

Fall 2017

Translational Medicine

轉譯醫學

Code: S954410 (Institute of Clinical Medicine, 臨醫所)
Time: 5:30-7:30 pm, Monday @ Room 7027 of NCKU Hospital Outpatient Building
Credit: 2 credits, graded
Instructor: *Pei- Jung Frank Lu (呂佩融), Yan-Shen Shan (沈延盛)
Language: **English** (英文上課輔以中文解說)
Office hour: 1-3 pm, Monday or by appointment
Contact: 06-2353535 ext. 4415, pjlu2190@mail.ncku.edu.tw
06-2353535 ext. 3105, ysshshan@mail.ncku.tw

In fiscal year 2004, the US National Institute of Health launched the NIH Roadmap which aimed at “New Pathways to Discovery”, “Research Teams of the Future”, and “Reengineering the Clinical Research Enterprise”, opening a new era for translational biomedical research. The goal of this course is to introduce students to fundamental knowledge and technological approaches for translating biomedical research into clinically applicable therapies. The course will start with an introduction of effective scientific communication covering oral presentation and proposal writing, followed with lectures by the faculty experienced in translational research. Students will be evaluated by class participation (60%) and report (40%).

References:

1. Horig H et al. “Obstacles and opportunities in translational research”. *Nat. Med.*, 2005; 11:705.
2. Zerhouni EA. “Translational and clinical science--Time for a new vision”. *NEJM.* 2005; 353:1621.
3. Cressey D. “Talking up translation”. *Nature.* 2010; 463:422.

Syllabus:

09/18	Introduction	呂佩融
09/25	How to conduct a PI-initiated cardiovascular translational human study in NCKU	劉秉彥教授 (成大臨醫所)
10/02	Tumor-associated Macrophages (TAM) in Cancer	沈延盛教授 (成大臨醫所所長)
10/09	National holiday	
10/16	The International Center of Wound Repair and Regeneration; regenerative medicine projects for novel therapies	Michael Hughes 教授 (成大臨醫所)
10/23	Developing oligonucleotide eyedrop to treat myopia	卓夙航教授 (中國醫藥大學 新藥開發研究所)
10/30	Drug repurposing	黃奇英教授 (陽明生藥所所長)

11/06	A case study of reverse translational cancer research	蔡坤志教授 (北醫臨醫所)
11/13	Developing interventional therapeutics	林錫璋教授 (成大內科)
11/20	Pharmacogenetic Strategies and Precision Medicine in Colorectal Cancer	王照元教授 (高醫副院長)
11/27	How to identify the mutation resulting in a monogenic disease? Using inherited neurological diseases as examples	李宜中教授 (北榮神經內科)
12/04	Lung cancer; from epidemiology, clinics, to precision medicine	張基晟教授 (台中榮總內科)
12/11	How to initiate a clinical and/or translation research?	葉大森教授 (長庚一般外科)
12/18	Development of Special Drug Delivery Systems in TTY: Past, Present and Future	胡宇方博士 (台灣東洋製藥)
12/25	From classic metabolic enzymes to novel therapeutic targets	洪文俊教授 (國衛院癌研所)
2018 01/01	National holiday	
01/08	Big bio-data, omics and precision medicine	沈孟儒教授 (成大醫學院副院長)
01/15	繳交期末作業	呂佩融