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

Vás pozývajú na 115. prednášku v rámci Kuželových seminárov:

Dr. Peter Fabian

University of Southern California, Stem Cell Biology and Regenerative Medicine, Los Angeles, USA

WHAT CAN FISH TEACH US ABOUT OUR HEAD?

ktorá sa uskutoční **9. decembra 2019** (pondelok) o **13:00**

v miestnosti CH1-224 Prírodovedeckej fakulty UK

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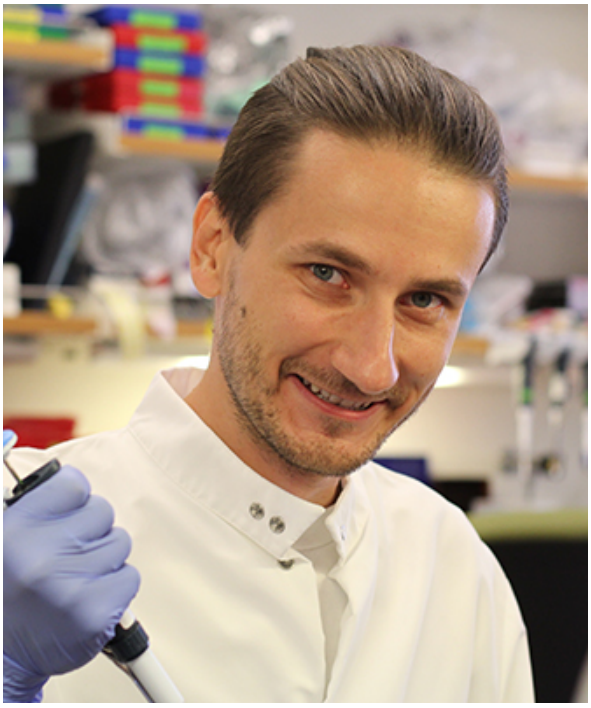

Mgr. Peter Fabian, PhD.
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CV

2017-present - Post-doctoral researcher at the University of Southern California, Stem Cell Biology and Regenerative Medicine, Los Angeles, USA

2016-2017 - Post-doctoral researcher at the Charles University in Prague, Faculty of Natural Sciences, Department of Vertebrate Zoology, Prague, Czech Republic

2010-2016 - PhD. at the Charles University in Prague, Faculty of Natural Sciences, Department of Developmental and Cellular Biology, Prague, Czech Republic

2011-2016 – Bc., Mgr. at the Comenius University, Faculty of Natural Sciences, Department of Biochemistry, Bratislava, Slovakia

Abstract:

During vertebrate development, cells derived from all germ layers orchestrate the formation of the head. Despite the enormous variety of shapes, the fundamental signaling pathways and cellular events that form the craniofacial skeleton in the embryo have proven to be highly conserved from fish to man. *Danio rerio* (zebrafish) is an excellent model organism to study developmental processes. Zebrafish combine powerful genetics, rapid external development of transparent embryos and quick generation time. I will discuss how the combination of fate mapping and recent technological advances using fish models can shed light on the development and evolution of the vertebrate's head.

Selected publications

- Stundl J, Pospisilova A, Jandzik D, **Fabian P**, Dobiasova B, Minarik M, Metscher BD, Soukup V, Cerny R (2019). Bichir external gills arise via heterochronic shift that accelerates hyoid arch development. *Elife* 8: e43531.
- Minarik M, Stundl J, **Fabian P**, Jandzik D, Metscher BD, Psenicka M, Gela D, Osorio-Pérez A, Arias-Rodriguez L, Horácek I, Cerny R (2017). Pre-oral gut contributes to facial structures in non-teleost fishes. *Nature* 547(7662): 209-212.
- **Fabian P**, Pantzartzi CN, Kozmikova I, Kozmik Z (2016). vox homeobox gene: a novel regulator of midbrain-zhindbrain boundary development in medaka fish. *Dev. Genes Evol*. 226(2): 99-107.
- **Fabian P**, Kozmikova I, Kozmik Z, Pantzartzi CN (2015). Pax2/5/8 and Pax6 alternative splicing events in basal chordates and vertebrates: a focus on paired box domain. *Front Genet*. 6: 228.