

BIOCHEMICAL TOXICOLOGY, SPRING SEMESTER 2019

Section 1: Xenobiotics and reactive oxygen: Threats and defenses

Date	Time	Place	Lecture	Teacher
Tuesday, March 26	10 – 12	K247	Presentation of course	J.DePierre, M. Abedi
	13 – 16	K247	The liver: Basic physiological and pathological principles	S. Ström
Wednesday, March 27	9 – 12	K239	Uptake, distribution and excretion of xenobiotics	U. Carlander
	13 – 16	K239	Overview of the reaction sequences	R. Morgenstern
Thursday, March 28	9 - 12	K247	Epoxide hydrolase; conjugation with glucuronic acid and sulfate Afterwards: PLANNING OF PBL PROJECTS	J. DePierre J.DePierre, M. Abedi
	13 – 16	K247	Glutathione – dependent enzymes	B. Mannervik
Friday, March 29	9 – 12	K247	The cytochrome P-450 system	I. Johansson
	PM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Monday, April 1	9 - 12	K247	Environmental pollutants	P. Rydberg
	13 - 16	K247	Overview of clinical drug metabolism	J. DePierre
Tuesday, April 2	9 - 12	K247	Genetic polymorphism I + hormonal polymorphism	J. DePierre
	13 - 16	K247	Genetic polymorphism II	I. Johansson
Wednesday, April 3	AM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
	13 - 16	K247	Synergism between xenobiotics I	J. DePierre
Thursday, April 4	9 - 12	K247	Synergism between xenobiotics II	I.Ali
	PM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	

Friday, April 5	9 - 12	K247	Formation and characteristics of reactive oxygen species	S. Nobel
	13 - 16	K247	Oxidative stress: Damage to biological molecules versus enzymatic and chemical defenses	R. Morgenstern
Monday, April 8	9 - 12	K247	FIRST FOLLOW-UP ON PBL PROJECTS	J.DePierre, M.Abedi
	13 - 16	K247	Induction mechanisms: reactive oxygen	B. Lundgren
Tuesday, April 9	9 - 12	K247	Necrosis	S. Nobel
	13 - 16	K247	Air pollution particles and manufactured nanoparticles	H. Karlsson
Wednesday, April 10	9 - 12	K247	Apoptosis	S. Nobel
	PM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Thursday, April 11	9 - 12	K247	Neurotoxicity	A. Undén
	13 - 16	K247	Immunotoxicology	M. Abedi-Valugardi
Friday, April 12	9 - 12	K247	Metal toxicity	M. Nordberg
	PM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	

Section 2: Mechanisms giving rise to cellular damage

A. Toxic mechanisms

Date	Time	Place	Lecture	Teacher
Monday, April 15	9 - 12	K247	Endocrine disrupting chemicals (EDCs)	A.Beronius
	PM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Tuesday, April 16	9 - 12	K247	FIRST DIAGNOSTIC TEST	J. DePierre, M. Abedi
	PM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Wednesday, April 17	9 - 12	K247	Characteristics of tumors I	L. Eriksson

	13 - 16	K247	Characteristics of tumors II	L. Eriksson
Thursday, April 18			WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Friday, April 19 - Sunday April 28			EASTER VACATION	
Monday, April 29			WORK WITH PBL PROJECTS + INDEPENDENT STUDY	D.

B. Genotoxic mechanisms

Date	Time	Place	Lecture	Teacher
Tuesday, April 30	9 - 12	K247	Overview of genetic toxicology	D. Jenssen
	PM		WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Wednesday, May 1			VACATION	
Thursday, May 2	9 - 12	K247	Chemical mechanisms underlying mutagenicity: formation of DNA adducts and consequences	P. Rydberg
	13 - 16	K247	Dioxins: Exposure and effects (including up-regulation of xenobiotic metabolism)	E. Vincent
Friday, May 3	9 - 12	K239	DNA repair and mutagenic mechanisms	D. Jenssen
	13 - 16	K239	Screening methods for carcinogens	D. Jenssen
Monday, May 6	9 - 12	K247	Oncogenes and the cancer cell	M. Shoshan
	13 - 16	K247	Chemical carcinogenesis	U. Stenius
Tuesday, May 7			WORK WITH PBL PROJECTS + INDEPENDENT STUDY	
Wednesday, May 8	9 - 12	K247	SECOND DIAGNOSTIC TEST	J.DePierre,M.Abedi
	afterwards		DISTRIBUTION OF THE TAKE-HOME EXAMINATION	J.DePierre,M.Abedi

Monday, May 20	16.00, at the latest		RETURN THE TAKE-HOME EXAMINATION – by email or on paper	
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Section 3: PBL-projects

<i>Date</i>	<i>Time</i>	<i>Place</i>	<i>Activity</i>	<i>Teacher</i>
Tuesday – Monday, May 21-27			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 28	16.00, at the latest		TURN IN THE WRITTEN PBL PROJECTS, THEREAFTER READ THE PROJECTS BY THE OTHER GROUPS AND PREPARE FOR ORAL PRESENTATION OF YOUR OWN PROJECT	
Wednesday, May 29			READ THE PROJECTS BY THE OTHER GROUPS AND PREPARE FOR ORAL PRESENTATION OF YOUR OWN PROJECT	
Thursday, May 30			VACATION	
Friday, May 31			READ THE PROJECTS BY THE OTHER GROUPS AND PREPARE FOR ORAL PRESENTATION OF YOUR OWN PROJECT	
Monday, June 3	9 – 17	K247	Discussion of the take-home examination PRESENTATION OF PBL PROJECTS	J.DePierre,M.Abedi
Tuesday, June 4	9 – 17	K247	PRESENTATION OF PBL PROJECTS	J.DePierre,M.Abedi
Wednesday, June 5	9 – 17	K247	PRESENTATION OF PBL PROJECTS	J.DePierre,M.Abedi
Thursday, June 6	9 – 12	K247	PRESENTATION OF PBL PROJECTS	J.DePierre,M.Abedi
Friday, June 7	9 -	K247	COURSE EVALUATION + coffee and cake	J.DePierre,M.Abedi