Research Tools of Basic Medical Sciences — Fall 2012
基礎醫學研究技術

Room: 601
Time: Monday, AM 10:10-12:00

9/17 Start a research project: Internet resources (dry lab work)  Ming-Derg Lai
9/24 Analyze RNA expression (real-time PCR, microarray)  Chang-Shi Chen
10/1 Analyze RNA expression (Epigenetics)  Chang-Shi Chen
10/8 Demonstration  Chang-Shi Chen
10/15 Transgenic animal  Shang-Hsun Yang
10/22 Virus-based techniques  Shang-Hsun Yang
10/29 Cell separation & analysis (Flow sorting, magnetic)  Hung-Chi Cheng
11/5 Signal transduction (shRNA, inhibitor, gene pulser)  Hung-Chi Cheng
11/12 Demonstration  Hung-Chi Cheng
11/19 Cell images analysis (IF, confocal microscope)  Chia-Ching Wu
11/26 Protein interaction (yeast two-hybrid, FRET biacore)  Chia-Ching Wu
12/3 Demonstration  Chia-Ching Wu
12/10 Analyze protein expression (western, IHC, proteomics)  Chiou-Feng Lin
12/17 Analyze protein expression (Core facility in Hospital)  Chiou-Feng Lin
12/24 Animal imaging (IVIS and supersonic in Animal Center)  Wen-Tsan Chang

Objective: The purpose of this course is to provide the knowledge of basic biomedical techniques in modern medical research and how to use the core facility in Medical College and Hospital. The virtual experiment or demonstration may be included in the class.

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Teachers:
Chang-Shi Chen  陳昌熙
Chiou-Feng Lin  林秋烽
Hung-Chi Cheng  鄭宏祺
Chia-Ching Wu  吳佳慶
Shang-Hsun Yang  楊尚訓
Wen-Tsan Chang  張文粲
To the students enrolled in the class "Research Tools of Basic Medical Sciences"

The course grade will be evaluated by the "term report"

Please write a report on any two different biochemical tools

The report include:
(1) The principle of research technique
(2) The advantages of research technique
(3) The disadvantages of research technique
(4) The application of research techniques.

Page limit: 5 pages
Language: English

deadline: 12/31

Ming-Derg Lai