Steve Reynolds

Dr. Reynolds is a researcher and critical care physician at the Royal Columbian Hospital. He is the recipient of the Royal Columbian Hospital Foundation Professorship in Critical Care at Simon Fraser University to support his research on multi-organ effects of mechanical ventilation. He has been awarded two CIHR grants as the Principal Investigator to explore the impact of phrenic nerve stimulation as an adjunct to mechanical ventilation in preventing ventilator-induced organ injury.

Active areas of inquiry in his lab include; pulmonary-neural interactions during ventilation, mitigation of ventilator induced lung injury, histological basis of diaphragm atrophy during mechanical ventilation, and cardio-respiratory and renal interactions during mechanical ventilation. His lab conducts much of this research in a large pig model in a mock ICU. This group has extensive expertise conducting complex, multi-day experiments employing sophisticated physiological monitoring devices evaluating real time atelectasis, ventilation parameters, cardiac physiology and brain functioning.

Dr. Reynolds is specialized in Critical Care, Infectious Diseases and Internal Medicine. Beyond this lab research he maintains a clinical research program in the Intensive Care unit and participates in collaborative research with the Canadian Critical Care Trials Group. He participates as a collaborator and on the executive committee of multi-center clinical trials.

Dr. Reynolds has an interest in bench to bedside innovation and the development of novel solutions to clinical problems. He is active in developing these solutions through to commercialization, such as investigating early stage device designed to non-pharmacologically manage patients with delirium, as well as central venous catheter technology aimed at mitigating catheter-associated infection and occlusion.

In addition to his research and clinical duties, Dr. Reynolds is the acting Site Medical Director at Royal Columbian Hospital.

Publications:

Please link to research gate page: <https://www.researchgate.net/profile/Steven-Reynolds-3/research>