

# Department of Neonatology

## New Staff

**Gia Yannekis, MD, MPH**



We are very pleased to announce that Gia Yannekis, MD, MPH, chief fellow of the Harvard Neonatal-Perinatal Medicine program, will be joining the Department of Neonatology in July. Gia is familiar to all in the Department and NICU because in addition to her fellowship experience at BIDMC, she has been a per diem hospitalist in the NICU.

Gia's impact has already been felt because of her keen interest in palliative care and supporting families through complex decision-making. To further that experience, she has focused on quality improvement work dedicated to enhancing trainee education during prenatal consults. She has also been conducting a qualitative research project exploring virtues that parents value in their neonatologists. As an attending, she will continue to connect with families through prenatal consults, while also facilitating communication and team leadership curriculum for residents and fellows.

Gia graduated from the Perelman School of Medicine at the University of Pennsylvania and holds a Master's Degree in Public Health from the T.H. Chan School of Public Health at Harvard Medical School. She completed her residency at the Children's Hospital of Philadelphia, where she was the chief pediatric resident.

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## News

### **American Academy of Pediatrics Launches National Neonatal Designation Program; BIDMC Leaders in Prominent Roles**

The American Academy of Pediatrics announced the launch of a new national verification and designation program that recognizes hospitals with the highest levels of neonatal care. The Neonatal Excellence Program supports hospitals' initiatives to provide newborns with access to the right expertise and resources, helping to improve outcomes, reduce disparities, increase transparency and advance health for all children.

The AAP is the leading authority in neonatal verification and designation, having developed the standards for each level of neonatal care. With the program's new expansion, hospitals in all 50 states can now obtain an independent, third-party assessment by leading neonatal clinicians, demonstrating that their neonatal intensive care unit (NICU) meets the highest standards in neonatal care.

**DeWayne Pursley, MD, MPH, has been selected as Chairperson, Advisory Board of the NICU Verification Program.**

**Ann Stark, MD,** has transitioned to a new role as the Sr. Advisor, National Neonatal Initiatives. This role is vital to the success of the program, ensuring continued collaboration between the NICU Verification Program, the Committee on Fetus and Newborn (COFN), the Section on Neonatal-Perinatal Medicine (SONPM), and AAP Senior Leaders.

**Munish Gupta, MD, MMSc,** has been selected to serve a four-year term on the Subboard of Neonatal-Perinatal Medicine of the American Board of Pediatrics. The subboard is responsible for developing and administering certification examinations for neonatologists, as well as assisting in setting requirements for fellowship training.

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## News

### Celebrating Boston Magazine's Top Doctors



Dara Brodsky, MD  
Munish Gupta, MD  
Aimee Knorr, MD  
Karen McAlmon, MD  
Elizabeth Oh, MD  
DeWayne Pursley, MD, MPH  
Jane Stewart, MD  
John Zupancic, MD, ScD

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## News



**Kristin Santoro, MD, has been selected to participate in 2025 HMS/HSDM Leadership Development Course.**

The HMS/HSDM Leadership Development Course builds on participants' knowledge base and skills to enhance their professional development as administrative leaders in academic medicine. The curriculum focuses on human resource management, negotiation, finance, self assessment, communications, and personal career development.



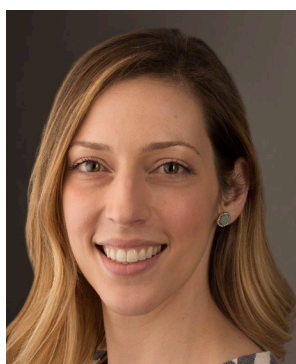
**Paige Church, MD, has been selected by the Vermont Oxford Network to serve as Content Lead faculty for the 2025-26 QI topic of Optimizing Neurodevelopment for Infants with BPD.**

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## News



**Brian King, MD, has been accepted to the Harvard T.H. Chan School of Public Health for the 205-2026 academic year for a Master of Science in Health Policy and Management**



**Kristyn S. Beam, MD, MPH, has been selected for a core faculty position for BIDMC's Center for Healthcare Delivery Science.**

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## Grants

### Ale Barrero-Castillero Awarded Two Major Grants



**2025 APA Research in Academic Pediatrics Investigator Development (RAPID) Award.** RAPID scholars are junior faculty committed to careers in academic pediatrics. Ale was funded by the American Board of Pediatrics Foundation, which prioritizes candidates committed to improvements in behavioral mental health and/or health equity.

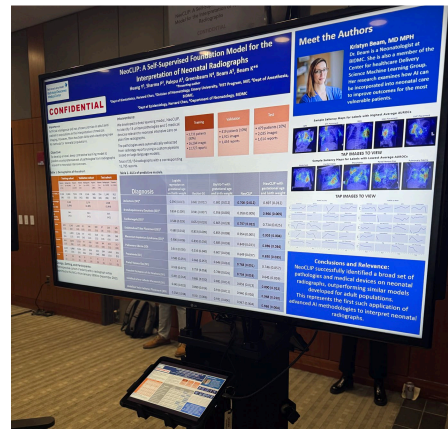
**2025 AAP Health Equity Grant Program.** Recipients are early career physicians active in research, interventions, and education that address health equity in communities and institutions.



# Department of Neonatology

## Awards

**Kristyn Beam, MD, MPH, Runner-up Poster Award at BIDMC Artificial Intelligence and Machine Learning Symposium** for “NeoCLIP: A Self-Supervised Foundation Model for the Interpretation of Neonatal Radiographs”



The goal of this project was to develop a novel, deep contrastive learning model to predict a comprehensive set of pathologies from radiographs relevant to neonatal intensive care. Using advanced machine learning techniques (including large language models and a contrastive image-language pretraining technique), we were able to predict neonatal diagnoses from chest radiographs early in the neonatal course. NeoCLIP successfully identified a broad set of pathologies and medical devices on neonatal radiographs, outperforming similar models developed for adult populations. This represents the first such application of advanced AI methodologies to interpret neonatal radiographs.

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## New Service Offering

### **BIDMC NICU Now Able to Offer Expanded Point of Care Ultrasound**

With the addition of a new curvilinear ultrasound probe, neonatologists will now be able to identify the tip of UVC lines using point of care ultrasound. This probe also will allow physicians to obtain a quick view of the heart and could be useful in emergent situations (i.e. concern for pericardial effusion).

The purchase of the new probe was made possible through directed philanthropic support.



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## Presentations

### **Kristyn Beam, MD**

- Epidemiology and Health Services Research Rounds, Beth Israel Deaconess Medical Center, "From NICU to Pediatric Practice: Transforming Pediatric Healthcare with AI and Large Language Models," Boston, Massachusetts. January 2025
- Massachusetts General Hospital Pediatric Grand Rounds, Massachusetts General Hospital, "From NICU to Pediatric Practice: Transforming Pediatric Healthcare with AI and Large Language Models," Boston, Massachusetts. January 2025

### **Dara Brodsky, MD**

- Pediatric Academic Societies Meeting, "Enhancing Neonatology Fellow Leadership & Feedback During Prenatal Consults," Honolulu. April 2025
- Mount Auburn Ob/Gyn Grand Rounds, "Development of BIDMC Perinatal Comfort Care Team." February 2, 2025

### **Cicely Fadel, MD**

- "Helping Babies Breathe: A Newborn Global Health RDS Portfolio," Addis Ababa, Ethiopia. January 12, 2025

### **Munish Gupta, MD**

- Cleveland Clinic Symposium on Health Innovation and Neonatal Excellence, "Statistical Process Control for Quality Improvement," Orlando, Florida. January 17, 2025
- Cleveland Clinic Symposium on Health Innovation and Neonatal Excellence, "Improving Quality Improvement in Neonatology: Successes and Challenges," Orlando, Florida. January 16, 2025

### **Elizabeth Whitesel, MD, John Zupancic, MD, Munish Gupta, MD, DeWayne Pursley, MD, Helen Healy, MD**

- New England Perinatal Society Meeting, "Supporting Successful First Extubations of Extremely Preterm Infants Using Non-Invasive Positive Pressure Ventilation (NIPPV)." March 2025

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## Publications

The Family Snapshot-Innovation to integrate family context into daily interactions in the NICU. Dahan M, Rotteau L, Rolnitsky A, Higazi S, Kwakye O, Lai GWS, Moulds W, Sampson L, Stannard J, O'Brien K, **Church PT**. Acta Paediatr. 2025 May;114(5):913-921. doi: 10.1111/apa.17503. Epub 2024 Nov 21. PMID: 39568410; PMCID: PMC11976113.

It's the little things. A framework and guidance for programs to care for infants 22-23 weeks' gestational age. Bernardini LB, Healy H, Battarbee AN, Brennick E, **Church P**, Pavlek LR, Tagliaferro T, Travers C, Vier K, Walsh J, Rysavy MA; Tiny Baby Collaborative Steering Committee J Perinatol. 2025 Mar 10. doi: 10.1038/s41372-025-02252-x. Epub ahead of print. PMID: 40065032.

The feasibility of virtual home visits to address unmet needs after NICU discharge. Litt JS, Belmont J, **Church PT**, Howland J, **Stewart JE**. J Perinatol. 2025 Mar;45(3):395-396. doi: 10.1038/s41372-024-02180-2. Epub 2024 Dec 14. PMID: 39674836.

Trends in Neonatal Vaccination: A Ten-year Retrospective Study in a Large Delivery Center. Mourão ML, Baca-Arzaga A, Castellanos M, Johnstone R, Miedema D, Ozonoff A, Odumade OA, **Angelidou A**. Pediatr Infect Dis J. 2025 Feb 1;44(2S):S97-S100. doi: 10.1097/INF.0000000000004661. Epub 2025 Feb 14. PMID: 39951083.

Reimagining Neonatal Follow-Up: An Equitable Model of Care Emphasizing Family and Child Function. **Church PT**, Banihani R, Litt JS, Msall M. Pediatr Clin North Am. 2025 Feb;72(1):93-109. doi: 10.1016/j.pcl.2024.07.027. Epub 2024 Sep 5. PMID: 39603729.

Early identification and communication in cerebral palsy: Navigating a collaborative approach for neonatal follow-up programmes. **Church PT**, Banihani R, Thomas K, Luther M, Agnew B, Makino A, Lam-Damji S, Fehlings D. Acta Paediatr. 2025 Feb;114(2):292-298. doi: 10.1111/apa.17458. Epub 2024 Oct 14. PMID: 39400456; PMCID: PMC11706735.

Clinical Characteristics of Necrotizing Enterocolitis Diagnosed by Independent Adjudication of Abdominal Radiographs, Laparotomy, or Autopsy in Preterm Infants in the "Connection Trial" Neu J, Singh R, Demetrian M, Flores-Torres J, Hudak M, **Zupancic JA**, Kronström A, Rastad J, Strömberg S, Thuresson M; "Connection Study" Group.. Am J Perinatol. 2025 Jan;42(2):268-280. doi: 10.1055/s-0044-1788275. Epub 2024 Jul 10. PMID: 38986486; PMCID: PMC11688151.

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## Publications

AI models in clinical neonatology: a review of modeling approaches and a consensus proposal for standardized reporting of model performance. Husain A, Knake L, Sullivan B, Barry J, **Beam K**, Holmes E, Hooven T, McAdams R, Moreira A, Shalish W, Vesoulis Z. *Pediatr Res.* 2024 Dec 17. doi: 10.1038/s41390-024-03774-4. Epub ahead of print. PMID: 39681669.

Contemporary Outcomes of a National Fetal Spina Bifida Surgery Service. Kik CC, Kunpalin Y, Kulkarni AV, Varghese A, Abbasi N, Ryan G, Dekoninck PLJ, **Church PT**, Malhotra A, Raghuram K, Kelly E, Van Mieghem T. *Prenat Diagn.* 2024 Dec;44(13):1635-1640. doi: 10.1002/pd.6689. Epub 2024 Oct 19. PMID: 39425664; PMCID: PMC11628204.

Establishing feasibility and reliability of subcutaneous fat measurements by ultrasound in very preterm infants. Buck CO, **Santoro KL**, Shabanova V, Martin CR, Taylor SN. *Pediatr Res.* 2024 Dec;96(7):1724-1731. doi: 10.1038/s41390-024-03439-2. Epub 2024 Jul 28. PMID: 39069538; PMCID: PMC11772127.

The role of neighborhood on preterm birth among a high-risk group of birthing people in Boston, MA. **Fraiman YS**, Rusk SA, Rich-Edwards J, Wang X, Litt JS. *BMC Pregnancy Childbirth.* 2024 Nov 14;24(1):755. doi: 10.1186/s12884-024-06957-3. PMID: 39543519; PMCID: PMC11566739.

Effects of early intervention on the mental wellbeing and caregiving practices of preterm infant caregivers. Jang EE, Burns S, Hunte M, Vincett M, Chiarotto L, **Church PT**. *Early Hum Dev.* 2024 Nov;198:106112. doi: 10.1016/j.earlhumdev.2024.106112. Epub 2024 Sep 3. PMID: 39255625.

Need for strategic communications and stakeholder engagement to advance acceptability of an overdose preventing vaccine targeting fentanyl. Weitzman ER, Pierce SE, Blakemore LM, Murdock A, **Angelidou A**, Dowling DJ, Levy O, Levy S. *Vaccine.* 2024 Oct 24;42(24):126082. doi: 10.1016/j.vaccine.2024.06.049. Epub 2024 Jul 10. PMID: 38991914; PMCID: PMC11401752.

Safety and implementation of a phase 1 randomized GLA-SE-adjuvanted CH505TF gp120 HIV vaccine trial in newborns. Violari A, Otworld K, Hahn W, Chen S, Josipovic D, Baba V, **Angelidou A**, Smolen KK, Levy O, Mkhize NN, Woodward AS, Martin TM, Haynes B, Williams WB, Sagawa ZK, Kublin J, Polakowski L, Isaacs MB, Yen C, Tomaras G, Corey L, Janes H, Gray G. *medRxiv [Preprint].* 2024 Oct 17:2024.10.15.24315548. doi: 10.1101/2024.10.15.24315548. PMID: 39484284; PMCID: PMC11527060.