

### SCPM 511: Molecular and Cellular Science in Pharmacology

**Date:** August 15 – September 18, 2017

**Time:** 09:00-12:00 **Mon-Wed-Fri**

**Room:** Pr. 501 / Pr. 507, Department of Pharmacology, Faculty of Science, Mahidol University

	<b>Date</b>	<b>Topics</b>	<b>Instructors</b>
Tue	15 Aug 2017	Orientation (30 min: 9:30-10:00)	PP
		L1: Cell organelles L2: Carbohydrate, lipid and protein	NM
Thurs	17 Aug 2017 (10:00-12:00)	L3: Biomolecules as drug target L4: Cell to cell communication	NM
Fri	18 Aug 2017	L5: Energy Metabolism L6: Oxidative phosphorylation L7: Metabolic pathway as a drug target	PK
Mon	21 Aug 2017 (10:00-12:00)	L8-9: Receptors and ion channels	DP
Wed	23 Aug 2017	L10-11: Signal transduction and secondary messenger L12: Signaling pathway as a drug target	DP
Fri	25 Aug 2017	L13: Autacoids I – histamine (antihistamines), serotonin L14: Autacoids II – prostaglandins, leukotrienes L15: Nitric oxide and bradykinin	NS
Mon	28 Aug 2017	<b>Examination I (L1-12)</b>	
Wed	30 Aug 2017 (9:00-11:00)	L16-17: Neurotransmitters and neuromodulators	PP
Fri	1 Sep 2017	L18: Overview of immune system L19: Antigen recognition & Body response to invaders L20: Cytokines and chemokines	SY
Mon	4 Sep 2017	Conference 1: Abnormal immune response – drug hypersensitivity and autoimmunity (2 h)	SY
Wed	6 Sep 2017	L21: From DNA to gene expression L22: Gene regulation L23: Gene regulatory pathway as a drug target	PK
Fri	8 Sep 2017	<b>Examination II (L13-20, C1)</b>	
Mon	11 Sep 2017	L24-25: Cell cycle and cell death L26: Cell responses to injury	WH
Wed	13 Sep 2017	L27: Carcinogenesis Conference 2: Cytotoxic agents (2 h)	PP
Fri	15 Sep 2017	<b>Examination III (L 21-27, C2)</b>	