



Publications

Sobotka KS, Hooper SB, Crossley KJ, Ong T, Schmölder GM, Barton SK, McDougall AR, Miller SL, Tolcos M, Klingenberg C, Polglase GR. *Single Sustained Inflation Followed by Ventilation Leads to Rapid Cardiorespiratory Recovery But Causes Cerebral Vascular Leakage in Asphyxiated Near-Term Lambs.* PLoS One. 18 May 2016; 11(5):e0156193. doi: 10.1371/journal.pone.0156193.

Pichler-Stachl E, Pichler G, Baik N, Urlesberger B, Alexander A, Urlesberger P, Cheung PY, Schmölder GM. *Maternal Stress After Preterm Birth: Impact of Length of Antepartum Hospital Stay.* Women Birth, 04 May 2016, pii:S1871-5192(16)30019-1. doi: 10.1016/j.wombi.2016.04.008.

Barton SK, Tolcos M, Miller SL, Christoph-Roehr C, Schmölder GM, Moss TJ, Hooper SB, Wallace EM, Polglase GR. *Ventilation-Induced Brain Injury in Preterm Neonates: A Review of Potential Therapies.* Neonatology, 2016;110(2):155-62. doi: 10.1159/000444918.

Georg Schmölder, MD, PhD

- Assistant Professor, Faculty of Medicine & Dentistry, Department of Pediatrics, Division of Neonatal-Perinatal Care (NICU), University of Alberta
- Neonatologist, Northern Alberta Neonatal Program, AHS
- Director, Centre for the Studies of Asphyxia & Resuscitation, Royal Alexandra Hospital
- Research Affiliate, Glenrose Rehabilitation Hospital

Dr. Schmölder is a neonatal physician with a PhD in Neonatal Resuscitation Medicine. Over the past eight years he has acquired extensive expertise in neonatal respiratory physiology and neonatal resuscitation in bench-top, animal and clinical studies. He is currently the Heart and Stroke Foundation/University of Alberta Professor in Neonatal Resuscitation and works as a Research Neonatologist at the Royal Alexandra Hospital.

Dr. Schmölder's research focus lies in

- Understanding basic respiratory, cardiovascular and neurological changes in the fetal to neonatal transition and,
- Improving diagnoses, mitigating risk and improving survival and quality of life for newborns.

In 2014, Dr. Schmölder established the Centre for the Studies of Asphyxia and Resuscitation (CSAR), as a world-leading program unique to Canada.

Clinical Implications of Research

Dr. Schmölder's research has had an impact on non-invasive lung aeration, monitoring and guided respiratory support in the delivery room for pre-term infants. He has developed a novel technique of neonatal chest compression (CC) that delivers uninterrupted CC and passive ventilation. This technique has significantly improved survival in a highly translatable model of neonatal asphyxia in piglets and newborn infants.

Vision Statement

Dr. Schmölder's vision is to conduct high quality and impactful research in neonatal resuscitation sciences. He envisions leading CSAR as a training and innovation centre to discover, develop and deliver innovative strategies that improve survival and short- and long-term outcomes for critically ill newborns.