

# セミナーのお知らせ

## "Evolution of cell fusion"

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Date: June 24<sup>th</sup> Monday

Time: 3pm to 4 pm

Location: Biken Hall, 1<sup>st</sup> Floor, Main building, Research Institute for  
Microbial Diseases

(微研ホール、微生物病研究所 本館 1F)

Cell fusion is essential for fertilization and organogenesis. GCS1(HAP2) are membrane glycoproteins essential for gamete fusion in plants and protists. To determine whether GCS1 is also sufficient for cell fusion, we expressed the Arabidopsis GCS1 in mammalian cells. We found that GCS1 expression results in the formation of giant cells via cell fusion [1]. The crystal structures of Arabidopsis and Chlamydomonas HAP2s demonstrate structural homology with the nematode *C. elegans*' EFF-1 and class II viral fusion proteins [2]. We named this superfamily FUSEXINS: FUSion proteins essential for sexual reproduction and EXoplasmic merger of plasma membranes [1]. I will show data regarding the origin of fusexins.

### 参考文献

[1] J Cell Biol. 2017 Mar 6;216(3):571-581.

[2] PLoS Biol. 2018 Aug 13;16(8):e2006357.

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※医学系研究科単位認定の対象となるセミナーです。