# 現代生物醫學特論

本特論課程分為 2 大部份，首先將以循序漸進的方式介紹現代生物技術，“體學(Nomics)”，包括基因體學(Genomics)，蛋白體學(Proteomics)．代謝體學(Metabolomics)及生物資訊學(Bioinformatics)並包含人工 智慧(Artificial Intelligence)的概念．第二部份將介紹氧化/還原 如何影響生物功能，會以 G6PD 缺乏的細胞或個體為模型加以說明氧化/ 還原如何造成對生物的影響．最後並探討代謝體學如何可分析細胞內 氧化/還原不平衡之影響。

This course, “Special topics in Biomedicine”, is divided into two parts. Part I will be the introduction of the “Nomics”, including Genomics, Proteomics, Metabolomics, and Bioinformatics to students. The concept of Artificial Intelligence will also be covered. Part II will introduce the concept of the importance of redox homeostasis in biological system using G6PD-deficient cells or animal models or individuals as models. At the end of this course, an attempt will be made to illustrate how one can use metabolomics technology to delineate the influence of redox homeostasis on biological system.