#### Jill L. Maron M.D., M.P.H. Female (She/Her/Hers) Pediatrician-in-Chief Women & Infants Hospital of Rhode Island William & Mary A. Oh/Anna Elsa Zopfi Professorship in Pediatrics for Perinatal Research Professor of Pediatrics, Warren Alpert Medical School of Brown University Providence, RI

<b>EDUCATION</b>	
<u>Undergraduate</u> A.B., <i>cum laude</i>	Biological Anthropology, Harvard University, Cambridge, MA, 1995
Medical School M.D.	Tulane University School of Medicine, New Orleans, LA, 2000
<u>Graduate School</u> M.P.H.	International Health, Tulane School of Public Health and Tropical Medicine New Orleans, LA, 2000

# **POSTDOCTORAL TRAINING**

Internship and Residency			
Pediatrics	Hasbro Children's Hospital, Brown Medical School	6/2000 - 6/2003	
Fellowship			
Newborn Medicine	Floating Hospital for Children at Tufts Medical Center	7/2003 - 6/2006	
<u>Fellowship</u> Newborn Medicine	Floating Hospital for Children at Tufts Medical Center	7/2003 - 6/2006	

# HONORS AND AWARDS

- Elizabeth Agassiz Merit Award, Harvard University, Cambridge, MA, 1995
- Harvard College Scholarship for Academic Achievement, Cambridge, MA, 1995
- Tulane MD/MPH Scholarship Award, Tulane Medical School, New Orleans, LA, 1996
- Ivy Day Award--Tulane School of Medicine, New Orleans, LA, 2000 Selected by faculty as the outstanding female representative of the Class of 2000
- Pediatric Intern Award, NICU, Hasbro Children's Hospital, Providence, RI, 2001
- Pediatric Resident Award, NICU, Hasbro Children's Hospital, Providence, RI, 2002
- Teaching Award—Hasbro Children's Hospital, Providence, RI, 2003
- Teaching Award—Brown School of Medicine Class of 2003, Providence, RI, 2003
- Haffenreffer Fellow in Medical Sciences Recipient, Providence, RI, 2003
- Recipient of the NIH Loan Repayment Award for Pediatric Research, NICHD, 2008
- Recipient of the NIH Loan Repayment Award for Pediatric Research, NICHD, 2009
- Recipient of the NIH Loan Repayment Award for Pediatric Research, NICHD, 2011
- Recipient of the NIH Loan Repayment Award for Pediatric Research, NICHD, 2012
- Young Investigator Award, Perinatal Research Society, 2012
- Young Physician-Scientist Award, American Society of Clinical Investigation, 2013
- Recipient of the NIH Loan Repayment Award for Pediatric Research, NICHD, 2014
- Mentor Award, New England Perinatal Society, 2015

- Perinatal Research Society, Associate Member Guest Lecturer, 2016
- True Blue Recipient, Tufts Medical Center, Boston, MA 2019
- Elected Member, American Pediatric Society, 2019
- American Medical Association, Inspiration Award Nominee, 2020
- America Journal of Human Genetics, One of 10 Most Important Papers in Genomic Medicine, 2023
- Clinical Research Forum, Top 10 Clinical Research Achievement Award, 2024
- Merenstein Lecturer, American Academy of Pediatrics, 2024

# ACADEMIC APPOINTMENTS

- Assistant Professor of Pediatrics, Tufts University School of Medicine, 2006-2013
- Founding Principal Investigator, Mother Infant Research Institute, Tufts Medical Center, 2010-2016
- Associate Professor of Pediatrics, Tufts University School of Medicine, 2013-2020
- *Interim*, Executive Director of the Mother Infant Research Institute, Tufts Medical Center, 2016-2017
- Vice Chair of Pediatric Research, Floating Hospital for Children, 2016-2021
- Executive Director of the Mother Infant Research Institute, Tufts Medical Center, 2017-2021
- Professor of Pediatrics, Tufts University School of Medicine, 2020-2021
- Member, Clinical and Translational Science Graduate Program, Tufts University, 2020-2021
- Adjunct Professor of Obstetrics & Gynecology, Tufts University School of Medicine, 2021
- William and Mary A. Oh/Anna Elsa Zopfi Professor in Pediatrics for Perinatal Research of Pediatrics, Warren Alpert Medical School of Brown University, 2021-present

# **HOSPITAL APPOINTMENTS**

- Staff Neonatologist, Pediatrics, Tufts Medical Center, Boston, MA 2006-2021
- Staff Neonatologist, Pediatrics, Melrose-Wakefield Hospital, Melrose, MA 2006-2021
- Staff Neonatologist, Pediatrics, Brockton Hospital, Brockton, MA 2006-2021
- Staff Neonatologist, Pediatrics, Jordan Hospital Plymouth MA 2006-2013
- Staff Neonatologist, Pediatrics, MetroWest Hospital, Framingham, MA 2014-2021
- Staff Neonatologist, Pediatrics, Women & Infants Hospital of Rhode Island, Providence, RI 2021-

# **OTHER APPOINTMENTS**

- Invited Participant, NICHD Vision Meeting, Bethesda, MD, 2011
- Invited Participant, AAP Perinatal Research Committee, 2014
- Ambassador, NICHD Loan Repayment Program Ambassador, 2014-present
- Co-Founder and Chair, 2014 North American Saliva Symposium, Boston, MA, 2014
- Section Editor, Youth and Children, <u>Clinical Therapeutics</u>, 2014-2019
- Editorial Board Member, Frontiers in Pediatrics, 2014-present
- Editorial Board Member, Journal of Human Transcriptome, 2014-present
- NICHD Reviewer, Loan Repayment Program, 2015-present
- NICHD ad hoc Reviewer, Pregnancy and Neonatology Study Section, 2015
- Study Section Reviewer, Charles H. Hood Foundation, 2015-2019
- NICHD ad hoc Reviewer, Small Business Innovation Research Grant, 2015
- NICHD ad hoc Reviewer, Small Business Innovation Research Grant, 2016

- NICHD ad hoc Reviewer, Surgery Anesthesia and Trauma Study Section, 2016
- NINR ad hoc Reviewer, Clinical Trial Planning Grants, 2017
- NICHD ad hoc Reviewer, Pregnancy and Neonatology Study Section, 2018
- Study Section Chair, Charles H. Hood Foundation 2018
- Grant Reviewer, Israeli Science Foundation, 2019
- NCATS Reviewer, Loan Repayment Program, 2019- present
- NICHD Study Section Member, Pregnancy & Neonatology, 2019-2021
- Grant Writing Workshop, Faculty Member Facilitator, Society of Pediatric Research, 2020
- NICHD, Neonatal Research Network, External Review Committee Member, 2020-2021
- Co-Editor-In-Chief, Clinical Therapeutics, 2020-present
- Chair, Pregnancy and Neonatology Study Section NICHD, 2021-2023
- NCATS, *ad hoc* Reviewer, Small Grant Program for the NCATS Clinical and Translational Science Award Program, October, 2024

# LICENSURE AND CERTIFICATION

- Rhode Island Medical License, MD11265, 2003-2006, 2021 (Active)
- Massachusetts Medical License 229960 (Active)
- American Board of Pediatrics, Board Certified in Pediatrics, 2003
- American Board of Pediatrics, Board Certified in Neonatal-Perinatal Medicine, 2008, (Active)
- American Board of Pediatrics, Recertification in Pediatrics, 2013, (Active)
- Fellow, American Academy of Pediatrics, 2020-present

# **HOSPITAL COMMITTEES**

Tufts Medical Center

- Scientific Oversight Committee Member, Dr. Kristi Washburn-Tolsa, Fellow in Newborn Medicine, 2007-2010
- Scientific Oversight Committee Member, Dr. Francheyska Silfa-Mazara, Fellow in Newborn Medicine, 2007-2010
- Scientific Oversight Committee Member, Dr. Sonal Patel, Fellow in Newborn Medicine, 2008-2
- Pediatric Residency Selection Committee Member, 2008-present
- Newborn Medicine Fellow Selection Committee Member, 2008-2011
- Scientific Oversight Committee Member, Dr. Elisha Wachman, Fellow in Newborn Medicine, 2010-2012
- Member of the Selection Committee for the Division Chief of Genetics, Floating Hospital for Children, 2012
- Member of the Selection Committee for the Quarterly Tufts Research Travel Award, 2012-2016
- Scientific Oversight Committee Member, Dr. Laura Madore, Fellow in Newborn Medicine, 2012-Scientific Oversight Committee Member, Dr. Nasim Gorji, Fellow in Newborn Medicine, 2013-2016
- Member, Board of Governors, Tufts Physician Organization, 20180-present
- Member, Research Strategic Planning Committee, Tufts Medical Center, 2018
- Member, Selection Committee, Chair of Obstetrics and Gynecology, 2020

Women & Infants Hospital

• Member, Medical Executive Committee, 2021- present

- Member, Claims Committee, 2021-present
- Member, Underwriting Committee, 2021-present
- Member, Strategic Leadership Team, 2021-present
- Member, Care New England Academic Council, 2021-present
- Member, Indemnity Board, 2021-present
- Member, Quality Board, 2021-present
- Member, NICU Surgical Practice Committee, 2021-present
- Member, Sepsis Task Force, 2021-present
- Member, Newborn Screening Task Force, 2021-present
- Member, NICU Transport Committee, 2021-present
- Chair, Search for Senior Vice-President, Quality & Medical Affairs, Chief Medical Officer, 2022
- Member, Utilization Review Committee, 2022-present
- Member, Constance A. Howes Women's Health Innovation Research Scientific Committee, 2022present

Hasbro Children's Hospital

- Pediatric Executive Operations Committee, 2021-present
- Pediatric Division Directors Committee, 2021-present
- Pediatric Research Cabinet, 2021-present

#### **UNIVERSITY COMMITTEES**

- Grant Reviewer, Tufts University CTSI Catalyst Awards, 2011, 2012 Member, Strategic Planning Committee, Wellforce Health System, 2020
- COVID-19 Pilot Award Grant Review Committee, 2020
- Zamboni Grant Review Committee, 2020
- Task Force Member, Tufts University-Tufts Medical Center-Wellforce Health System: Involved in Developing a System-Wide Approach for Research Integration, 2020
- Task Force Member, Wellforce System-Wide Integration, Tufts Medical Center Physician Organization, 2020
- Member, Search for the Chair of Psychiatry and Human Behavior, Brown University, 2023

#### **MEMBERSHIPS IN SOCIETIES**

Member, Society for Pediatric Research, 2011 Member, Perinatal Research Society, 2014 Fellow, American Academy of Pediatrics Member, American Pediatric Society, 2019

#### **PUBLICATIONS**

#### **ORIGINAL, PEER REVIEWED**

1. **Maron JL**, Johnson KJ, Slonim DS, Lai CQ, Ramoni M, Alterovitz G, Jarrah Z, Yang Z, Bianchi DW. Gene expression analysis in pregnant women and their infants identifies unique fetal biomarkers that circulate in maternal blood. J Clin Invest 2007;117:3007-19.

- 2. **Maron JL**, Arya M, Seefeld KJ, Peter I, Bianchi DW, Johnson KL. pH but not hypoxia affects neonatal gene expression: relevance for housekeeping gene selection. J Matern Fetal Neonatal Med 2008;21:443-7.
- 3. **Maron JL**, Alterovitz G, Ramoni M, Johnson KL, Bianchi DW. High-Throughput discovery and characterization of fetal protein trafficking in the blood of pregnant women. Proteomics Clin Appl 2009;3:1389-96.
- 4. **Maron JL**, Johnson KL Rocke, DM, Cohen MG, Liliey AJ, Bianchi DW. Neonatal salivary analysis reveals global developmental gene expression changes in the premature infant. Clin Chem 2009;56:409-16.
- 5. **Maron JL**, Johnson KL Parkin C, Iyer L, Davis JM, Bianchi DW. Cord blood genomic analysis highlights the role of redox balance. Free Radic Biol Med 2010;49:992-6.
- 6. **Maron JL**, Bianchi DW. A "fluid-agnostic" approach to analysis of fetal and neonatal developmental gene expression. Circulating Nucleic Acids in Plasma and Serum. Springer, 2011, part 3, 125-132.
- 7. Bianchi DW, **Maron JL**, Johnson KL. Insights into fetal and neonatal development through analysis of cell-free RNA in body fluids. Early Hum Dev 2010;86:747-57.
- 8. Turcan S, Wei X, Maron J, Vetter D, Slonim D. Mining functionally relevant gene sets for analyzing physiologically novel clinical expression data. Pac Symp Biocomput 2010;50-61.
- 9. **Maron, JL**. Exploring the neonatal salivary transcriptome: Technical optimization and clinical applications. Clin Biochem 2011:44:467-68.
- 10. Dietz, JA, Johnson KL, Wick HC, Bianchi DW, **Maron JL**. Optimal techniques for mRNA extraction from neonatal salivary supernatant. Neonatology 2012;101:55-60.
- 11. **Maron, JL**, Johnson, KL, Dietz, JA, Chen, ML, Bianchi, DW. Neuropeptide Y2 Receptor (*NPY2R*) expression in saliva predicts feeding immaturity in the premature neonate. PLoS One 2012; e37870.
- 12. **Maron, JL**. Insights into neonatal oral feeding through the salivary transcriptome. Int J Pediatr 2012;2012:195153.
- 13. **Maron, JL**, Dietz, JA, Parkin, CA, Johnson, KL, Bianchi, DW. Performing discovery-driven neonatal research by transcriptomic analysis of routinely discarded biofluids. J Matern Fetal Neonatal Med 2012;25:2507-11.
- Park J, Wick HC, Kee DE, Noto K, Maron JL, Slonim DK. Finding novel molecular connections between developmental processes and disease. PLoS Comput Bio 2014;10:e1003578.
- 15. Iyengar A, Paulus JK, Gerlanc DJ, **Maron JL**. Detection and potential utility of c-reactive protein (CRP) in saliva of neonates. Front Pediatr 2014;2:131.
- 16. **Maron JL**, Hwang JS, Pathak S, Ruthazer R, Russell RL, Alterovitz G. Computational gene expression modeling identifies salivary biomarkers that predict oral feeding maturity in the newborn. J Peds 2015;166:282-288.
- 17. Iyengar A, Maron JL. Detecting infection in neonates: Promises and challenges of a salivary approach. Clin Ther 2015;37:523-528.
- 18. Maron JL. Bringing salivary diagnostics into the 21<sup>st</sup> Century. Clin Ther 2015;37:496-497.
- 19. **Maron JL**, Johnson KL. Comparative performance analyses of commercially available products for salivary collection and nucleic acid processing in the newborn. Biotech Histochem 2015;90:581-586.
- 20. Zimmerman E, Maki MS, **Maron JL.** Salivary *FOXP2* expression and oral feeding success in premature infants. Cold Spring Harb Mol Case Stud 2016:2:a000554.
- 21. Zimmerman E, **Maron JL**. *FOXP2* gene deletion and infant feeding difficulties: A case report. Cold Spring Harb Mol Case Stud 2016:2:a000547.

- 22. Barlow SM, **Maron JL**, Alterovitz G, Song D, Wilson BJ, Jetatheesan P, Govidaswami B, Lee J, Rosner AO. Somatosensory modulation of salivary gene expression and oral feeding in preterm infants: randomized controlled trial. JMIR Res Protoc 2017;14:e113.
- 23. Khanna P, Johnson KL, **Maron JL.** Optimal reference genes for RT-qPCR normalization in the newborn. Biotech Histochem 2017;14:1-8.
- 24. Khanna P, **Maron** JL, Walt D. Development of a rapid salivary proteomic platform for oral feeding readiness in the preterm newborn. Front Pediatr 2017;5:268.
- 25. Liao C, Rosner AO, **Maron JL**, Song D, Barlow SM. Automatic non-nutritive suck waveform discrimination and feature extraction in preterm infants. Comput Math Methods Med 2019;7496591.
- 26. Davidson J, Ruthazer R, **Maron JL**. Optimal timing to utilize olfactory stimulation with maternal breast milk to improve oral feeding skills in the premature newborn. Breastfeed Med. 2019;14:230-235.
- 27. Yen E, Kaneko-Tarui T, Ruthazer R, Hassaneen M, **Maron JL**. Sex-Dependent gene expression in infants with neonatal opioid withdrawal syndrome. J Pediatr 2019:214:60-65.
- Bartolome R, Maron JL, Zimmerman E. The utility of speech language biomarkers to predict oral feeding outcomes in the premature newborn. Am J Speech Lang Pathol. 2020:29 (2S);1022-1029.
- 29. Rao LR, Taymoori A, Wong DTW, **Maron JL**. Altered level of salivary placental growth factor is associated with preeclampsia. Placenta. 2020;90:118-120.
- 30. Maron BA, **Maron JL**, Abman SH. The Case for Bringing Birthweight to Adult Cardiovascular Medicine. Am J Cardiol. 2020;127:191-192.
- 31. **Maron JL,** Kingsmore S, Wigby K *et al.* Novel Variant findings and Challenges Associated with the Clinical Integration of Genomic Testing: An Interim Report of Genomic Medicine for Ill Neonates and Infants (GEMINI Study). JAMA Peds May 1:175(5).
- 32. Ziegler A **Maron JL**, Barlow SM, Davis JD. Effect of Pacifier Design on Non-Nutritive Suck and Weight Gain in Preterm Infants: A Pilot Study. Curr Ther Res Clin Exp. 2020 Nov 17;93:100617.
- 33. Yen E, Kanedo-Tarui T, **Maron JL**. Technical considerations and protocol optimization for neonatal salivary biomarkers discovery and analysis. Front Pediatr. 2021;8:618553.
- Khanna P, Jenney K, Tai A, Maron JL. Salivary RNA sequencing highlights a sex-specific developmental time course towards oral feeding maturation in the newborn. Pediatr Med 2021 doi: 10.21037/pm-21-45.
- 35. Lavelle TA, Feng X, Keisler M, Cohen JT, Neumann PJ, Prichard D, Schroeder BE, Salyakina D, Espinal PS, Weidner SB, **Maron JL**. Cost-effectiveness of exome and genome sequencing for children with rare and undiagnosed conditions. Genet Med 2022 June;24(6):1349-1361.
- 36. Yen E, Madan N, Tarui T, Kaneko-Tarui T, Breeze JL, Davis JM, **Maron JL**. Sex-specific inflammatory and white matter effects of prenatal opioid exposure: a pilot study. Pediatr Res. 2023 Feb;93(3):604-611.
- 37. Wigby K, Hammer M, Tokita M, Patel P, Jones MC, Larson A, Bartolomei FV, Dykzeul N, Slavotinek A, Yip T, Bandres-Ciga S, Simpson BN, Suhrie K, Shankar S, Veith R, Bragg J, Powell C, Kingsmore SF, Dimmock D, Maron J, Davis J, Del Campo M. Insights into the perinatal phenotype of Kabuki syndrome in infants identified by genome-wide sequencing. Am J Med Genet A. 2023 Apr;191(4):930-940.
- 38. Maron JL, Kingsmore S, Gelb BD, Vockley J, Wigby K, Bragg J, Stroustrup A, Poindexter B, Suhrie K, Kim JH, Diacovo T, Powell CM, Trembath A, Guidugli L, Ellsworth KA, Reed D, Kurfiss A, Breeze JL, Trinquart L, Davis JM. Rapid whole-genome sequencing and a targeted neonatal gene panel in infants with a suspected genetic disorder. JAMA. 2023 July 11;330(2):161-169.

- Barlow SM, Liao C, Lee J, Kim S, Maron JL, Song D, Jegatheesan P, Govindaswami B, Wilson BJ, Bhakta K, Cleary J. Spectral features of NNS dynamics in extremely preterm infants. Pediatr Med, 2023 Aug 30;6:23.
- 40. Maron JL, Kingsmore SF, Wigby K, Chowdhury S, Dimmock D, Poindexter B, Suhrie K, Vockley J, Diacovo T, Gelb BD, Stroustrup A, Powell CM, Trembath A, Gallen M, Mullen TE, Tanpaiboon P, Reed D, Kurfiss A, Davis JM. Novel Variant Findings and Challenges Associated With the Clinical Integration of Genomic Testing: An Interim Report of the Genomic Medicine for Ill Neonates and Infants (GEMINI) Study. JAMA Pediatr. 2021 May 1;175(5):e205906. doi: 10.1001/jamapediatrics.2020.5906. Epub 2021 May 3. Erratum in: JAMA Pediatr. 2021 Aug 1;175(8):871.
- 41. Azuma D, Penner Y, Kaneko-Tarui T, Mahmoud T, Breeze JL, Rodday A, O'Tierney-Ginn P and Maron JL (2024) Neonatal body composition, salivary feeding gene expression, and feeding outcomes in infants of diabetic mothers. *Front. Clin. Diabetes Healthc.* 5:1501805. doi: 10.3389/fcdhc.2024.1501805. 2024 Dec

#### **REVIEWS, PEER REVIEWED:**

- 1. Bianchi DW, Wataganara T, Lapaire O, Tjoa ML, **Maron JL**, Larrabee PB, Johnson KL. Fetal nucleic acids in maternal body fluids: an update. Ann N Y Acad Sci 2006;1075:63-73.
- 2. **Maron JL**, Bianchi DW. Prenatal diagnosis using cell-free nucleic acids in maternal body fluids: a decade of progress. Am J Med Genet C Semin Med Genet 2007;145:5-17.
- 3. Romano-Keeler J, Wynn JL, **Maron JL**. Great expectorations: the potential of salivary 'omic' approaches in neonatal intensive care. J Perinatol 2014;34:169-173.
- 4. Hassaneen M, **Maron JL**. Salivary Diagnostics in Pediatrics: Applicability, Translatability, and Limitations. Front Pub Health 2017;5:83.
- 5. Azuma D, **Maron JL**. Individualizing Oral Feeding Assessment and Therapies in the Newborn. Research and Reports in Neonatology. 2020;10:23-30.

# **EDITORIALS and CONVERSATIONS**

- 1. **Maron JL.** From Bottles to Diapers: How manipulating and exploring the microbiome is defining newborn care. Clin Ther 2016;38:704-705.
- 2. **Maron JL**. Forgotten no more: How policy guideline changes are bringing newborns, infants, and children to the forefront of drug discovery and testing. Clin Ther 2017;39:1918-1919.
- 3. **Maron JL**, Jones GB. How sensors, devices and biomarkers can transform precision medicine: Perspectives from a Clinical and Translational Science Institute. Clin Ther 2018;40:345-348.
- 4. **Maron JL**. Rethinking childhood obesity: Novel preventive and treatment strategies. Clin Ther 2018;40:1628-1630.
- 5. **Maron JL.** Finding hope: Clinical strategies to combat the devastating impact of the opioid epidemic on our youth. Clin Ther 2019; 41:1652-1654
- 6. **Maron JL.** The shared responsibility of implementing value-based health care. Clin Ther 2020;42(1):7-9.
- 7. Jhaveri R, Maron JL. The Changing of the Guard. Clin Ther. 2020;42(2):237.
- 8. **Maron JL**. Evaluating Therapeutics and Interventions Throughout the Female Life Course. Clin Ther. 2020;42(3):379-380.
- 9. **Maron JL**. Stress and Altered Immune Function: Programming Throughout the Lifespan. Clin Ther. 2020;42(6):959-960.
- 10. Maron JL. Brain: The New Frontier. Clin Ther. 2020;42(7):1137-1138.

- 11. **Maron JL.** Healing a Broken Heart: Can Stem Cell and Gene Therapy Regenerate and Repair the Myocardium? Clin Ther. 2020;42(10):1847-1848.
- 12. **Maron JL** The Hidden Generation: Offspring of Sperm Donation in an Era of Medical Paternalism. Clin Ther 2020; 42(11):2119-2121.
- 13. **Maron JL**. Rethinking Our Approach to the Public Mistrust of Science. Clin Ther 2020; 42(12):2239-2240.
- 14. Maron JL. Giving the Placenta the Respect it Deserves. Clin Ther. 2021; 43(2):220-2211.
- 15. Bianchi DW, **Maron JL**. Conversations with the Editors: The Past, Present and Future of Placental Research at the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development. Clin Ther. 2021;43(2):211-217.
- 16. **Maron JL.** How Health Care Systems Can Advance Therapeutics. Clin Ther. 2021;S014-2918(21)00104-1.
- 17. **Maron JL**. Personalizing therapies and targeting treatment strategies through pharmacogenomics and artificial intelligence. Clin Ther. 2021;43(5):793-794.
- 18. Stanford FC, **Maron JL**. Conversations with the Editors: Combating caregiver and patientperceived obesity stigmatization. Clin Ther. 2021;43(7):1140-1146.
- 19. **Maron JL**. The Yin and Yang of the Electronic Health Record. Clin Ther. 2021;43(10):1627-1628.
- 20. **Maron JL**. The Economic Burden of Failing to Integrate Genetic Testing into Health Care: The Time is Now. Clin Ther. 2021; 15:S0149-2918(21)00413-6.
- 21. **Maron JL**. Sex Matters: The Importance of Generating Sex-based Care Models. Clin Ther. 2022 Jan;44(1):4-5.
- 22. Yen E, **Maron JL.** Editorial: Aberrant Feeding and Growth in Neonates with Prenatal Opioid Exposure: Evidence of Neuromodulation and Behavioral Changes. Front Pediatr 2022 Jan 21;9:805763.
- 23. **Maron JL**. Pledging to Address Scientific Bias in Published Literature. Clin Ther. 2022 Mar;44(3):349-350.
- 24. Daugherty S, **Maron JL.** The Intersection of Food and Medicine: How the Metropolitan Area Neighborhood Nutrition Alliance (MANNA) Transformed a City in Need, One Meal at a Time. Clin Ther. 2022 May;44(5):650-656.
- 25. **Maron JL**. Incorporating Nature's Therapies for Improved Health Outcomes. Clin Ther. 2022 Apr ;44(4):473.
- 26. Pan AY, Weinstock GM, **Maron JL**. Editorial: Pediatric Microbiome in Health and Disease: Recent Advances. Front Pediatr 2022 May 5;10:908741.
- 27. **Maron JL.** Food for Thought: Is a Personalized Diet the Optimal Preventive Medicine? Clin Ther. 2022 May;44(5):639-640.
- 28. **Maron JL**. Impact of Artificial Intelligence on Clinical Decision-Making in Health Care. Clin Ther. 2022 June:44(6):825-826.
- 29. **Maron JL**. The Ongoing Challenges of Implementing Generic Drugs in the Global Market. Clin Ther. 2022 July;44(7):927-928.
- 30. **Maron JL**. The Importance of Family and Caregiver Perspectives of Emerging Gene Therapies. Clin Ther. 2022 Aug 17:S0149-2918(22)00241-7.
- 31. **Maron JL**. Dual Therapy for Dyslipidemia: When Two May Be Better Than One. Clin Ther. 2022 Oct 9. S0149-2918(22)00324-1.
- 32. Beninger P, **Maron J**: When Still Water Runs Deep: The Complexities of Clinically Repurposing FDA Approved Therapies. Clin Ther. 2022 Nov;44(11):1427-1430.
- 33. **Maron JL.** A Year in Review at Clinical Therapeutics: Looking Back as We Forge Ahead. Clin Ther. 2022 Dec 9. S0149-2918(22)00384-8.

- 34. **Maron JL.** Encapsulating the Full Impact of Emerging Drugs on Pharma, Patients and the Global Market. Clin Ther. 2023 Jan 16:S0149-2918(22)00417-9.
- 35. **Maron JL.** Weighing in on the Scale of Justice for Equity and Access to Weight-Management Drugs. Clin Ther. 2023 Mar 10:S0149-2918(23)00072.
- 36. **Maron JL.** Informing patients About Newly Recognized Adverse Effects of Drugs: Whose Job Is It? Clin Ther. 2023 Apr 6;S0149-2918(23)00114-5.
- 37. **Maron JL.** Utilization of Cost-effectiveness Data: Why the Global Discrepancy? Clin. Ther. 2023 Jul;45(7):617-618.
- 38. **Maron JL.** Navigating the Ethical Dilemmas Associated with Genomic Sequencing of the Newborn. Clin. Ther. 2023 Aug;45(8):685-686.
- 39. **Maron JL**. Complexities of Deprescribing the Elderly: No Easy Cure. Clin. Ther. 2023 Oct;45(10):925.
- 40. **Maron JL**. Addicted to Addictions: Why Recovering from One Deleterious Habit May Lead to the Next. Clin. Ther. 2023 Dec:45(12):1161.
- 41. Beninger P, **Maron JL**. 2024 at Clinical Therapeutics: Looking Back . . . Looking Ahead. Clin. Ther. 2024 Jan;46(1):1-2.
- 42. **Maron JL**. Patent Ductus Arteriosus To Close or Not to Close. N Engl J Med. 2024;390:370-71.
- 43. **Maron JL**. Adapting and Advancing the Criteria for Scientific Evidence, Marketing, and Advice in the Changing World. Clin Ther. 2024 Mar 18:S0149-2918(24)00043-2.
- 44. Maron JL. Engaging our communities in active participation in clinical trials: It's a matter of trust. Clin Ther. 2024 May;46(5):381.
- 45. **Maron JL**. The importance of ongoing surveillance, education, and due diligence for antimicrobial stewardship. Clin Ther. 2024 Jul 4:S0149-2918(24)00115-2.
- 46. **Maron JL**. The landscape of blood-based screening assays after the fallacy of Theranos, Inc. . Clin Ther. 2024 September;46(9):661.
- 47. **Maron JL**. Silver Linings: Side Effects and Secondary Findings of Newly Emerging Therapies. Clin Ther. 2024 Nov;46(11):825.
- 48. **Maron JL.** The importance of investigating the effects of drug therapy on maternal breast milk composition. Pediatr Res. 2024 Dec 13. doi: 10.1038/s41390-024-03785-1. Epub ahead of print.

# **BOOK CHAPTERS**

- 1. **Maron JL**, Johnson K, Bianchi DW. Cell-free fetal DNA plasma extraction and real time-PCR quantification. In: Thornhill A, ed. <u>Single Cell Diagnostics: Methods and Protocols.</u> Totowa, NJ: Humana 2007.
- 2. **Maron JL**. The neonatal salivary transcriptome. In: Cold Springs Harbor, <u>Cold Spring Harb</u> <u>Perspect Med</u> 2015:18;6(3).
- 3. Hui L, **Maron JL**, Gahan P.B. Other Body Fluids as Non-invasive Sources of Cell-Free DNA/RNA. In: Gahan P. (eds) Circulating Nucleic Acids in Early Diagnosis, Prognosis and Treatment Monitoring. Advances in Predictive, Preventive and Personalised Medicine, vol 5. Springer, Dordrecht 2015.

# SCHOLARLY WORK PUBLISHED IN OTHER MEDIA

- 1. TEDx Natick 2019, Invited Speaker, Natick, MA January 26, 2019
  - a. https://www.ted.com/tedx/events/30107;
  - b. <u>https://www.youtube.com/watch?v=04zCKzzT6YA</u>
- 2. TEDx Natick, Salon, Invited Participant, Natick, MA May 30, 2019

- 3. Invited Guest, The Sharon Kleyne Hour, Voices of America "The Power of Neonatal Saliva" October 19, 2020, https://www.voiceamerica.com/episode/126368/the-power-of-neonatal-saliva
- 4. Invited Guest, Making Success Podcast, May 2021
- 5. Invited Panelist, The Possibilities of Personalized Medicine, Museum of Science, Boston, MA November 2021
- 6. Invited Guest, Public Health Out Loud Podcast, Rhode Island Department of Health, Providence, RI January 2022.
- 7. Invited Guest, The Incubator Podcast, June, 2024

# ABSTRACTS

#### **Oral Presentations**

- 1. **Maron JL** Johnson KL, Lai CQ, Slonim D, Bianchi DW. Expression Microarray Analysis to Detect Unique Fetal Markers and Fetal-Maternal RNA Trafficking in Maternal Whole Blood. International Conference on Circulating Nucleic Acids in Plasma/Serum (CNAPS-IV), London, UK, September 2005.
- 2. **Maron JL** Johnson KL, Lai CQ, Slonim D, Bianchi DW. Expression microarray analysis to detect unique fetal markers and fetal-maternal RNA trafficking in maternal whole blood. New England Conference on Perinatal Research, Chatham, MA, September 2005.
- 3. **Maron JL**, Johnson KL, Lai CQ, Ramoni M, Slonim D. Jarrah Z, Bianchi DW. Comparison gene expression micro-array analysis between a term pregnant mother and her infant identifies unique fetal biomarkers in maternal whole blood. American Pediatric Society/Society of Pediatric Research (APS/SPR), Toronto, Canada, May 2007.
- 4. **Maron JL**, Johnson KL, Rocke DM, Cohen MG, Bianchi DW. Neonatal salivary analysis reveals global gene expression changes in the developing preterm infant. Platform Presentation, New England Conference on Perinatal Research, Chatham, MA, October 2009.
- 5. **Maron JL**, Alterovitz, G, Ramoni M, Johnson KL, Bianchi DW. High-throughput discovery and characterization of fetal protein trafficking in the blood of pregnant women. American Society of Human Genetics, Honolulu, HI, October 2009.
- 6. **Maron JL**, Johnson KL, Rocke D, Cohen M, Bianchi DW. Neonatal salivary analysis reveals global gene expression changes in the developing preterm infant. CNAPS VI Annual Meeting, Hong Kong, China, November 2009.
- 7. Zandman S, Madan JC, **Maron JL**. Physician administration of prophylactic indomethacin in premature neonates. New England Perinatal Society, Newport, RI, March 2010.
- 8. **Maron JL**, Dietz J, Johnson KL, Bianchi DW. Neonatal saliva: A noninvasive source of information regarding global developmental gene expression. International Society for Prenatal Diagnosis, Amsterdam, Netherlands, July 2010.
- 9. Iyengar A, Paulus J, Johnson KL, **Maron JL**. Detection of C-reactive protein in neonatal saliva and its correlation to serum levels. New England Perinatal Society, Newport, RI, March 2012.
- 10. Khanna P, **Maron JL**. RNA sequencing of neonatal saliva to identify biomarkers of oral feeding maturing. New England Perinatal Society, Newport, RI, March 2015.
- 11. Davidson, J, Hwang JS, Kosow M, **Maron JL**. Optimal timing and sex specific responses to olfactory stimulation with mother's own milk to decrease the time to full oral feeds in premature infants. New England Perinatal Society, Newport, RI, March 2015.
- 12. Khanna P, Walt D, **Maron JL.** RNA Sequencing of Neonatal Saliva Identifies Objective Biomarkers of Oral Feeding Maturity. ESPR, Philadelphia, PA March 2016.
- 13. Khanna P, Walt D, **Maron JL.** RNA Sequencing of Neonatal Saliva Identifies Objective Biomarkers of Oral Feeding Maturity. APS/SPR, Baltimore, MD May 2016.

- 14. Yen E, Ruthazer R, Kaneko-Tarui T, Maron JL. Hypothalamic and Reward Pathway Dysregulation Affecting Oral Feeding in Infants with Prenatal Drug Exposure. 43rd Northeastern Conference on Perinatal Research, Chatham, MA, October 2017
- 15. Bartolome R, Kaneko-Tarui T, Ruthazer R, **Maron JL**, Zimmerman E. Salivary FOXP2 and CNTNAP2 Expression Levels Serve as Noninvasive Biomarkers to Predict Oral Feeding and Speech Outcomes in the Premature Newborn. ESPR, Philadelphia, PA March 2018.
- 16. Bartolome R, Kaneko-Tarui T, Ruthazer R, Maron JL, Zimmerman E. Salivary FOXP2 and CNTNAP2 Expression Levels Serve as Noninvasive Biomarkers to Predict Oral Feeding and Speech Outcomes in the Premature Newborn. New England Perinatal Society, Newport, RI, March 2018.
- 17. Yen E, Ruthazer R, Kaneko-Tarui T, **Maron JL.** Hypothalamic and Reward Pathway Dysregulation Affecting Oral Feeding in Infants with Prenatal Drug Exposure. ESPR, Philadelphia, PA March 2018.
- Bausk B, Walt D, Maron JL. Development of an Ultrasensitive Salivary Diagnostic Platform for Infection Screening the Newborn. Pediatric Academic Society Meeting, Baltimore, MD, May 2019.
- 19. **Maron JL**, et al The Genomic Medicine for Ill Neonates and Infants (GEMINI) Trial: A Comparative Analysis between Rapid Whole Genomic Sequencing and a Targeted Exome Panel. APS/SPR Denver, CO, April 2022.
- 20. Good M, Martin C, Wynn JL, Taylor SN, **Maron J**, Hair AB, Hamvas A. Subspecialty Networking Breakout Neonatology Physician-Scientist. PAS, Washington, DC, April 2023.
- 21. Good M, Martin C, **Maron J.** Subspecialty Networking Breakout Neonatology Physician-Scientist. AAP, Washington, DC, October 2023.
- 22. Okotcha N, Tucerk R, Embleton A, Franchetti M, Brennan H, **Maron JL** Targeted Developmental Oral Stimulation with the NTrainer<sup>™</sup> System in Infants with Bronchopulmonary dysplasia Reduces Time to Achieve Oral Feeding Success New England Perinatal Society Meeting, Newport, RI March, 2024.
- 23. **Maron JL,** Bliss J, Wynn J, Yen E, Rolando J, Walt D. Salivary Profiling for Infants Treated for Suspected Sepsis (The SPITSS Trial), PAS Toronto, Canada May 2024.
- 24. Okotcha N, Tucerk R, Embleton A, Franchetti M, Brennan H, **Maron JL** Targeted Developmental Oral Stimulation with the NTrainer<sup>™</sup> System in Infants with Bronchopulmonary dysplasia Reduces Time to Achieve Oral Feeding Success PAS Toronto, Canada May 2024.
- 25. Good M, Martin C, Wynn JL, Taylor SN, **Maron J,** Hair AB, McElroy S. Subspecialty Networking Breakout Neonatology Physician-Scientist. PAS, Toronto, CA May 2024.

# **Poster Presentations:**

- 1. **Maron JL**, Johnson KL, Lai CQ, Slonim D, Bianchi DW. Expression microarray analysis to detect unique fetal markers and fetal-maternal RNA trafficking in maternal whole blood. American Society of Human Genetics, Salt Lake City, Utah, October 2005.
- 2. **Maron JL**, Johnson KL, Lai CQ, Ramoni M, Slonim D. Jarrah Z, Bianchi DW. Comparison gene expression micro-array analysis between a term pregnant mother and her infant identifies unique fetal biomarkers in maternal whole blood. American Society of Human Genetics, New Orleans, LA, October 2006.
- 3. **Maron JL**, Arya MA, Seefeld KJ, Peter I, Johnson KL, Bianchi DW. The effects of pH and hypoxia on neonatal gene expression. APS/SPR, Honolulu, HI, May 2008.
- 4. **Maron JL**, Johnson KL, Slonim D, Lai CQ, Bianchi DW. Neonatal salivary gene expression profiles are a novel and noninvasive means to monitor neonatal health and disease. APS/SPR, Honolulu, HI, May 2008.

- 5. **Maron JL**, Alterovitz G, Ramoni M, Johnson KL, Slonim D, Bianchi DW. A noninvasive proteomic network analysis of the developing third trimester fetus. International Society of Prenatal Diagnosis, Vancouver, Canada, June 2008.
- 6. **Maron JL**, Cohen M, Slonim D, Johnson KL, Bianchi DW. Gene Expression Studies in Neonatal Saliva Indicate Readiness to Feed. APS/SPR, Baltimore, MD, May 2009.
- 7. **Maron JL**, Alterovitz G, Ramoni M, Johnson KL, Bianchi DW. High-throughput discovery and characterization of fetal protein trafficking in the blood of pregnant women. Circulating Nucleic Acids in Plasma and Serum (CNAPS) VI Annual Meeting Hong Kong, China, November 2009.
- 8. **Maron JL**, Parkin C, Iyer L, Johnson KL, Bianchi DW. Oxidative stress pathways are highly represented in genomic analyses of umbilical cord blood samples at term. APS/SPR, Vancouver, Canada, May 2010.
- 9. **Maron JL**, Parkin C, Iyer L., Johnson KL, Bianchi DW. Cord blood genomic analysis highlights the role of redox balance in utero. Poster Presentation, International Society of Prenatal Diagnosis, Amsterdam, Netherlands, July 2010.
- 10. **Maron JL**, Dietz JA, Johnson KL, Bianchi DW. Decreased expression of neuropeptide Y2 receptor (NPY2R) in neonatal saliva suggests readiness to orally feed. APS/SPR Denver, CO, May 2011.
- 11. **Maron JL**, Dietz JA, Chen ML, Johnson KJ, Bianchi DW. Absence of *NPY2R* in saliva predicts successful oral feeding in premature neonates. International Congress of Human Genetics, Montreal, Canada, October 2011.
- 12. Iyengar A, Paulus J, Johnson KJ, **Maron JL**. Detection of C-reactive protein in neonatal saliva and its correlation to serum levels. APS/SPR, Boston, MA, May 2012.
- 13. **Maron JL**, Parkin C, Dietz JA, Johnson KJ, Bianchi DW. Development of a salivary diagnostic panel to determine readiness to feed in the neonate. APS/SPR, Boston, MA, May 2012.
- 14. **Maron JL**, Bodi K, Johnson KL, Bianchi DW. Insights into neonatal feeding pathology through RNA sequencing of salivary samples. European Society of Pediatric Research, Istanbul, Turkey, October 2012.
- 15. **Maron JL**, Hwang JS, Lee B, Lec M, Alterovitz GA. Bayesian Modeling of Neonatal Gene Expression Data Identifies Predictive Salivary Biomarkers for Oral Feeding Maturity in the Premature Newborn. American Society of Clinical Investigation Meeting, Chicago, IL April 2013.
- 16. Iyengar A, Paulus JS, **Maron JL**. Salivary C-Reactive Protein (CRP) Levels Significantly Correlate to Serum Levels in the Newborn. APS/SPR, Washington DC, May 2013.
- 17. **Maron JL**, Zupancic JAF, Mao W, Eichenwald EC, McCormick MC, Duchoveny D. Neonatal Oral Feeding Practices Influence Length of Stay in Moderately Premature Infants. APS/SPR, Washington DC, May 2013.
- 18. **Maron JL**, Hwang JS, Lee B, Pathak S, Alterovitz G. A Salivary Transcriptomic Platform to Predict Oral Feeding Maturity in the Premature Newborn: The NOuRISH Platform. Circulating Nucleic Acids in Plasma and Serum (CNAPS) VIII, Baltimore, MD, November 2013.
- 19. Davidson, J, Hwang JS, Kosow M, **Maron JL**. Optimal timing and sex specific responses to olfactory stimulation with mother's own milk to decrease the time to full oral feeds in premature infants. APS/SPR, San Diego, CA 2015.
- 20. Liao C, Rosner AO, **Maron J**, Barlow SM. Automatic non-nutritive suck waveform discrimination and feature extraction in preterm infants. APS/SPR, San Francisco, CA 2017.
- 21. Yen E, Ruthazer R, Kaneko-Tarui T, **Maron JL.** Hypothalamic and Reward Pathway Dysregulation Affecting Oral Feeding in Infants with Prenatal Drug Exposure. New England Perinatal Society, Newport, RI, March 2018.
- 22. **Maron JL**, Tai A, Modupe C, Khanna P. A Salivary Metatranscriptomic Approach to Predict Necrotizing Enterocolitis in the Preterm Infant. APS/SPR, Toronto, Canada, May 2018.

- 23. Bartolome R, Kaneko-Tarui T, Ruthazer R, **Maron JL**, Zimmerman E. Salivary FOXP2 and CNTNAP2 Expression Levels Serve as Noninvasive Biomarkers to Predict Oral Feeding and Speech Outcomes in the Premature Newborn. APS/SPR, Toronto, Canada, May 2018.
- 24. Lavelle T, Feng X, Keisler M, Cohen J, Neumann P, Prichard D, Schroeder B, Salyakina D, Espinal P, **Maron JL** Cost-effectiveness of whole exome and whole genome sequencing for children with rare and undiagnosed conditions ASHG (virtual) 2020.
- 25. Craig A, Fox L, Deerwester K, Kaneko-Tarui T, Cutler A, Maron JL. The Impact of Holding during Hypothermia on Infant Vital Signs and Salivary Cortisol Levels. 13<sup>th</sup> International Newborn Brain Conference (INBBC), Clearwater Beach, FL, February 2022.
- 26. Yen E, Madan N, Sikka P, Tarui T, Singh K, Kaneko-Tauri T, Davis JM, **Maron, JL**. A Pilot Study to Understand the Role of Inflammation in White Matter Injury in Opioid-Exposed Neonates. APS/SPR, Denver, CO, April 2022.
- 27. **Maron, JL**, et al. Chronicling the Development of The Neonatal Gut Microbiome: A Pilot Study. APS/SPR, Denver, CO April 2022
- 28. Azuma D, Pennec Y, Kaneko-Tarui T, Mahmoud T, O'Tierney-Ginn P, **Maron J**. Impact of Maternal Diabetes on Neonatal Body Composition, Energy Homeostasis and Hypothalamic Salivary Gene Expression. APS/SPR, Denver, CO April 2022.

# **INVITED PRESENTATIONS:**

# **REGIONAL:**

- 1. **Newborn Medicine Grand Rounds, Boston Children's Hospital,** Boston, MA Identifying Unique Fetal Biomarkers in Maternal Blood: A Window into the Developing Fetus, October 2007.
- 2. Neonatal Clinical Seminar sponsored by Ross Nutrition, Boston, MA A Neonatologist's Guide to Congenital Heart Disease, April 2010.
- 3. **Research Seminar, Broad Institute at the Massachusetts Institute of Technology**, Cambridge, MA Optimizing mRNA Amplification for Downstream Genomic Analyses of the Developing Fetus and Preterm Infant, June 2010.
- 4. **Massachusetts Regional Occupational and Physical Therapists Rounds** Boston, MA Assessing Oral Feeding Readiness through Salivary Analysis of the Newborn", July 2012.
- 5. **Neonatal Grand Rounds, Beth Israel Hospital**, Boston, MA Insights into Neonatal Oral Feeding through the Salivary Transcriptome, November 2012.
- Research Rounds, Forsyth Institute, Cambridge, MA Drool Rules: Insights into Neonatal Oral Feeding through the Salivary Transcriptome, April 2014.
- 7. Newborn Medicine Grand Rounds, Boston Children's Hospital, Boston, MA Translating the Transcriptome: Bringing Salivary Diagnostics to Assess Oral feeding readiness into the NICU, October 2014.
- 8. North American Saliva Symposium, Boston, MA
- 9. Translating the Transcriptome: Bringing Salivary Diagnostics to the Neonatal Bedside, October 2014.
- 10. **Pediatric Grand Rounds,** Brigham and Women's Hospital, Boston, MA The Promises and Challenges of Integrating Salivary Diagnostics into the NICU, February 2017.
- Tufts Clinical Translational Science Research Day, Boston, MA A Metatranscriptomic Approach to Salivary Biomarker Discovery in the Neonate, November 2017.

**Update in Pediatrics: Genetic Testing in the Newborn**, MetroWest Medical Center, Framingham, MA., May 2019

- 12. **Pediatric Grand Rounds, Tufts Medical Center**, Boston, MA Sex Matters: Uncovering the Molecular Mechanisms for Disparities in Neonatal Clinical Outcomes through Salivary Gene Expression Analysis, May 2019.
- 13. Wyss Diagnostics Grand Rounds, Brigham & Women's Hospital, Boston MA (virtual) Developing and Integrating Novel Diagnostic Platforms into Newborn Care December 2020.
- 14. **Pediatric Grand Rounds, Tufts Children's Hospital** The Hopes and Challenges of Integrating Genomic Testing Platforms into Newborn Care: Real-time Results from the GEMINI Trial, (virtual), March 2021.
- 15. **Reproductive Biology & Women's Health Seminar, Women & Infants Hospital** Developing and Integrating Novel Diagnostic Platforms into Perinatal Care, January 2022.
- 16. Newborn Medicine Grand Rounds, Boston Children's Hospital, Boston, MA (virtual Sex Matters: Uncovering the Molecular Mechanisms for Disparities in Neonatal Outcomes through Salivary Gene Expression Analyses, March 2022.
- 17. Advance-CTR Translational Research Seminar Series, Brown University Developing and Integrating Novel Diagnostic Platforms into Newborn and Perinatal Care, December 2022.
- 18. **Neuro Nutrition Seminar** sponsored by Mead Johnson Nutrition, Cranston RI November 2023 "Research Advances in Neonatology, Women & Infants Hospital Update"

# NATIONAL:

- 1. **Perinatal Research Society Meeting**, Park City, Utah, September 2012 "Assessing Neonatal Oral Feeding Readiness through the Salivary Transcriptome"
- 2. Pediatric Research Rounds, Monroe Carell Jr. Children's Hospital, Vanderbilt Nashville, TN, December 2012

"Insights into Neonatal Oral Feeding through the Salivary Transcriptome"

3. Neonatal Grand Rounds, Monroe Carell Jr. Children's Hospital, Vanderbilt Nashville, TN, December 2012

"Clinical Applications of Neonatal Salivary Diagnostics"

- 4. **Research Seminar, University of California Los Angeles** Los Angeles, CA, September 2013 "Drool Rules: The Emerging Role of Salivary Diagnostics in Neonatal Intensive Care"
- 5. Neonatal Grand Rounds, Children's Hospital of Philadelphia, Philadelphia, PA, December 2013

"Developing a Noninvasive Salivary Transcriptomic Platform to Assess Oral Feeding Maturity in the Newborn: The NOuRISH Panel"

6. **Pediatric Grand Rounds, Medical University of South Carolina**, Charleston, SC, November 2014

"Salivary Gene Expression Analysis to Predict Oral Feeding Maturity in the Newborn"

- Neonatal Grand Rounds, University of Washington, Seattle, WA, May 2015 "Translating the Transcriptome: Insights into Neonatal Oral Feeding through the Salivary Gene Expression Analysis"
- 8. **Neonatal Grand Rounds, Washington University, St. Louis**, July 2015 "Translating the Transcriptome: Insights into Neonatal Oral Feeding through the Salivary Gene Expression Analysis"
- Miami Neonatology 2015, Miami FL, November 2015
   "Novel Approaches to Oral Feeding Readiness Assessment in the Newborn"
- 10. Miami Neonatology 2015, Miami FL, November 2015

"Genetic Testing in the Newborn: Is the NICU Ready for Personalized Medicine"

- North American Saliva Symposium, Seattle, WA, December 2015
   "Beyond Childhood Caries: The Clinical Implications of Salivary Diagnostics in the Pediatric Population"
- 12. **Perinatal Research Society**, Itasca IL, September 2016 "Bringing Salivary Diagnostics to the Neonatal Bedside"
- 13. **3<sup>rd</sup> Annual North American Saliva Symposium**, New York, New York, December 2016 "Advancing Pediatric Salivary Diagnostics – One Drop at a Time"
- 14. **Pediatric Academic Society Meeting, San Francisco, CA**, May 2017 "The <sub>(RNA)</sub> Sequence of Events: Using Advanced Genetic Platforms to Uncover Disruptive Developmental Pathways Affecting Oral Feeding Success in the Newborn"
- 15. North American Saliva Symposium, Portland, OR, September 2017 "Can Salivary Microbial Colonization Predict Disease Outcome in the Newborn"
- 16. Charleston Swallowing Conference at Northwestern University, Evanston, IL, July 2018.
- 17. Dartmouth Hitchcock Medical Center, Research Rounds, Lebanon, NH, October 2018 "Tackling and Appreciating Biological Variability in Neonatal Salivary Gene Expression Analysis"
- 18. Pediatric Grand Rounds, Dartmouth Hitchcock Medical Center, Lebanon, NH, October 2018

"Sex Matters: Uncovering the Molecular Mechanisms for Disparities in Neonatal Clinical Outcomes through Salivary Gene Expression Analysis"

- Research Seminar, University of Los Angeles, Los Angeles, CA, January 2019
   "Sex Matters: Uncovering the Molecular Mechanisms for Disparities in Neonatal Clinical Outcomes through Salivary Gene Expression Analysis"
- 20. 2019 Issues in Neonatology: 26<sup>th</sup> Annual New York Regional Neonatology & Perinatal Symposium, Long Island, NY, March 2019
  "Can Saliva Analysis Uncover Disruptive Developmental Pathways Affecting Oral Feeding Success in the Newborn?"
- 21. American Dental Education Association, Chicago, IL, March 2019 Invited Symposium Speaker, Annual Meeting
- 22. NICHD Clinician Scientist Investigator Meeting, Potomac, MD, August 2019 "From K to R: Lessons Learned Along the Long, Winding Road of an Early Research Career"
- 23. **Pediatric Grand Rounds, Hasbro Children's Hospital,** Providence, RI, November 2019 "Sex Matters: Uncovering the Molecular Mechanisms for Disparities in Neonatal Clinical Outcomes through Salivary Gene Expression Analysis"
- 24. Neonatal Research Rounds, Women and Infants' Hospital, Providence, RI, November 2019 "Applicability and Limitations of Translating the Neonatal Salivary Transcriptome into Newborn Care"
- 25. American Association of Dental Research, Symposium Speaker May 2020 "Integration of Salivary Liquid Biopsy into Maternal and Neonatal Care" (virtual)
- 26. **Pediatric Grand Rounds, Maine Medical Center,** June 2020 "Research: The Case for Newborn" (virtual)
- 27. Neonatal Grand Rounds, University of Utah, October 2020"The Hopes and Challenges of Integrating Genomic Testing Platforms into Newborn Care: Real-time Results from the GEMINI Trial" (virtual)
- 28. Dr. Brown Medical Webinar, January 2021"Assessing Oral Feeding Readiness Through Neonatal Salivary Analysis" (virtual)
- 29. NICHD Council Research Presentation: The Voice of the Patient, February 2021

"Somatosensory Modulation of Salivary Gene Expression and Oral Feeding in Preterm Infants"(virtual)

30. Frontiers in Pediatrics Genomic Medicine 2021

The Hopes and Challenges of Integrating Genomic Testing Platforms into Newborn Care: Realtime Results from the GEMINI Trial, (virtual), April 2021.

- 31. Pediatric Symposia, Napa, CA September 2021
  - a) "Novel Insights into Neonatal Abstinence Syndrome"
  - b) "Sex Matters: Uncovering the Molecular Mechanisms for Disparities in Neonatal Clinical Outcomes Through Salivary Gene Expression Analysis"
  - c) "Genomic Testing in the NICU"
  - d) "Assessing Oral Feeding Readiness and Pathology Through Salivary Analysis"
- 31. Newborn Medicine Research Seminar, Harvard Medical School/Boston Children's Hospital, March 2022

"Sex Matters: Uncovering the Molecular Mechanisms for Disparities in Neonatal Clinical Outcomes through Salivary Gene Expression Analyses"

- 32. American Academy of Pediatrics 2022 Workshop on Neonatal-Perinatal Practice Strategies, Scottsdale, Arizona, March 2022 "Nurturing the Vanishing Physician Scientist in Neonatology" "Saliva-Based Diagnostics in Neonatology"
- 33. Pediatric Grand Rounds, Children's Hospital, Colorado, April 2022
   "Sex Matters: Uncovering the Molecular Mechanism for Disparities in Neonatal Clinical Outcomes through Salivary Gene Expression Analysis" (virtual)
- 34. The Neonatal Feeding Club, APS/SPR, Denver, CO, April 2022"Developmental Maturation of Oral Feeding in the Extremely Low GA Newborn: From A (Appetite) to Z (Zygomatic Arch)"
- 35. 10<sup>th</sup> Annual Fall Conference on Current Concepts in Neonatal Care, Westlake Village, CA, September 2022
  - "Genomic Testing in the NICU"
  - "Integrating Salivary Diagnostics into Newborn Care: From Assessing Development to Predicting Morbidities"
  - "Development & Assessment of Oral Feeding Maturation in the Preterm Infant: From A (Appetite) to Z (Zygomatic Arch)"
  - "Assessing Oral Feeding Readiness & Pathology through Neonatal Salivary Analysis"
- 36. 100<sup>th</sup> Perinatal & Developmental Medicine Symposium "50 Years of Physicians in Training and Scientific Advancements in Neonatology, Clearwater, FL November 2022 "Genomic Testing in the NICU: Successes, Challenges and Lessons Learned"
- 37. Pediatric Grand Rounds, UT Southwestern Medical Center, Dallas, TX October 2023
  - "Genomic Testing in the NICU: Successes, Challenges and Lessons Learned"
  - "Integrating Salivary Diagnostics into Newborn Care: From Assessing Development to Predicting Morbidities"
- 38. Neonatal Grand Rounds, Emory University School of Medicine, Atlanta, GA December 2023

"Integrating Salivary Diagnostics into Newborn Care: From Assessing Development to Predicting Morbidities"

39. The Maria Delivoria-Papadopoulos, MD "A Day with the Newborn Symposium" January 2024

"Neonatal Genomic Testing: Success, Challenges and Lessons Learned"

40. The Merenstein Lecture at the American Academy of Pediatrics Meeting, September, 2024

"Big Data, Big Challenges: Navigating the Landscape and Landmines of Neonatal Genomic Sequencing"

- 41. **Pediatric Research Seminar, Hasbro Children's Hospital, Providence, RI** December, 2024 "Off the Beaten Path: A neonatologist's Perspective on Getting Out of Your Comfort Zone and Into Your Science"
- 42. Neonatal Grand Rounds, MGB, Boston, MA December, 2024 "Integrating Genomic Sequencing into Newborn Care: Successes, Challenges and Lessons Learned"

#### **INTERNATIONAL:**

- 6<sup>th</sup> Asia Pacific Conference in Maternal Fetal Medicine Shanghai, China Novel Proteomics and Nucleic Acid Based Approaches for Prenatal and Perinatal Monitoring, October 2010.
- 2. XIIth International Congress in Paediatric Laboratory Medicine, Berlin, Germany Neonatal Salivary Transcriptomics, May 2011.
- 3. **Pediatric Academic Society's 2014 Neonatal Feeding Club**, Vancouver, Canada Gene Expression Analysis of Oral Feeding Maturity in the Newborn, May 2014.
- 4. 5<sup>th</sup> International Course in Neonatology, La Paz, Bolivia Drool Rules: How Neonatal Saliva Provides a Window into Oral Feeding Maturity, May 2015.
- 5. **5<sup>th</sup> International Course in Neonatology,** La Paz, Bolivia The Nose Knows: The Role of Olfaction in Neonatal Oral Feeding, May 2015.
- 6. **5<sup>th</sup> International Course in Neonatology,** La Paz, Bolivia The Long-Lasting Effects of Breastfeeding, May 2015.
- 7. **5<sup>th</sup> International Course in Neonatology,** La Paz, Bolivia Advances in Neonatal Nutrition, May 2015.
- 8. 6<sup>th</sup> International Course in Neonatology, Pueblo, Mexico September 2016.
- 9. **First Asia-Pacific Saliva Symposium**, Guangzhou, China The Promises and Challenges of Integrating Salivary Diagnostics into Newborn Care, February 2017.
- 10. **International Association of Dental Research (IADR)**, London, England Will Saliva Translate to a Real Diagnostic Tool? July, 2018.
- 11. North American Saliva Symposium, Houston, TX
- 12. Saliva Symposium India (SALSI) 2020 Bangalore, India *Plenary Speaker* Integrating Salivary Diagnostics into Newborn Care, January 2020.
- 13. Saliva Symposium India (SALSI) 2021 Bangalore, India Plenary Speaker
- 14. Translating Saliva Research to the Bedside: Overcoming Roadblocks on the Path to Success (virtual), January 2021.
- 15. Saliva Symposium Australia (SALSA 2021) (virtual) Translating Saliva Research to the Bedside: Overcoming Roadblocks on the Path to Success, (virtual) June 2021.
- 16. International Neonatal Consortium Scientific Workshop: Stem Cell and Gene Therapies (virtual). Genomic Medicine for Ill Neonates & Infants: The GEMINI Study. October 2021.
- 16. VIII International Meeting of Neonatology, Gramado, Brazil April 13-15, 2023 "Integrating Salivary Diagnostics into Newborn Care: From Assessing Development to Predicting Morbidities"

"Genomic Testing for Critically Ill Newborns"

"Development and Assessment of Oral Feeding Maturation in the Preterm Infant: From A (Appetite) to A (Zygomatic Arch)"

17. **The 29<sup>th</sup> International Perinatal Collegium,** Quebec, Canada. June 23-27 "Salivary Profiling for Infants Treated for Suspected Sepsis (The SPITSS Trial)"

#### **RESEARCH SUPPORT**

#### Active:

- 1. NICHD R01HD097081-01-8/9/2019-4/30/2025 Salivary Diagnostics for Sepsis Screening in the Newborn Role: Multi-Principal Investigator Funding: \$2,963,429
- 2. NCATS 1U01TR002271-02 8/15/2018-8/14/2024 Precision Medicine in the Diagnosis of Genetic Disorders in Neonates Role: Multi-Principal Investigator Funding: \$7,360,430
- 3. Applied Biosystems: 1/1/2022-12/31/2024 Development of a Maternal Salivary Diagnostic Assay for the Prediction of Preeclampsia Role: Principal Investigator Funding: \$80,000
- 4. Gravitas: 12/1/2024-11/30/2025 Gravitas Feeding System Placement Validation in Neonates Role: Site Principal Investigator

#### **Previous:**

- 1. NICHD K08 HD05989-05 6/10/2009-8/31/2014 Neonatal Salivary Genomic Profiles to Assess Feeding Tolerance and Disease Role: Principal Investigator Funding: \$616,950
- 2. Tufts Medical Center Pediatric Research Grant 3/15/2008-2/14/2009 Neonatal Salivary Genomic Profiles to Assess Feeding Tolerance and Disease Role: Principal Investigator Funding: \$5,000
- 3. Tufts University Natalie V. Zucker Research Center for Women Scholars 6/1/2008-5/31/2009

**Neonatal Salivary Genomic Profiles to Assess Feeding Tolerance and Disease** Role: Principal Investigator Funding: \$5,000

- 4. Charles H. Hood Foundation Grant 7/1/2009-6/30/2011 Neonatal Salivary Genomic Profiles to Assess Feeding Tolerance and Disease Role: Principal Investigator Funding: \$150,000
- 5. Tufts University Charlton Medical Research Grant 7/1/2011-6/30/2013

#### October, 2024

**Understanding Developmental Transcriptional Regulation in Premature Neonates Learning to Feed** Role: Principal Investigator Funding \$10,000

6. Gerber Foundation 7/1/2012-6/30/2014

NOuRISH Platform: <u>Neonatal Oral-feeding Readiness in High-throughput Salivary</u> <u>Diagnostics</u> Role: Principal Investigator

Funding: \$145,000

7. Tufts Clinical and Translational Science Institute Pilot Award 5/1/2016-4/30/2017 FOXP2 Gene Expression Levels: A Noninvasive Biomarker to Predict both Oral Feeding and Speech-Language Success Role: Multi-Principal Investigator Funding: \$35,000

# NICHD R01 HD076140-04 8/1/13-7/31/18 A Molecular Assessment of the Consequences of Preterm Birth Role: Co-Investigator (PI: Dr. Donna Slonim) Funding: \$48,640

9. Tufts Clinical and Translational Science Institute Pilot Award 5/1/2017-4/30/2018 Development of Microfluidic Platforms to Non-Invasively Predict BPD and BPD-Associated Pulmonary Hypertension in Premature Neonates Role: Co-Principal Investigator Funding: \$35,000

#### 10. Charles H. Hood Foundation Major Grant Initiative 1/1/17-12/31/18 Establishing Risk in Neonatal Abstinence Syndrome Role: Co-Investigator (PI: Dr. Jonathan Davis)

Funding: \$38,000

# 11. Personalized Medicine Coalition (PMC) 12/11/2018-09/30/19

Role: Co-Investigator (PI Tara Lavelle) Funding: \$67,640

# 12. NICHD R01 HD086088-03 4/1/2016-3/31/2022 (NCE)

Somatosensory Modulation of Salivary Gene Expression and Oral Feeding in Preterm Infants

Role: Multi-Principal Investigator Funding: \$2,857,048

#### 13. NCATS 1U01TR002271-02 8/15/2018-8/14/2024

**Precision Medicine in the Diagnosis of Genetic Disorders in Neonates** Role: Multi-Principal Investigator Funding: \$7,360,430

#### **TEACHING ROLES:**

- 1. Pediatric Resident Advisor, Dr. Carmina Erdei, 2008-2011
- 2. Newborn Medicine Fellow Advisor, Dr. Rebecca Hoban, 2009-2012
- 3. Research Mentor, Dr. Shana Zandman, Pediatric Resident., 2009-2010
- 4. Pediatric Resident Advisor, Dr. Alexandra Chomut, 2010-2013
- 5. Pediatric Resident Advisor, Dr. Carol Ilzarbe, 2010-2013
- 6. Thesis Reader, Keith Martin, candidate for Master of Science Degree in Biomedical Science, Tufts University Sackler School of Graduate Biomedical Sciences, 2010
- 7. Research Mentor, Dr. Anjali Iyengar, Fellow in Newborn Medicine, 2011-2013
- 8. Thesis Advisor, Christine Savilo, Candidate for Master of Science Degree, Tufts University School of Graduate Biomedical Sciences 2012
- 9. Pediatric Resident Advisor, Dr. Hannah Fassel, 2012-2015
- 10. Pediatric, Research Mentor, Dr. Jessica Davidson, Fellow in Newborn Medicine, 2013-17
- 11. Thesis Advisor, Monica Maki, Candidate for Master's Degree in Speech Pathology, Northeastern University, 2014-2015
- 12. Research Mentor, Prarthana Khanna, PhD Candidate in Genetics, Tufts University Sackler
- 13. School of Graduate Biomedical Sciences, 2014-2017
- 14. Research Mentor, Dr. Ruby Bartolome, Fellow in Newborn Medicine, 2015-2018
- 15. Research Mentor, Dr. Mona Hassaneen, 2015-2017
- 16. Post-Doctoral Mentor, Dr. Austin Rosner, 2016-2018
- 17. Senior thesis advisor, Kaley Jenney BS Emmanuel College, Boston, MA, 2016 -2017
- 18. Scientific Research Mentor, Dr. Elizabeth Yen, Newborn Medicine
- Thesis Reader, Nicola Blim, Master of Philosophy Degree, 'Transcriptional Mechanisms Involved in Long-term Potentiation of Hippocampal Neurons," University of New South Wales, Sydney, Australia, 2017
- 20. Research Mentor, Dr. Dara Azuma, Fellow in Newborn Medicine, 2018-2021
- 21. Course Advisor, Katherine McMurphy, Child Study and Human Development 100, Tufts University Undergraduate Program, 2019
- 22. Research Mentor, Dr. Shubham Bakshi, Fellow in Newborn Medicine, 2019-2022
- 23. Thesis Reader, Grayson Lechlan, University of New South Wales, Sydney Australia, 2021
- 24. Research Mentor, Dr. Nkechi 'Efe' Okotcha, Fellow in Newborn Medicine, 2021-2024

# TEACHING RESPONSIBILITY

- 1. Problem-Based Learning, Tufts University School of Medicine Class of 2010
- 2. Resident and Fellow teaching rounds in the NICU 6-10 weeks/year, 2006-present:
- 3. Instructor in Neonatal Resuscitation Program (NRP), 2006-2012
- 4. Formal lectures to Newborn Medicine Fellows and Faculty (4 per year), 2006-present:
- 5. Noon conferences to Pediatric House Staff (1-2 per year), 2006-present:
- 6. Facilitator, Tufts CTSI Jr. Faculty Forum, 2018-present.

# **INVITED REVIEWER**

- 1. <u>New England Journal of Medicine</u>
- 2. <u>Nature</u>
- 3. Clinical Chemistry
- 4. Prenatal Diagnosis
- 5. PLoS One
- 6. Pediatric Research
- 7. Journal of Neonatal-Perinatal Medicine
- 8. Developmental Medicine and Child Neurology

- 9. Journal of Perinatology
- 10. Frontiers in Pediatrics
- 11. Frontiers in Genetics
- 12. Clinical Therapeutics
- 13. Pediatric Pulmonology
- 14. Genomics
- 15. Journal of the American Academy of Child and Adolescent Psychiatry

#### **LEADERSHIP**

- Participant, AAMC Mid-Career Women's Leadership Conference, Austin, TX 2015
- Participant, Harvard University Women in Medicine Leadership Conference Boston, MA 2017

# SCIENTIFIC ADVIOSORY BOARD MEMBER

- Prime Genomics, Santa Cruz, CA, 2017-2021
- NanoBio Systems, Cambridge, MA 2019-2021
- SimpliFed, Ithaca, NY 2022-present