

# Special Seminars on Neuroscience & the Nobel Prize



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**JAN 28 17:00-18:30** Lecture Room 1 (医学部第1講義室)  
Basic Med. Res. Bldg., Tsurumai

### Genetic Dissection of p75 Neurotrophin Receptor Signaling in Mouse Models of Alzheimer's Disease

The p75 neurotrophin receptor (p75<sup>ntr</sup>) is a member of the Tumor Necrosis Factor Receptor (TNFR) Superfamily of “death receptors”. Neurotrophin binding to p75<sup>ntr</sup> can induce neuronal death, neurite dystrophy, synapse elimination and synaptic long term depression (LTD). It has therefore been regarded as a prominent contributor to neurodegenerative processes, such as those undergoing in Alzheimer's Disease (AD). The role of p75<sup>ntr</sup> in AD is unclear, as it has been reported to contribute to both A $\beta$  peptide clearance as well as A $\beta$ -mediated neurodegeneration. This presentation will summarize the latest results of our team using mice carrying different alleles of p75<sup>ntr</sup> lacking distinct functions. Through this approach, we have unravelled a previously unknown, unexpected mechanism by which p75<sup>ntr</sup> regulates production of A $\beta$  peptide, the main component of the amyloid plaques in AD.

**JAN 29 16:30-18:00** Sakata-Hirata Hall (坂田平田ホール)  
Sci. South Bldg., Higashiyama

### The Nobel Prize in Physiology and Medicine - History and Mystique

The Nobel Prize is the most prestigious prize in science. To the public, the selection of Nobel Prizes appears mysterious and opaque. That is intentional. This presentation will review the history and legacy of the Nobel Prize, the awarding institutions, and some less-well known bites about the peculiarities of the different Prizes. It is intended to be relaxed and for a general audience, and will hopefully help to answer some questions about this long tradition. The mystique, however, will remain.