

第387回 難研セミナー

下記により難研セミナーを開催しますので、多数御来聴下さい。

記

日 時： 2007年6月13日（水）14:00～16:00

場 所： 難治疾患研究所 [駿河台地区] 1階会議室

演 者： Michael W. Schwartz, MD

(Professor and Head, Section of Clinical Nutrition, Division of Metabolism,
Endocrinology and Nutrition, Department of Medicine, University of
Washington)

演 題： Diabetes, Obesity and the Brain

講演要旨：

Obesity, insulin resistance and impaired insulin secretion are tightly linked to one another in metabolic disease. Obesity involves defects in the biological process whereby food intake is matched over time to meet ongoing energy requirements. Termed energy homeostasis, this process involves the hormones insulin and leptin that circulate at levels proportionate to body fat stores and, through their actions on key neuronal subsets, regulate food intake, energy expenditure and glucose metabolism. At the cellular level, signaling via the insulin receptor substrate-phosphatidylinositol-3-OH kinase (IRS-PI3K) pathway is implicated in neuronal actions of both insulin and leptin, and is also a key mediator of insulin action in peripheral tissues. Hypothalamic actions of insulin and leptin also influence peripheral tissue insulin sensitivity via a mechanism that, again, depends upon intact neuronal IRS-PI3K signaling. Since obesity and type 2 diabetes are associated with impaired signaling via the IRS-PI3K pathway in both brain and peripheral insulin-sensitive tissues, and since this same defect is implicated in the progressive loss of pancreatic β -cells seen in type 2 diabetes, a global defect in signaling via the IRS-PI3K pathway may explain how obesity, insulin resistance and β -cell dysfunction are linked.

連絡先： 分子代謝医学分野・小川佳宏（内線8109）

本セミナーは、分子神経科学分野 田中光一教授（内線5846）との共催です。