

**IMM Syllabus** 2018, Spring Semester**Angiogenesis****An overview on new blood vessel formation and its relation with human diseases**

**Course Goals:** An overview on the factors and cell types involved in new blood vessel formation and the relation of their deregulation with the development of human vascular diseases. In addition to journal paper discussion on the latest reports on angiogenesis, two physicians will also share their bedside experience of treating vascular disease with angiogenic therapies. 介紹血管新生的作用機轉、影響因子與參與調節該機轉的主要細胞型態的重要性，探討其在動物胚胎發育與傷口的癒合的生理角色以及其失調與疾病形成的關係，尤其是在腫瘤形成與轉移過程所扮演的角色。因血管新生的方法日新月異，其中一堂會介紹分析比較傳統與最新血管新生分析方法。

**Course Format:** In the first 13 weeks, the lectures will be given by the assigned professors or physicians with expertise in the lecture topic. In the final 3 -4weeks, students in groups will be asked to present a most-updated journal paper on the topics they have learned from lectures and panel discussion, and write the PBL-based assigned homework. 在 13 週的課程之後，會以課程主題為問題導向的小組書報討論最新血管新生失調與疾病形成的相關致病機轉與醫療應用的進展，更重要是會邀請醫師專家學者現身說法分享應用血管新生療法治療疾病的經驗。

**Course Materials:** Listed reference books and lecture notes.

**Grading Criteria:** Punctuality and attendance (20%), a PBL-based oral presentation and Q/A participation (30%), group discussion (20%), and assignment (30 %)

評分方法	百分比 (%)	閱讀、理解與運用專業知識	彙整新知與良好的溝通能力	解決研究問題的能力
準時出席與參	20	V	V	V
assignments	30	V	V	V
a PBL-based oral presentation and Q/A participation	30	V	V	V
group discussion	20	V	V	V

Class Time: Friday, 1:10 - 3:00PM

Classroom: Rm 601 at NCKU Medical College

Coordinator(s): 吳梨華 (ext.3618)

Teaching Assistant: 方偉宇(ext.4214)

Date	Topic	Lecturer
03/02/2018	Course overview - Mechanisms of blood vessel formation	吳梨華
03/09/2018	Physiological angiogenesis	吳佳慶
03/16/2018	Pathological angiogenesis	周楠華醫師
03/23/2018	The role of extracellular matrix in angiogenesis	鄭宏祺
03/30/2018	Hemodynamic forces and nitric oxides on angiogenesis	王寧 (慈濟)
04/06/2018	Spring break	
04/13/2018	The crosstalk between angiogenesis and neurogenesis	張雅雯
04/20/2018	Inflammation and angiogenesis	沈延盛醫師
04/27/2018	Heterogeneity of endothelial cells	吳梨華
05/04/2018	Angiogenic factors and their receptors	吳梨華
05/11/2018	Tumor angiogenesis and lymphangiogenesis	吳梨華
05/18/2018	Models for studying angiogenesis	吳梨華
05/25/2018	Anti-angiogenic therapeutic potential in human cancer	張俊彥院長
06/01/2018	Angiogenic therapeutic potential in human diseases	羅傳堯醫師
06/08/2018	Student presentation	吳梨華
06/15/2018	Student Presentation	吳梨華
06/22/2018	Student presentation	吳梨華