

*49<sup>th</sup> Perinatal Research Society  
Annual Meeting  
Hilton Inverness Hotel and Conference Center  
Englewood, CO*



*September 7-9, 2018*

## **Meeting Information**

### ***PRS Check-In***

To ensure that attendance is recorded and to receive meeting materials, please check in with the Perinatal Research Society staff upon arrival off main lobby. Registration table will be in the Atrium Hallway, around the corner from the front Desk as you are entering into the conference wing.

### ***Fitness Facilities***

Indoor Pool – Open 5am-10:30pm. Access from Fitness Center or Man Level.

Outdoor Pool: 6am – 10pm. Located on Ground Level. Towels available.

Fitness Center – 24 Hour -7 Days a Week. Accessible with Room Key. Towels & Water available.

**Golf Course:** Sunrise to Sunset. 18-Hole PGA Championship Course.

Call 303.397.7878 for Tee Times. Additional Fees Apply.

**Spa at The Inverness;** Call 303.397.7808 for Appointments. Additional Fees Apply.

Sun-Thu: 9am-7pm

Fri/Sat: 9am-8pm

### ***Meals***

Registration includes the following meals:

#### **Friday**

Reception, Dinner

#### **Saturday**

Breakfast, Lunch, Refreshment Breaks Special Event, Dinner

#### **Sunday**

Breakfast, Refreshment Break, Box Lunches

### ***Parking***

Complimentary Self Parking on Site. Valet Parking - \$ 12.00 per Day

### ***Internet Connection***

Internet access is included with the rooms. We will be using the meeting code for all internet needs (in room or in meeting rooms).

The access code is "poppy". Don not use codes in your rooms, if you do you will be locked out for 24 hours.

### ***Airport Distance***

The airport is approximately 45 minutes from the hotel, located 30 miles from Denver International Airport (DIA)

Transportation services are available including Light Rail and Uber/Lyft.

### ***Child Care Services***

Seeking Sitters – 303.362.1429

Premiere Nanny – 303-322-1399

Front Range Nannies – 720-244-2247

### ***ADA Compliant Statement***

AMERICANS WITH DISABILITIES ACT

Hotel shall be responsible for compliance with the public accommodation requirements of the Americans with Disabilities Act imposed upon it as defined by law. Perinatal Research Society shall be responsible for compliance with the requirements of the Americans with Disabilities Act imposed upon it, by law. The Hotel shall provide, to the extent required by the Act, such auxiliary aids and/or services as may be reasonably requested by Perinatal Research Society, provided that Perinatal Research Society gives reasonable advance written notice to the Hotel of such needs. Perinatal Research Society shall be responsible for the cost of any auxiliary aids and services (including engagement of and payment to specialized service providers, such as sign language interpreters), other than those types and quantities typically maintained by the Hotel.

<b>Friday, September 7</b>		
TIME	EVENT	LOCATIONS TBA
3:00pm - 6:00pm	CHECK-IN and REGISTRATION	Atrium Hallway
6:00pm	Welcome Reception	Columbine Room
7:00pm	Welcome by PRS President Jeff Reese MD and dinner	Columbine Room
8:00pm-8:45pm	<p><b>Mead Johnson Nutrition Lecturer - Jeff Alberts, PhD</b>  <b>Title: "Gravid without Gravity: Spaceflight Experiments Yield Insights into Perinatal Development.</b></p> <p>All of life on Earth evolved in the presence of gravity. There has long been speculation about the roles of gravitational forces in reproductive and developmental processes. Over several decades the micro-gravity environment of spaceflight has been used to probe into some of these speculations. Numerous studies have been conducted on unmanned Russian satellites on NASA's Space Shuttle and on the International Space Station. Previously unknown influences of gravity on mammalian reproduction and development have been revealed.</p> <p><b>Moderator: Jeff Reese, MD</b></p>	Columbine Room
8:45pm - 9:00pm	Questions and Answers	

<b>Saturday, September 8</b>		
TIME	EVENT	LOCATIONS TBA
6:45am - 7:45 am	BREAKFAST	Columbine Room
8:00 am - 8:45am	<p><b>Vanderbilt Lecturer Sylvain Chemtob MD, PhD, FRCPC, FAAP, FCAHS, FARVO</b>  <b>Title: Discovery of new IL-1 Receptor - Modulator - prevention of preterm labor and preservation of fetal integrity</b></p> <p>Preterm birth (PTB) is a leading cause of neonatal mortality and morbidity worldwide - and surviving infants are at increased risks of lifelong complications. PTB has been firmly linked to inflammation regardless of infection - specific aetiology or time of birth. Deleterious inflammation is observed in maternal and fetal tissue and correlates with the severity of perinatal complications. At present PTB is treated with tocolytics as though it is exclusively a myometrial contractile disorder. These agents do not address underlying inflammatory processes and are thus vastly ineffective at improving neonatal outcomes. Of all inflammatory mediators - IL-1 is central to the pathophysiology of PTB and most adverse neonatal outcomes. Yet current IL-1 receptor antagonists are generally ineffective and considerably immunosuppressive. We will present novel IL-1-targeting agents effective in relevant pre-clinical models of PTB - which also preserve fetal/newborn tissue integrity.</p> <p><b>Moderator: Beth Plunkett, MD, MPh</b></p>	Pikes Peak
8:45am - 9:00am	Questions and Answers	
9:00am - 9:20am	<p><b>Mead Johnson Nutrition Early Career Speaker Andrea Edlow, MD</b>  <b>Title: Maternal Obesity and Fetal Inflammation: Brain-Placenta Crosstalk and Consequences Across the Lifespan</b></p> <p>Large epidemiologic studies have demonstrated associations between pre-pregnancy obesity and adverse neurodevelopmental outcomes in children, but underlying mechanisms remain unclear. Microglia, innate immune cells of the brain, originate in the fetal yolk sac and colonize the developing central nervous system, forming a pool of resident brain macrophages that persists into adulthood. Microglia therefore have an early connection to the developing placenta, and are potentially vulnerable to exposures in pregnancy, with enduring effects on brain development and function. Data from our mouse model of maternal diet-induced obesity demonstrate correlations between microglial activation in the fetal hippocampus and adult deficits in memory and social behavior. Placental immune cells may provide insight into the activation and function of microglia in obese pregnancy.</p> <p><b>Moderator: Lisa Joss-Moore, PhD</b></p>	Pikes Peak
9:20am - 9:30am	Member Questions and Answers	

Saturday, September 8		
TIME	EVENT	LOCATIONS TBA
9:30am - 9:50am	<p><b>Mead Johnson Nutrition Early Career Speaker Heather Brockway, PhD</b>  <b>Title: A role for placental maturity in idiopathic spontaneous preterm birth.</b>            Idiopathic spontaneous preterm birth (isPTB), birth before 37 weeks gestation, is a global public health concern and the leading cause of death for children under 5 years of age. While risk factors include: smoking, stress, infection, and family history, there is a lack of understanding regarding the underlying molecular mechanisms involved in isPTB. Previous histological studies have implicated advanced placental villous maturation (AVM) in isPTB. Utilizing placental morphology and transcriptomics, we demonstrate a role for the placenta in isPTB and that aberrant placental aging is likely a key factor in isPTB pathogenesis. We identified candidate genes associated placental maturation, gestational age, and isPTB pathology. By combining comprehensive transcriptomic profiling and morphological assessment, this study will provide a valuable resource for understanding the underlying pathophysiology of isPTB placentas.  <b>Moderator: Lisa Joss-Moore, PhD</b></p>	Pikes Peak
9:50am - 10:00am	Questions and Answers	
10:00 am - 10:30am	BREAK	Pantry Break Area
10:30 am 11:15am	<p><b>Abbott Nutrition Lecturer David Keefe, MD</b>  <b>Title: Preimplantation Genetic Testing - Past - Present and Future transmission of Mendelian diseases can be prevented by testing embryos before transfer - a process called preimplantation genetic diagnosis (PGD).</b>            Preimplantation embryos also harbor a high level of genomic instability - including numeric chromosome abnormalities copy number variants and insertions/deletions. Preimplantation genetic testing for aneuploidy (PGT-A or PGS) enhances implantation and decreases miscarriage rates in some patients. Still 40% of euploid embryos fail to implant. We are investigating possible contributions of other forms of genomic instability to developmental failure during early human development.  <b>Moderator: Jeff Reese, MD</b></p>	Pikes Peak
11:15am - 11:30am	Questions and Answers	
11:30 am- 11:50am	<p><b>Abbott Nutrition Early Career Speaker Brigid Gregg, MD</b>  <b>Title: Lactational programming of offspring insulin resistance and adiposity by lactational high fat diet exposure</b>            The focus of my current research is to understand the plasticity of neonatal organs responsible for glucose homeostasis in response to lactational interventions. This set of experiments looks at a mouse model of high fat diet confined to the lactation window. We have found that offspring have an increase in body fat percentage, fat pad weight and are insulin resistant by insulin tolerance testing and HOMA-IR index.  <b>Moderator: Lisa Joss-Moore, PhD</b></p>	Pikes Peak
11:50am -12:00 noon	Questions and Answers	
12:00- 12:20pm	<p><b>Abbott Nutrition Early Career Speaker Teresa Sparks, MD</b>  <b>Title: Non-immune hydrops fetalis: Toward a precision-based approach</b>            Brief topic overview: Non-immune hydrops fetalis (NIHF) comprises the vast majority of hydrops cases, but the underlying cause remains unclear in up to 55% following the recommended prenatal evaluation. Understanding the etiology is imperative to effectively manage these pregnancies, anticipate neonatal care requirements, and counsel about recurrence risk. We are launching a novel, multi-center collaboration through the University of California Fetal-Maternal Consortium (UCfC) to create a NIHF registry, apply whole exome sequencing (WES) to discover the underlying genetic causes, and develop a precision-based approach to care. This will significantly improve our ability to care for women with pregnancies complicated by NIHF, and importantly, facilitate both a targeted approach to care and development of innovative in utero treatments such as stem cell transplantation and enzyme replacement therapy to optimize fetal and neonatal outcomes.  <b>Moderator: Lisa Joss-Moore, PhD</b></p>	Pikes Peak
12:20pm 12:30pm	Questions and Answers	
12:30 pm 2:30pm	LUNCH and free time	Columbine Room

<b>Saturday, September 8</b>		
<b>TIME</b>	<b>EVENT</b>	<b>LOCATIONS TBA</b>
2:30 pm- 3:30pm	<b>BUSINESS MEETING</b>	Pikes Peak
3:30pm 4:15pm	<b>Liley Award Winner</b> <b>Jane Harding ONZM, MBCHB, DPHIL, FRACP, FRSNZ</b> <b>Title:Glucose levels in babies: Too high - too low - too variable - and does it matter?</b> In older children and adults - the risks of hyper- and hypoglycaemia and their treatment are reasonably well understood. In the newborn - all of these problems are much more common –but there is little evidence to support any of the current widely varying treatment approaches. Recent research is beginning to reveal the long-term sequelae of early dysglycaemia - but there remains much uncertainty about causal relationships and appropriate management. <b>Moderator: Paul Rozance, MD</b>	Pikes Peak
4:15pm – 4:30pm	Questions and Answers	
4:30pm - 4:50 pm	<b>PSANZ-PRS MONT LIGGINS EARLY CAREER SPEAKER Aidan James Kashyap</b> <b>Title: A bundle of care for congenital diaphragmatic hernia - bigger lungs - better vessels - and a smoother transition</b> Despite standardized neonatal management, babies born with congenital diaphragmatic hernia (CDH) continue to face significant mortality and morbidity, particularly when respiratory insufficiency is complicated by severe pulmonary hypertension. Current approaches to antenatal management involve tracheal occlusion, which increases lung size but does not completely prevent pulmonary hypertension. We are investigating novel antenatal therapies that may improve pulmonary vascular development, and changes to the timing of umbilical cord clamping that may prevent reactive vasoconstriction during the transition to neonatal life. We aim to combine these approaches into a bundle of care that ensures all babies diagnosed with CDH, and their parents, can breathe a little easier. <b>Moderator: Tony Gregg, MD</b>	Pikes Peak
4:50 pm - 5:00 pm	Questions and Answers	
5:00pm - 7:00pm	Salsa making and beer tasting	Aspen Terrace
7:00 pm - 8:00pm	Dinner - Awards	Columbine Room
7:45 pm	Dinner and Trainee Awards	Columbine Room
8:00pm- 8:45pm	<b>March of Dimes Lecturer Richard Finkel, MD</b> <b>Title: Genetic modulation strategies for Spinal Muscular Atrophy - current and future treatments</b> Spinal muscular atrophy (SMA) - a progressive degenerative disease affecting motor neurons - is the most common fatal genetic disorder of infancy. Treatment strategies to modulate gene expression have demonstrated remarkable clinical responses in infants and children with SMA. Data from several clinical trials uniformly indicate that earlier treatment offers the best prospect for a robust response and that pre-symptomatic treatment appears optimal. These observations support the effort to add SMA to the newborn screening panel. If widely endorsed - newborn screening and pre-symptomatic treatment may virtually extinguish SMA type 1. <b>Moderator: Jeff Reese, MD</b>	Pikes Peak
8:45pm - 9:00pm	Questions and Answers	

<b>Sunday, September 9</b>		
<b>TIME</b>	<b>EVENT</b>	<b>LOCATIONS TBA</b>
6:45 am - 7:45am	BREAKFAST	Columbine Room
8:00 am - 8:45am	<b>NICHD Lecturer Stephen Kingsmore, MD, DSC</b> <b>Title: Perinatal Genomic Medicine. Genetic diseases are the leading cause of death in infants - NICUs - PICUs and CVICUs.</b> Rapid whole genome sequencing (rWGS) can improve outcomes of infants in intensive care units by informing targeted treatments of genetic diseases. The turnaround time of rWGs - from blood spot to provisional diagnosis - can be less than 20 hours. Approximately 1/3 of symptomatic infants undergoing rWGs receive a diagnosis. About 2/3 of infants diagnosed by rWGS have a consequent change in management - and about 1/3 have decreased mortality or morbidity. It will be interesting to determine the impact of rWGS on perinatology. <b>Moderator: Louise Laurent, MD, PhD</b>	Pikes Peak
8:45am - 9:00am	Questions and Answers	
9:00am - 9:45am	<b>Member Lecturer Thomas Jansson, MD, PhD</b> <b>Title: "The placenta and life-long health: How understanding the placenta can help us Building Better Babies"</b> Impaired placental development and/or changes in placental function cause important pregnancy complications and programs the infant for disease later in life. Thus, a better understanding of how the placenta functions in normal and complicated pregnancies will pave the way for the development of specific intervention strategies to improve pregnancy outcome and curb the epidemic of metabolic, cardiovascular and neurodevelopmental disease in the next generation. New research suggests that placental mechanisms underpin the fetal programming in maternal obesity and emerging evidence indicate that the placenta holds the key to improve the outcomes of premature infants, for early identification of IUGR and better understanding the pathophysiology of gestational diabetes. <b>Moderator: James Wynn, MD</b>	Pikes Peak
9:45am - 10:00am	Questions and Answers	
10:00am - 10:15am	BREAK	Pantry Break Area
10:15am - 11:00am	<b>MEMBER Lecturer Jennifer Sucre, MD</b> <b>Title: Bioengineering Human Lung Development and Disease</b> While there are excellent mammalian models of lung development and lung disease- there are species-specific differences in the development of the human lung - creating significant knowledge gaps in our understanding of chronic lung disease after preterm birth. This talk will describe how we have developed a reductionist 3D human model of bronchopulmonary dysplasia and are using this model to gain insights in the molecular pathophysiology of BPD - with a goal of identifying new potential therapeutic targets. <b>Moderator: Trent Tipple, MD</b>	Pikes Peak
11:00am-11:15am	Questions and Answers	
11:15am – 12:00pm	<b>MEMBER Lecturer James Wynn, MD</b> <b>Title: Modifiable Determinants of Neurodevelopmental Impact in Neonatal Sepsis</b> Neonatal sepsis survivors suffer significant neurodevelopmental impairment (NDI), including cerebral palsy, cognitive deficits and attention-deficit disorder (ADD), that extends into the second decade of life. The overlap (anatomic and developmental) in the survivor findings in humans and our murine mechanistic modeling may provide a platform from which to discover and test desperately needed translational strategies. <b>Moderator: Sonnet Jonker, BS, PhD</b>	Pikes Peak
12:00pm – 12:15pm	Questions and Answers	
12:15	<b>CLOSING REMARKS – ADJOURNMENT - LUNCH</b>	Peak Foyer

Please contact Bonnie Savone if any of the following situations apply to you: We will offer a discount for the following: Trainees defined as Medical Residents, Medical Fellows, Graduate Student or Postdoctoral Fellows. Those that live in the Denver area and do not need a hotel room. Those that have identified another guest, member of family member to share a room with. Also please contact Bonnie Savone if you would like to extend your stay before or after the meeting.

## 2018 Young Investigator and Early Career Speakers

The Perinatal Research Society welcomes the following Young Investigators to the 49<sup>th</sup> Annual Meeting at the Hilton Inverness Hotel and Conference Center, Englewood, CO. Young Investigators attendance of the Grants Workshop is sponsored by **NIH** award R-13-HD-079163 and R-13 R-13-HD-036244 and **Abbott Nutrition**. Young Investigators attendance of the Annual Meeting is sponsored by support from **Mead Johnson Nutrition**. Early Career Speaker attendance of the Workshop and Main Meeting are supported by awards from **Abbott Nutrition, Mead Johnson Nutrition**.

### Early Career Speakers

Heather Brockway, PhD  
Andrea Edlow, MD  
Bridgid Gregg, MD  
Teresa Sparks, MD

Cincinnati Children's Hospital Medical Center  
Harvard Medical School  
University of Michigan Health System  
University of California, San Francisco

### Young Investigators & Trainees

Yalda Afshar, MD, PhD  
Ashley Battarbee, MD  
Nathan Blue, MD  
Suchitra Chandrasekaran, MD, MSCE  
Eileen Chang, PhD, MCR  
Matthew Durbin, MD  
Margo Harrison, MD, MPH, FACOG  
Ellen Ingolfsland, MD  
Jegen Kandsamy, MD, FAAP  
Julie Mirpuri, MBBS  
Irene Ong, PhD  
Maide Ozen, MD  
Anna Palatnik, MD  
Jacqueline Parchem, MD  
Daniel Robertson, MD, MSc

University of California, Los Angeles  
The University of North Carolina at Chapel Hill  
University of Utah  
University of Washington School of Medicine  
University of Colorado  
Indiana University  
University of Colorado Hospital  
University of Minnesota  
University of Alabama at Birmingham  
UT Southwestern Medical Center  
University of Wisconsin  
Johns Hopkins School of Medicine  
Medical College of Wisconsin  
University of Texas McGovern Medical School at Houston  
Northwestern University Feinberg School of Medicine &  
Lurie Children's Hospital

### PSANZ-PRS Mont Liggins Early Career Speaker

Aidan Kashyap, MBBS/PhD Student

Monash University

## Floor Plans For Meetings

## The Young Investigator Presidential Cassady Award

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**Award Purpose:** For Meritorious Performance at the Annual Perinatal Research Society Meeting

**Selection Criteria:** The award is to be presented to a Young Investigator/Early Career Speaker at the meeting who most embodies the criterion of excellence defined by the PRS president at that time. The PRS president may invite anyone to assist in this decision as they see fit. It should be advised the recipient also attend the whole meeting to receive the award.

**Origin of the Award:** This award was established in 2012 in honor of Al Cassady, from Mead Johnson Nutrition (corporate meeting sponsor) in recognition of the personal effort that Al made to nurture young investigators far beyond the norm in his work with Mead Johnson. Al had achieved numerous awards throughout his career including:

- Chair of the Board of Directors for ADAF
- Mead Johnson Nutrition President's Award
- Mead Johnson Lifetime Achievement Award
- Mead Johnson Legends Award

### Past Award Recipients

<u>Year</u>	<u>Recipient(s)</u>	<u>Meeting Location</u>
2012	Dr. James Wynn	Park City, Utah
2013	Dr. Trent Tipple	Chicago, Illinois
2014	Dr. R. Blair Dodson Dr. Joann Romano-Keeler	Monterey, California
2015	Dr. Nicole Barra	Denver, Colorado
2016	Dr. Arthur Vaught	Chicago, Illinois
2017	Dr. Jennifer Thompson	Atlanta, Georgia

### Outstanding Paper by an Associate Member Award

The outstanding paper by an Associate Member was established in 2016. The prize will be awarded to three Associate Members (one in each track) for the most outstanding published paper within each track during the last year as determined by the PRS Council. If there are no applicants from one track, a second award may be made within another track. Each award recipient will be provided with free registration for the next PRS Annual Meeting.

### Previous Award Recipients

2016	Dr. Derek Boeldt, PhD	Basic Track	Itasca, Illinois
2016	Dr. James Wynn, MD	Pediatric Track	Itasca, Illinois
2016	Dr. Nicole Marshall, MD, MR	OB/Gyn Track	Itasca, Illinois
2017	Dr. Abbie Johnson, PhD	Basic Track	Atlanta, Georgia
2017	Dr. Robert Dietz, MD	Pediatric Track	Atlanta, Georgia
2017	Dr. Erin Zinkhan, MD	Pediatric Track	Atlanta, Georgia

## Early Career Speakers – Photo / Bios



**Heather Brockway, PhD**

Dr. Heather Brockway conducted her graduate studies at The University of Iowa in the Interdisciplinary Program in Genetics, identifying molecular mechanisms of aneuploidy and completed her PhD in 2014. She joined the Muglia Laboratory later that same year. Her current projects identify the role of the placenta in idiopathic preterm birth and trophoblast differentiation. Her diverse background and experience in genetics, molecular biology, and evolution allows for broad research interests including placental development and evolution, molecular diagnostics/therapeutics, and environmental impacts on the human genome and disease.



**Andrea Edlow, MD**

Andrea Edlow received her MD from University of Pennsylvania School of Medicine, and her MSc from Oxford University. She completed Ob/Gyn residency at the Brigham and Women's Hospital/Massachusetts General Hospital Combined Residency program, and Maternal-Fetal Medicine fellowship at Tufts Medical Center. She is a member of the Division of Maternal-Fetal Medicine and an Investigator in the Vincent Center for Reproductive Biology at Massachusetts General Hospital, and is an Assistant Professor of Obstetrics, Gynecology and Reproductive Biology at Harvard Medical School. Her research focuses on the effects of maternal diet-induced obesity on fetal brain development and offspring behavior, and how fetal sex may mediate these effects. Her work is currently funded by the Reproductive Scientist Development Program via NIH/NICHD, the

American College of Ob/Gyn, the American Board of Ob/Gyn, and the Nutrition Obesity Research Center at Harvard.



### Brigid Gregg, MD

Assistant Professor of Pediatrics in the Division of Endocrinology, Diabetes and Metabolism at Michigan Medicine

Dr. Gregg received her MD degree from Case Western Reserve University. She completed her pediatrics residency and endocrinology fellowship training at the University of Chicago. She then moved to the University of Michigan to pursue basic science and translational research at the Brehm Center for Diabetes Research.

Dr. Gregg's lab focuses on characterizing early life events that predispose individuals to developing metabolic disease, with the ultimate aim of identifying interventions to improve metabolic risk in these individuals. Dr. Gregg's lab is exploring lactational programming through the use of animal models along with a human mother infant cohort. Some of the current research in the lab examines early life and developmental influences on pancreatic  $\beta$ -cell mass and function and factors that contribute to metabolic risk. Our findings indicate that nutritional influences very early in life can have a lifelong impact on body composition, insulin sensitivity, glucose homeostasis, and the likelihood of developing metabolic disease features.



### Aidan Kashyap MBBS/PhD Student

Aidan Kashyap is an MBBS/PhD student at Monash University in Australia, working with Associate Professor Ryan Hodges' and Professor Stuart Hooper at The Ritchie Centre, Hudson Institute of Medical Research. His research focuses on novel fetal therapies to improve lung development in babies with congenital diaphragmatic hernia. Aidan is specifically interested in whether the phosphodiesterase-5 inhibitor sildenafil can improve fetal pulmonary vascular development, and hence reduce the severity of neonatal pulmonary hypertension. Aidan also has a keen interest in science communication, reaching the semi-finals of the British Council's FameLab Australia competition and sharing his research knowledge with community groups such as CDH Australia. Aidan joins us as the PSANZ-PRS Mont Liggins Early Career speaker, after winning the award for best oral presentation at the Perinatal Society of Australia and New Zealand Annual Congress earlier this year.

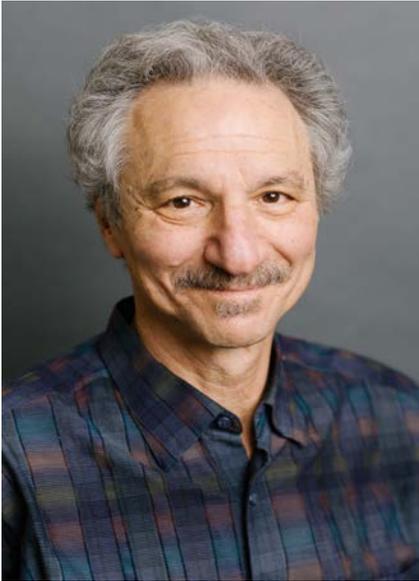


**Teresa Sparks, MD**

Dr. Sparks completed an undergraduate degree in Psychology with an emphasis in Biology at UC Davis, then attended medical school at UC San Francisco. There, she dedicated an additional year to research, where she discovered a passion for both research and Maternal-Fetal Medicine. Dr. Sparks then went to Boston for residency in Obstetrics & Gynecology at the Brigham & Women's / Massachusetts General Hospital combined program, followed by a move back to California for a combined fellowship in Maternal-Fetal Medicine and Clinical Genetics at UCSF. Dr. Sparks stayed on as faculty at UCSF after completion of her fellowship, where she is a K12/Women's Reproductive Health Research (WRHR) scholar. Dr. Sparks has particular interests in fetal anomalies and genetic disease, and her research is focused on

discovering the underlying etiologies of non-immune hydrops fetalis through the creation of a multi-center registry and application of whole exome sequencing and other technologies. Outside of work, she enjoys spending time with her husband and two children, who are 6 and 3 years old.

## Speakers (Photo / Bio)



### **Jeff Alberts, PhD**

Jeffrey Alberts is Professor of Psychological and Brain Sciences at Indiana University, Bloomington. His laboratory has long been dedicated to studying the development of species-typical and homeostatic behaviors in rodents. This work has included analyses of perinatal sensory function as well as mother-offspring interactions. More recently, he was mentored in neonatology at Cincinnati Children's Hospital where he began to collaborate with the medical staff and researchers there. In parallel with these activities, he has maintained related research in gravitational and space biology, flying experiments on Soviet and now Russian satellites, NASA's Space Shuttle and the infamous "vomit comet". He is the recipient of a Research Scientist Development Award, MERIT Award, and research grants from the NIH, from the NSF, and NASA



### **Sylvain Chemtob, MD, PhD, FRCPC, FAAP, FCAHS, FARVO** *Canada Research Chair (Vision Science)*

#### *Leopoldine Wolfe Chair in Translational Vision Research*

Professor of Pediatrics, Ophthalmology, Optometry and Pharmacology,  
Université de Montréal

Adjunct Professor of Pharmacology, McGill University

Director of Ophthalmology Research, Université de Montréal

Sylvain Chemtob is a reputed neonatal pharmacologist and physiologist, with expertise on mechanisms implicated in ischemic retinopathies and other conditions involving inflammation including preterm labor. He has also initiated a new technology to develop peptidomimetic drugs that target membrane receptors; some compounds are licensed to industry, and one which successfully completed Phase Ib clinical trial is in Phase II. His seminal work also triggered the approval (EMA [2004], FDA [2006]) of new therapies for closure of ductus arteriosus, which is now standard of care.

Sylvain Chemtob is author of over 275 articles reported in major journals (*h* index: 60), as well as inventor of 30 patents. He has trained so far 98 students/post-docs (49 graduate students and 37 post-graduate fellows [MDs and PhDs]). He has received numerous awards and is a member of the Canadian Academy of Health Sciences. He holds a Canada Research Chair (Vision Science) and the Leopoldine Wolfe Chair in Translational Research in age-related macular degeneration at Université de Montréal.



### **Richard Finkel, MD**

Dr. Richard Finkel is a child neurologist with expertise in pediatric neuromuscular disorders. He received his medical degree from Washington University in St. Louis, then trained in Pediatrics, Neurology and Neuromuscular Disorders at Boston Children's Hospital and Harvard Medical School. Dr. Finkel has held positions at Children's Hospital Colorado and The Children's Hospital of Philadelphia prior to moving in 2012 to Nemours Children's Hospital in Orlando, where he now serves as the Chief of the Division of Pediatric Neurology. His clinical and research focus has been on pediatric neuromuscular disorders, where he provides clinical care and performs clinical research in infants and children with Spinal Muscular Atrophy, Duchenne Muscular Dystrophy and other nerve and muscle disorders. His research interests have focused upon defining the contemporary natural history of these disorders, generation of standard-of-care guidelines, development of outcome measures and biomarkers, newborn screening and the conduct of clinical trials. Dr. Finkel

has authored more than 150 peer-reviewed medical reports and book chapters and has received numerous awards for his research and teaching efforts. He is Professor of Neurology at the University of Central Florida College of Medicine and serves as an associate editor for Swaiman's Pediatric Neurology textbook and for two neuromuscular journals.

### **Jane E. Harding, ONZM, MBChB, DPhil, FRACP, FRSNZ**

Jane Harding is a University Distinguished Professor, and a researcher in the LiFEPATH research group of the University's Liggins Institute. Her training included a medical degree at the University of Auckland, a D Phil at the University of Oxford, and a postdoctoral Fogarty Fellowship at the University of California at San Francisco.



Professor Harding has undertaken teaching and research at the University of Auckland for much of her career. Her on-going research concerns the role of nutrition and growth factors in the regulation of growth before and after birth, the longterm consequences of treatments given around the time of birth, and the regulation and significance of neonatal glycaemia. She is a paediatrician and practised as specialist neonatologist caring for newborn babies at National Women's Hospital, and has recently stepped down from her role as Deputy Vice-Chancellor (Research), with overall responsibility for the University's research activities.

She was awarded the Howard Williams Medal by the Royal Australasian College of Physicians in 2014 for her outstanding contribution to Paediatrics and Child Health. In 2016 she was awarded the Beaven Medal by the Health Research Council of New Zealand for excellence in translational health research.



**Thomas Jansson, MD, PhD**

**Thomas Jansson** is the Florence Crozier Cobb Endowed Professor, Chief Division of Reproductive Sciences and Vice Chair of Research at the Department of Obstetrics & Gynecology, at CU-AMC. Dr. Jansson has national and international recognition for his translational research exploring the cellular and molecular mechanisms that regulate placental function in normal pregnancy and in pregnancy complications and to investigate the role of the placenta in determining fetal growth and long-term health. The research group employs physiological, molecular and translational approaches, and utilizes a wide variety of model systems including primary human trophoblast cells and explants, human placental tissue, mice, rats, and non-human primates. Dr. Jansson's lab has proposed that placental nutrient sensing, a novel function of the placenta, determines life-long health. Dr. Jansson has a distinguished publication record, serves regularly on NIH study sections, is Principal Investigator on numerous NIH grants and the

recipient of several awards, such as the 2005 International Federation of Placenta Associations (IFPA) award and the 2017 President's Achievement Award of the Society for Reproductive Investigation.



**David Keefe, MD**

Dr. David Keefe graduated from Harvard College and Georgetown University School of Medicine. He trained in psychiatry at Harvard before completing an NIH funded fellowship in neuroendocrinology at Northwestern University. He completed residency in Ob/Gyn and clinical fellowship in Reproductive Endocrinology and Infertility at Yale, where he also completed a research fellowship supported by the Kennedy Krieger Foundation. He directed the IVF program at Brown University, and then he chaired the Department of Ob/Gyn at TGH and USF before becoming the Stanley H. Kaplan Professor and Chair of Ob/Gyn at NYU Langone Medical Center. His research focuses on reproductive aging, specifically the role of telomere and epigenetic clocks in reproductive aging in women. His research has been supported by NIH, the Lalor Foundation, the Stanley H. Kaplan Research Fund, the King Foundation, and the March of Dimes, and has won the ASRM General Program Prize Paper, the SART Prize Paper

and the SART Prize Poster Awards.



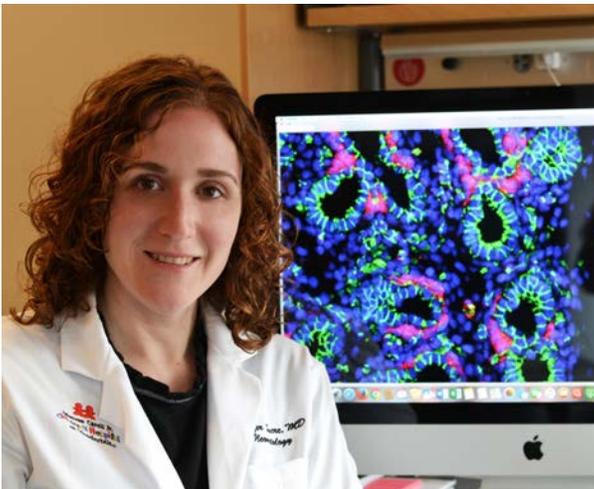
## Stephen Kingsmore, MD, DSc

After a comprehensive search process, Stephen F. Kingsmore, MD, DSc was appointed as the inaugural President and CEO of the Rady Children's Institute for Genomic Medicine in September 2015.

Previously he was the Dee Lyons/Missouri Endowed Chair in Genomic Medicine at the University of Missouri-Kansas City School of Medicine and Director of the Center for Pediatric Genomic Medicine at Children's Mercy Hospital, Kansas City. He has been the President and CEO of the National Center for Genome Resources, Santa Fe, New Mexico, Chief Operating Officer of Molecular Staging Inc., Vice President of Research at CuraGen Corporation, founder of GatorGen, and Assistant Professor at the University of Florida's School of Medicine. Dr. Kingsmore received MB ChB BAO BSc and DSc degrees from the Queen's University of Belfast. He trained in clinical immunology in Northern Ireland and did residency in internal medicine and fellowship in rheumatology at Duke University Medical Center. He is a fellow of the Royal College of Pathologists. He

was a MedScape Physician of the year in 2012, and received the 2013 Scripps Genomic Medicine award and 2013 ILCHUN prize of the Korean Society for Biochemistry and Molecular Biology. TIME magazine ranked his rapid genome diagnosis one of the top 10 medical breakthroughs of 2012. In March of 2015, Dr. Kingsmore surpassed his previous record in genetic sequencing by reducing the process to 26 hours which was recognized in April 2016 by Guinness World Record as the fastest genetic sequencing in the world.

## Jennifer Sucre, MD



Jennifer Sucre, MD is an assistant professor of pediatrics in the Mildred Stahlman Division of Neonatology at Vanderbilt University. She graduated from Harvard Medical School and completed residency in pediatrics at Washington University and fellowship in neonatal-perinatal medicine at UCLA, where she worked in the laboratory of Brigitte Gomperts. Her research focuses on developing human models of developmental lung diseases such as bronchopulmonary dysplasia. Her work is supported by the NIH and a Parker B. Francis Fellowship from the Francis Family Foundation.



**James Wynn, MD**

Dr. Wynn is currently an Associate Professor Pediatrics and Pathology, Immunology, and Experimental Medicine at the University of Florida. His research focus is human and murine neonatal sepsis and innate immunity. He is also working to develop and implement a consensus definition of neonatal sepsis to align investigators' efforts globally. He has received continuous funding since 2010 from the NIH, Gerber Foundation and Thrasher Fund. Dr. Wynn has authored over 65 primary science manuscripts, reviews and book chapters; collectively cited over 2800 times. He is an elected member of the Society for Pediatric Research, The Shock Society, and the Perinatal Research Society. He serves as Associate Editor for Pediatric Research, an ad hoc reviewer for the NIH and over 35 scientific journals, is a Council Member for in the Perinatal Research Society, and is a UF College of Medicine AAMC Council of Faculty and Academic Societies representative. He was inducted into the Gold Humanism Honor Society in 2008, has effectively served as a mentor (undergraduates, medical students, neonatology fellows), and has been recognized frequently for teaching excellence.

## 2018 Meeting Sponsors

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A meeting such as this takes considerable support just to run the meeting rooms, bring in speakers who are leaders in their fields, and provide an environment for the members to discuss all aspects of reproduction and its complications. We are most fortunate to have been partnered for many years with both public and private sponsors who are equally committed to the mission to advance a field that is so important to public health. Only this makes it possible to continue to fund both the meeting itself, and the additional attendance of a considerable number of Young Investigators and early Career Speakers at the meeting.

Recently in direct response to the pressures on Young Investigators seeking career independence, we have extended our teaching mission further with the creation of a pre-meeting that functions as a fully immersive two day Grants Writing Workshop. Again, this is only possible with the generous support of Public and Private sponsors.

The Perinatal Research Society would like to thank the following sponsors for their generous financial support of the 48<sup>th</sup> Annual Meeting and associated Pre-meeting. We further recognize these sponsors with the term "Presidential partner" to denote those sponsors who have made substantial contributions over many years.

### PRS Main Meeting

- The Main Program of the 47<sup>th</sup> Annual meeting continues to be supported by our long standing Presidential Partners, **Abbott Nutrition, Mead Johnson Nutrition, March of Dimes and NICHD.**
- Early Career Investigators travel/attendance at the Main Meeting are sponsored by Presidential Partners **Abbott Nutrition and Mead Johnson Nutrition, as well as PSANZ.**
- Young Investigator attendance at the PRS Annual Meeting this year was generously supported by **Mead Johnson Nutrition.**

### NIH-Abbott Nutrition Grant Writing Workshop

- The core program of the Grants Writing Workshop, including attendance costs of Faculty Trainers, has been generously funded by Presidential Partner **Abbott Nutrition** in partnership with R13 support by **NICHD.**
- Young Investigator attendance is also further supported by an additional R13 award from **NICHD**, together with support by **Abbott Nutrition.** Additional Early Career Speakers attendance is sponsored by Presidential Partners **Abbott Nutrition and Mead Johnson Nutrition.**

### Progenity

- Attendance by several guest OB Clinician Scientists Scholars was made possible by a generous contribution from **Progenity**

Kelli Barbour, MD

Christopher Enakpene, MD

Jennifer Gilner, MD, PhD

Kara Hoppe, DO

Mariko Horii, MD

Baylor College of Medicine

Texas Tech University Health Sciences Center

Duke University

University of Wisconsin-Madison School of Medicine and Public Health

University of California, San Diego

## Sponsor Statements:

Presidential Partners (in order of contribution)

(\*Platinum Sponsors support the activities of PRS at a level > \$10,000)



Abbott Nutrition (Presidential Partner, Platinum Sponsor\*): This meeting is supported, in part, through an educational grant from Abbott Nutrition, a division of Abbott Laboratories, Inc.



Mead Johnson Nutrition (Presidential Partner, Platinum Sponsor\*): This meeting is also supported in part by an educational grant from Mead Johnson Nutrition.



March of Dimes (Presidential Partner): This meeting is also supported in part by the March of Dimes Foundation Grant No. 4-FY18-841.

Additional Sponsors

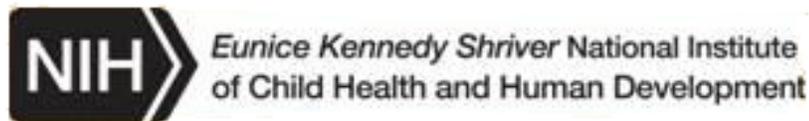


Progenity: This meeting is also supported in part by an educational grant from Progenity.



Vanderbilt University Medical Center: This meeting is also supported in part by an educational grant from Vanderbilt University Medical Center.

Additional Grant Support



Grant Support: Funding for the Grants Writing Workshop was made possible in part by award R13-HD079163 from NICHD. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

*Join Us in 2019 for the 50<sup>th</sup> Annual Meeting*



*Minneapolis Marriott Northwest  
Brooklyn Park, MN  
September 27 - 29, 2019*

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Join Us in 2020



The Benson  
Portland, Oregon  
September 11 – 13, 2020

Join Us in 2021



The Sirata Beach Resort  
St. Pete Beach, FL  
September 10 – 12, 2021