

THIS THESIS IS BASED ON THE PRESENT REVIEW AND THE BELOW LISTED ARTICLES:

- I. Nyberg M, Al-khazraji BK, Mortensen SP, Jackson DN, Ellis CG, Hellsten Y (2013). Effect of extraluminal ATP application on vascular tone and blood flow in skeletal muscle: implications for exercise hyperemia. *Am J Physiol Regul Integr Comp Physiol*. Jun 12 [Epub ahead of print].
- II. Nyberg M, Mortensen SP, Hellsten Y (2013). Physical activity opposes the age-related increase in skeletal muscle and plasma endothelin-1 levels and normalizes plasma endothelin-1 in individuals with essential hypertension. *Acta Physiol* **207**, 524-535.
- III. Mortensen SP, Nyberg M, Winding K, Saltin B (2012). Lifelong physical activity preserves functional sympatholysis and purinergic signaling in the human leg. *J Physiol* **590**, 6227-6236.
- IV. Nyberg M, Blackwell JR, Damsgaard R, Jones AM, Hellsten Y, Mortensen SP (2012). Lifelong physical activity prevents an age-related reduction in arterial and skeletal muscle nitric oxide bioavailability in humans. *J Physiol* **590**, 5361-5370.
- V. Hellsten Y, Jensen L, Thaning P, Nyberg M, Mortensen S (2012). Impaired formation of vasodilators in peripheral tissue in essential hypertension is normalized by exercise training: role of adenosine and prostacyclin. *J Hypertension* **30**, 2007-2014.
- VI. Nyberg M, Jensen LG, Thaning P, Hellsten Y, Mortensen SP (2011). Role of nitric oxide and prostanoids in the regulation of leg blood flow and blood pressure in humans with essential hypertension: effect of high-intensity training. *J Physiol* **590**, 1481-1494.
- VII. Nyberg M, Mortensen SP, Thaning P, Saltin B, Hellsten Y (2010). Interstitial and plasma adenosine stimulate nitric oxide and prostacyclin formation in human skeletal muscle. *Hypertension* **56**, 1102-8.
- VIII. Nyberg M, Mortensen SP, Saltin B, Hellsten Y, Bangsbo J (2010). Low blood flow at onset of moderate-intensity exercise does not limit muscle oxygen uptake. *Am J Physiol Regul Integr Comp Physiol* **298**, R843–R848.