

## **Skeletal Muscle As An Endocrine Organ With Focus On The Role Of Myokines In Muscle-Fat Cross-Talk**

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- Date/Time:** 11:30 am, Monday, March 8, 2010 **(Brown Bag Lunch)**
- Location:** Arizona Community Foundation (ACF)  
2201 E. Camelback Rd., Ste. 202, Phoenix, AZ 85016
- Parking:** Parking in ACF's lot approximately \$8.00  
You can also park in the lot across the street on 22<sup>nd</sup> Street
- Cost:** No cost to attend

**Abstract:** Type 2 diabetes, cardiovascular diseases, colon cancer, breast cancer, dementia, and depression constitute a cluster of diseases, which defines "a diseasome of physical inactivity". Both physical inactivity and abdominal adiposity, reflecting accumulation of visceral fat mass, are associated with the occurrence of the diseases within the diseasome. Physical inactivity appears to be an independent and strong risk factor for accumulation of visceral fat, which again is a source of systemic inflammation. Chronic inflammation is involved in the pathogenesis of insulin resistance, atherosclerosis, neurodegeneration, and tumour growth. Evidence suggests that the protective effect of exercise may to some extent be ascribed to the anti-inflammatory effect of regular exercise, which can be mediated via a reduction in visceral fat mass and/or by induction of an anti-inflammatory environment with each bout of exercise. The finding that muscles produce and release myokines provides a conceptual basis to understand the mechanisms, whereby exercise influences metabolism and exerts anti-inflammatory effects. According to our theory, contracting skeletal muscles release myokines, which work in a hormone-like fashion, exerting specific endocrine effects on visceral fat. Other myokines work locally within the muscle via paracrine mechanisms, exerting their effects on signalling pathways involved in fat oxidation.

**Objectives:** To be distributed at Seminar

**Biography:** Bente Klarlund Pedersen is Professor of Integrative Medicine and a specialist in infectious diseases and internal medicine. She is the Director of the Danish National Research Foundation's Centre of Inflammation and Metabolism (CIM) counting six senior researchers,

nine postdocs, 15 PhD students, a technical staff of 8 persons and 12 pre-graduate students or research assistants. Seventeen have finished their PhD and three their doctoral thesis. Dr. Pedersen has 486 publications in peer-reviewed journals including 336 original and 150 review articles. She has mainly published within physiology, metabolism, and immunology.

To RSVP or for additional information, please contact Patricia Crenshaw (602) 778-7481 or via email at [patricia.crenshaw@kronosinstitute.org](mailto:patricia.crenshaw@kronosinstitute.org).

***Special Note:*** *If your plans change after you RSVP please cancel at the above contact as well.*

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