

# 31st IRCMS Seminar



Date: **November 15, 2017 (Wed)**

Time: 11:00-12:00

Venue: 1F Meeting Lounge  
International Research Center for Medical Sciences  
(IRCMS)

Speaker: **Dr. Kasem KULKEAW**

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Medical Sciences, Kyushu University, Japan

Title: **Study of a new player in epigenetic  
regulation of erythropoiesis**

Abstract: Production of red blood cells or erythrocytes, a process known as erythropoiesis, is tightly regulated in order to produce sufficient number of functional erythrocytes. Epigenetic is one of mechanisms regulating erythropoiesis. In this seminar, I will discuss our current research on epigenetic of erythropoiesis. We identify a new member of GCN5-related N-acetyltransferase family, which we terms GNAT-like protein. GNAT-like protein binds acetyl-coenzyme A, a key source of acetyl group for histone acetylation but lacks histone acetylation activity. By contrast, GNAT-like protein suppresses histone acetylation activity of other histone acetyltransferase in vitro. Gain- and loss-of-function studies show that GNA-like protein likely play three distinct roles in epigenetic; (1) a carrier of acetyl-coenzyme A, (2) a histone acetyltransferase or (3) negative regulator of histone acetylation.