

### (1) Title

Non-bilaterian animals の発生研究から探る後生動物の細胞・組織タイプ多様性への進化  
Exploring the evolution of animal cell and tissue types through the lens of non-bilaterian development

### (2) Organizers

Nagayasu Nakanishi (University of Arkansas)

Gaku Kumano (Tohoku University)

### (3) Aim

後生動物の発生遺伝学の研究は主にショウジョウバエ、マウス等左右相称動物のモデルを使って行われてきた。しかしながら、左右相称動物は後生動物の一群に過ぎず、その他の後生動物群である刺胞動物、板形動物、有櫛動物そして海綿動物の研究は、後生動物の多様性、そして複雑性の進化の道筋を辿る上で必要不可欠である。このワークショップでは、非左右相称動物特有の形質、および左右相称動物と共有する形質の発生研究に焦点を当て、左右相称動物からだけでは得られない知見の開拓や、左右相称動物がもつ多様で複雑な細胞タイプ・組織形成のための根本的なメカニズムの理解を目指すことを目的とする。

Our understanding of animal development has advanced greatly through the studies of bilaterian models such as *Drosophila* and mice. However, bilaterians represent only one of the early-branching metazoans, which also include non-bilaterian groups - Cnidaria, Placozoa, Ctenophora, and Polifera. Therefore, fundamental mechanisms of animal development and their evolution cannot be fully understood by studying bilaterian development alone. Highlighting research on non-bilaterian lineage-specific traits and/or traits deeply shared between non-bilaterian and bilaterian animals, this workshop aims to explore knowledge difficult or impossible to obtain with bilaterian research only and to unravel fundamental mechanisms for generating diverse and complex cell types and tissues in animal development and evolution.

### (4) Speakers

Protozoa : Hiroshi Suga (Prefectural University of Hiroshima)

Polifera : Jacob Musser (Yale University)

Ctenophora : Kazuo Inaba (University of Tsukuba)、Joe Ryan (University of Florida)

Placozoa : Hiroaki Nakano (University of Tsukuba)

Cnidaria : Konstantin Khalturin (Academia Sinica)