冷冻电镜样品制备Workshop

地点：南方科技大学冷冻电镜中心

日期：2021年9月27日

9:00-9:05 开场讲话 （南科大领导，徕卡领导）

9:05-9:10 南科大-徕卡示范实验室揭牌仪式

9:10-9:40 报告：徕卡冷冻电镜样品制备流程（报告人：徕卡显微系统 肖丽国）

9:40-9:50 合影

9:50-10:00 步行至南方科技大学冷冻电镜中心

10:00-12:00 操作演示与上机实操 （分三组）

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| --- | --- | --- | --- |
| 时间 | ICE | GP2 | CLEM/ACE600/VCT500 |
| 10:00-10:40 | Group A | Group C | Group B |
| 10:40-11:20 | Group B | Group A | Group C |
| 11:20-12:00 | Group C | Group B | Group A |

12:00-13:30 午餐

13:30-14:00 报告 （报告人：南方科技大学）

14:00-14:30 报告题目：眼见为实——低温透射电镜制样及相关技术介绍（特邀专家：祝建）

14:30-14:50 茶歇

14:50-15:30 报告内容关于高压冷冻，冷冻断裂，Cryo FIB及Cryo-EM应用

（报告人：伦敦国王学院超结构成像中心主任 – Roland Fleck教授）

15:30-16:00 报告 （报告人：徕卡显微系统德国生命科学高级应用团队）

16:00-16:20 抽奖活动

16:20 离会

Cryo-EM Sample Preparation Workshop

Site: Southern University of Science and Technology, Cryo-EM Center

Date: Sep 27th

9:00-9:05 Opening (南科大领导，徕卡领导)

9:05-9:10 Opening Ceremony - demonstration lab of SUST-Leica (揭牌仪式)

9:10-9:40 Report from Leica -Cryo workflow – Liguo

9:40-9:50 Group Photo

9:50-10:00 Walking to Cryo-EM lab

10:00-12:00 demo and Hands-on by 3 groups

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12:00-13:30 Lunch

13:30-14:00 Report from Southern University of Science and Technology

14:00-14:30 Report – Prof. Jian Zhu

14:30-14:50 Break

14:50-15:30 Report from KCL – Roland Fleck

15:30-16:00 Report from Leica BU

16:00-16:20 Lottery

16:20 Departure

Profile of **ROLAND A. FLECK**



ROLAND A. FLECK, PhD, FRCPath, FRMS, is Professor of Ultrastructural Imaging, Royal Society Industry Fellow and Director of the Centre for Ultrastructural Imaging at King's College London, United Kingdom.

He is also a visiting Professor of the Faculty of Health and Medical Sciences, University of Copenhagen and Professor of the UNESCO Chair in Cryobiology, National Academy of Sciences of Ukraine, Institute for Problems of Cryobiology, Kharkiv, Ukraine. He joined King’s College London in 2013 from the National Institute for Biological Standards and Control (NIBSC), where he was head of Biological Imaging and Assay Development. At NIBSC he developed advanced imaging techniques for the control and standardisation of biological medicines and had research interests in developing differentiation protocols for myeloid leukemic and human embryonic stem cell lines as substrates for functional biological assays. He has extensive specialist knowledge of freeze fracture/freeze etch preparation of tissues and wider cryo-microscopic techniques.

As academic director of the Centre for Ultrastructural Imaging he collaborates widely with colleagues in neuroscience and parasitology and promotes advanced three dimensional studies of cells and tissues using both room temperature and cryo electron microscopy techniques. He has extensive experience and knowledge of low temperature biology and cryopreservation having researched how cells and tissues both avoid and are damaged by chilling and freezing events. His current research interests focus on developing tools and protocols for enhancing the preservation of tissues for characterisation by electron microscopy as a capacity to enhance wider scientific collaborations.

Areas of expertise: Advanced electron microscopy techniques, cryo electron microscopy preparation techniques and electron tomography, application of serial block face and focused ion beam for the life sciences.