Vascular Sequelae of Sars-CoV2 Infection & Heat Therapy Treatment for Long-COVID

Featuring Dr. Gwenael Layec
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PRESENTATION ABSTRACT
Cardiovascular complication from SARS-CoV-2 infection has rapidly emerged as a key element of the pathophysiology of this disease. Our laboratory has recently investigated the long-term vascular sequelae of mild SARS-CoV-2 infection in the peripheral vasculature. As an extension of this work our laboratory has been investigating therapies for long-COVID. Post-acute sequelae of SARS-CoV-2 infection (PASC), also called Long COVID, affects 5 out of 10 patients hospitalized for the coronavirus disease 2019 (COVID-19) and ~11% of all adults infected by SARS-CoV-2, which makes this condition a growing public health concern. It is associated with important disabilities, cognitive dysfunction, and increased risks for cardiovascular and metabolic diseases. Although exercise-based intervention is a well-established rehabilitation strategy, participation rates are commonly low in clinical population. In addition, post-exertional malaise, a common symptom with PASC, is a major safety concern in these patients, which may prevent a significant proportion of these individuals to receive adequate rehabilitation. One promising approach that offers numerous health benefits and high adherence is whole-body heat therapy. Our laboratory is currently investigating whether this intervention is effective when confined to the lower body and well tolerated at home in people with PASC.

ABOUT DR. LAYEC
Dr. Layec’s research focuses on the role of oxidative stress and environmental pollutants (cigarette smoke) in mediating vascular and skeletal muscle bioenergetics abnormalities. He also investigates pharmacologic and lifestyle (e.g. heat therapy) strategies to improve mobility and health in clinical populations, with the ultimate goal of reducing disease burden.