



**26<sup>TH</sup> ANNUAL  
BLOOD-BRAIN  
BARRIER  
CONSORTIUM  
MEETING**

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**CULTIVATING THE NEXT GENERATION  
OF TRANSLATIONAL SCIENTISTS**

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**MARCH • 12 & 13 • 2020**

HILTON PORTLAND DOWNTOWN  
PORTLAND, OR

## SCIENTIFIC PROGRAM

THURSDAY, MARCH 12TH

Morning

### BREAKFAST AND REGISTRATION

7:00—8:00AM, BALLROOM FOYER, BALLROOM LEVEL

### UPDATES ON PRE-CLINICAL AND CLINICAL TRIALS FROM THE CONSORTIUM AND OUR COLLABORATORS

8:00—11:10AM, GRAND BALLROOM I

Moderators: Prakash Ambady  
Portland, Oregon Nancy Doolittle  
Portland, Oregon John McGregor  
Columbus, Ohio

#### • BLOOD-BRAIN BARRIER DISRUPTION (BBBD) •

8:00	Immunological Response to Osmotic BBB Disruption	Scott Burks Bethesda, Maryland
8:12	Safety of Intra-arterial Chemotherapy and Osmotic BBB Disruption	Kutluay Uluc Portland, Oregon
8:24	Industry Perspective on Drug Delivery Across the BBB	Robert Thorne S. San Francisco, California
8:45	Panel Discussion/Q & A	

#### • CURRENT TRIALS AND FUTURE DIRECTIONS •

9:00	Update on Maintenance Obinutuzumab for Primary CNS Lymphoma	Nancy Doolittle Portland, Oregon
9:12	Update on Immunotherapy Trials	Prakash Ambady Portland, Oregon
9:24	Update on Preclinical Trials	Leslie Muldoon Portland, Oregon
9:36	Panel Discussion/Q & A	

BREAK, 9:50—10:00AM

#### • ADVANCES IN NOVEL IMAGING TECHNIQUES •

Moderators:	Alexander Guimaraes Portland, Oregon	William Rooney Portland, Oregon
10:00	How to Process High Resolution Steady State Cerebral Blood Volume Maps Using Ferumoxytol, an Off Label MR Contrast Agent?	Csanad Varallyay Portland, Oregon
10:12	Correlating Imaging of the Brain Tumor Microenvironment and Glymphatic System with Histology	Ramon Barajas Portland, Oregon
10:24	Assessing High-Grade Gliomas: Steady-State Ferumoxytol Perfusion vs DSC-Gd	Laszlo Szidonya Portland, Oregon
10:36	Multi-Center Safety Results for Off-Label Diagnostic Use of Ferumoxytol in MRI	Kim-Lien Nguyen Los Angeles, California
10:48	Panel Discussion/Q & A	

#### • NEW INVESTIGATOR PRESENTATIONS: TRAVEL SCHOLARSHIP AWARDEES •

11:10—11:40AM, GRAND BALLROOM 1

11:10	Regulation of Blood-Brain Barrier P-glycoprotein and Breast Cancer Resistance Protein via PI3K/Akt – A Novel Molecular Switch Approach for the Treatment of Glioblastoma	Julia A. Schulz Lexington, Kentucky
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### Morning cont.

11:20	Azacitidine is Effective in Treating Triple Negative Breast Cancer Brain Metastases through Regulation of DNA Methylation of the Keratin 18 Gene	Samuel Sprowls Morgantown, West Virginia
11:30	TBD	TBD

### LUNCH

11:45—12:45PM, GRAND BALLROOM II, BALLROOM LEVEL

### Afternoon

#### CULTIVATING THE NEXT GENERATION OF TRANSLATIONAL SCIENTISTS

##### • BLOOD-LABYRINTH BARRIER (BLB): APPROACHES TO OTOPROTECTION •

12:45—2:15PM, GRAND BALLROOM I

	Moderators:	Edward Neuwelt Portland, Oregon	Sidnei Epelman São Paulo, Brazil	
12:45	Structure and Function of the Strial BLB and Noise-Induced Hearing Loss			Xiao Rui Shi Portland, Oregon
1:00	Clinical Translation of STS Chemoprotection in South America			Sidnei Epelman São Paulo, Brazil
1:15	Inflammation and Ototoxicity			Cymon Kersch Portland, Oregon
1:30	D-Methionine Protection from Noise-and Cisplatin-Induced Hearing Loss			Kathleen Campbell Springfield, Illinois
1:50	Panel Discussion/Q & A			

### BREAK, 2:15—2:30PM

##### • NOVEL APPROACHES TO ENHANCE DELIVERY OF THERAPEUTICS TO THE BRAIN •

2:30—4:05PM, GRAND BALLROOM I

	Moderators:	Prakash Ambady Portland, Oregon	Stuart Grossman Baltimore, Maryland	
2:30	Challenges to Drug Delivery: Regadenoson Story			Stuart Grossman Baltimore, Maryland
2:45	Enhanced Delivery of Morpholinos Using Low Dose Radiation			Prakash Ambady Portland, Oregon
3:00	Use of Laser Interstitial Thermal to Open the BBB for Brain Tumor Treatment			Jian Campian Saint Louis, Missouri
3:15	Dynamics of Blood-Brain Barrier Opening			Paul Lockman Morgantown, West Virginia
3:30	Future of Focused Ultrasound in Brain Tumor Therapy			Joseph Frank Bethesda, Maryland
3:45	Panel Discussion/Q & A			

### GROUP PHOTO

4:15PM, GRAND BALLROOM II, BALLROOM LEVEL

### POSTER SESSION, RECEPTION, NETWORKING

4:30—5:45PM, GALLERIA, BALLROOM LEVEL

### DINNER

5:45—7:30PM, GRAND BALLROOM II, BALLROOM LEVEL

6:00	Introductions and International Brain-Barriers Society Update	Robert Thorne Edward Neuwelt
6:15	Keynote: Cultivating the Next Generation of Translational Scientists	Stuart Grossman Baltimore, Maryland

## FRIDAY, MARCH 13TH

### Morning

#### **BREAKFAST AND REGISTRATION**

**7:00—8:00AM, BALLROOM FOYER, BALLROOM LEVEL**

#### **• NEW FUNDING OPPORTUNITIES FOR TRANSLATIONAL RESEARCH ON THE NVU •**

**8:00—9:10AM, GRAND BALLROOM I**

	Moderators:	William Timmer Bethesda, Maryland	Bjoern Bauer Lexington, Kentucky	
8:00	NINDS Funding Opportunities for Translational Research			Amir Tamiz Bethesda, Maryland
8:10	Diversity Supplements			Marguerite Matthews Bethesda, Maryland
8:20	An Investigator's Perspective on Funding NVU Research			Lester Drewes Duluth, Minnesota
8:30	Writing a Really Good Specific Aims Page			William Timmer Bethesda, Maryland
8:40	Roundtable Discussion			

#### **BREAK, 9:10—9:20AM**

#### **• COMPLEX BARRIERS OF THE CNS: RESEARCH ADVANCEMENTS •**

**9:20—11:00AM, GRAND BALLROOM I**

	Moderators:	Lester Drewes Duluth, Minnesota	Sadhana Jackson Bethesda, Maryland	
9:20	OCT and the Blood-Retinal Barrier			Brandon Lujan Portland, Oregon
9:40	A Cellular and Spatial Map of the Choroid Plexus Blood-CSF Barrier			Neil Dani Boston, Massachusetts
10:00	Blood-Labyrinth Barrier: Development of Clinical Practice Guideline for the Prevention of Cisplatin-Induced Ototoxicity in Children			Kay Chang Stanford, California
10:20	Glioma-Neuronal Interactions: Implications for Cortical Language Plasticity			Shawn Hervey-Jumper San Francisco, California
10:40	Panel Discussion/Q & A			

#### **BREAK, 11:00—11:10AM**

#### **• LYSOSOMAL STORAGE DISEASES (LSDs), BARRIER ISSUES AND STEM CELL TRANSPLANTS •**

**11:10—12:10PM, GRAND BALLROOM I**

	Moderator:	Lester Drewes Duluth, Minnesota		
11:10	Clinical Practices in the Treatment of Neurologic Lysosomal Storage Disorders: 3 Cases			Amy Yang Portland, Oregon
11:30	Breaching the Blood Brain Barrier in Stem Cell Transplant			Troy C. Lund Minneapolis, Minnesota
11:50	Panel Discussion from the Pre-Clinical and Clinical Perspectives	Troy C. Lund Robert Thorne	William Rooney Amy Yang	

## Afternoon

### LUNCH AND POSTER VIEWING

12:10—1:40PM, GRAND BALLROOM II, GALLERIA, BALLROOM LEVEL

### ONE-ON-ONE MENTOR SESSIONS

12:30—1:30PM, GRAND BALLROOM I

Bjoern Bauer Lexington, Kentucky	Adrienne Boire New York, New York	Lester Drewes Duluth, Minnesota	Joseph Frank Bethesda, Maryland	Stuart Grossman Baltimore, Maryland
Sadhana Jackson Bethesda, Maryland	Paul Lockman Morgantown, West Virginia	Troy C. Lund Minneapolis, Minnesota	John McGregor Columbus, Ohio	William Rooney Portland, Oregon
Xiaorui Shi Portland, Oregon	Robert Thorne South San Francisco, California	William Timmer Bethesda, Maryland		

### • BLOOD-TUMOR BARRIER: CLINICAL STATE OF THE FIELD •

1:40—4:25PM, GRAND BALLROOM I

	Moderators:	Robert Thorne South San Francisco, California	Bjoern Bauer Lexington, Kentucky	
1:40	Blood-Tumor Barrier and Primary CNS Lymphoma			Matthias Holdhoff Baltimore, Maryland
2:00	Lung Cancer Brain Metastasis: Insights and Comparisons with Other Cancers			Gozde Uzunalli West Lafayette, Indiana
2:25	Breast Cancer Brain Metastases: Clinical and Scientific Challenges			Rashmi Murthy Houston, Texas

### BREAK, 2:50—3:05PM

3:05	Cancer Cells Circumvent the Blood-CSF Barrier in Leptomeningeal Metastasis	Adrienne Boire New York, New York
3:30	Neural Circuit Interactions with Brain Cancer Cells	Shawn Gillespie Stanford, California
3:55	Panel Discussion/Future of the Field	

### • MEETING WRAP-UP •

4:25	Meeting Highlights and Closing Statements	Edward Neuwelt Portland, Oregon
4:40	Adjourn	Prakash Ambady Portland, Oregon