



Myocardial Oxygen Consumption and Myocardial Efficiency in Various Physiological States

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Over the past 60 years, sporadic reports have evaluated MVO₂ and MyoEff. These studies were invasive and required special catheters, limiting the ongoing pursuit of these measures. The use of left ventricular pressure-volume (PV) constructs led to the reintroduction of MyoEff in the late 1980s and early 1990s. However, conducting PV studies in patients is plagued by the same issues listed previously.

Despite these hurdles, the field of cardiac research has seen significant progress. Nuclear positron emission tomography has emerged as a non-invasive option for measuring MVO₂, offering a promising alternative to invasive methods. Combining these data with a collection of stroke work (SW) data allows for the non-invasive calculation of MyoEff. In contrast, numerous studies have used indirect metrics to provide directional evaluation of MVO₂ and MyoEff, in contrast to measures of SW and MVO₂. This Special Issue underscores the importance of understanding myocardial performance and the impact on MyoEff across disease states, as it can provide crucial insights and guide treatment strategies.

Dr. Lawrence J. Mulligan
Guest Editor

