

Programme hands-on-pichia course

22 to 26 September, 2019

Graz, Austria



Course content at a glance

The hands-on-pichia course will intensify your experience in the following:

- Designing of expression cassettes
- Strain design & genome engineering (including methanol-free inducible strains)
- Exploiting library technologies
- Applying screening concepts and methods
- Molecular and physiological strain characterisation
- Computing feed strategies and designing process control schemes
- Bioprocess data evaluation
- Understanding factors effecting product quality and quantity

Course programme

P	Presentations	W	Workshops	L	Laboratory sessions
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Day 1

Sunday, 22nd of September		
16:00		Registration
16:20		Welcome by Prof. Robert Kourist Head of the Institute of Molecular Biology, TU Graz
16:30 (30 min)	P1	Opening, course structure & goals
17:00 (60 min)	P2	Introduction to the <i>Pichia</i> system
		Welcome reception & get-together

Day 2

Monday, 23rd of September		
08:30 (75 min)	W1	Key characteristics of product formation
09:45 (30 min)	W2	Design your expression strategy I
10:15 (45 min)		Coffee break and free work
11:00 (45 min)	W2	Design your expression strategy II
11:45 (30 min)	W3	Expression constructs and transformation methods
12:15 (75 min)		Lunch
13:30 (60 min)	L1	Regulation of gene expression and product formation
14:30 (15 min)	L2	Introduction to competent cell preparation
14:45 (30 min)		Coffee break
15:15 (30 min)	L3	Comparison of <i>Pichia</i> transformation protocols
15:45 (45 min)	P3	Screening and analysis of production clones
16:30 (90 min)	W4	Break-out session
19:00		Dinner in old town

Day 3

Tuesday, 24 th of September		
08:30 (15 min)	W5	Debriefing day 2
08:45 (120 min)	P4	Host strains
10:45 (30 min)		Coffee break
11:15 (60 min)	W6	Host strain engineering
12:15 (75 min)		Lunch
13:30 (60 min)	L4	Small-scale cultivation
14:30 (45 min)	P5	Bioreactor – scale cultivation
15:15 (45 min)	L5	Bioreactor lab
16:00 (30 min)		Coffee break
16:30 (120 min)		Opening CD PichiaLab project
18:30		Reception CD PichiaLab project

Day 4

Wednesday, 25 th of September		
08:30 (30 min)	W7	Debriefing day 3
09:00 (60 min)	P6	Design your feeding strategy
10:00 (30 min)		Coffee break
10:30 (60 min)	W8	Process evaluation & design of feed profiles
11:30 (60 min)	L6	Methods for product analysis
12:30 (75 min)		Lunch
13:45		"Friends of <i>Pichia</i> " team building activities in South-East Styria

Day 5

Thursday, 26 th of September		
09:00 (15 min)	W9	Debriefing day 3
09:15 (105 min)	W10	Break-out session
11:00 (30 min)		Coffee break
11:30 (90 min)	P7	<i>Pichia</i> case studies & success stories
13:00 (75 min)		Lunch