



Janene Fuerch

Clinical Professor, Pediatrics - Neonatology

 Curriculum Vitae available Online

CLINICAL OFFICE (PRIMARY)

- **Pediatric Hospital Medicine**

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Bio

BIO

Janene H. Fuerch, MD is a Clinical Professor of Neonatology at Stanford University Medical Center, as well as an innovator, educator, researcher and physician entrepreneur. She has an undergraduate degree in Neuroscience from Brown University and a medical degree from the Jacobs School of Medicine at SUNY Buffalo. At Stanford University she completed a pediatrics residency, neonatal-perinatal medicine fellowship and the Byers Center for Biodesign Innovation Fellowship.

She is also Assistant Director of the Biodesign Innovation Fellowship Program at Stanford University, and Co-Director of Impact1 where she mentors and advises new entrepreneurs through all aspects of medical device development, from identifying clinical needs to commercialization. Her specific areas of investigational interest include the development and commercialization process of neonatal, pediatric and maternal health medical devices as well as the utilization of a simulated environment to develop and test medical devices. She is a national leader in neonatal resuscitation, ECMO, device development and has been an AHRQ and FDA funded investigator. But her work extends outside of the academic realm to industry having co-founded EMME (acquired by Simple Health 2022) an award-winning reproductive health company, medical director for Novonate (acquired by Laborie 2023) a neonatal umbilical catheter securement company and notable consultant for Vitera (EXTEND - artificial environment to decrease complications of prematurity), and Avanos™. Janene is passionate about improving the health of children and newborns through medical device innovation and research.

CLINICAL FOCUS

- Neonatal-Perinatal Medicine

ACADEMIC APPOINTMENTS

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

ADMINISTRATIVE APPOINTMENTS

- Associate Director, Biodesign Innovation Fellowship, Stanford Byers Center for Biodesign, (2022- present)

- Medical Director Neonatal ECMO, Stanford Children's Hospital, (2023- present)
- Co-Director, Impact1, (2023- present)
- Associate Director of Neonatal Resuscitation, Stanford Children's Health, (2019- present)
- Assistant Director, Biodesign Faculty Fellowship, Stanford Byers Center for Biodesign, (2018-2022)
- Co-PI, UCSF-Stanford Pediatric Device Consortium, (2018- present)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Medical Consultant, Laborie (2023 - 2026)
- Advisor, Ventora (2024 - present)
- Consulting Medical Director, Novonate (2017 - 2023)
- Co-Founder, EMME (2017 - 2022)
- Consulting Medical Director, Equalize Health (D-Rev) (2019 - 2021)
- Medical Consultant, Vltara (2023 - present)
- Scientific Consultant, Avanos (2021 - present)
- Advisor, EmpoHealth (2020 - present)
- Medical Advisor, Keriton (2017 - 2019)

PROFESSIONAL EDUCATION

- Fellowship: Stanford University Neonatology Fellowship (2016) CA
- Residency: Stanford Health Care at Lucile Packard Children's Hospital (2013) CA
- Medical Education: State University of New York at Buffalo School of Medicine (2010) NY
- Board Certification: Neonatal-Perinatal Medicine, American Board of Pediatrics (2018)
- Board Certification: Pediatrics, American Board of Pediatrics (2013)
- MD, Lucile Packard Children's Hospital at Stanford University , Neonatal-Perinatal Medicine (2016)
- MD, Lucile Packard Children's Hospital at Stanford University , Pediatrics Resident (2013)
- MD, SUNY Buffalo School of Medicine and Biomedical Sciences , Medicine (2010)
- BS, Brown University , Neuroscience (2003)

Research & Scholarship

PROJECTS

- Improving diagnostic accuracy and efficiency by optimization of bedside data display: A human factors approach - Stanford University

Publications

PUBLICATIONS

- **Impact1: Supporting Innovation in Pediatric and Maternal Health-5 Years of Outcomes.** *Annals of biomedical engineering*
Canyelles, E. R., Perl, J., Arenas-Jal, M., Kirschner, A., Romero, I. A., Singhala, M., Gaddam, M., Dayal, A., Blumenfeld, Y. J., Wall, J. K., Sheth, K., Fuerch, J. H.
2026
- **The future of follow-up: technology-enabled medical and developmental follow-up care for NICU graduates.** *Journal of perinatology : official journal of the California Perinatal Association*
Brewster, R. C., Fuerch, J. H., Litt, J. S.
2026

- **Author Correction: AI-guided precision parenteral nutrition for neonatal intensive care units.** *Nature medicine*
Phongpreecha, T., Ghanem, M., Reiss, J. D., Oskotsky, T. 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
- **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
- **Utilizing Recorded Resuscitations for Neonatal Team Process Improvement.** *Joint Commission journal on quality and patient safety*
Moore, A., Halamek, L. P., Fuerch, J. H., Galindo, R. B., Yamada, N. K.
2025
- **Allocation of seed-stage investments for paediatric health technology.** *BMJ surgery, interventions, & health technologies*
Perl, J. R., Arenas-Jal, M., Fuerch, J. H., Wall, J. K.
2025; 7 (1): e000368
- **Characterizing continuous positive airway pressure (CPAP) Belly Syndrome in preterm infants in the neonatal intensive care unit (NICU).** *Journal of perinatology : official journal of the California Perinatal Association*
Gu, H., Seekins, J., Ritter, V., Halamek, L. P., Wall, J. K., Fuerch, J. H.
2024
- **Novel umbilical catheter securement and protection device for umbilical line securement during laparotomy.** *American journal of perinatology*
Salimi Jazi, F., Wood, L., Rafeeqi, T., Yamada, N. K., Fuerch, J. H., Wall, J. K.
2023
- **In Situ Simulation and Clinical Outcomes in Infants Born Preterm.** *The Journal of pediatrics*
Chitkara, R., Bennett, M., Bohnert, J., Yamada, N., Fuerch, J., Halamek, L. P., Quinn, J., Padua, K., Gould, J., Profit, J., Xu, X., Lee, H. C.
2023: 113715
- **Neonatal Healthcare Professionals' Experiences When Implementing a Simulation and Debriefing Program in Neonatal Intensive Care Settings: A Qualitative Analysis.** *Advances in neonatal care : official journal of the National Association of Neonatal Nurses*
Quinn, J., Quinn, M., Lieu, B., Bohnert, J., Halamek, L. P., Profit, J., Fuerch, J. H., Chitkara, R., Yamada, N. K., Gould, J., Lee, H. C.
2023
- **A Novel Method for Administering Epinephrine During Neonatal Resuscitation.** *American journal of perinatology*
Gu, H., Perl, J., Rhine, W., Yamada, N. K., Sherman, J., McMillin, A., Halamek, L., Wall, J. K., Fuerch, J. H.
2023
- **The Debriefing Assessment in Real Time (DART) tool for simulation-based medical education.** *Advances in simulation (London, England)*
Baliga, K., Halamek, L. P., Warburton, S., Mathias, D., Yamada, N. K., Fuerch, J. H., Coggins, A.
2023; 8 (1): 9
- **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
- **Respiratory Failure in an 11-day-old Neonate.** *NeoReviews*
Aiden, A. P., Khan, A., Schwenk, H., Fuerch, J. H.
2023; 24 (1): 36-38
- **2022 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations: Summary From the Basic Life Support; Advanced Life Support; Pediatric Life Support; Neonatal Life Support; Education, Implementation, and Teams; and First Aid Task Forces** *CIRCULATION*
Wyckoff, M. H., Greif, R., Morley, P. T., Ng, K., Olasveengen, T. M., Singletary, E. M., Soar, J., Cheng, A., Drennan, I. R., Liley, H. G., Scholefield, B. R., Smyth, M. A., Welsford, et al
2022; 146 (25): E483-E557

- **Respiratory function monitoring during neonatal resuscitation: A systematic review.** *Resuscitation plus*
Fuerch, J. H., Thio, M., Halamek, L. P., Liley, H. G., Wyckoff, M. H., Rabi, Y.
2022; 12: 100327
- **2022 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations: Summary From the Basic Life Support; Advanced Life Support; Pediatric Life Support; Neonatal Life Support; Education, Implementation, and Teams; and First Aid Task Forces** *RESUSCITATION*
Wyckoff, M. H., Greif, R., Morley, P. T., Ng, K., Olasveengen, T. M., Singletary, E. M., Soar, J., Cheng, A., Drennan, I. R., Liley, H. G., Scholefield, B. R., Smyth, M. A., Welsford, et al
2022; 181: 208-288
- **Pilot study of the DART tool - an objective healthcare simulation debriefing assessment instrument.** *BMC medical education*
Baliga, K., Coggins, A., Warburton, S., Mathias, D., Yamada, N. K., Fuerch, J. H., Halamek, L. P.
2022; 22 (1): 636
- **Turning Practicing Surgeons Into Health Technology Innovators: Outcomes From the Stanford Biodesign Faculty Fellowship** *SURGICAL INNOVATION*
Fuerch, J. H., Wang, P., Van Wert, R., Denend, L.
2021: 1553350620984338
- **Lessons Learned from a Collaborative to Develop a Sustainable Simulation-Based Training Program in Neonatal Resuscitation: Simulating Success.** *Children (Basel, Switzerland)*
Arul, N. n., Ahmad, I. n., Hamilton, J. n., Sey, R. n., Tillson, P. n., Hutson, S. n., Narang, R. n., Norgaard, J. n., Lee, H. C., Bergin, J. n., Quinn, J. n., Halamek, L. P., Yamada, et al
2021; 8 (1)
- **The Value of Surgical Data-Impact on the Future of the Surgical Field.** *Surgical innovation*
August, A. T., Sheth, K. n., Brandt, A. n., deRuijter, V. n., Fuerch, J. H., Wall, J. n.
2021: 15533506211003538
- **A Neonatal Intensive Care Unit's Experience with Implementing an In-Situ Simulation and Debriefing Patient Safety Program in the Setting of a Quality Improvement Collaborative.** *Children (Basel, Switzerland)*
Eckels, M. n., Zeilinger, T. n., Lee, H. C., Bergin, J. n., Halamek, L. P., Yamada, N. n., Fuerch, J. n., Chitkara, R. n., Quinn, J. n.
2020; 7 (11)
- **Novel Neonatal Umbilical Catheter Protection and Stabilization Device in In vitro Model of Catheterized Human Umbilical Cords: Effect of Material and Venting on Bacterial Colonization.** *American journal of perinatology*
Wood, L. S., Fuerch, J. H., Dambkowski, C. L., Chehab, E. F., Torres, S., Shih, J. D., Venook, R., Wall, J. K.
2019
- **Developing safe devices for neonatal care.** *Seminars in perinatology*
Fuerch, J. H., Sanderson, P., Barshi, I., Liley, H.
2019: 151176
- **Ergonomic Challenges Inherent in Neonatal Resuscitation.** *Children (Basel, Switzerland)*
Yamada, N. K., Fuerch, J. H., Halamek, L. P.
2019; 6 (6)
- **Simulation-Based Patient-Specific Multidisciplinary Team Training in Preparation for the Resuscitation and Stabilization of Conjoined Twins** *AMERICAN JOURNAL OF PERINATOLOGY*
Yamada, N. K., Fuerch, J. H., Halamek, L. P.
2017; 34 (6): 621-626
- **Simulation-Based Patient-Specific Multidisciplinary Team Training in Preparation for the Resuscitation and Stabilization of Conjoined Twins.** *American journal of perinatology*
Yamada, N. K., Fuerch, J. H., Halamek, L. P.
2016: -?
- **Impact of Standardized Communication Techniques on Errors during Simulated Neonatal Resuscitation.** *American journal of perinatology*
Yamada, N. K., Fuerch, J. H., Halamek, L. P.
2016; 33 (4): 385-392

- **Modification of the Neonatal Resuscitation Program Algorithm for Resuscitation of Conjoined Twins.** *American journal of perinatology*
Yamada, N. K., Fuerch, J. H., Halamek, L. P.
2016; 33 (4): 420-424
- **Impact of a novel decision support tool on adherence to Neonatal Resuscitation Program algorithm** *RESUSCITATION*
Fuerch, J. H., Yamada, N. K., Coelho, P. R., Lee, H. C., Halamek, L. P.
2015; 88: 52-56
- **The Neonatal Resuscitation Program: Current Recommendations and a Look at the Future** *INDIAN JOURNAL OF PEDIATRICS*
Kumar, P., Yamada, N. K., Fuerch, J. H., Halamek, L. P.
2014; 81 (5): 473-480
- **A randomized trial of the effects of reducing television viewing and computer use on body mass index in young children** *ARCHIVES OF PEDIATRICS & ADOLESCENT MEDICINE*
Epstein, L. H., Roemmich, J. N., Robinson, J. L., Paluch, R. A., Winiewicz, D. D., Fuerch, J. H., Robinson, T. N.
2008; 162 (3): 239-245