

**Baylor College of Medicine - Texas Children's Hospital  
Pediatric Research Symposium  
March 24, 2020**

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*Scan to access digital copies of abstracts listed by section.*

<https://www.texaschildrens.org/research/symposia/pediatric-research-symposium>



## Welcome to the 2020 Pediatric Research Symposium

### Program Objectives

- To give Fellows and Residents a platform to share their cutting-edge research.
- To introduce Fellows and Residents to pediatric leaders with exceptional research careers.
- To strengthen how Fellows and Residents communicate their research to the public.
- To bring Fellows/Residents and Faculty together, to foster mentorship and career-building experiences.

**Today we celebrate** our exemplary pediatric research at Baylor College of Medicine. We congratulate all of the trainees who are presenting today. Special honors go to the top 5 abstract winners: Dr. Brian King, Anna Meyer, Dr. Omar Shakeel, Dr. Michael Smaglick, and Dr. Jian Zhou.

In addition, we recognize extraordinary individuals who represent the very best of pediatric research and research communication. This year's Keynote Research Presentation will be given by Dr. Charlotte Cunningham-Rundles from Icahn School of Medicine at Mount Sinai. The Keynote Scholarship Presentation will be given by our own Dr. Margaret Goodell, from our own Baylor College of Medicine. The Fellows' workshop will be led by Dr. Lisa Forbes, 2020 Pediatric Research Symposium Chair.

Every year we honor the creative and beautiful side of research with the booklet cover art competition. The 2020 Symposium Booklet front cover displays the original artwork showing in 9.5 days the transformation from a single cell to a recognizable young mouse embryo. The artwork was created and submitted by Dr. Naomi Tjaden, Pediatrician Scientist Training and Development Program, Baylor College of Medicine and Texas Children's Hospital.

There are many colleagues and fellow Baylor employees who make this day happen. We extend our utmost gratitude to our committee and our committee project manager Anissa Quiroz. Thank you to our outstanding young researchers, their mentors, and the faculty across all disciplines who served as research abstract reviewers and poster judges.

We especially recognize and thank our dedicated program directors, program coordinators, and program staff who support the foundation which makes the Department of Pediatrics at Baylor College of Medicine such a fruitful environment in which to investigate and innovate. Our collaborators instrumental in fostering this environment, include the Texas Children's Research Administration Department, the Research Resources Office (RRO), and the Fellows' College.

Finally, we extend our gratitude and appreciation for the Department of Pediatrics at Baylor College of Medicine for their unwavering support and dedication to research by fellows and residents and trainees at this institution.

Enjoy the program!

The 2020 Pediatric Research Symposium Committee

*Lisa Forbes, MD (2020 Chair)*

*Fong Lam, MD, FAAP (2021 Chair-Elect)*

*Sanjiv Harpavat, MD PhD (Immediate Past Chair)*

*Anissa Quiroz, MS (Program Administrator)*

*Lisa Bomgaars, MD*

*Kristy Murray, DVM, PhD*

*Katherine King, MD, PhD*

*Jennifer Rama, MD*

*Paige Schulz, MBA, MHA*

*Dequita Hall, MBA*

*Stacey Staples*

**Baylor College of Medicine - Texas Children's Hospital**  
**Pediatric Research Symposium**

*March 24, 2020*

**Program Agenda**

**2020 Theme: "Nothing into Something: The Innovative Journey into Science"**

**Cover Art Winner**

"In 9.5 days, I have transformed from a single cell to a recognizable embryo. The colors highlight the developing nervous system of this young mouse embryo."

Naomi Tjaden, MD, PhD  
Pediatrician Scientist Training and Development Program  
Baylor College of Medicine  
Texas Children's Hospital

**PEDIATRIC RESEARCH SYMPOSIUM**

**TUESDAY, MARCH 24**

**LOCATION: JAN AND DAN DUNCAN NEUROLOGICAL RESEARCH INSTITUTE**

7:45 - 8:30 a.m.           **Continental Breakfast**

8:30 – 8:40 a.m.       **Opening Remarks**  
Lisa Forbes, MD, Symposium Chair

8:40 – 9:55 a.m.       **Top Abstracts Oral Presentations**

Dr. Brian King (Neonatology)  
Economic Burden of Clinician-Driven Tests and Treatments in Very Low Birth Weight Preterm Infants

Anna Meyer (Immunology, Allergy and Rheumatology)  
Extraction of the proteome of the immunological synapse in NK cells

Dr. Omar Shakeel (Hematology / Oncology)  
Improving Comfort and Knowledge of Oncofertility: An Institutional Quality Improvement Project

Dr. Michael Smaglick (Critical Care)  
Comparing the impact of DIC on mortality in pediatric HLH and sepsis

Dr. Jain Zhou (Molecular & Human Genetics)  
Tcf20 haploinsufficiency results in autistic-like phenotypes in mice

9:55 – 10:05 a.m.      **Top Abstracts Award Presentation**  
Gordon Schutze, MD  
Department of Pediatrics Interim Chair  
Professor of Pediatrics  
Baylor College of Medicine  
Texas Children's Hospital

- 10:05 – 10:20 a.m.      **Symposium Photo**
- 10:25 – 10:35 a.m.      **Break**
- 10:35 – 11:15 a.m.      **Keynote Research Presentation**  
 “B Cell and Antibody Defects: Learning Genetics from our Patients”  
 Charlotte Cunningham-Rundles, MD, PhD  
 David S. Gottesman Professor of Immunology  
 Professor of Medicine and Pediatrics  
 Director, Immunodeficiency Clinic at Mount Sinai  
 Program Director of the Allergy Immunology Fellowship training program  
 Icahn School of Medicine at Mount Sinai  
 Mount Sinai Hospital
- 11:25 – 12:55 p.m.      **Poster Session**
- 12:55 – 1:40 p.m.      **Networking Luncheon**
- 1:45 – 2:30 p.m.      **Keynote Scholarship Presentation**  
 “Immortal Hematopoietic Stem Cells and their Epigenetic Regulation”  
 Margaret Goodell, PhD  
 Professor and Chair, Department of Molecular & Cellular Biology  
 Vivian L. Smith Chair in Regenerative Medicine  
 Professor, Center for Cell and Gene Therapy, Departments of Pediatrics,  
 Molecular and Human Genetics, and Pathology and Immunology  
 Director, Stem Cells and Regenerative Medicine (STaR) Center  
 Baylor College of Medicine
- 2:35 – 4:05 p.m.      **Fellows’ Workshop**  
 “Nothing turns into Something! Techniques to Brainstorm Innovation and Make  
 Nothing into Something.”
- Lisa Forbes, MD  
 Assistant Professor, Department of Pediatrics  
 Immunology Allergy and Rheumatology  
 Medical Director, Center for Human Immunobiology,  
 Medical Director, Texas Children’s Hospital Infusion Center  
 Baylor College of Medicine  
 Texas Children’s Hospital
- Amy Arrington, PhD, MD  
 Section Chief, Global Biologic Preparedness  
 Medical Director, Pediatrics, Special Isolation Unit,  
 Assistant Professor, Department of Pediatrics Critical Care  
 Baylor College of Medicine  
 Texas Children’s Hospital
- 4:05 – 4:20 p.m.      **Poster Awards Presentation**

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# FELLOWSHIP PROGRAM DIRECTORS

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"In 9.5 days, I have transformed from a single cell to a recognizable embryo. The colors highlight the developing nervous system of this young mouse embryo."

Naomi Tjaden, MD, PhD

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