Robert Hooke: Early Respiratory Physiologist, Polymath, and Mechanical Genius
John B. West
A brief look at the life of Robert Hooke (1635-1703), a polymath who made important contributions to respiratory physiology and many other scientific areas.

We Have Contact: Endothelial Cell-Smooth Muscle Cell Interactions
Brenda Lilly
This review highlights the pathways that endothelial cells and smooth muscle cells utilize to communicate during vessel formation and discusses how disruptions in these pathways contribute to disease.

The Myoendothelial Junction: Connections That Deliver the Message
Adam C. Straub, Angela C. Zeigler, and Brant E. Isakson
This review highlights the evolving role of myoendothelial junctions in the context of vascular cell-cell communication.

You’re Only as Old as Your Arteries: Translational Strategies for Preserving Vascular Endothelial Function with Aging
Douglas R. Seals, Rachelle E. Kaplon, Rachel A. Gioscia-Ryan, and Thomas J. LaRocca
This review looks at how healthy lifestyle behaviors preserve endothelial function with aging and at novel nutraceutical compounds that favorably modulate endothelial pathways as a complementary approach for preserving endothelial health.

Protein Homeostasis at the Plasma Membrane
Pirjo M. Apaja and Gergely L. Lukacs
This review provides an overview of emerging aspects of the underlying mechanisms of plasma membrane quality control that fulfill a critical role in preserving cellular protein homeostasis in health and diseases.

How Could SNARE Proteins Open a Fusion Pore?
Qinghua Fang and Manfred Lindau
This review discusses the hypothesis that, in neurosecretory cells, fusion pore formation is directly accomplished by a conformational change in the SNARE complex via movement of the transmembrane domains.

Germ Cell Transport Across the Seminiferous Epithelium
Xiang Xiao, Dolores D. Mruk, Chris K. C. Wong, and C. Yan Cheng
This review critically evaluates recent findings to provide a timely concept on the biology of germ cell transport across the epithelium during spermatogenesis.