

グローバル COE セミナー 腫瘍生物学講座公開セミナー

## **SIRTUINS, AGING AND DISEASE**

**演者 : Novartis Professor Leonard Guarente**

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**Massachusetts Institute of Technology**

**日時 : 平成 21 年 5 月 8 日 (金) 15:30~17:00**

**場所 : 医学部基礎構内 A棟セミナー室 103・107**

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SIR2 and related genes are NAD-dependent deacetylases that slow aging in yeast, *C. elegans*, and *Drosophila*. In yeast and flies, SIR2 genes are also involved in the longevity conferred by dietary or calorie restriction (CR). The mammalian SIR2 homologs termed SIRT genes, or sirtuins, are involved in changes in stress resistance and metabolism and are known to be associated with CR. Critically, the CR diet in rodents not only extends life span, but also protects against many diseases of aging. In this talk, I will describe recent findings in the lab regarding SIRT1 function in specific mammalian tissues in relation to murine disease models. Our findings indicate that SIRT1 can influence many of the major diseases of aging, including metabolic diseases like diabetes, neurodegenerative diseases (Alzheimer's and Huntington's), cancer and osteoporosis. Therefore small molecules that alter the activity of SIRT1 (i.e. CR mimetic drugs) offer a new approach to prevent and possibly treat the major diseases of aging.

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**主催 : 京都大学医学研究科腫瘍生物学講座 (753-4426)**