



# Biomedical Ecology - The microbiota in health and disease

2018-09-17—09-21

Room B0313, Biomedicum, Solnavägen 9

## Day 1 Monday 17/9

09.00-09.30	INTRODUCTION Presentation of course leaders, participants and seminars.		Åsa Sjöling
Analysis of the Microbiota			
09.30-10.00	The ecology and compartments of the gut		Tore Midtvedt
10.00-10.30	Bacterial taxonomy and the bacterial content of the gut		Åsa Sjöling
10.30-10.50	COFFEE BREAK		
10.50-11.20	Cultivation of (intestinal)bacteria		Roland Möllby
11.20-12.00	The virome of the human gut		Anders S Nilsson
12.00-13.00	LUNCH		
13.00-13.45	Sequencing techniques, amplicon sequencing		Anders Andersson
14.00-14.45	Metagenomics		Andersson
15.00-15.20	Laboratory lecture I Streaking a sample on the agar plate		Roland Möllby
Transport time Lab. work I (Course lab)/ Visit SciLife			
	Inoculation of agar plate	Visit SciLife	
15.30-16.00	Groups 3, 4	Groups 1, 2	Inger Kühn Patricia Colque
16.00-16.30	Groups 1, 2	Groups 3, 4	Colque



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## Day 2 Tuesday 18/9

Anti- and probiotics and the microbiota			
09.00-10.15	The antibiotic shadow The reservoir of resistance Metagenomic analysis of resistance	Tore Midtvedt Roland Möllby Fredrik Bolund	
10.15-10.35	COFFEE BREAK		
10.35-11.15	Probiotics - facts and fiction	Stefan Roos	
The intestinal mucosa			
11.15-11.45	The antimicrobial mucosa	Katrin Pütsep	
11.45-12.45	LUNCH		
12.45-13.30	Mucosal barrier functions	Karl-Eric Magnusson	
13.30-13.50	Laboratory lecture II Typing and resistance determination of bacteria in your own microflora using PhP and AREB	Roland Möllby	
Transport time Laboratory work II (Course lab) / Preparation for seminars			
	Inoculation of PhP and AREB microplates	Preparation for seminars	
14.00-14.30	Group 1	Groups 2, 3, 4	Inger Kühn
14.30-15.00	Group 2	Groups 1, 3, 4	Patricia Colque
15.00-15.30	Group 3	Groups 1, 2, 4	Young-Keun
15.30-16.00	Group 4	Groups 1, 2, 3	Kwak



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## Day 3 Wednesday 19/9

Effects of the microbiota			
09.00-09.45	The Gut-Brain network	Rochellys Diaz Heijtz	
09.45-10.15	Microflora associated characteristics (MACs)	Elisabeth Norin	
10.15-10.45	<i>COFFEE BREAK</i>		
10.45-11.15	KI core facility for germfree research (CFGR)	Velmurugesan Arulampalam	
Colonization and immunity			
11.15-12.00	Establishment of the microbiota in children	Merete Eggesbø	
12.00-13.00	<i>LUNCH</i>		
13.00-13.45	The gut microbiota and allergy development	Ia Adlerbert	
13.45-14.30	Lactobacilli and child immunity	Eva Sverremark-Ekström	
14.30-15.00	<i>COFFEE BREAK</i>		
Laboratory work III (Course lab) / Preparation for seminars			
	Reading PhP and AREB plates	Preparation for seminars	
15.00-15.20	Group 4	Groups 1, 2, 3	Inger Kühn Patricia Colque Young-Keun Kwak
15.20-15.40	Group 3	Groups 1, 2, 4	
15.40-16.00	Group 2	Groups 1, 3, 4	
16.00-16.20	Group 1	Groups 2, 3, 4	



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## Day 4 Thursday 20/9

Microbiota and health		
9.00-9.30	Fecal transplantation	Elisabeth Norin
9.30-10.15	Metabolism and the microbiota	Thomas Greiner
10.15-10.45	<i>COFFEE BREAK</i>	
10.45-11.30	Diet and the microbiota	Stephanie Prast Nielsen
11.30-12.00	Drugs, microbiome and disease development	Lars Engstrand
12.00-13.00	<i>LUNCH</i>	
13.00-13.45	Metabolomics	Daniel Globisch
Transport time Laboratory work IV (Course lab)		
14.15-14.45	Laboratory lecture: Computing demonstration	Inger Kühn Patricia Colque Young-Keun Kwak
14.45-16.30	Laboratory work IV Groups 1-4 Computing exercise and analysis of data	

## Day 5 Friday 21/9

9.00-12.00	Seminar presentations Groups 1-4 present their seminars. 20 min plus 5 min of discussion each.	Teachers
12.00-13.00	<i>LUNCH</i>	
13.00-13.45	Evaluation of laboratory results	Inger Kühn Roland Möllby
14.00-15.00	Examination	Teachers
	<i>COFFEE BREAK</i>	
15.00-16.00	Final discussion	Teachers
16.00	End of course	