



Belgian Proteomics Association presents:

## Proteomics Informatics Workshop series

### What?

A series of three one-day workshops for PhD-students, technicians and post-docs on proteomics informatics.

### When?

**Fri 09 September: Proteomics identification (Lennart Martens UGent)**

*Learn how search engines work, and how to interpret the results*

*Learn about proteomics approaches and strategies*

**Tue 13 September: Proteomics quantification and study design (Lieven Clement UGent)**

*Learn about elementary study design and data analysis strategies for quantitative proteomics*

**Wed 14 September: Proteomics data annotation (Sebastien Carpentier KU Leuven)**

*Learn about tools and databases that allow you to place your (quantitative) results in the appropriate biological context*

### Where?

Leuven, Campus Gasthuisberg Herestraat 49  
O&N2 PC lokaal anatomie 1

### Registration?

Use the online registration form: [Register](#)



## Cost?

Workshop attendance is free thanks to our sponsors:



UGent  **Doctoral**  
  **Schools**  
  Life Sciences and Medicine



## Fri 09 September: Proteomics identification

*Learn how search engines work, and how to interpret the results*

*Learn about proteomics approaches and strategies*

08:30	09:00	Registration	
09:00	09:40	Search engines and peptide identification	Lennart Martens
09:40	10:40	Hands-on: using multiple search engines in SearchGUI	Lennart Martens Kenneth Verheggen
10:40	11:00	Coffee break	
11:00	11:40	Peptide identification quality control	Lennart Martens
11:40	12:00	Protein inference	Lennart Martens
12:00	13:00	Lunch	
13:00	14:30	Hands on: processing search engine results in PeptideShaker	Lennart Martens Kenneth Verheggen
14:30	15:00	Coffee break	
15:00	15:30	Quantification approaches and pitfalls in proteomics	Lennart Martens
15:30	17:00	Hands on: Peptizer for validation and protein inference	Lennart Martens Kenneth Verheggen



## Tue 13 September: Proteomics quantification and study design

*Learn about elementary study design and data analysis strategies for quantitative proteomics*

08:30	09:00	Registration	
09:00	09:40	Data analysis strategies for quantitative proteomics: normalization, summarization, imputation and statistical testing	Lieven Clement
09:40	10:40	Hands-on: isotope-based protein quantification using MaxQuant-Perseus	Ludger Goeminne Adriaan Sticker
10:40	11:00	Coffee break	
11:00	12:00	Hands-on: label-free protein quantification using MaxQuant-Perseus	Ludger Goeminne Adriaan Sticker
12:00	13:00	Lunch	
13:00	13:30	Design and data analysis of experiments with more complex designs	Lieven Clement
13:30	14:30	Hands-on: label-free protein quantification using MaxQuant-R	Lieven Clement Ludger Goeminne Adriaan Sticker
14:30	15:00	Coffee break	
15:00	15:30	Summarization vs peptide-based approaches in label-free quantitative proteomics: performance, pitfalls and data analysis guidelines	Lieven Clement
15:30	17:00	Hands on: peptide-based linear models using MaxQuant-R	Lieven Clement Ludger Goeminne Adriaan Sticker

## Wed 14 September: Proteomics data annotation

*Learn about tools and databases that allow you to place your (quantitative) results in the appropriate biological context and reflect on the issues when working with less annotated species.*

8:30	9:00	Registration	
9:00	9:40	Introduction: annotation in proteomics: a special focus on non-model species and gene redundancy	Sebastien Carpentier
9:40	10:40	Gene enrichment	Ewaut Kissel Sebastien Carpentier
10:40	11:00	Coffee break	
11:00	12:00	cross species annotation OMA	Ewaut Kissel Sebastien Carpentier
12:00	13:00	Lunch	
13:30	15:00	Pathway analysis	Ewaut Kissel Sebastien Carpentier
14:30	15:00	Coffee break	
15:00	17:00	The use of cytoscape in proteomics: the protein inference problem and gene ontologie	Sebastien Carpentier

## DETAILED DESCRIPTION:

<http://med.kuleuven.be/nl/algemeen/wijsmedeweg>

For specific directions to come by public transportation:

1. You need to take **Bus 3 'Campus Gasthuisberg'** at **platform 4** of the bus station in Leuven.
2. You need to get off at the **last bus stop**: this is called **'Leuven Gasthuisberg Campus'**.
3. Then you go **2x the stairs up** (after the first stairs, you'll see a **green banner 'Welkom aan de Faculteit Geneeskunde'**),
4. Enter the **first building at your left** (with all the auditoria)
5. Take the stairs down at your left side **Vaardigheidscentrum**.

