

The genetic control of pulmonary blood flow distribution.

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Robb Glenny, M.D., is Professor of Medicine and of Physiology and Biophysics. He is the Head of the Division of Pulmonary and Critical Care Medicine at the University of Washington Medical Center in Seattle, WA. He received his B.S. in Biomedical Engineering (1979) and M.A. in Computer Science (1980), both from Duke University. He received his M.D., from the University of Virginia, Charlottesville, VA in 1984. He completed his Internship (1985) and Residency (1987) in Internal Medicine at Duke University. His Fellowship was in Pulmonary and Critical Care Medicine, University of Washington in Seattle in 1991. Dr. Glenny was also a Guggenheim Fellow at the Karolinska Institute in Stockholm, Sweden from 1999-2000.

Dr. Glenny's current research interests are descriptors, models, and mechanisms of pulmonary perfusion and ventilation heterogeneity with respect to both spatial and temporal distributions. His past work focusing on mechanisms of isogravitational and temporal perfusion and ventilation heterogeneity have been instrumental in establishing that gravity is not the major factor determining the distribution of blood flow in the healthy human lung - a concept that remains controversial. His current work is focused on examining the spatial-temporal distribution of pulmonary blood flow during development and examining the genetic determinants of pulmonary blood flow.

Recent Publications:

Glenny R, Bernard S, Neradilek B, Polissar N. Quantifying the genetic influence on mammalian vascular tree structure. *Proc Natl Acad Sci USA*.104(16):6858-63, 2007.

Robertson HT, Neradilek B, Polissar NL, **Glenny RW**. Sporadic coordinated shifts of regional ventilation and perfusion in juvenile pigs with normal gas exchange. *J physiol.*, 583(Pt 2):743-52. 2007.

Glenny RW, Bernard SL, Luchtel DL, Neradilek B, Polissar NL. The spatial-temporal redistribution of pulmonary blood flow with postnatal growth. *J Appl Physiol.* 102(3):1281-8, 2007.