

NanoLSI / Bio-AFM Open Seminar

“Functions and regulation of actin-binding proteins during muscle development in the nematode *C. elegans*”

In muscle cells, actin, myosin, and a number of accessory proteins are assembled into highly ordered contractile apparatuses. However, the mechanisms of assembly and maintenance of muscle contractile apparatuses remain elusive. Our laboratory has been using the nematode *Caenorhabditis elegans* as a model organism and investigating functions of several actin-binding proteins during muscle development. We identified ADF/cofilin and actin-interacting protein 1 (AIP1) as essential factors for proper assembly of actin into the contractile apparatuses. Using biochemical techniques, we demonstrated that ADF/cofilin and AIP1 cooperate to enhance disassembly of actin filaments. Recent studies by other groups have confirmed that these proteins play important roles in mouse and human muscle cells. In this seminar, I will present overview of our research including recent progress in characterizing novel actin-regulatory factors.



*Department of Pathology, Department of Cell Biology,
Winship Cancer Institute, Emory University School of Medicine*

Dr. Shoichiro Ono

Date and Time → November 16, 2017, 15:00-16:00

**Venue → 104 lecture room,
1F Natural Science and Technology Main Hall**

【Sponsor】

Nano Life Science Institute (NanoLSI)

【Contact】

Noriyuki Kodera 076-264-5662