



Translational human organ *ex vivo* perfusion models to study infection



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报告时间: 5月8日 9:30-10:30

报告地点: 生命学院3号楼2层教工之家

邀请人: 欧竝宇教授

报告简介:

The key importance of the cellular innate immunity in controlling invasive infection has been known for decades, but there is a dramatic lack of functional information on the events which take place in tissue macrophages within the human liver and spleen upon microbial infection. In vitro cell culture and rodent in vivo infection models provide precious information but need to be verified for their translational value for humans. To address this, we have developed human spleen and liver ex vivo perfusion models. In these clinical trials, both in the UK and now also in Italy, the organs are harvested and cannulated for ex vivo normo-thermic perfusion with an oxygen carrier. Organs are then infected, and the infection is monitored by microscopy and bacteriological analysis on serial perfusate and biopsy samples. In the seminar I will present data on human liver and on human spleen perfusion and infection with the bacterium *Streptococcus pneumoniae* and in addition preliminary data on spleen infection with *Staphylococcus aureus* and *Klebsiella pneumoniae*. The focus of our quantitative high content scanning microscopy analysis aims to characterise the cellular events in the interaction of tissue resident macrophages in both spleen and liver with the bacterial pathogens. I will also discuss advantages and limitations of the translational models presented.

热烈欢迎各位老师 and 同学参加!

