

Steven James McElroy, M.D.

Clinical Interests

Dr. McElroy is the Chief of Neonatology and specializes in neonatal-perinatal medicine. He offers

care for all critically ill newborn infants.

Research/Academic Interests

Dr. McElroy has had a long-standing interest in understanding the injury and repair mechanisms of the developing small intestine and specifically how this relates to neonatal necrotizing enterocolitis. His laboratory has made seminal discoveries linking Paneth cells and goblet cells to protection of the immature intestinal tract, has developed a novel model of necrotizing enterocolitis that is shedding light on alternative pathways to develop the disease, and has begun to investigate the link between maternal chorioamnionitis and subsequent intestinal disease of offspring. Dr. McElroy has received funding from the NIH, the Children's Miracle Network, and from industry partners. He has lectured nationally and internationally and sits on the Scientific Advisory Board for the NEC Society. He has served in leadership positions in the Midwest Society for Pediatric Research, and

the Perinatal Research Society.

Chief, Division of Neonatology

Professor, Department of Pediatrics

Specialty Neonatal-Perinatal Medicine

Department **Pediatrics**

Title

Division Neonatology

Center/Program Affiliation UC Davis Children's Hospital

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> Education M.D., Hahnemann University School of Medicine, Philadelphia PA 1999

Internships Pediatrics, St. Christopher's Hospital for Children, Philadelphia PA 1999-2000

Residency Pediatrics, St. Christopher's Hospital for Children, Philadelphia PA 2000-2002

Fellowships Neonatal-Perinatal Medicine, Vanderbilt University, Nashville TN 2002-2005





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Board Certifications

American Board of Pediatrics, Neonatal-Perinatal Medicine

Select Recent Publications

To see a complete list of Dr. McElroy's Published Work, please click here.

Chaaban H, Burge K, Eckert J, Trammell M, Dyer D, Keshari RS, Silasi R, Regmi G, Lupu C, Good M, McElroy SJ, Lupu F. Acceleration of Small Intestine Development and Remodeling of the Microbiome Following Hyaluronan 35 kDa Treatment in Neonatal Mice. Nutrients. 2021 Jun 12; 13(6). doi:10.3390/nu13062030. PMID:34204790.

Watson SN, McElroy SJ. Potential Prenatal Origins of Necrotizing Enterocolitis. Gastroenterol Clin North Am. 2021 Jun;50(2):431-444. doi:10.1016/j.gtc.2021.02.006. Epub 2021 Apr 23. PMID: 34024450.

Lueschow SR, Boly TJ, Jasper E, Patel RM, McElroy SJ. A critical evaluation of current definitions of necrotizing enterocolitis. Pediatr Res. 2021 May 21. doi:10.1038/s41390-021-01570-y. [Epub ahead of print] PMID:34021272.

Laptook AR, Shankaran S, Barnes P, Rollins N, Do BT, Parikh NA, Hamrick S, Hintz SR, Tyson JE, Bell EF, Ambalavanan N, Goldberg RN, Pappas A, Huitema C, Pedroza C, Chaudhary AS, Hensman AM, Das A, Wyckoff M, Khan A, Walsh MC, Watterberg KL, Faix R, Truog W, Guillet R, Sokol GM, Poindexter BB, Higgins RD. Limitations of Conventional Magnetic Resonance Imaging as a Predictor of Death or Disability Following Neonatal Hypoxic-Ischemic Encephalopathy in the Late Hypothermia Trial. J Pediatr. 2021 Mar;230:106-111.e6. doi:10.1016/j.jpeds.2020.11.015. Epub 2020 Nov 13. PMID:33189747.

Shelby RD, Raab R, Besner GE, McElroy SJ. Hope on the horizon: promising novel therapies for necrotizing enterocolitis. Pediatr Res. 2020 Aug;88(Suppl 1):30-34. doi:10.1038/s41390-020-1077-1. PMID:32855510.





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Patel RM, Ferguson J, McElroy SJ, Khashu M, Caplan MS. Defining necrotizing enterocolitis: current difficulties and future opportunities. Pediatr Res. 2020 Aug;88(Suppl 1):10-15. doi: 10.1038/s41390-020-1074-4. PMID:32855506.

Stanford AH, Gong H, Noonan M, Lewis AN, Gong Q, Lanik WE, Hsieh JJ, Lueschow SR, Frey MR, Good M, McElroy SJ. A direct comparison of mouse and human intestinal development using epithelial gene expression patterns. Pediatr Res. 2020 Jul;88(1):66-76. doi:10.1038/s41390-019-0472-y. Epub 2019 Jun 26. PMID:31242501.

Juber BA, Elgin TG, Fricke EM, Gong H, Reese J, McElroy SJ. A Murine Model of Fetal Exposure to Maternal Inflammation to Study the Effects of Acute Chorioamnionitis on Newborn Intestinal Development. J Vis Exp. 2020 Jun 24;(160). doi:10.3791/61464. PMID:32658199.

Lueschow SR, McElroy SJ. The Paneth Cell: The Curator and Defender of the Immature Small Intestine. Front Immunol. 2020;11:587. doi:10.3389/fimmu.2020.00587. eCollection 2020. PMID:32308658.

Lueschow SR, Kern SL, Gong H, Grobe JL, Segar JL, Carlson SJ, McElroy SJ. Feeding Formula Eliminates the Necessity of Bacterial Dysbiosis and Induces Inflammation and Injury in the Paneth Cell Disruption Murine NEC Model in an Osmolality-Dependent Manner. Nutrients. 2020 Mar 26; 12(4). doi:10.3390/nu12040900. PMID:32224880.

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