

101 上 LSMM514600 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
9/18	Introduction : oxidative phosphorylation system	Kao
9/25	Introduction to biochemical energetics	Kao
10/2	Electron-transfer reactions in mitochondria	Kao
10/9	Structure and function of complex I: NADH dehydrogenase (1)	Kao
10/16	Structure and function of complex I: NADH dehydrogenase (2)	Kao
10/23	Structure and function of complex I: NADH dehydrogenase (3)	Kao
10/30	Structure and function of complex I: NADH dehydrogenase (4)	Kao
11/6	Structure and function of complex II: succinate dehydrogenase (1)	Kao
11/13	Structure and function of complex II: succinate dehydrogenase (2)	Kao
11/20	Mid-term Examination	Kao
11/27	Structure and function of complex III: cytochrome c reductase (1)	Kao
12/4	Structure and function of complex III: cytochrome c reductase (2)	Kao
12/11	Structure and function of complex IV: cytochrome c reductase (1)	Kao
12/18	Structure and function of complex IV: cytochrome c reductase (2)	Kao
12/25	ATP synthesis by complex V: ATP synthase	Kao
1/1	元旦停課一天	Kao
1/8	Final Examination	Kao