

# Stephan Herzig

1999 PhD University of Göttingen, Germany  
2000-2003 Postdoc, Salk Institute for Biological Studies, La Jolla, CA, USA  
Since 2003 Emmy-Noether and Marie Curie Group Leader at DKFZ

## Molecular Metabolic Control



### Current Research

Our research is focused on the transcriptional control of metabolism and the development of metabolic diseases such as the metabolic syndrome including type II diabetes and atherosclerosis as well as cancer cachexia.

In this respect, we aim to characterize signalling pathways and transcriptional complexes involved in energy homeostasis as associated with the above mentioned disorders. In particular, we are investigating the function of distinct transcriptional co-factors in this context.

Our methodology includes cellular as well as animal disease models, viral gene delivery systems *in vitro* and *in vivo*, functional DNA-protein and protein-protein interaction assays, and high-throughput screening technology.

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### Future Projects and Goals

Based on our current research activities, our future projects will concentrate on the mechanisms of tissue cross-talk in metabolic control, and the integration of inflammatory and metabolic pathways in the development of metabolic disorders.

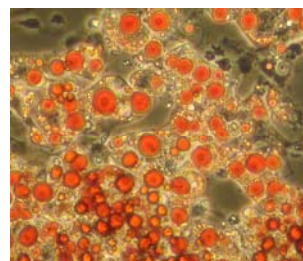
### Selected Publications

Vegiopoulos, A. and **Herzig, S.** 2007. *Glucocorticoids, metabolism and metabolic diseases*. **Mol. Cell. Endocrinol.** 275: 43-61

Krones-Herzig, A., ... and **Herzig, S.** 2006. *Signal-dependent control of gluconeogenic key enzyme genes through co-activator associated methyltransferase 1*. **J. Biol. Chem.** 281: 3025-3029

**Herzig, S.** et al. 2003. *CREB controls hepatic lipid metabolism through nuclear hormone receptor PPAR $\gamma$* . **Nature** 426: 190-193

**Herzig, S.** et al. 2001. *CREB regulates hepatic gluconeogenesis through the coactivator PGC-1*. **Nature** 413: 179-183



Storage of lipids (red) in adipocytes:

Neither excess nor depletion of fat is compatible with healthy energy homeostasis.