PhD opportunity in tissue engineering

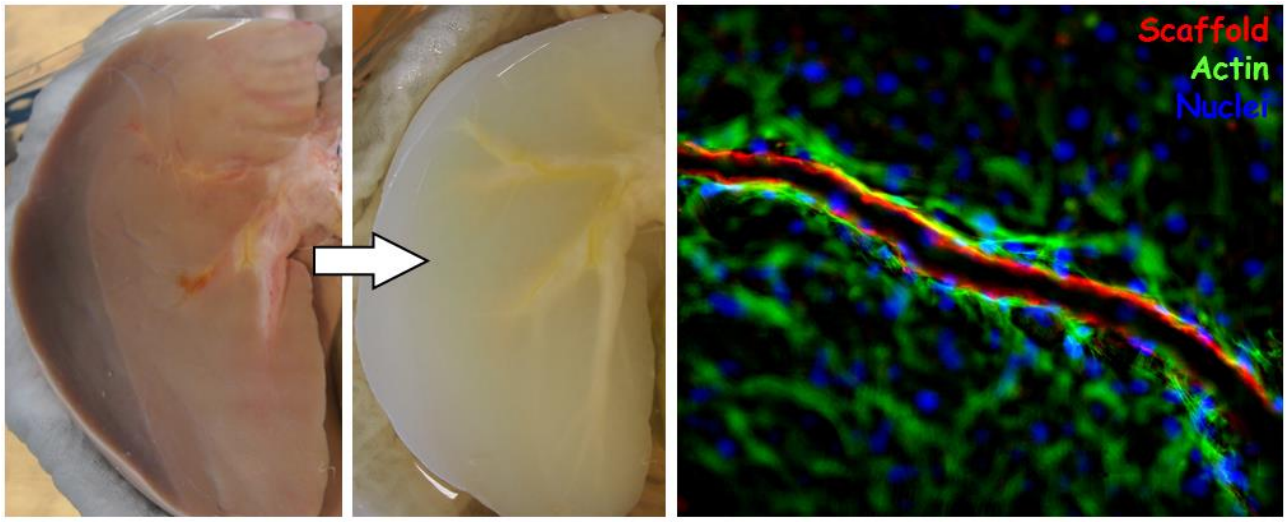
Lab of Cancer Treatment and Tissue Regeneration
Biomedical Center, Faculty of Medicine in Pilsen, Charles University

Project title: **Engineering new tissues *in vitro* using decellularized scaffolds**

Supervisor: RNDr. Vladimira Moulisova, PhD

Starting date: 01/10/2019 (with a possibility to delay the start till February 2020)

Project Description: Decellularized organs and tissues represent a very promising material for tissue engineering. After the original cells are gently removed, the remaining extracellular matrix preserved in its native tissue-specific architecture provides a perfect environment for repopulation with new, ideally recipient cells. The project will help to elucidate the detailed structural features of decellularized scaffold obtained from the pig liver. It will also study the cell – scaffold interactions during recellularization experiments with an option to participate on *in vivo* experiments. A broad range of laboratory techniques will be employed from histochemistry, immunofluorescence, and confocal microscopy across cell and tissue culture to gene expression, proteomics and software analysis. The work will involve an active collaboration with our international partner.



Candidate Profile: The candidate should hold a master degree (MSc, MEng, MD, Mgr, Ing, MUDr…) ideally in tissue engineering, molecular biology, cell biology, or related field. Due to international collaboration good knowledge of English language is welcome. We offer a friendly and supporting environment at a modern institution, a reasonable scholarship and active participation on grant projects.

Suggested reading: G. Mazza, W. Al-Akkad, K. Rombouts, M. Pinzani, Liver Tissue Engineering: From Implantable Tissue to Whole Organ Engineering, Hepatol. Commun. 2(2) (2018) 131-141.

Note: The project will be officially announced in July 2019

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Please don't hesitate to get in touch for more info ☺