



# Tunnistus

No. 02026-21

University of Tartu (registry code 74001073,  
number of the notice of economic activities 169617) certifies that

**Leonardo David Soto Jacome**

date of birth 23 April 1994

has completed the continuing education programme

**LC-MS Method Validation**

P2AV.TK.829

52 hours (2 ECTS credit points)

by the Office of Academic Affairs  
from 24 November 2020 to 5 February 2021

**Annika Tina**

Head of the Office of Academic  
Affairs

**Esta Pilt**

Programme Director for Continuing  
Education

Tartu, 5 February 2021

A supplement is appended to the certificate



The supplement is valid together  
with the certificate no. 02026-21  
1/1

**Leonardo David Soto Jacome**

date of birth 23 April 1994

has completed the continuing education programme **LC-MS Method Validation** (P2AV.TK.829) from 24.11.2020 to 05.02.2021, 52 hours (2 ECTS).

Topic	Hours	Lecturer
Practice-oriented on-line course on validation of analytical methods, specifically using LC-MS as technique. The course covered the following topics: - The concept, workflow and scope of validation; - Selectivity and identity confirmation, both via LC and via MS; - Linearity of signal, linear range, sensitivity and their relation to calibration; - Precision, trueness, accuracy, analyte stability and their interrelations; - Limit of detection and limit of quantitation; - Ruggedness and robustness.	52	Ivo Leito, Koit Herodes, Karin Kipper, Riin Rebane, Irja Helm, Anneli Kruve-Viil, Hanno Evard

The participant who has successfully passed the course knows:

- the main performance parameters of analytical methods, what they show and which of them are particularly important in different situations;
- the main mathematical concepts and tools in method validation;
- the main approaches for evaluation of the performance parameters in the case of LC/MS analysis.

The participant who has successfully passed the course is able to:

- decide what data are needed for evaluating the different method performance parameters, understand the meaning of the available data and decide whether the available data are sufficient;
- select the approach and design the experiments for obtaining suitable data;
- quantify the relevant performance parameters using the available data and assess whether the obtained values are realistic;
- assess the fitness of the method for the intended purpose based on the values of the evaluated performance parameters.

Method for assessment of learning outcomes: differentiated

Assessment result: A - Excellent

1 ECTS credit point corresponds to 26 hours

**Annika Tina**  
Head of the Office of Academic  
Affairs

**Esta Pilt**  
Programme Director for Continuing  
Education