



Francis Poulain, M.D.

Philosophy of Care	Dr. Poulain endorses a family-centered approach to neonatal care that emphasizes the importance of every team member.
Clinical Interests	Dr. Poulain is a Neonatologist who practices in a level IV NICU, with a particular interest in neonatal respiratory disorders and the fetal determinants of neonatal conditions.
Research/Academic Interests	Dr. Poulain has a long standing interest in the lung surfactant biology as it pertains to the respiratory diseases of the newborn, their characterization, prevention and treatment. More recently, his focus has been on clinical trials of new interventions and therapies for the sick newborn.
Title	Professor of Clinical Pediatrics, Division of Neonatology
Specialty	Neonatology, Pediatrics, Neonatal-Perinatal Medicine
Department	Pediatrics
Division	Neonatology
Center/Program Affiliation	UC Davis Children's Hospital
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Email	frpoulain@ucdavis.edu
Languages	French
Education	M.D., University of Paris Nord - Paris XIII, France 1976 Cert., Tropical Diseases, Paris IV, France 1978 Bac., Math, Institut Notre-Dame, Avranches, France 1969
Internships	Pediatrics, University of Utah, Salt Lake City UT 1985-1986
Residency	Pediatrics, University of Utah, Salt Lake City UT 1986-1988
Fellowships	Neonatology, UC San Francisco, San Francisco CA 1988-1991



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Board Certifications American Board of Internal Medicine, Tropical Medicine
American Board of Pediatrics
American Board of Pediatrics, Neonatal-Perinatal Medicine

Professional Memberships American Academy of Pediatrics, Fellow
California Association of Neonatologists
Society for Pediatric Research

Honors and Awards A multi-centre, randomized, placebo-controlled, double-blind, two-armed, parallel group study to evaluate efficacy and safety of IV sildenafil in the treatment of neonates with persistent pulmonary hypertension or hypoxic respiratory failure. Site PI 2015, 2016, 2017, 2018, 2019
The sustained aeration of infants lungs (SAIL) study. Site PI 2015, 2016, 2017, 2018
Health Sciences Research Award, UCD (PI) 2003, 2004, 2005
Research Grant, Children's Miracle Network (PI) 2002, 2003
Research Grant RO1 (Co-investigator, HD38462) 2000, 2001

Select Recent Publications Sparks TN, Lianoglou BR, Adami RR, Pluym ID, Holliman K, Duffy J, Downum SL, Patel S, Faubel A, Boe NM, Field NT, Murphy A, Laurent LC, Jolley J, Uy C, Slavotinek AM, Devine P, Hodoglugil U, Van Ziffle J, Sanders SJ, MacKenzie TC, Norton ME; University of California Fetal–Maternal Consortium; University of California, San Francisco Center for Maternal–Fetal Precision Medicine. Exome Sequencing for Prenatal Diagnosis in Nonimmune Hydrops Fetalis. *N Engl J Med*. 2020 Oct 29;383(18):1746-1756. doi:10.1056/NEJMoa2023643. Epub 2020 Oct 7. PMID:33027564.

Kirpalani H, Ratcliffe SJ, Keszler M, Davis PG, Foglia EE, Te Pas A, Fernando M, Chaudhary A, Localio R, van Kaam AH, Onland W, Owen LS, Schmölder GM, Katheria A, Hummler H, Lista G, Abbasi S, Klotz D, Simma B, Nadkarni V, Poulain FR, Donn SM, Kim HS, Park WS, Cadet C, Kong JY, Smith A, Guillen U, Liley HG, Hopper AO, Tamura M; SAIL Site Investigators. Effect of Sustained Inflation vs Intermittent Positive Pressure Ventilation on Bronchopulmonary Dysplasia or Death Among Extremely Preterm Infants: The SAIL Randomized Clinical Trial. *JAMA*. 2019 Mar 26;321(12):1165-1175. doi:10.1001/jama.2019.1660. PMID:30912836.

Hu F, Ding G, Zhang Z, Gatto LA, Hawgood S, Poulain FR, Cooney RN, Wang G. Innate immunity of surfactant proteins A and D in urinary tract infection with uropathogenic *Escherichia coli*. *Innate Immun*. 2016 Jan;22(1):9-20. doi:10.1177/1753425915609973. Epub 2015 Oct 28. PMID:26511057.



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Taché V, Bivina L, White S, Gregg J, Deignan J, Boyadjiev SA, Poulain FR. Lipoyltransferase 1 Gene Defect Resulting in Fatal Lactic Acidosis in Two Siblings. *Case Rep Obstet Gynecol*. 2016; 2016:6520148. doi:10.1155/2016/6520148. Epub 2016 May 10. PMID:27247813.

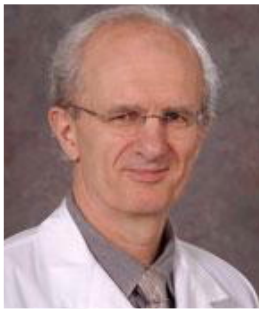
Lusk LA, Brown EG, Overcash RT, Grogan TR, Keller RL, Kim JH, Poulain FR, Shew SB, Uy C, DeUgarte DA; University of California Fetal Consortium. Multi-institutional practice patterns and outcomes in uncomplicated gastroschisis: a report from the University of California Fetal Consortium (UCfC). *J Pediatr Surg*. 2014 Dec;49(12):1782-6. doi:10.1016/j.jpedsurg.2014.09.018. Epub 2014 Nov 14. PMID:25487483.

Overcash RT, DeUgarte DA, Stephenson ML, Gutkin RM, Norton ME, Parmar S, Porto M, Poulain FR, Schrimmer DB; University of California Fetal Consortium. Factors associated with gastroschisis outcomes. *Obstet Gynecol*. 2014 Sep;124(3):551-557. doi:10.1097/AOG.0000000000000425. PMID:25162255.

Ghorishi Z, Milstein JM, Poulain FR, Moon-Grady A, Tacy T, Bennett SH, Fineman JR, Eldridge MW. Shear stress paradigm for perinatal fractal arterial network remodeling in lambs with pulmonary hypertension and increased pulmonary blood flow. *Am J Physiol Heart Circ Physiol*. 2007 Jun;292(6):H3006-18. doi:10.1152/ajpheart.01012.2006. Epub 2007 Feb 16. PMID:17308003.

Hortobágyi L, Kierstein S, Krytska K, Zhu X, Das AM, Poulain F, Haczku A. Surfactant protein D inhibits TNF-alpha production by macrophages and dendritic cells in mice. *J Allergy Clin Immunol*. 2008 Sep;122(3):521-528. doi:10.1016/j.jaci.2008.05.002. Epub 2008 Jun 12. PMID:18554706.

Chiou HL, Diaz R, Orlino E Jr, Poulain FR. Acute airway obstruction by a sheared endotracheal intubation stylet sheath in a premature infant. *J Perinatol*. 2007 Nov;27(11):727-9. doi:10.1038/sj.



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Haczku A, Cao Y, Vass G, Kierstein S, Nath P, Atochina-Vasserman EN, Scanlon ST, Li L, Griswold DE, Chung KF, Poulain FR, Hawgood S, Beers MF, Crouch EC. IL-4 and IL-13 form a negative feedback circuit with surfactant protein-D in the allergic airway response. *J Immunol.* 2006 Mar 15;176(6):3557-65. doi:10.4049/jimmunol.176.6.3557. PMID:16517724.

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