

수업계획서

2019 년도 2학기

교 과 명	국 문 : 대사질환특론			
	영 문 : Advanced Metabolic Disease			
이수구분/수강번호	10930	담당교수	문종석	
학점/주당시수	3	소 속	의생명융합학과(일반대학원)	
선이수교과목		연 락 처	핸드폰	010-4819-3071
강의방법(0)표기	강 의 실 학내가상		E-Mail	jongseok81@sch.ac.kr

1. 수업의 개요

This course will address metabolic disorders such as diabetes mellitus, insulin resistance, and obesity as major threats to the public health and convey how risk factors create a disease state which involves abnormal cell signaling and can lead to a diabetic syndrome requiring insulin replacement. This course will provide a multidisciplinary view of processes leading to metabolic disease through lectures and discussion focusing on current concepts of the genetic, molecular and cell biological bases of metabolic function, dysfunction and responsiveness to therapeutic interventions. Especially, this course will explore adipose tissue function and ER stress associated with metabolic disease

2. 수업의 목적

The objective of this class is for students to understand the physiological principles related to the development of metabolic diseases and the pathological consequences. In addition, it will help them to increase their ability to criticise peer reviewed papers.

3. 수업의 목표

Students are expected to understand the physiological principles related to the development of metabolic diseases and the pathological consequences. The cellular mechanisms will be discussed and clarified within the context of the present understanding

4. 수업의 특성

Combination of lecture and student presentation & discussion

Two student/week will prepare a directed presentation relevant to the topics discussed outlined below.

5. 수업의 형태

이론중심 (0)	이론실습형 ()	실습중심 ()	강의실수업 ()	온라인수업 ()	강의실+온라인수업 ()
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6. 과제물

Students will prepare a presentation to be given during class. Presentations will be on topics scheduled for that segment of the course and should consist of approximately half-hour seminars followed by discussion with the class.

Writing Assignment

1. Review paper: The paper will be based on a current literature review of a concept covered during this course. The paper must be original work without copy and pasting from sources. Sources must be peer review journal articles from high impact journals (Cell, Science, Nature, J. Clin. Inv., Diabetes, etc). A minimum of 5 references should be utilized in the paper with an expected length of 4-5 pages double spaces (without figures).

2. Proposal Assignment: This assignment is rooted in the belief that you are able to accomplish original intellectual work related the topics covered in the class

7. 평가방법

중간시험	%	기말시험	%	합 계 100%
출석	20 %	과제	60 %	
발표	%	토론	20 %	
퀴즈	%	기타	%	

■ 주별학습내용

주	제목	학습내용	수업방식				강의실 사용여부
			나눔교육		현장연계		
1	Introduction to Course	Overview of metabolic diseases, Obesity, T2DM	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	
2	Adipose tissue development	Development of Adipose Cells (WAT, BAT, Beige/Bite cells)	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	
3	Adipogenesis	Journal Discussion: Adipogenesis (2 for WAT, 2 for BAT and Beige)	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	
4	Insulin action and metabolism	Insulin action and metabolism, Insulin Resistance,	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	
5	Lipid Metabolism	Dyslipidemia	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	
6	Journal Discussion	Journal Discussion: Insulin Resistance, lipid metabolism (total: 4 journals)	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	
7	Endocrine function	Endocrine functions of adipose tissue	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	
8	Inflammation	Inflammation and metabolic diseases	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	
9	Diabetes	ER stress and Diabetes	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	
10	Hepatosteatosis	ER Stress and Hepatosteatosis	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	
11	Atherosclerosis	ER stress and Atherosclerosis	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	
12	Obesity	ER stress and Obesity	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	
13	Insulin Resistance	ER stress and Insulin Resistance	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	
14	Inflammation	ER stress and Inflammation	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	
15	Cancer	ER stress and Cancer	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	
16	Final Week	Summary of metabolic diseases	토론 <input type="checkbox"/>	PBL <input type="checkbox"/>	융복합 <input type="checkbox"/>	현장전문가초빙 <input type="checkbox"/>	
			발표 <input type="checkbox"/>	프로젝트 <input type="checkbox"/>	팀티칭 <input type="checkbox"/>	현장탐방 <input type="checkbox"/>	
			기타 <input type="checkbox"/>		협동학습 <input type="checkbox"/>	기타 <input type="checkbox"/>	