

PHRM-BE-570
Vascular biology, medicine and engineering
Directors Vlad Muzykantov, Tilo Grosser and Patrick Glassman
Monday-Wednesday-Friday 1:45-2:45 pm

In person: Smilow Translational Research Center, 11th floor, Seminar room 11-146

Virtual: <https://bluejeans.com/367726467/1288>

Meeting ID
367 726 467

Participant Passcode
1288

				Department & School
		Section 1: Cardiovascular system (CVS) and blood	Vlad Muzykantov	Pharmacology SOM
1	Wed 1/12	Introduction to the course, CVS and blood. Overview - course assignments: Each students will present a research project to the group. This can either be research they are involved in themselves or it can be a scientific paper. (1) The first group will present on 2/9/22. (2) The second group will present on 3/2/22. (3) The third group will present on 4/13/22.	Vladimir Muzykantov	Pharmacology SOM
2	Fri 1/14	Blood elements and hemodynamics.	Maurizio Tomaiuolo	Hematology PSOM
	Mon 1/17	MLK day – no class		
3	Wed 1/19	Unique transporting features of red blood cells. Lecture together with Chem E&BE: Bluejeans URL TBD	Dennis Discher	Chem E&BE, SEAS
		Section 2: Thrombosis and hemostasis	Adam Cuker & Timothy Stalker	Pathology-Hem PSOM
4	Fri 1/21	Blood coagulation.	Sriram Krishnaswamy	Hematology CHOP/PSOM
5	Mon 1/24	Platelets	Tilo Grosser	Hematology PSOM
6	Wed 1/26	Bleeding disorders, hemophilia and its therapy.	Tilo Grosser	Hematology CHOP/PSOM
7	Fri 1/28	Platelet disorders and their management.	Michele Lambert	Hematology SOM
8	Mon 1/31	Antiplatelet drugs.	Tilo Grosser	Pharmacology PSOM
9	Wed 2/2	Thrombosis and anti-thrombotic drugs.	Katie Theken	Dental School
10	Fri 2/4	Blood fluidity: flow, dynamics and modeling.	Patrick Glassman	Pharmacology PSOM

		Section 3: Blood vessels, endothelial function and vasoregulation	Shampa Chatterjee & Tilo Grosser	Physiology SOM
11	Mon 2/7	Endothelium.	Vladimir Muzykantov	Pharmacology PSOM
12	Wed 2/9	Course Assignment (1)	Tilo Grosser	Pharmacology
13	Fri 2/11	Vascular contractility and vasoactive eicosanoids.	Tilo Grosser	Pharmacology PSOM
14	Mon 2/14	Mechanical forces in clotting and clot dissolution.	John Weisel	Pathology, PSOM
15	Wed 2/16	Endothelial sensing and reaction to flow.	Shampa Chatterjee	Physiology PSOM
16	Fri 2/18	The multifunctional vascular interfaces.	Vlad Muzykantov	Pharmacology SOM
17	Mon 2/21	Endothelial control of vascular contractility	Vlad Muzykantov	Pharmacology SOM
18	Wed 2/23	Control of blood pressure & hypertension treatment.	Ray Townsend	Medicine SOM
19	Fri 2/25	Intercellular adhesion and the mechanics of the vessel wall	TBN	
20	Mon 2/28	Modeling of blood vessels and microfluidics	Vlad Muzykantov	Pharmacology, PSOM
21	Wed 3/2	Course Assignment (2)	Vlad Muzykantov Tilo Grosser Patrick Glassman	Pharmacology, PSOM
22	Fri 3/4	Angiogenesis.	Georgios Paschos	Pharmacology SOM
		Spring break (March 5-13)		
		Section 4: Inflammation	Jake Brenner	Pulmonary Medicine
23	Mon 3/14	Inflammation.	Jake Brenner	Pulmonary Medicine
24	Wed 3/16	Vascular permeability, edema and leukocyte traffick.	Vlad Muzykantov	Pharmacology SOM
25	Fri 3/18	Biomaterials for vascular medicine & angiogenesis	Jacob Myerson	Pharmacology PSOM
26	Mon 3/21	Ischemia/reperfusion and acute oxidative stress.	Vlad Muzykantov	Pharmacology SOM
27	Wed 3/23	Anti-inflammatory agents.	Tilo Grosser	Pharmacology SOM
		Section 5: Atherosclerosis & vascular pathology	Marina Cuchel	Mol Medicine
28	Fri 3/25	Atherosclerosis	Marie Guerratie	Medicine

29	Mon 3/28	Atherosclerosis pathophysiology: metabolism of lipids and lipoproteins.	Marina Cuchel	Mol Medicine
30	Wed 3/30	Atherosclerosis: therapeutic management.	Marina Cuchel	Mol Medicine
31	Fri 4/1	Hemodynamic basis of atherosclerosis	Shampa Chatterjee	Pathology/SEAS
		Section 6: Novel approaches and therapies	David Cormode	Radiology SOM
32	Mon 4/4	Vascular imaging	David Cormode	Radiology SOM
33	Wed 4/6	Vascular gene delivery and gene therapies.	Michael Chorny	Cardiology CHOP
34	Fri 4/8	Vascular drug delivery and targeting	Vlad Muzykantov	
35	Wed 4/13	Course Assignment (3)	Vlad & Tilo & Patrick	
36	Fri 4/15	Invited Keynote Lecture	TBN	