

## Frank J. Jacono, MD, Assistant Professor of Medicine

### Education:

Undergraduate: Case Western Reserve University, B.S.  
Cleveland, OH 1994

Medical School: Washington University School of Medicine  
St. Louis, MO 1998

### Training:

Residency: University Hospitals of Cleveland  
Case Western Reserve University  
Cleveland, OH

Fellowship: University Hospitals of Cleveland,  
Case Western Reserve University  
Cleveland, OH  
Division of Pulmonary and Critical Care Medicine

### Area of Concentration:

Dr. Jacono is board certified in Internal Medicine, Pulmonary Medicine and Critical Care Medicine, and he currently serves as the Medical Director of the Respiratory Therapy Department and Co-chair of the CPR Committee at the Cleveland VA Medical Center. In addition to his clinical practice in the medical intensive care unit and the pulmonary outpatient clinic, Dr. Jacono's research interests are focused on the neural control of breathing in acute lung injury (ALI), acute respiratory distress syndrome (ARDS) and mechanical ventilation. The overall goal of his laboratory is to develop and test a cohesive set of computational approaches to quantify biologically determined breathing pattern variability to provide predicative insight into prognosis and reversible pathophysiology leading to recovery, survival and rehabilitation; ultimately, targeting measures of pattern variability as an "additional vital sign" providing diagnostic and predictive information to clinicians. Dr. Jacono received an Advanced Career Development Award from the VA Research Service, and his research activities have also been supported by the American Heart Association and the NIH.

### Recent Publications:

Yamauchi, M, Hasan, O, Dostal, J, **Jacono, FJ**, Loparo, KA, Strohl, KP. Pharmacologic and Genetic Modification of Post-sigh Breathing Behavior and Spontaneous Pauses in the C57BL/6J (B6) Mouse. *Respir Physiol Neurobiol.* 31;162(2):117-25, 2008.

Pawar, A, Peng, Y, **Jacono, FJ**, Prabhakar, NR. Comparative analysis of neonatal and adult rat carotid body responses to chronic intermittent hypoxia. *J Appl Physiol.* 104(5):1287-94, 2008.

Faress, JA, Nethery, D, Kern, E, Eisenberg, R, **Jacono, FJ**, Allen, C, Kern, JA. Inhibition of human epidermal growth factor receptor 2 (HER2) signaling decreases bleomycin-induced pulmonary fibrosis and improves survival in mice. *J Appl Physiol.* 103(6):2077-83, 2007.

**Jacono, FJ**, Peng, Y, Nethery, D, Faress, JA, Lee, Z, Kern, JA, Prabhakar, NR. Acute lung injury augments hypoxic ventilatory response in the absence of systemic hypoxemia. *J Appl Physiol.* 101(6):1795-802, 2006.

Peng, Y, Yuan, G, **Jacono, FJ**, Kumar, GK, Prabhakar, NR. 5-HT evokes sensory long-term facilitation of rodent carotid body via activation of NADPH oxidase. *J Physiol.* Oct 1; 576(Pt 1):289-95, 2006.

**Jacono, FJ**, Peng, Y, Kumar, GK, Prabhakar, NR. Modulation of the hypoxic sensory response of the carotid body by 5-hydroxytryptamine: Role of the 5-HT<sub>2</sub> receptor. *Respiratory Physiology & Neurobiology* Feb 15; 145(2-3):135-42, 2005.

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