sfb 635
posttranslational control
of protein function

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Seminars in Genetics and Molecular Cell Biology

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Mitochondrial dynamics and mitophagy: essential protection against misbehaving mitochondria

Dysfunctional mitochondria pose a grave threat to high-energy demanding tissues and are associated with an array of human diseases. A damaged mitochondrion must first be exiled from the network by mitochondrial fission and next be selectively degraded by a process termed mitophagy. However, we now demonstrate how cells dependent on oxidative phosphorylation can avoid mitophagy via intricate control of mitochondrial dynamics. In order to maintain the energy supply, respiring cells resist mitophagy by preserving an interconnected mitochondrial network. In addition, whilst the mechanistic regulation of mitophagy remains poorly understood, our recent data suggest that ER-mitochondrial calcium signaling plays a crucial role in the selective eradication of damaged mitochondria.

Wednesday, June 26, 2013 at 11.00 a.m.

Institute for Genetics,
Zülpicher Str. 47 a, Lecture hall, 4th floor

Host: Thomas Langer, Institute for Genetics,
University of Cologne

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