Elias Baedorf Kassis is the Medical and Scientific Director of Respiratory Care at the Beth Israel Deaconess Medical Center in Boston Massachusetts and an Assistant Professor of Medicine and Anesthesia at Harvard Medical School. His clinical and research focus is the application of advanced physiology principles to the management and prevention of acute respiratory distress syndrome (ARDS), a severe form of lung injury found in critically ill patients who require mechanical ventilation. In particular he has focused on methods to optimize and individualize management of patients with ARDS, advanced physiological signal acquisition and analysis, and the patient-ventilator interaction. A particular recent focus has been on dyssynchrony and breathing efforts in patients with ARDS using advanced physiological tools including esophageal manometry and electrical impedance tomography. He has served as the principal investigator of numerous observational and interventional studies focusing on mechanical ventilation in ARDS, with his work funded through the National Institute of Health (NIH), the American Thoracic Society (ATS) and the Canadian Institutes of Health Research (CIHR).