

10520LSMM514600 生物能量學及氧化磷酸化作用系統

(Bioenergetics and Oxidative Phosphorylation System)

1. Time: Tuesday, 10:10 ~ 12:00, Classroom: LS-II-213
2. Instructor: Mou-Chieh Kao (高茂傑) mckao@life.nthu.edu.tw LS-I 307 ext. 42472
3. Office hours: By appointment only
4. Course description:

This is a course of intermediate level, which is intended to give students a deeper overview of bioenergetics and oxidative phosphorylation system.

5. Grading:

- 90% two in-class written examinations
- 10% participation (attendance, discussion and question asking)

6. Syllabus:

Week	Topics	Speaker
2/14	Introduction : oxidative phosphorylation system	Kao
2/21	Introduction to biochemical energetics	Kao
2/28	和平紀念日放假	
3/7	Electron-transfer reactions in mitochondria	Kao
3/14	Structure and function of complex I: NADH dehydrogenase (1)	Kao
3/21	Structure and function of complex I: NADH dehydrogenase (2)	Kao
3/28	Structure and function of complex I: NADH dehydrogenase (3)	Kao
4/4	民族掃墓節放假	
4/11	Structure and function of complex II: succinate dehydrogenase (1)	Kao
4/18	Structure and function of complex II: succinate dehydrogenase (2)	Kao
4/25	Mid-term Examination	Kao
5/2	Structure and function of complex III: cytochrome c reductase (1)	Kao
5/9	Structure and function of complex III: cytochrome c reductase (2)	Kao
5/16	Structure and function of complex IV: cytochrome c reductase (1)	Kao
5/23	Structure and function of complex IV: cytochrome c reductase (2)	Kao
5/30	端午節放假	
6/6	ATP synthesis by complex V: ATP synthase	Kao
6/13	Final Examination	Kao