



CDB SEMINAR

Date: Monday, August 23
Time: 16:00 P.M. ~ 17:00 P.M.
Place: 1F Auditorium of Building C, CDB

15:00-16:00

Speaker1: **Thomas W. Gould**
< Wake Forest University School of Medicine >

Title: "Regulation of trophic responsivity in
developing spinal motoneurons"

Summary:

Exogenous administration of in programmed cell death (PCD). (NTF-R) expression in the lumbar large regions of the spinal cord and between different pools of MNs projecting to individual muscle targets. However, within a motor pool, NTF-R expression appears uniform, and each pool expresses multiple NTF-R. Exogenous administration of individual trophic factors fails to rescue all MNs within specific pools, despite the fact that all of the neurons within the pool express the appropriate receptor. However, combined stimulation with multiple trophic ligands rescues all MNs within one motor pool, the adductor motor nucleus. These findings suggest that additional mechanisms other than NTF-R expression alone contribute to the regulation of MN survival by excess neurotrophic factors. We are currently investigating the molecular mechanism of such MN trophic responsivity in the brachial region of the chick spinal cord, which expresses robust levels of c-Ret and GFR α 1 but fails to respond to exogenous glial-derived neurotrophic factor. Finally, we provide evidence that NTF-R expressed by Schwann cells signal *in trans* to regulate MN survival. Together, these findings highlight new levels of complexity in the regulation of MN survival *in vivo*.

Cancelled

16:00-17:00

Speaker2: **Ronald W. Oppenheim**
<Wake Forest University School of Medicine >

Title: "The role of neuromuscular activity and
neurotrophic factors on motoneuron development"

Host: **Hideki Enomoto** <Neuronal Differentiation and Regeneration, CDB>

E-mail: enomoto@cdb.riken.jp Tel: 078-306-3100(ext.1301) RIKEN Center for developmental Biology <http://www.cdb.riken.go.jp/>