

BIOCHEMICAL TOXICOLOGY, SPRING SEMESTER 2018

Section 1: Xenobiotics and reactive oxygen: Threats and defenses

<i>Date</i>	<i>Time</i>	<i>Place</i>	<i>Lecture</i>	<i>Teacher</i>
Tuesday, March 20	10 – 12		Presentation of course	J.DePierre, M. Abedi
	13 – 16		PLANNING THE PROBLEM-BASED LEARNING PROJECTS	J.DePierre, M. Abedi
Wednesday, March 21	9 – 12		Overview of the reaction sequences	J.DePierre
	13 – 16		The cytochrome P-450 system	I. Johansson
Thursday, March 22	AM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
	13 – 16		Glutathione – dependent enzymes	B. Mannervik
Friday, March 23	9 – 12		Epoxide hydrolase; conjugation with glucuronic acid and sulfate	J. DePierre
	13 -16		Uptake, distribution and excretion of xenobiotics	U. Carlander
March 24- April 2			EASTER VACATION	
Tuesday, April 3	9 - 12		Environmental pollutants	P. Rydberg
	13 - 16		Overview of clinical drug metabolism	J. DePierre
Wednesday, April 4	9 - 12		Genetic polymorphism I + hormonal polymorphism	J. DePierre
	PM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Thursday, April 5	9 - 12		Synergism between xenobiotics I	J. DePierre
	13 - 16		Synergism between xenobiotics II	I.Silins
Friday, April 6	9 - 12		The liver: Basic physiological and pathological principles	S. Ström

	13 - 16		Genetic polymorphism II	I. Johansson
Monday, April 9	9 - 12		Formation and characteristics of reactive oxygen species	S. Nobel
	PM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Tuesday, April 10	9 - 12		Necrosis	S. Nobel
	PM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Wednesday, April 11	9 - 12		Apoptosis	S. Nobel
	13 -		FIRST FOLLOW-UP ON PBL PROJECTS	J.DePierre, M.Abedi
Thursday, April 12	9 - 12		FIRST DIAGNOSTIC TEST	J. DePierre, M. Abedi
	13 - 16		Oxidative stress: Damage to biological molecules versus enzymatic and chemical defenses	R. Morgenstern
Friday, April 13	9 - 12		Induction mechanisms: reactive oxygen	B. Lundgren

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>
Friday, April 13	PM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Monday, April 16	9 - 12		Immunotoxicology	M. Abedi-Valugardi
	13 - 16		Endocrine disrupting chemicals (EDCs)	A.Hanberg
Tuesday, April 17	9 - 12		Neurotoxicity	A. Undén
	13 - 16		Metal toxicity	M. Nordberg
Wednesday, April 18	AM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
	13 - 16		Dioxins: Exposure and effects (including up-regulation of xenobiotic metabolism)	E. Vincent

B. Genotoxic mechanisms

Date	Time	Place	Lecture	Teacher
Thursday, April 19	9 - 12		Characteristics of tumors I	L. Eriksson
	13 – 16:30		Characteristics of tumors II	L. Eriksson
Friday, April 20			WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Monday, April 23				
	13 - 16		Chemical mechanisms underlying mutagenicity: formation of DNA adducts and consequences	P. Rydberg
Tuesday, April 24	9 - 12		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
	13- 16		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Wednesday, April 25	9 - 12		Oncogenes and the cancer cell	M. Shoshan
	13 - 16		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Thursday, April 26	9 - 12		Overview of genetic toxicology	D. Jenssen
	13 - 16		DNA repair and mutagenic mechanisms	D. Jenssen
Friday, April 27	9 - 12		Screening methods for carcinogens	D. Jenssen
	13 - 16		Chemical carcinogenesis	U. Stenius
Monday, April 30			WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Tuesday, May 1			VACATION	
Wednesday, May 2	9 - 12		SECOND DIAGNOSTIC TEST	J.DePierre,M.Abedi

	afterwards		DISTRIBUTION OF THE TAKE-HOME EXAMINATION	J.DePierre,M.Abedi
Wednesday, May 16	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
Thursday – Wednesday, May 17-23			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
Thursday, 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	
Friday, May 25			READ THE PROJECTS BY THE OTHER GROUPS AND PREPARE FOR ORAL PRESENTATION OF YOUR OWN PROJECT	
Monday, May 28	9 – 17		Discussion of the take-home examination PRESENTATION OF PBL PROJECTS	J.DePierre,M.Abedi
Tuesday, May 29	9 – 17		PRESENTATION OF PBL PROJECTS	J.DePierre,M.Abedi
Wednesday, May 30	9 – 17		PRESENTATION OF PBL PROJECTS	J.DePierre,M.Abedi
Thursday, May 31	9 – 12		PRESENTATION OF PBL PROJECTS	J.DePierre,M.Abedi
Friday, June 1	9 -		COURSE EVALUATION + coffee and cake	J.DePierre,M.Abedi

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