



## 台灣大學材料系暨分子生物影像研究中心

### 演講公告

題 目：Reversing Blinding Through a Regenerative Approach

時 間：2015/2/13 (星期五)上午十點

地 點：台灣大學工學院綜合大樓 228 室

演講者：陳東風教授

美國哈佛大學醫學院眼科

Dong Feng Chen, M.D., Ph.D.

Schepens Eye Research Institute

Massachusetts Eye and Ear

Department of Ophthalmology

Harvard Medical School



At a certain point in mammalian development, neurons in the central nervous system lose their ability to grow axons, which leads to catastrophic consequence and permanent functional deficit after injury. Activation of axonal growth program is a critical step in successful nerve regeneration following injury. Yet the molecular mechanisms that orchestrate this transition are not fully understood. Here we report the identification of essential players that maintain the activate growth status of the optic nerve during development and regeneration. The fact that the axon growth mechanism is directly regulated by a secretory factor suggests the possibility of pharmacological manipulation to promote axon regeneration and reverse the loss of vision. Because the optic nerve has long served as a standard model for CNS studies, our results are application for treating injuries in the brain and spinal cord and promoting functional recovery after CNS injury in human patients.