of targeted patients is small?</td>
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<td>What innovations could be realized that would accelerate orphan drug development?</td>
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</tbody>
</table>

Continuing Medical Education Statement and Session Objectives (Continued)

Interests to Disclose/COI/Bias Resolved

C. Anthony Altar, PhD**
AssureRx Health, Inc., employee

Jinsy Andrews, MD, MSc
Cytokinetics, Inc., employee

Mitchell Brin, MD**
Allergan, employee

Kathleen Clarence-Smith, MD, PhD**
KM Pharmaceutical Consulting, LLC; Chase Pharmaceuticals, Inc.; Westhaven Pharmaceuticals; Riverside Pharmaceuticals; CSK Consulting, owner/partner of all

Cristina Csimma, PharmD, MHP
Columbia Labs, Vtesse, Inc., Board of Directors, Akashi, Business Advisory Board

Howard J. Federoff, MD, PhD**
MedaGenesis Therapeutix, founder and consultant; Socrates, founder; Ovid Therapeutics, consultant

Jacqueline French, MD**
Jacqueline French is President of the Epilepsy Study Consortium. All consulting is done on behalf of the consortium, and fees are paid to the consortium. The NYU Comprehensive Epilepsy Center receives salary support from the consortium; If has acted as a consultant for Acorda, Biotie, Brabant Pharma, Eisai Medical Research, Glaxo Smith-Kline, GW Pharma, Impax, Johnson and Johnson, Marathon Pharmaceuticals, Marinus, Neusentis, Novartis, Pfizer, Sage, Sunovion, SK life sciences, Supernus Pharmaceuticals, Takeda, UCB, Upsher-Smith, Ultragenyx, Vertex, Zynbera, grants and research from Acorda, Alexza, LCGH, Eisai Medical Research, Lundbeck, Pfizer, SK life sciences, UCB, Upsher-Smith, Vertex, grants from NINDS, Epilepsy Therapy Project, Epilepsy Research Foundation, Epilepsy Study Consortium; She is on the editorial board of Lancet Neurology, Neurology Today and Epileptic disorders, and is an associate editor of Epilepsia.
Continuing Medical Education Statement and Session Objectives

Session Objectives: At the completion of the meeting, participants will be able to:

• Understand the various pre-morbid inflammatory aspects of progressive neurodegenerative disease.
• Obtain and order those tests that will precisely influence patient outcomes through therapy.

Meeting Disclaimer: Regarding materials and information received, written or otherwise, during this activity: The scientific views, statements and recommendations expressed during this CME activity represent those of the authors and speakers, and do not necessarily represent the views of the University of Vermont.

Interest Disclosures: As an organization accredited by the ACCME to sponsor continuing medical education activities, The University of Vermont is required to disclose any real or apparent conflicts of interest (COI) that any speakers may have related to the content of their presentations.

The University of Vermont requires that each speaker participating in a program designated for AMA Physician’s Recognition Award Category 1 credit disclose any financial interest/arrangement or affiliation with a corporate organization that may impact on his/her presentation (i.e. grants, research support, honoraria, member of speakers’ bureau, consultant, major stock shareholder, etc.)

No Interests to Disclose:
Amit Bar-Or, MD, FRCPa
Ronald Bartek
M. Flint Beal, MD
Nathalie Blachère, PhD
Amy Chappell, MDa
Robin Elliott, MA**
Kirk Erickson, PhD
Nicole M. Gatto, MPH, PhD
Robert W. Hamill, MD**
Petrka Kaufmann, MD, MSc**
Larissa Lapteva, MD
Bennett Lavenstein, MD**
Martha Claire Morris, ScD
Andrew E. Mulberg, MD, FAAP, CPI
Stella M. Papa, MD**
Giselle Petzinger, MD
Rajesh Ranganathan, PhD
Bernard Ravina, MD, MS
Dorothy Schafer, PhD
William H. Theodore, MD
Angela Vincent, MBBS (Hon PhD Bergen), FRCPath, FMedSci, FRS

Continuing Medical Education Statement and Session Objectives

American Society for Experimental NeuroTherapeutics

Program Schedule (Continued)

SATURDAY, FEBRUARY 21, 2015
12:00 p.m. – 4:30 p.m. Lifestyle as Neurotherapeutics (Lunch - ticket required)

Program: Co-chairs: Amy Chappell, MD; Robert Hamill, MD, University of Vermont

12:00 p.m.
Lunch

12:35 p.m. – 12:40 p.m.
Opening Remarks
Robert Hamill, MD
University of Vermont

12:40 p.m. – 1:00 p.m.
What is Lifestyle Medicine?
Amy Chappell, MD

1:00 p.m. – 1:30 p.m.
Research from the Adventist Health Study-2 and Neuroepidemiological Investigations
Nicole M. Gatto, MPH, PhD
Loma Linda University School of Public Health

1:30 p.m. – 2:00 p.m.
Effects of Exercise and Nutrition on Brain Mitochondria and Synapses in Neurodegenerative Diseases
M. Flint Beal, MD
Weill Medical College of Cornell University

2:00 p.m. – 2:30 p.m.
Nutrition and the Aging Brain
Martha Clare Morris, ScD
Rush University

2:30 p.m. – 2:45 p.m.
Break

2:45 p.m. – 3:15 p.m.
Aging, Exercise, and Brain Plasticity
Kirk Erickson, PhD
University of Pittsburgh

3:15 p.m. – 3:45 p.m.
Exercise as a Neurotherapeutic in Parkinson’s Disease
Giselle Petzinger, MD
University of Southern California

3:45 p.m. – 4:30 p.m.
Panel Discussion

4:30 p.m.
Close Annual Meeting
Howard Federoff, MD, PhD
Georgetown University Medical Center

Grand Ballroom - Salon A/B
Meeting Evaluation/ How Do I Obtain CME Credits?

To obtain a CME certificate for the ASENT 17th Annual Meeting, please access the online evaluation on our website www.asent.org. A link to the evaluation is on the homepage. Evaluations must be completed by **Monday, March 23, 2015**, in order to receive credit.

ASENT’s 17th Annual Meeting has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the University of Vermont and the American Society for Experimental NeuroTherapeutics. The University of Vermont College of Medicine (UVM) is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The University of Vermont designates this live activity for a maximum of 14.25 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.