

BIOCHEMICAL TOXICOLOGY, SPRING SEMESTER 2017

Section 1: Xenobiotics and reactive oxygen: Threats and defenses

Date	Time	Place	Lecture	Teacher
Tuesday, March 21	10 – 12		Presentation of course	J.DePierre, M. Abedi
	13 – 16		Overview of the reaction sequences	R. Morgenstern
Wednesday, March 22	9 – 12		Uptake, distribution and excretion of xenobiotics	J. Ringblom
	13 – 16		The liver: Basic physiological and pathological principles	S. Ström
	afterwards		PLANNING OF PBL PROJECTS	J.DePierre, M. Abedi
Thursday, March 23	9 - 12		The cytochrome P-450 system	I. Johansson
	13 – 16		Glutathione - dependent enzymes	B. Mannervik
Friday, March 24	9 – 12		Epoxide hydrolase; conjugation with glucuronic acid and sulfate	J. DePierre
	PM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Monday, March 27	9 - 12		Environmental pollutants	P. Rydberg
	13 - 16		Overview of clinical drug metabolism	J. DePierre
Tuesday, March 28	9 - 12		Genetic polymorphism I	I. Johansson
	13 - 16		Genetic polymorphism II + hormonal polymorphism	J. DePierre
Wednesday, March 29			WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Thursday, March 30	9 - 12		Synergism between xenobiotics I	I.Silins
	13 - 16		Synergism between xenobiotics II	J. DePierre
Friday, March 31	9 - 12		Formation and characteristics of reactive oxygen species	S. Nobel
	13 - 16		Oxidative stress: Damage to biological molecules versus enzymatic and chemical defenses	R. Morgenstern
Monday, April 3	9 - 12		Induction mechanisms: reactive oxygen	B. Lundgren

	13 – 16		FIRST FOLLOW-UP ON PBL PROJECTS	J.DePierre, M.Abedi
Tuesday, April 4			WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Wednesday, April 5			WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Thursday, April 6			WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Friday, April 7	9 - 12		FIRST DIAGNOSTIC TEST	J. DePierre, M. Abedi
	PM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	

Section 2: Mechanisms giving rise to cellular damage

A. Toxic mechanisms

<i>Date</i>	<i>Time</i>	<i>Place</i>	<i>Lecture</i>	<i>Teacher</i>
Monday, April 10	9 - 12		Necrosis	S. Nobel
	13 - 16		Apoptosis	S. Nobel
Tuesday, April 11			WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Wednesday, April 12	9 - 12		Endocrine disrupting chemicals (EDCs)	A.Hanberg
	13 - 16		Dioxins: Exposure, effects (including up-regulation of xenobiotic metabolism) and risk assessment	E. Vincent
Thursday, April 13	9 – 12		Immunotoxicology	M. Abedi-Valugerdi
	PM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Friday, April 14 - Sunday April 23			EASTER VACATION	
Monday, April 24	9 – 12		Metal toxicity	M. Nordberg
	13 - 16		Air pollution particles and manufactured nanoparticles	H.Karlsson

B. Genotoxic mechanisms

Date	Time	Place	Lecture	Teacher
Tuesday, April 25	9 - 12		Characteristics of tumors	L. Eriksson
	13 – 16.30		Characteristics of tumors	L. Eriksson
Wednesday, April 26	9 -- 12		Overview of genetic toxicology	D. Jenssen
	13 - 16		Chemical mechanisms underlying mutagenicity: formation of DNA adducts and consequences	P. Rydberg
Thursday, April 27			WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Friday, April 28	9 - 12		DNA repair and mutagenic mechanisms	D. Jenssen
	13 - 16		Screening methods for carcinogens	D. Jenssen
Monday, May 1			VACATION	
Tuesday, May 2	9 - 12		Oncogenes and the cancer cell	M. Shoshan
	13 - 16		Chemical carcinogenesis	U. Stenius
Wednesday, May 3	9 - 12		SECOND DIAGNOSTIC TEST	M.Abedi
	afterwards		DISTRIBUTION OF THE TAKE-HOME EXAMINATION	
Monday, May 15	16.00, at the latest		RETURN THE TAKE-HOME EXAMINATION – by email or on paper	J.DePierre,M.Abedi

Section 3: PBL-projects

Date	Time	Place	Activity	Teacher
Tuesday – Monday, May 16-22			WORK WITH PBL PROJECTS SECOND FOLLOW-UP ON PBL PROJECTS– group meetings with supervisors, make appointment with each supervisor in advance!	J.DePierre,M.Abedi
Tuesday, May 23			FINISH UP WORK ON PBL PROJECTS	
Wednesday, May 24			TURN IN THE WRITTEN PBL PROJECTS, THEREAFTER READ THE PROJECTS BY THE OTHER GROUPS AND PREPARE FOR ORAL PRESENTATION OF YOUR OWN PROJECT	
Thursday, May 25			VACATION	
Friday, May 26			READ THE PROJECTS BY THE OTHER GROUPS AND PREPARE FOR ORAL PRESENTATION OF YOUR OWN PROJECT	
Monday, May 29	9 – 17	K247	Discussion of the take-home examination PRESENTATION OF PBL PROJECTS	J.DePierre,M.Abedi
Tuesday, May 30	9 – 17	K247	PRESENTATION OF PBL PROJECTS	J.DePierre,M.Abedi
Wednesday, May 31	9 – 17	K247	PRESENTATION OF PBL PROJECTS	J.DePierre,M.Abedi
Thursday, June 1	9 – 12	K247	PRESENTATION OF PBL PROJECTS	J.DePierre,M.Abedi
Friday, June 2	9 -	K247	COURSE EVALUATION + coffee and cake	J.DePierre,M.Abedi