

**Master's Course KN8001**  
**Advanced Neurochemistry with Molecular Neurobiology**  
**Avancerad Neurokemi med Molekylär Neurobiologi**

Schedule spring semester 2026

**All laboratory and project work are obligatory**  
**Obligatory sessions marked with \***  
For colour code please see below schedule

**Teachers (lärare):**

EH	Eva Hedlund
A-LS	Anna-Lena Ström
HN	Henrietta Nielsen
AF	Anna Forsby
EHA	Einar Hallberg
ML	Melanie Leboeuf
ND	Nils Dennhag

**Teaching Assistants (Lärarassistenter):**

LK	Larissa Kahnwald
LLH	Lara Leal Hernandez
IM	Irene Mei

**Safety coordinator (säkerhetskoordinator)**

LA	Liselotte Antonsson
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**Location (room number) (Lokaler):**

C474: Cell culture course lab

**A371: lab**

**Advanced Neurochemistry with Molecular Neurobiology**  
**Avancerad Neurokemi med Molekylär Neurobiologi**  
**19/1-20/3 2026**  
 KN8001

Day	Date	Time	Activity	Teachers	Location
Mon	19/1	9.00-11.30	Roll call (upprop) and introduction of the course, participants and Athena*	EH	K441-447
		12:30-13:30	Lab safety introduction*	LA	K441-447
Tues	20/1	9.00-12.00	Lecture 1: Development of the nervous system I	EH	K441-447
		13.00-15.00	LAB: Lab introduction; sterile technique all groups*	IM/LK/LLH	K441-K447
Wed	21/1	9.00-12.00	Lecture 2: Development of the nervous system II	EH	K441-K447
		13.00-15.00	DUGGA sterile technique, all groups*	IM/LK/LLH	K438
Thur	22/1	9.00-12.00	Lecture 3: Development of the nervous system III	EH	K441-447
		13.00-14.00	Tutorial on neurite quantification*	IM/LK/LLH	C458
		14.30-17.00	Prepare for journal club 1	Self-study in groups	
Fri	23/1	9.00-12.00	Lecture 4: Myelinating glial cells	ND	K447
		13.00-17.00	Prepare for journal club 1	Self-study in groups	
Mon	26/1	9.00-11.00	LAB1 (Day 1)*: Groups 1,2,3	LK/LLH	C474
		11.00-13.00	LAB1 (Day 1)*: Groups 4,5,6		
		14.00-17.00	Journal club 1*	ML	K438
Tues	27/1	9.30-12.00	Lecture 5: Non-myelinating glia cells	HN	K441-K447
		12.00-13.30	LAB1 (Day 2)*: Groups 4,5,6	LK/LLH	C474
		13.30-15.00	LAB1 (Day 2)*: Groups 1,2,3		
Wed	28/1	9.30-12.00	Lecture 6: The blood-brain barrier	HN	K441-K447
		13.00-14.00	LAB1 (Day 3)*: Groups 1,2,3	LK/LLH	C474
		14.00-15.00	LAB1 (Day 3)*: Groups 4,5,6		

Thurs	29/1	9.00-12.00	Lecture 7: Neuronal degeneration and regeneration after trauma	ND	Magneli
		13.00-14.00	Tutorial on immunostaining and PCR*	ML	K433-K439
		14.00-17.00	Prepare for journal club 2	Self-study in groups	
Fri	30/1	10.00-11.30	LAB1 (Day 5)*: Groups 1,2,3	LK/LLH	C474
		11.30-13.00	LAB1 (Day 5)*: Groups 4,5,6		
		13.00-17.00	Prepare for journal club 2	Self-study in groups	
Mon	2/2	10.00-11.00	LAB1 (Day 8): Groups 1,2,3	LK/LLH	C474
		11.00-12.00	LAB1 (Day 8): Groups 4,5,6		
		12.30-16.00	Journal club 2*	ML	K433-K439
Tues	3/2	9.00-12.00	Lecture 8: Neurotrophins	A-LS	K441-K447
		13.00-16.00	Project work: Introduction to project work*	EH (LK/LLH)	K439-K433
Wed	4/2	9.00-12.00	Lecture 9: Synaptic plasticity; the role of neurotrophins, gene regulation and cytoskeletal alterations	A-LS	K441-K447
		13:00-16.00	Project: Part 1*: establishing a protocol	Self-study	
Thur	5/2	9.00-12.00	Lecture 10: Apoptosis	ML	K441-K447
		13.00-16.00	Project: Part 1*: Establishing a protocol	Self-study	
Fri	6/2	9.00-12.00	Lecture 11: Depression	A-LS	K441-K447
		13.00-16.00	Project: Part 1*: Establishing a protocol	Self-study	
		16.00	Submit first draft of protocols in Athena		Athena
Mon	9/2	9.00-12.00	Lecture 12: Schizophrenia	A-LS	K441-K447
		13.00-17.00	Project: Part 1*: Discussion and joint design of final protocols	EH/LK/LLH	K438
Tues	10/2	9.30-12.00	Lecture 13: Imaging the nervous system	EHA	K441-K447
		13.00-17.00	Project: Part 1*: Establishing a protocol.	Self-study	

Wed	11/2	9.00-12.00 13.00-17.00	<i>Project: Part 1*: Establishing a protocol:</i> Hand-in protocol at 12:00 – to be shared with all groups  <i>Project: Part 2*: Safety evaluation</i>	<i>Self-study in lab groups</i>	Athena
Thurs	12/2	9.00-12.00 13.00-15.00	Lecture 14: Modeling neurodegenerative diseases in animals  <b>Project: Part 2*: Safety evaluation</b>	HN EH	Magneli K438
Fri	13/2	9.00-12.00 13.00-15.30	Lecture 15: Alternative methods to model disease and developmental neurotoxicity, focus on cell models  <b>Tutorial of cell/nuclei quantification and preparation of figures*</b>	AF IM/LK/LLH	K441-K447 K438
Mon	16/2	9.00-11.00 11.30-13.30	<b>Project: Part 3* (Day 0): Groups 1, 2, 3</b> <b>Project: Part 3* (Day 0): Groups 4, 5, 6</b>	LK/LLH	C474
Tues	17/2	9.00-11.30 12.30-14.00 14.00-15.30	Lecture 16: Neurodegenerative diseases  <b>Project: Part 3* (Day 1): Groups 4,5,6</b> <b>Project: Part 3* (Day 1): Groups 1,2,3</b>	EH LK/LLH	K441-K447 C474
Wed	18/2	9.00-12.00 12.30-14.00 14.00-15.30	Seminar: Parkinson's disease  <b>Project: Part 3* (Day 2): Groups 1,2,3</b> <b>Project: Part 3* (Day 2): Groups 4,5,6</b>	EH LK/LLH	Magneli salen C474
Thurs	19/2	9.30-11.00 12.00-13.30	<b>Project: Part 3* (Day 3): Groups 4,5,6</b> <b>Project: Part 3* (Day 3): Groups 1, 2, 3</b>	LK/LLH	C474
Fri	20/2	9.30-11.00 11.00-12.30	<b>Project: Part 3* (Day 4): Groups 1, 2, 3</b> <b>Project: Part 3* (Day 4): Groups 4, 5, 6</b>  <b>Last day to hand in Lab1 report – deadline 14:00</b>	LK/LLH	C474 Athena
Mon	23/2	9.00-11.00 11.30-13.30 13.30-15.30	Seminar: Alzheimer's disease  <b>Project: Part 3* (Day 7): Groups 4, 5, 6</b> <b>Project: Part 3* (Day 7): Groups 1,2,3</b>	HN LK/LLH	K433/K439 C474

Tues	24/2	9.00-17.00	Project part 3*: (Day 8): All groups together	LK/LLH	C474 +A371 (A373)
Wed	25/2	9.00-12.00	Project part 3*: All groups together		A371 (A373)
		12.30-14.30 14.30-16.30	Project: Part 3* (Day 9): Groups 4,5,6 Project: Part 3* (Day 9): Groups 1, 2, 3	LK/LLH	C474
Thur	26/2	9.30-11.30	Prepare Data Figures for presentations	<i>Self study</i>	
		12.30-13.30 13.30-14.30	Project: Part 3* (Day 10): Groups 1, 2, 3 Project: Part 3* (Day 10): Groups 4, 5,6		C474
Fri	27/2	10.00-11.30 11.30-13.00	Project: Part 3* (Day 11): Groups 4, 5,6 Project: Part 3* (Day 11): Groups 1,2,3	LK/LLH	C474
Mon	2/3	9.00-12.00	Project: Part 3* (Day 14): ALL GROUPS	LK/LLH	A371 (A373)
		13.00-16.00	Seminar: Amyotrophic lateral sclerosis	EH	C458
Tues	3/3	9.00-12.00	Project: Part 3* (Day 14): ALL GROUPS	LK/LLH	A371 (A373)
		13.00-15.00 15.00-17.00	Project: Part 3*: Groups 1,2 Project: Part 3*: Groups 3,4	LK/LLH LK/LLH	IFSU IFSU
Wed	4/3	9.00-11.00	Project: Part 3*: Groups 5,6	LK/LLH LK/LLH	IFSU IFSU
		13.00-17.00	Prepare Data Figures for presentations	<i>Self study</i>	
Thur	5/3	9.00-12.00	Seminar: PolyQ diseases	A-LS	Magneli
		13.00-17.00	Prepare Data Figures for presentations	<i>Self study</i>	
Fri	6/3	9.00-16.00	Project: Part 4*: All groups: prepare presentations and Data figures  <b>SUBMIT DATA FIGURES ALL GROUPS at 16:00 – will be shared with all groups</b>	<i>Self study</i>	Athena
Mon	9/3	9.00-17.00	Project: Part 4*: All groups: prepare presentations	<i>Self study</i>	

Tues	10/3	9.00-17.00	Project: Part 4*: All groups: prepare presentations	Self-study	
Wed	11/3	9.00-14.00	Project: Part 4*: All groups: prepare presentations  Upload presentation into Athena at 14:00	Self-study	Athena
Thur	12/3	9.30-15.30	Project: Part 4*: Presentations	EH and ALS	M414
Fri	13/3	9.00-17.00	Study for exam	Self-study	
Mon	16/3	9.00-17.00	Study for exam	Self-study	
Tues	17/3	10.30-12.30 12.00-17.00	Question time Study for exam	EH Self-study	Over zoom
Wed	18/3	9.00-17.00	Study for exam	Self-study	
Thur	19/3	9.00-17.00	Study for exam	Self-study	
Fri	20/3	13.00-17.30	Exam		C458

Color code:

Lab 1

Journal clubs

Project

Mandatory sessions marked with asterisk (\*).