BrightFocus
Alzheimer’s Fast Track

Co-chairs: Diane Bovenkamp, PhD
Frank LaFerla, PhD
Cynthia Lemere, PhD
Harry W. M. Steinbusch, PhD

October 16-18, 2019
Hilton Chicago
Oak Brook Hills Resort & Conference Center

www.brightfocus.org/AlzWorkshop

#AlzFastTrack
WELCOME TO THE BRIGHTFOCUS ALZHEIMER’S FAST TRACK 2019 WORKSHOP!

As a longtime supporter of early-career scientists, BrightFocus Foundation is proud to organize and sponsor this immersive opportunity for emerging researchers to learn from, and interact with, leaders in this field.

At BrightFocus, our mission is clear: harness the power of science to end the conditions we fear most – loss of sight and loss of mind. Through our support of research on Alzheimer’s, glaucoma, and macular degeneration, we serve as an umbrella for scientific innovation in neurodegenerative disease research, uniquely positioned for experts to share discoveries about one disease to inform another.

Thank you for joining us this week – I look forward to meeting every one of you. I hope that your time at Alzheimer’s Fast Track is meaningful and rewarding, accelerating your path toward scientific discovery.

Please remember that your journey doesn’t stop at the end of this workshop. As alumni of the BrightFocus Alzheimer’s Fast Track, please keep in touch with each other and with BrightFocus. We hope this experience sparks collaboration for years to come.

Sincerely,

Diane Bovenkamp, PhD
Vice President of Scientific Affairs
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BrightFocus is the world’s premier source of funding and support for research into Alzheimer’s, glaucoma, and macular degeneration. We seek to find the cures for the devastating conditions we all fear most: loss of sight and loss of mind.

We fund cutting-edge ideas from scientists all over the world who are dedicated to making groundbreaking discoveries. Since our beginning, we have invested nearly $200 million in bold, innovative scientific research.

54%  
BASIC RESEARCH GRANTS

19%  
CLINICAL RESEARCH GRANTS

27%  
TRANSLATIONAL RESEARCH GRANTS

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Workshop Schedule and Program

Workshop Goals
The Alzheimer’s disease research field continues to grow in size and scope. For people entering such a prolific environment, acquiring an initial understanding of the disease becomes more difficult each year. The goal of this workshop is to offer graduate students and postdocs an immersive opportunity to learn and discuss some of the latest trends in Alzheimer’s disease research through close interaction with established leaders in the field. By the end of this workshop, participants will have:

- Connected with preeminent Alzheimer’s disease experts and fellow early-stage researchers based in the U.S. and around the world
- Participated in interactive workgroups and breakout sessions
- Engaged in scientific debates
- Competed with fellow participants in group “mock” grant proposal presentations

Workshop Organizing Sponsor
BrightFocus Foundation
Diane Bovenkamp, PhD, Vice President of Scientific Affairs
Stacy Pagos Haller, CEO and President
Kara Summers, Scientific Program Grants Manager
Keith W. Whitaker, PhD, Director of Scientific Programs, Neuroscience

www.brightfocus.org/AlzWorkshop

Special thanks to co-chairs Diane Bovenkamp, PhD, Frank LaFerla, PhD, Cynthia Lemere, PhD, and Harry W. M. Steinbusch, PhD, for their advice and leadership in the planning of the workshop and speaker invitations.

BrightFocus Alzheimer’s Fast Track is an official satellite event of the Society for Neuroscience 2019 Conference.

Social Media | #AlzFastTrack
Help generate some buzz around BrightFocus Alzheimer’s Fast Track by telling us about your research projects. Please prepare one or two descriptions of your work in 280 characters or less using the #AlzFastTrack hashtag.

The hashtag for the Society for Neuroscience is: #SfN19

Please post your messages directly to Twitter, or email them to Rachel Jacobs, rjacobs@brightfocus.org.
**BrightFocus Alzheimer’s Fast Track**  
**October 16 - October 18, 2019**

**Tuesday, October 15, 2019**

19:00-21:00  
*Monarch*  
Registration and Welcoming Reception  
with Heavy Hors D’Oeuvres

**Wednesday, October 16, 2019**

07:00-08:00  
*Conference Dining Room*  
Breakfast

08:00-08:20  
*Mallard*  
Introduction to BrightFocus Alzheimer’s Fast Track  
Diane Bovenkamp, PhD  
*BrightFocus Foundation*  
Frank M. LaFerla, PhD  
*University of California, Irvine*  
Harry W. M. Steinbusch, PhD  
*Maastricht University, The Netherlands*  
Cynthia A. Lemere, PhD  
*Brigham and Women’s Hospital, Harvard Medical School*

**EARLY MORNING SESSION CHAIR: Mallard**  
**State of the Science: Medical**  
Cynthia A. Lemere, PhD  
*Brigham and Women’s Hospital; Harvard Medical School*

08:20-08:40  
Alzheimer’s Disease and Related Dementias: Clinical Perspectives and Co-Morbidities  
Julie Schneider, MD  
*Rush University*

08:40-09:00  
Neuroimaging in Aging and Alzheimer’s Disease  
Craig E. L. Stark, PhD  
*University of California, Irvine*

09:00-09:20  
Multimodal Preventive Trials For Alzheimer’s Disease: What Can We Learn From The Finger Study?  
Francesca Mangialasche, MD, PhD  
*Karolinska Institute, Sweden*

09:20-09:40  
Vascular Contributions to Alzheimer’s Disease and Related Dementia  
Donna Wilcock, PhD  
*University of Kentucky*

09:40-10:00  
Group Discussion Moderated By Session Chair

10:00-10:20  
*Mallard Foyer*  
Snack Break

**LATE MORNING SESSION CHAIR: Mallard**  
**Professional Skills for Scientists**  
Frank M. LaFerla, PhD  
*University of California, Irvine*
### Wednesday, October 16, 2019 (continued...)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
<th>Affiliation</th>
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</thead>
<tbody>
<tr>
<td>10:20-10:40</td>
<td>How to Craft a Successful Government/NIH/NASA Grant Application</td>
<td>Cynthia A. Lemere, PhD</td>
<td>Brigham and Women’s Hospital, Harvard Medical School</td>
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<tr>
<td>10:40-11:00</td>
<td>NINDS AD/ADRD Programs and Opportunities</td>
<td>Roderick Corriveau, PhD</td>
<td>National Institute of Neurological Disorders and Stroke</td>
</tr>
<tr>
<td>11:00-11:20</td>
<td>Navigating Around Potential Pitfalls For Early-Career Investigators</td>
<td>Frank M. LaFerla, PhD</td>
<td>University of California, Irvine</td>
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<tr>
<td>11:20-11:40</td>
<td>Exploring Work-Life Balance Challenges</td>
<td>Diane Bovenkamp, PhD</td>
<td>BrightFocus Foundation</td>
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<tr>
<td>11:40-12:20</td>
<td>How to Make an Impact with Your Speech and Style</td>
<td>Bri McWhorter</td>
<td>Activate to Captivate</td>
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<tr>
<td>12:20-12:40</td>
<td>Group Discussion Moderated By Session Chair</td>
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<tr>
<td>12:40-13:40</td>
<td>Lunch</td>
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<tr>
<td>13:40-15:20</td>
<td>Elevator Pitch-Slam and Mock Grant Proposal Kickoff</td>
<td>Harry W. M. Steinbusch, PhD</td>
<td>Maastricht University, The Netherlands</td>
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<td>15:20-15:35</td>
<td>Snack Break</td>
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<tr>
<td>15:35-18:00</td>
<td>Workgroup “Mock Grant Proposal” Introduction and Time for Groups To Work on Their Proposals</td>
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<tr>
<td>19:00</td>
<td>Dinner</td>
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# Thursday, October 17, 2019

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<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>07:00-08:00</td>
<td>Breakfast</td>
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<tr>
<td>08:00-08:20</td>
<td>EARLY MORNING SESSION CHAIR</td>
<td>The Immune System and Dementia</td>
<td>Cynthia A. Lemere, PhD&lt;br&gt;Brigham and Women’s Hospital, Harvard Medical School</td>
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<tr>
<td>08:20-08:40</td>
<td></td>
<td>From GWAS to Therapeutic Targets in Alzheimer’s Disease</td>
<td>Elizabeth M. Bradshaw, PhD&lt;br&gt;Columbia University</td>
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<tr>
<td>08:40-09:00</td>
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<td>Fibrinogen-Induced Microglia-Mediated Spine Loss and Cognitive Decline in Alzheimer’s Disease</td>
<td>Katerina Akassoglou, PhD&lt;br&gt;The Gladstone Institute, University of California, San Francisco</td>
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<tr>
<td>09:00-09:20</td>
<td></td>
<td>Autophagy and Alzheimer’s Disease</td>
<td>Robert J. Vassar, PhD&lt;br&gt;Northwestern University, Chicago</td>
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<tr>
<td>09:20-09:40</td>
<td></td>
<td>The Role of Epigenetics in the Progression of Alzheimer’s Disease</td>
<td>Harry W. M. Steinbusch, PhD&lt;br&gt;Maastricht University, The Netherlands</td>
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<td>09:40-10:00</td>
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<tr>
<td>10:00-10:20</td>
<td>LATE MORNING SESSION CHAIR</td>
<td>Understanding and Addressing Proteinopathies</td>
<td>Frank M. LaFerla, PhD&lt;br&gt;University of California, Irvine</td>
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<td>10:20-10:40</td>
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<td>Alzheimer’s Research with Human Samples and Experimental Models, the Challenges Ahead</td>
<td>Claudio G. Cuello, MD, DSc&lt;br&gt;McGill University, Canada</td>
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<tr>
<td>10:40-11:00</td>
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<td>Tau Protein and Tauopathies: Which Therapeutic Strategy?</td>
<td>Luc Buée, PhD&lt;br&gt;Université de Lille, France</td>
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<td>11:00-11:20</td>
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<td>Neuronal Trafficking Pathways Inform Therapeutic Strategies</td>
<td>Subhojit Roy, MD, PhD&lt;br&gt;University of California, San Diego</td>
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<td>11:20-11:40</td>
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<td>Update on MODEL-AD</td>
<td>Bruce T. Lamb, PhD&lt;br&gt;Indiana University</td>
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<td>11:40-13:00</td>
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Thursday, October 17, 2019 (continued...)

**AFTERNOON SESSION CHAIR**
Mallard

13:00-13:20  **Alternative Theories for Alzheimer's Disease**  
Harry W. M. Steinbusch, PhD  
Maastricht University, The Netherlands  
William Eimer, PhD  
Harvard Medical School

13:20-13:40  **Sensory Systems and Alzheimer's Disease**  
Cheil Moon, PhD  
Daegu Gyeongbuk Institute of Science & Technology, South Korea

13:40-14:00  **Alzheimer's Disease in Down Syndrome**  
Elizabeth Head, PhD  
University of California, Irvine

14:00-14:20  **Group Discussion**  
Group Photo

14:20-18:40  **Monarch**  
Time for Groups to Work on Mock Grant Proposals

19:00  **Golf Pavilion**  
Social Event: Dinner

Friday, October 18, 2019

07:00-08:00  **Conference Dining Room**  
Breakfast

**EARLY MORNING SESSION CHAIR**
Mallard

08:00-08:20  **Big Problems in the Field**  
Frank M. LaFerla, PhD  
University of California, Irvine  
John C. Morris, MD  
Washington University in St. Louis

08:20-08:40  **Challenges in AD Clinical Trial Recruitment**  
Joshua Grill, PhD  
University of California, Irvine
### Friday, October 18, 2019 (continued...)

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<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter/Institution</th>
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<tbody>
<tr>
<td>08:40-09:00</td>
<td>Sex Differences in Onset of Prodromal Phase of Alzheimer’s Disease</td>
<td>Roberta Diaz Brinton, PhD The University of Arizona Health Sciences</td>
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<tr>
<td>09:00-09:20</td>
<td>Using Non-Invasive Sensory Stimulation to Ameliorate Pathology and Symptoms of Alzheimer’s</td>
<td>Li-Huei Tsai, PhD Massachusetts Institute of Technology</td>
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<tr>
<td>09:20-09:40</td>
<td>Group Discussion</td>
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<td>09:40-09:45</td>
<td>Snack - Grab+Go</td>
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<tr>
<td>09:45-13:20</td>
<td>Mock Grant Proposal Presentations, Discussions, and ‘Reviewer’ Critiques</td>
<td>Harry W. M. Steinbusch, PhD Maastricht University, The Netherlands</td>
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<td>13:20-14:45</td>
<td>Lunch and Reviewer Deliberation</td>
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<td>14:45-15:30</td>
<td>Awards Ceremony and Closing Remarks</td>
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<td>15:30-17:00</td>
<td>Closing Reception with Light Hors D’Oeuvres and Beverages</td>
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Participant ‘Elevator Pitch’/Ice-Breaker Guidelines

All participants will give their pitch one after the other on the afternoon of the first day of the workshop, at the time indicated in the program.

Each participant will have one (1) minute maximum (moderator will have a stopwatch!) to give your verbal pitch. There are no slides permitted. Please state your name, institution/program, and state “What compels you to pursue Alzheimer’s disease research?” or another topic you feel relevant to share with the group.

Participant Group Assignments: “Mock” Grant Proposal Presentation

Each assigned group will prepare an innovative research proposal plan (ten groups, with five to six people and one team-generated proposal per group). Your presentations should include the following information:

- Description of the research question and hypothesis
- Background and significance
- Specific aims/benchmark achievements
- Experimental design/methodologies
- Preliminary studies/expected results
- Innovative aspects of proposed research
- Relevance of proposed research to Alzheimer’s and related dementias
- Detailed budget and justification/facilities and environment/key personnel

Your group will make a 12 minute presentation with a maximum of 12 slides, followed by 10 minutes of questions from the ‘judging’ panel composed of the BrightFocus Alzheimer’s Fast Track workshop presenters and experts. Only one of the ten proposals will successfully receive “mock” funding, after deliberation by judges.

Assignment “Request For Proposals”

Grant proposals for innovative projects to the BrightFocus Alzheimer’s Fast Track Award program* should be for a maximum of $300,000 USD for a term of 3 years (maximum $100,000 per year).* (*Legal disclaimer: this is a hypothetical awarding of funds from a hypothetical program.) Please feel free to visit BrightFocus’ website (including the “Guidelines for Applicants” and “FAQs” pages) for background information and guidance on what is included in a typical application to BrightFocus (brightfocus.org/ADR-RFP), if you feel this will help to answer any questions that may arise in your group.
Research Topics

Topics to choose from:

1. Predictive Biomarkers (Blood-based, Imaging, etc.)
2. Sex-based Differences
3. Evidence-based Preventions/Risk-lowering Practices (Exercise, Nutrition, Microbiome, etc.)
4. Inflammation and Immune System
5. Protein Aggregation, Seeding and Spreading
6. Vascular Contributions
7. Synaptic Biology and Neuroplasticity

Tips:

- Identify and clarify an urgent problem or issue in basic, translational, and/or clinical research—feel free to discuss options with workshop speakers.
- Design an innovative study.
- Identify a clear research question and formulate a clear and testable hypothesis.
- Describe the specific aims (methodology, timing, budget, key personnel, etc.)
- Show/describe the feasibility of the study.
- Describe the relevance for the field (e.g., how does it help patients in the near future?)
- Let your imagination go wild!
- Each person should be prepared to answer questions from the ‘judges’ on the spot about your group ‘application,’ like you all are part of the key personnel on the award.