

2026, 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 the most up-to-date 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
02/27	Holiday	
03/06	Course overview and mechanisms of blood vessel formation	吳梨華/Wu, Li-Wha
03/13	Physiological angiogenesis	許聖民醫師/ Hsu, Sheng-Min
03/20	Pathological angiogenesis	蘇美慈醫師/Su, Mei-Tsz
03/27	Heterogeneity of endothelial cells	吳梨華/Wu, Li-Wha
04/03	Holiday	
04/10	Angiogenic factors and their receptors	吳梨華/Wu, Li-Wha
04/17	The role of extracellular matrix in angiogenesis	郭承翔/Kuo, Cheng-Hsiang
04/24	Hemodynamic forces and nitric oxides on angiogenesis	莫凡毅/Mo, Fan-E
05/01	Holiday	
05/08	Inflammation and angiogenesis	沈延盛醫師/Shan, Yan-Shen
05/15	The crosstalk between angiogenesis and neurogenesis	張雅雯/ Alice YW Chang
05/22	Tumor neovascularization and lymphangiogenesis	吳梨華/Wu, Li-Wha
05/29	Models for studying angiogenesis	吳梨華/Wu, Li-Wha
06/05	Anti-angiogenic therapeutics in human cancer	蘇文彬醫師/ Su, Wen-Pin
06/12	Tissue engineering and neovascularization	黃珍語/ Huang, Chen-Yu
06/19	Holiday	
06/26	Student presentation and PBL	吳梨華/Wu, Li-Wha