Stanford

Jonathan David Reiss

Instructor, Pediatrics - Neonatology

CLINICAL OFFICE (PRIMARY)

- **Pediatric Neonatology**

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Bio

CLINICAL FOCUS

- Neonatal-Perinatal Medicine

ACADEMIC APPOINTMENTS

- Instructor, Pediatrics - Neonatology
- Member, Maternal & Child Health Research Institute (MCHRI)

HONORS AND AWARDS

- Clinical & Translational Science Center Research Fellowship Grant, Weill Cornell Medicine (2013)
- Outstanding Senior Resident Medical Student Teaching Award, UC San Diego/Rady Children's Hospital (2019)
- Outstanding Senior Resident Neonatology Award, UC San Diego/Rady Children's Hospital (2019)
- Outstanding Senior Resident Research Award, UC San Diego/Rady Children's Hospital (2019)
- Society for Pediatric Research Fellows' Clinical Research Award, Pediatric Academic Society (PAS) (2021)
- Bridge to K Scholar, Department of Pediatrics (2022 - Current)
- Best Improvement Publication Award, Stanford Medicine Center for Improvement (2024)
- WSPR Mead Johnson Nutrition Junior Faculty Travel Award, Western Society for Pediatric Research (2024)
- Gootter-Jensen Foundation 2024 Seed Grant Award, Stanford Cardiovascular Institute (CVI) (2024 - 2025)
- Early Career Pilot Award, Stanford Maternal & Child Health Research Institute (MCHRI) (2025 - 2026)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, WSPR Junior Membership (2021 - present)
- Junior Member, Society for Pediatric Research (2022 - present)
- Member, California Association of Neonatologists (CAN) (2022 - present)
- Member, Metabolomics Society (2023 - present)

- Member, NeoMind-AI (2023 - present)
- Member, Maternal & Child Health Research Institute (2024 - present)
- Member, Cardiovascular Institute (CVI) (2024 - present)

PROFESSIONAL EDUCATION

- Board Certification: Neonatal-Perinatal Medicine, American Board of Pediatrics (2024)
- Board Certification, Neonatal - Perinatal Medicine , Neonatology (2024)
- Fellowship: Stanford School of Medicine (2022) CA
- Residency: UCSD Dept of Pediatrics (2019) CA
- Board Certification: Pediatrics, American Board of Pediatrics (2019)
- Medical Education: Weill Cornell Medical College (2016) NY

Publications

PUBLICATIONS

- **PregMedNet: Multifaceted maternal medication impacts on neonatal complications.** *Nature communications*
  Kim, Y., Marić, I., Kashiwagi, C. M., Han, L., Chung, P., Reiss, J. D., Butcher, L. D., Caoili, K. J., Berson, E., Xue, L., Espinosa, C., James, T., Shome, et al
  2026

- **Triglyceride profiles in preterm infants reveal dynamic and age-specific trajectories.** *Frontiers in pediatrics*
  Gertel, E. R., Ding, V. Y., Phongpreecha, T., Xie, F., Parsons, A., Marić, I., Aghaeepour, N., Sylvester, K. G., Chock, V. Y., Kerner, J. A., Martin, C. R., Stevenson, D. K., Shaw, et al
  2026; 14: 1777798

- **An encyclopedia of the cord blood metabolome reveals maternal-fetal interactions and disease risk.** *Cell reports. Medicine*
  Lancaster, S., Mataraso, S., Reiss, J. D., Contrepois, K., Trowbridge, C. A., Michael, B., Simms, I., Ellenberger, M., Gibson, M., Clary, M., McGuire, L., Wong, F., Canfield, et al
  2026: 102548

- **Quantitative assessment of neonatal health using dried blood spot metabolite profiles and deep learning.** *Science translational medicine*
  Chang, A. L., Reiss, J. D., Culos, A., Becker, M., Mayo, J. A., Marić, I., De Francesco, D., Phongpreecha, T., Espinosa, C. A., Mataraso, S. J., Berson, E., Kim, Y., Xue, et al
  2026; 18 (833): eadv4942

- **Development and validation of a pre-trained language model for neonatal morbidities: a retrospective, multicentre, prognostic study.** *The Lancet. Digital health*
  Xie, F., Chung, P., Reiss, J. D., Tjoa, E., De Francesco, D., Phongpreecha, T., Haberkorn, W., Chakraborty, D., Chang, A. L., James, T., Kim, Y., Mataraso, S., Espinosa, et al
  2025: 100926

- **Maternal lipidomic signatures of preterm and small-for-gestational-age newborn infants in low- and middle-income countries.** *Science advances*
  Marić, I., Mahzarnia, A., Mujuru, H. A., Chimhini, G., Saha, S. K., Shameem Hassan, M., Otieno, N. A., Hawken, S., Wilson, K., Shen, X., Lancaster, S., Wong, R. J., Reiss, et al
  2025; 11 (49): eadu9145

- **A clinician's musings on oxygen: Too little or too much with life in the balance.** *Journal of perinatology : official journal of the California Perinatal Association*
  Stevenson, D. K., Wong, R. J., Reiss, J. D., Marić, I., Paşca, A. M., Ahern, T. L.
  2025

- **AI-guided precision parenteral nutrition for neonatal intensive care units.** *Nature medicine*
  Phongpreecha, T., Ghanem, M., Reiss, J. D., Oskotsky, T., Mataraso, S. J., De Francesco, D., Reincke, S. M., Espinosa, C., Chung, P., Ng, T., Costello, J. M., Sequoia, J. A., Razdan, et al

2025

- **A machine learning approach to leveraging electronic health records for enhanced omics analysis (vol 7, pg 293, 2025)** *NATURE MACHINE INTELLIGENCE*
  Mataraso, S. J., Espinosa, C. A., Seong, D., Reincke, S., Berson, E., Reiss, J. D., Kim, Y., Ghanem, M., Shu, C., James, T., Tan, Y., Shome, S., Stelzer, et al
  2025

- **PregMedNet: Multifaceted Maternal Medication Impacts on Neonatal Complications.** *medRxiv : the preprint server for health sciences*
  Kim, Y., Marić, I., Kashiwagi, C. M., Han, L., Chung, P., Reiss, J. D., Butcher, L. D., Caoili, K. J., Berson, E., Xue, L., Espinosa, C., James, T., Shome, et al
  2025

- **Applications of Metabolomics and Lipidomics in the Neonatal Intensive Care Unit.** *NeoReviews*
  Reiss, J. D., Mataraso, S. J., Holzapfel, L. F., Marić, I., Kasowski, M. M., Martin, C. R., Long, J. Z., Stevenson, D. K., Shaw, G. M.
  2025; 26 (2): e100-e114

- **Advancing neonatal health: the promise and challenges of universal genome sequencing in newborn screening.** *Pediatric research*
  Stevenson, D. K., Wong, R. J., Reiss, J. D., Shaw, G. M., Aghaeepour, N., Mahzarnia, A., Marić, I.
  2025

- **Transgenerational associations between newborn metabolic profiles and bronchopulmonary dysplasia in neonates born to mothers with an obese phenotype.** *Scientific reports*
  Reiss, J. D., Yang, W., Chang, A. L., Long, J. Z., Marić, I., Profit, J., Sylvester, K. G., Stevenson, D. K., Aghaeepour, N., Shaw, G. M.
  2025; 15 (1): 1144

- **Towards a new taxonomy of preterm birth.** *Journal of perinatology : official journal of the California Perinatal Association*
  Stevenson, D. K., Chang, A. L., Wong, R. J., Reiss, J. D., Gaudillière, B., Sylvester, K. G., Ling, X. B., Angst, M. S., Shaw, G. M., Katz, M., Aghaeepour, N., Marić, I.
  2024

- **Early prediction of mortality and morbidities in VLBW preterm neonates using machine learning.** *Pediatric research*
  Shu, C. H., Zebda, R., Espinosa, C., Reiss, J., Debuyserie, A., Reber, K., Aghaeepour, N., Pammi, M.
  2024

- **Computational Approaches for Predicting Preterm Birth and Newborn Outcomes** *Clinics in Perinatology*
  Seong, D., Espinosa, C., Berson, ., Chakraborty, ., Chang, ., Haberkorn, W., Harrison, N., Hazra, D., James, T., Kim, Y., Marić, I., Mataraso,, S., et al
  2024; 51 (2)

- **Data-driven longitudinal characterization of neonatal health and morbidity.** *Science translational medicine*
  De Francesco, D., Reiss, J. D., Roger, J., Tang, A. S., Chang, A. L., Becker, M., Phongpreecha, T., Espinosa, C., Morin, S., Berson, E., Thuraiappah, M., Le, B. L., Ravindra, et al
  2023; 15 (683): eadc9854

- **Progressive Metabolic Abnormalities Associated with the Development of Neonatal Bronchopulmonary Dysplasia.** *Nutrients*
  Ye, C., Wu, J., Reiss, J. D., Sinclair, T. J., Stevenson, D. K., Shaw, G. M., Chace, D. H., Clark, R. H., Prince, L. S., Ling, X. B., Sylvester, K. G.
  2022; 14 (17)

- **Perinatal infection, inflammation, preterm birth, and brain injury: A review with proposals for future investigations.** *Experimental neurology*
  Reiss, J. D., Peterson, L. S., Nesamoney, S. N., Chang, A. L., Pasca, A. M., Marić, I., Shaw, G. M., Gaudilliere, B., Wong, R. J., Sylvester, K. G., Bonifacio, S. L., Aghaeepour, N., Gibbs, et al
  2022: 113988

- **Newborn screen metabolic panels reflect the impact of common disorders of pregnancy.** *Pediatric research*
  Reiss, J. D., Chang, A. L., Mayo, J. A., Bianco, K., Lee, H. C., Stevenson, D. K., Shaw, G. M., Aghaeepour, N., Sylvester, K. G.
  2021

- **Black swans and ambitious overgeneralization in newborn intensive care.** *Pediatric research*
  Stevenson, D. K., Wong, R. J., Shaw, G. M., Aghaeepour, N., Maric, I., Prince, L. S., Reiss, J. D., Katz, M.
  2021

- **Short-Term Outcomes following Standardized Admission of Late Preterm Infants to Family-Centered Care** *AMERICAN JOURNAL OF PERINATOLOGY*
  Reiss, J., Upadhyayula, P. S., You, H., Xu, R., Stellwagen, L. M.
  2021; 38 (02): 131-139
- **Single-Cell Analysis of the Neonatal Immune System Across the Gestational Age Continuum.** *Frontiers in immunology*
  Peterson, L. S., Hedou, J., Ganio, E. A., Stelzer, I. A., Feyaerts, D., Harbert, E., Adusumelli, Y., Ando, K., Tsai, E. S., Tsai, A. S., Han, X., Ringle, M., Houghteling, et al
  2021; 12: 714090
- **Outcomes of Infants with Mild Hypoxic Ischemic Encephalopathy Who Did Not Receive Therapeutic Hypothermia.** *Biomedicine hub*
  Reiss, J., Sinha, M., Gold, J., Bykowski, J., Lawrence, S. M.
  2019; 4 (3): 1-9
- **Changing Physician Approaches to Marijuana Use in a New Era of Legalization** *JAMA PEDIATRICS*
  Reiss, J., Rhee, K. E., Kumar, M.
  2017; 171 (12): 1137-1138
- **The Diagnostic Accuracy of Serum Procalcitonin for Bacteremia in Critically Ill Children** *INFECTIOUS DISEASES IN CLINICAL PRACTICE*
  Nellis, M. E., Pon, S., Giambrone, A. E., Coleman, N. E., Reiss, J., Mauer, E., Greenwald, B. M.
  2016; 24 (6): 343-347
- **Long-term follow up of rates of secondary malignancy and late relapse of two trials using radioimmunotherapy consolidation following induction chemotherapy for previously untreated indolent lymphoma** *LEUKEMIA & LYMPHOMA*
  Reiss, J., Link, B., Ruan, J., Furman, R., Coleman, M., Leonard, J., Martin, P.
  2015; 56 (10): 2870-2875
- **Peripartum thromboprophylaxis before and after implementation of a uniform heparin protocol** *JOURNAL OF PERINATAL MEDICINE*
  Anderson, S. B., Lin, S. N., Reiss, J., Skupski, D., Grunebaum, A.
  2014; 42 (2): 219-223
- **Extremely short cervix in the second trimester: bed rest or modified Shirodkar cerclage?** *JOURNAL OF PERINATAL MEDICINE*
  Skupski, D. W., Lin, S. N., Reiss, J., Eglinton, G. S.
  2014; 42 (1): 55-59
- **DOES PRIOR HYSTERECTOMY IMPROVE PATIENTS' UNDERSTANDING OF THE ANATOMY AND PHYSIOLOGY OF FEMALE REPRODUCTIVE ORGANS? - A SURVEY.**
  Lekovic, J., Pangasa, M., Reiss, J., Chan, M., Prasad, L., Taubel, D. A.
  ELSEVIER SCIENCE INC.2013: S406