MOLECULAR MECHANISMS OF CARDIOVASCULAR DISEASE – GMS BI 778-A1

Tuesdays 9:00 – 11:00 am at R123 (McNarry Learning Center)

Coordinator: Vassilis I. Zannis (T: 617-638-5085 E: vzannis@bu.edu)

Text: *Molecular Mechanisms of Atherosclerosis* (J. Loscalzo, ed.), Taylor & Francis, NY, 2004.

The course includes lectures 1¼ hours long and student presentations on a topic relevant to the course lectures. Lecturers in the course are BU faculty who are experts in their field and several distinguished invited speakers. Invited speakers will also give seminars either in CVI or in Biochemistry. Students present a research paper and write and present a review on a specific topic (term paper). Each student will provide 1 question for his/her presentation and the term paper. Questions will be distributed to the class; answers will be returned the next session.

Note that the term papers must be written by December 2 and presented on December 3 or December 10.

Grade will be based 35% on the research paper, 35% on the term paper and 30% on the assigned questions.

9/8	**Vassilis Zannis** *Boston University*	*Biochemistry & genetics of lipoproteins: The apolipoproteins, enzymes, lipid transfer proteins & lipoprotein receptors implicated in lipid and bile acid transporters and their contribution to lipid homeostasis and atherogenesis: Other genes implicated in atherogenesis*
9/15*	**Vassilis Zannis** *Boston University*	*HDL and its biological functions: Role of apoA-I and apoE in lipid homeostasis the biogenesis of HDL. New findings using transient adenovirus-mediated gene transfer in mouse models.*
	Assignment of the term papers and research papers, and take-home questions on the lecture of 9/6 and 9/13.	
9/22	**John Keaney**** *UMass School of Medicine*	*vascular biology and metabolism of the endothelium*
	Presentation of research paper:	
9/29	**Jay Horton** UT Southwestern Medical Center	*Molecular Mediators of Hepatic Steatosis*
	Presentation of research paper:	
10/6	**Ronglih Liao** Brigham &Women's Hospital	Autophagy, amyloid, and heart disease
	Presentation of research paper:	
10/13	**Katya Ravid** *Boston University*	*Use of genetically engineered mouse models in the study of cardiovascular disease*
	Presentation of research paper:	

10/20	**Richard Cohen** *Boston University*	*Inflammation and oxidative stress*
	Presentation of research paper:	
10/27	**Kenneth Walsh** Boston University	*Molecular Control of Cardiac growth and angiogenesis*
	Presentation of research paper:	

11/3	**Steve Farmer** *Boston University*	*Obesity, adipose tissue and insulin resistance: Transcriptional control of adipose tissue formation and function*
	Presentation of research paper:	
11/10	**Monty Krieger** *MIT*	*Structure and functions of the HDL receptor: SRBI(Scavenger Receptor: Class B, Type I)*
	Presentation of research paper:	
11/17	**Michael Czech**** *UMass School of Medicine*	Cellular and Molecular Mechanisms underlying Systemic Glucose Intolerance
	Presentation of research paper:	
11/24	**Victoria Herrera** *Boston University*	*Molecular Perspectives on angiogenesis in cardiovascular disease*
	Presentation of research paper:	
12/1	**Wilson Colucci** *Boston University*	*Myocardial Remodeling*
	Presentation of research paper:	
12/8	**Vassilis Zannis** *Boston University*	*Presentation of term papers by 5 students [~20 min ea/ +4 min questions]:*
	Vassilis Zannis *Boston University*	*Presentation of term papers by 5 students [~20 min ea/ +4 min questions]:*

**** Whitaker Cardiovascular Institute (WCVI) Seminars take place in the EBRC (X) Building Conference Room X-714, 12:00-1:30 pm.**

INSTRUCTIONS FOR PRESENTATION OF TERM PAPERS: *On the day of the presentation, the students should bring hard copies of the slide presentation along with their term paper. Prior to the presentation, the slides and the term paper should be sent electronically to Dr. Zannis. If the files are too large to be sent via email, bring the presentation to class on a disk. This applies for all presentations of term papers.*