Master's Course KN8002

Signal transduction

Schedule 2nd period fall semester 2025

Date	Time	Activity	Teacher	Place
Week 45				
Mon Nov 3	09.30-10.30 11.00-12.00 13.00-17.00	Roll call and presentation of course (obligatory attendance) Presentation of project topics (obligatory attendance) Hand-in choice of project (Online, Athena)	Henrietta Nielsen (SU) Henrietta Nielsen (SU)	
Tue Nov 4	09.30-12.00 13:00-15.30	**Lecture 1:** General aspects of signal transduction **Lecture 2:** General aspects of signal transduction and model systems used to study signal transduction	Anna-Lena Ström (SU) Anna-Lena Ström (SU)	
Wed Nov 5	09.30-12.00 13.00-17:00	**Lecture 3:** Notch Signaling Start of project work / Project work	Qi Dai (SU) Meet your project supervisor	IRL/ Zoom
Thu Nov 6	09.30-12.00 13.00-17.00	**Lecture 4:** Signal transduction pathways; G-coupled receptors Work on Project	Henrietta Nielsen (SU) Meet your project supervisor	IRL/Zoom
Fri Nov 7	09.30 – 12:00 13.00-17.00	**Lecture 5:** Vision and phototransduction Work on project	Henrietta Nielsen (SU) Meet your project supervisor	IRL/Zoom
Week 46				

Mon Nov 10	09.30-12.00 13.00-17.00	**Lecture 6:** General mechanisms of kinases and phosphatases Work on project	Anna-Lena Ström (SU)	
Tue Nov 11	09.30-12.00 13.00-17.00	**Lecture 7:** Tyrosin kinase signaling Work on project	Anna-Lena Ström (SU)	
Wed Nov 12	09:30-12:00 13.00-17.00	**Lecture 8:** Insulin signaling Work on project	Tore Bengtsson (SU)	
Thu Nov 13	09.30-12.00 13.00-17.00	**Exercise&Lecture 9:** Receptors and efficacy part I (obligatory) **Exercise&Lecture 9:** Receptors and efficacy part II (obligatory)	Anna-Lena Ström (SU) Anna-Lena Ström (SU)	
Fri Nov 14		Study for Dugga		
Week 47				
Mon Nov 17	09.30-12.00 13.00-15.30	Study for Dugga Short test		
Tue Nov 18	09.30-17.00	Work on project		
Wed Nov 19	09.30-12.00 13.00-17.00 17.00	**Lecture 10:** Smell and Chemoreception Work on project Submit project-related article for journal club (Athena)	Henrietta Nielsen (SU)	

Thu Nov 20		CHaSE 2025 Annual Career Fair		Aula Medica, Karolinska Institutet
Fri Nov 21	9.30-12.00 13.00-17.00	**Lecture 11:** HPA axis signaling and Nuclear Receptors Review/read assigned JC paper	Ioannis Sotiropoulos (NCSR, Demokritos, Greece)	Hybrid
Week 48				
Mon Nov 24	9.30-12.00 13.00-17.00	**Lecture 14:** *Preliminary*! Signaling in cancer versus senescence **Journal Club** Group 1 Group 2 (Group 3 work on project)	Federico Pietrocola (KI) Henrietta Nielsen Anna-Lena Ström	
Tue Nov 25	9.30-12.00 13.00-17.00	**Lecture 13:** Cannabinoid and endocannabinoid signaling **Journal Club** Group 3 (Groups 1-2 work on project)	Anna Forsby	
Wed Nov 26	9.30-12.00 13.00 13.00-17.00	**Lecture 14:** Neuropeptides and peptide hormone receptors Submit poster for print Work on project/poster presentation	Christian Broberger (SU)	
Thu Nov 27	9.30-17.00	**Poster presentations**		
Fri Nov 28	9.30-17.00	**Poster presentations**		
Week 49				
Mon Dec 1	9.30-12.00	**Lecture 15**: Cytokine signaling	Anna-Lena Ström	

Tue Dec 2	9.30-12.00 13.00-17.00	**Lecture 16:** Neuroimmunology and multiple sclerosis Tentative: Master thesis project information meeting	Anna-Lena Ström	
Wed Dec 3	9.30-12.00 13.00-17.00	**Lecture 17:** Signaling in the innate immune system Work on project	Eva Sverremark Ekström (SU)	
Thu Dec 4	9.30-12.00 13.00-17:00	**Lecture 18:** Gene regulation; General principles of Transcriptomics Work on project	Marek Bartosovic (SU)	
Fri Dec 5	9.30-12.00 13.00-17.00	**Lecture 19**: Gene regulation; General principles of Epigenetics Work on project	Marek Bartosovic (SU)	
Week 50				
Mon Dec 8	9.30-12.00 13:00-17:00	**Lecture 20:** Nitric Oxide as a Signaling Molecule Work on project	Marcelo F. Montenegro (SU)	
Tue Dec 9	9.30-12.00 13.00-17:00	**Lecture 21:** Effects of toxins on signal transduction Work on project	Anna Forsby (SU)	
Wed Dec 10	9.30-17.00	Work on project		
Thu Dec 11	9.30-12.00	Work on project		

	12.00 13.00-17.00	Deadline – hand-in project plan (Athena) Prepare project plan presentation		
Fri Dec 12	09.30-17.00	Prepare project plan presentation		
Week 51				
Mon Dec 15	09:30-17.00	**Project plan presentations**		
Tue Dec 16	09.30-17.00	**Project plan presentations**		
Wed Dec 17	10.00-12.00	Research seminar 1: *The gut microbiome and implications to disease*	Eva Sverremark Ekström (SU)	
Thu Dec 18	10.00-12.00	Research seminar 2: *Molecular mechanisms and implications to behavior*	Emanuela Santini (KI)	
Fri Dec 19	10.00-11.00 alt 15.00-16.00	Research seminar 3:	TBA	Online
Week 52				
Mon Dec 22	15.00-16.00	Research seminar 4: *The Role of Complement in CNS and PNS Diseases*	Cindy Lemere and Gerry Cox, Harvard Medical School, USA	Online
Tue Dec 23	10.00-12.00	Study for exam		
Wed Dec 24		Xmas Eve Public Holiday		
Thu Dec 25		Xmas Day Public Holiday		
Fri Dec 26		Second Day of Xmas Public Holiday		
Week 1 2025				

Mon Dec 29	09.30-17.00	Study for exam		
Tue Dec 30	09.30-17.00	Study for exam		
Wed Dec 31		New Year's Eve Public Holiday		
Thu Jan 1		New Year's Day Public Holiday		
Fri Jan 2	09.30-17.00	Study for exam		
Week 2 2025				
Mon Jan 5		Epiphany Public Holiday		
Tue Jan 6	09.30-17.00	Study for exam		
Wed Jan 7	09.30-17.00	Study for Exam		
Thu Jan 8	09.00-17.00	Study for Exam		
Fri Jan 9	08.30-12.45	**Written Exam**		
Week 3 2025				
Mon Jan 12	09.00-10.30 11.00-12.00	Exam go-through Introduction to Transcriptomics Workshop (obligatory)	Henrietta Nielsen (SU) Marek Bartosovic (SU) José Ramon Barcenas Walls (SU)	
Tue Jan 13	9.30-17.00	Transcriptomics Workshop (obligatory)	Marek Bartosovic (SU) José Ramon Barcenas Walls (SU)	
Wed Jan 14	9.30-17.00	Transcriptomics Workshop (obligatory)	Marek Bartosovic (SU) José Ramon Barcenas Walls (SU)	

Thu Jan 15	9.30- 17.00	Transcriptomics Workshop (obligatory)	Marek Bartosovic (SU) José Ramon Barcenas Walls (SU)	
Fri Jan 16	9.30- 12.00 12.00 13.00- 14.00	Transcriptomic Workshop (obligatory) Hand-in Transcriptomics Workshop assignment (Athena) (obligatory) Course summary and evaluation	Marek Bartosovic (SU) José Ramon Barcenas Walls (SU) Henrietta Nielsen (SU)	