



Katedry genetiky a biochémie PriF UK  
a občianske združenie *NATURA*



Vás pozývajú na 119. prednášku v rámci Kuželových seminárov:

**Dr. Charisios Tsiairis**

Friedrich Miescher Institute for Biomedical Research  
Bazilej, Švajčarsko

## **MECHANOCHEMICAL CROSSTALK DURING *HYDRA* REGENERATION**

ktorá sa uskutoční **4. mája 2021** (utorok) o **16:00**

ako webinár: [meet.google.com/pjt-tstf-vcr](https://meet.google.com/pjt-tstf-vcr)

<http://www.naturaoz.org/seminare.html>  
<http://www.naturaoz.org/KuzeloveSeminare.html>

## Charisios Tsiairis, Ph.D.

<https://www.fmi.ch/research-groups/groupleader.html?group=137#research>

2002: BSc, Biology, University of Patras, Patras, Greece

2004: MA, Molecular Biology, Harvard University, Cambridge, MA, USA

2008: PhD, Biochemistry, Harvard University, Cambridge, MA, USA

2009-2011: Postdoctoral Fellow, University of Heidelberg, Heidelberg, Germany

2011-2016: Postdoctoral Fellow, European Molecular Biology Laboratory, Heidelberg, Germany

2016-present: Junior Group Leader, Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland



Charisios Tsiairis is a junior group leader at FMI since 2016. His group is working on self-organising cellular systems. He studied biology in University of Patras, Greece and completed his PhD in the lab of Andrew McMahon at Harvard University. There he explored the role of Hh signaling in the establishment of the left-right axis during early mouse development. He has worked as a postdoc in the lab of Alexander Aulehla, where he was examining the organization of presomitic mesoderm in space and time, and the lab of Thomas Holstein investigating the de novo emergence of organisers during *Hydra* regeneration.

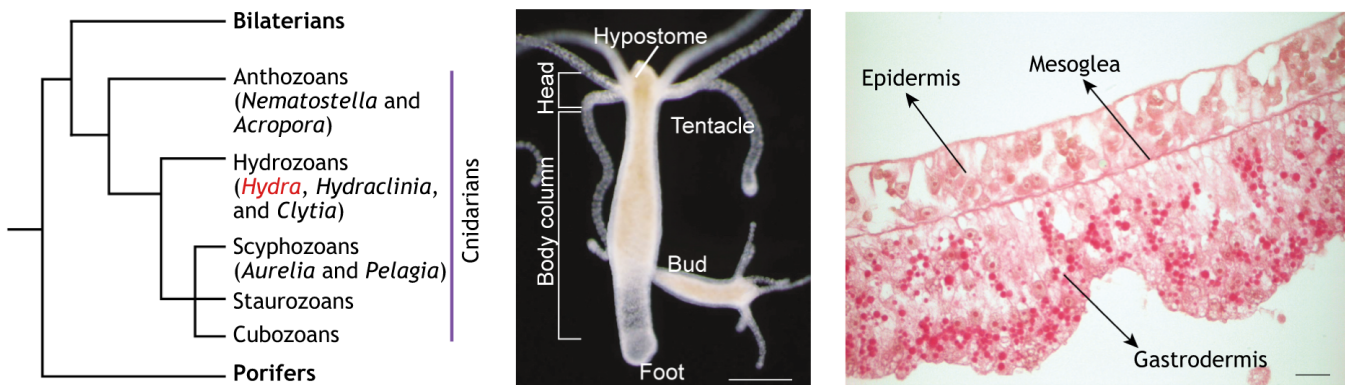


Figure from Vogt *et al.* (2019)

## Selected Publications:

Vogt, M.C., Galliot, B., Tsiairis, C.D. (2019). Model systems for regeneration: *Hydra*. *Development* 146(21): dev177212.

Tsiairis, C.D., Aulehla, A. (2016). Self-organization of embryonic genetic oscillators into spatiotemporal wave patterns. *Cell* 164(4): 656-667.

Lauschke, V.M., Tsiairis, C.D., François, P., Aulehla, A. (2013). Scaling of embryonic patterning based on phase-gradient encoding. *Nature* 493(7430): 101-105.

Nakamura, Y., Tsiairis, C.D., Özbek, S., Holstein, T.W. (2011). Autoregulatory and repressive inputs localize *Hydra* Wnt3 to the head organizer. *Proc. Natl. Acad. Sci. USA* 108(22): 9137-9142.

Dürrnagel, S., Kuhn, A., Tsiairis, C.D., Williamson, M., Kalbacher, H., Grimmelikhuijzen, C.J., Holstein, T.W., Gründer, S. (2010). Three homologous subunits form a high affinity peptide-gated ion channel in *Hydra*. *J. Biol. Chem.* 285(16): 11958-11965.

Tsiairis, C.D., McMahon, A.P. (2009). An Hh-dependent pathway in lateral plate mesoderm enables the generation of left/right asymmetry. *Curr Biol.* 19(22): 1912-1917.

Tsiairis, C.D., McMahon, A.P. (2009). *Disp1* regulates growth of mammalian long bones through the control of *Ihh* distribution. *Dev Biol.* 317(2):480-485.