

2025, Spring Semester

Angiogenesis**An overview of new blood vessel formation and its relation with human diseases**

Course Goals (4 SDGs included): An overview of the factors and cell types involved in new blood vessel formation and their deregulation during the development of human vascular diseases. In addition to the discussions on the latest reports on angiogenesis, four physician-scientists will also share their bedside experience of treating vascular disease with angiogenic therapies.



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 remaining weeks, students in groups will be asked to present a most-updated journal paper on the issues learned from lectures and panel discussions and write the assigned homework based on the PBL.

Language: English (>70%) and Mandarin (<30%)

Course Materials: Listed reference books and lecture notes

Grading Criteria:

Itemized evaluation	Percentile (%)	Reading comprehension of scientific materials and applying professional knowledge	Updating and organizing innovative knowledge and communication skills	Problem-solving skills
Punctuality and attendance	20	V	V	V
Assignments	30	V	V	V
One PBL-based oral presentation and Q/A participation	30	V	V	V
group discussion	20	V	V	V

Class Time: Friday, 1:10 - 3:00 PM
Classroom: Rm 601 at NCKU Medical College
Coordinator(s): 吳梨華 (ext.3618)

Date	Topic	Lecturer
02/21/2025	Course overview and mechanisms of blood vessel formation	吳梨華/Wu, Li-Wha
02/28/2025	Holiday	
03/07/2025	Physiological angiogenesis	許聖民醫師/ Hsu, Sheng-Min
03/14/2025	Pathological angiogenesis	蘇美慈醫師/Su, Mei-Tsz
03/21/2025	Heterogeneity of endothelial cells	吳梨華/Wu, Li-Wha
03/28/2025	Angiogenic factors and their receptors	吳梨華/Wu, Li-Wha
04/04/2025	Holiday	
04/11/2025	The role of extracellular matrix in angiogenesis	邱文泰/Chiu, Wen-Tai
04/18/2025	Hemodynamic forces and nitric oxides on angiogenesis	莫凡毅/Mo, Fan-E
04/25/2025	Inflammation and angiogenesis	沈延盛院長/ Shan, Yan-Shen
05/02/2025	The crosstalk between angiogenesis and neurogenesis	張雅雯/ Alice YW Chang
05/09/2025	Tumor neovascularization and lymphangiogenesis	吳梨華/Wu, Li-Wha
05/16/2025	Models for studying angiogenesis	吳梨華/Wu, Li-Wha
05/23/2025	Anti-angiogenic therapeutics in human cancer	蘇文彬醫師/ Su, Wen-Pin
05/30/2025	Holiday	
06/06/2025	Tissue engineering and neovascularization	黃珍語/ Huang, Chen-Yu
06/13/2025	Student presentation and PBL	吳梨華/Wu, Li-Wha