第 602 回 難 研 セ ミ ナ ー

第 175 回 難治疾患共同研究拠点セミナー

The 592th Medical Research Institute Seminar
The 165th Joint Usage/Research Program of Medical Research Institute Seminar

日　時 (Date)　：2019 年 9 月 19 日（木）　17:00 ～ 19:00
場　所 (Venue)　：M&D ﾀﾜｰ 21 階　大学院講義室 1
演　者(Lecturer)：　Prof. John Milton Lucocq
Structural Cell Biology Group, School of Medicine
University of St Andrews, Scotland, UK

演　題(Title)：From 2D image to 3D reality – quantifying the endomembrane “morphome” using electron microscopy.

要　旨 (Summary)：**Morphological analysis is key to understanding cell and tissue function in cell biology, pathobiology and systems biology. Across a range of imaging scales biological objects contain 3D data sets that can be mined appropriately to yield accurate and bias free data whilst also providing high throughput. We have introduced the term “morphome” for the 3D data set and “morphomics” for methods that investigate the morphome systematically and quantitatively.　At the EM level (nanometer scale) the morphome contains petabytes of data and a big question arises on how to obtain high quality data using rather cumbersome technology. Using appropriate examples from our endomembrane research, I will discuss current solutions to working with large data sets and ways to overcome the technological roadblocks and improve throughput. I will also address issues such as automated recognition and integration of EM data with data from other imaging modes and other “-omics” readouts.**

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Co-organaizer　：発生再生生物学分野　仁科博史　内線 4659