「生命の樹」セミナー

Ciliary PI(4,5)P_2 dictates fall of primary cilia and rise of cell cycle

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A primary cilium is presented as a meso-scale device that senses and translates extracellular information into intracellular biochemical reactions. These input cues manifest in a variety of forms ranging from chemical to mechanical ones. Deregulation of these information transfer leads to human diseases known as ciliopathies. Due to its diffraction-limited dimension and semi-membrane-bound topology, a primary cilium has been a daunting compartment to visualize and manipulate signaling events on site. To overcome this challenge, we combine a chemically inducible dimerization technique with specific organelle targeting to achieve rapidly inducible manipulation of signal transduction exclusively inside primary cilia. We will discuss our recent unpublished works on roles of actin, tubulins and phosphoinositides in stability of primary cilia.

皆様のご来場をお待ちしております

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