BOKU
Akademie für Weiterbildung

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## Continuing Education University Programme

**Protein Chromatography**

→ boku.ac.at/en/btlw/ibse


BOKU University

Department of Biotechnology and Food Science

**Institute of Bioprocess Science and Engineering**
→ boku.ac.at/agri/ibse


**Interesse? Fragen?**
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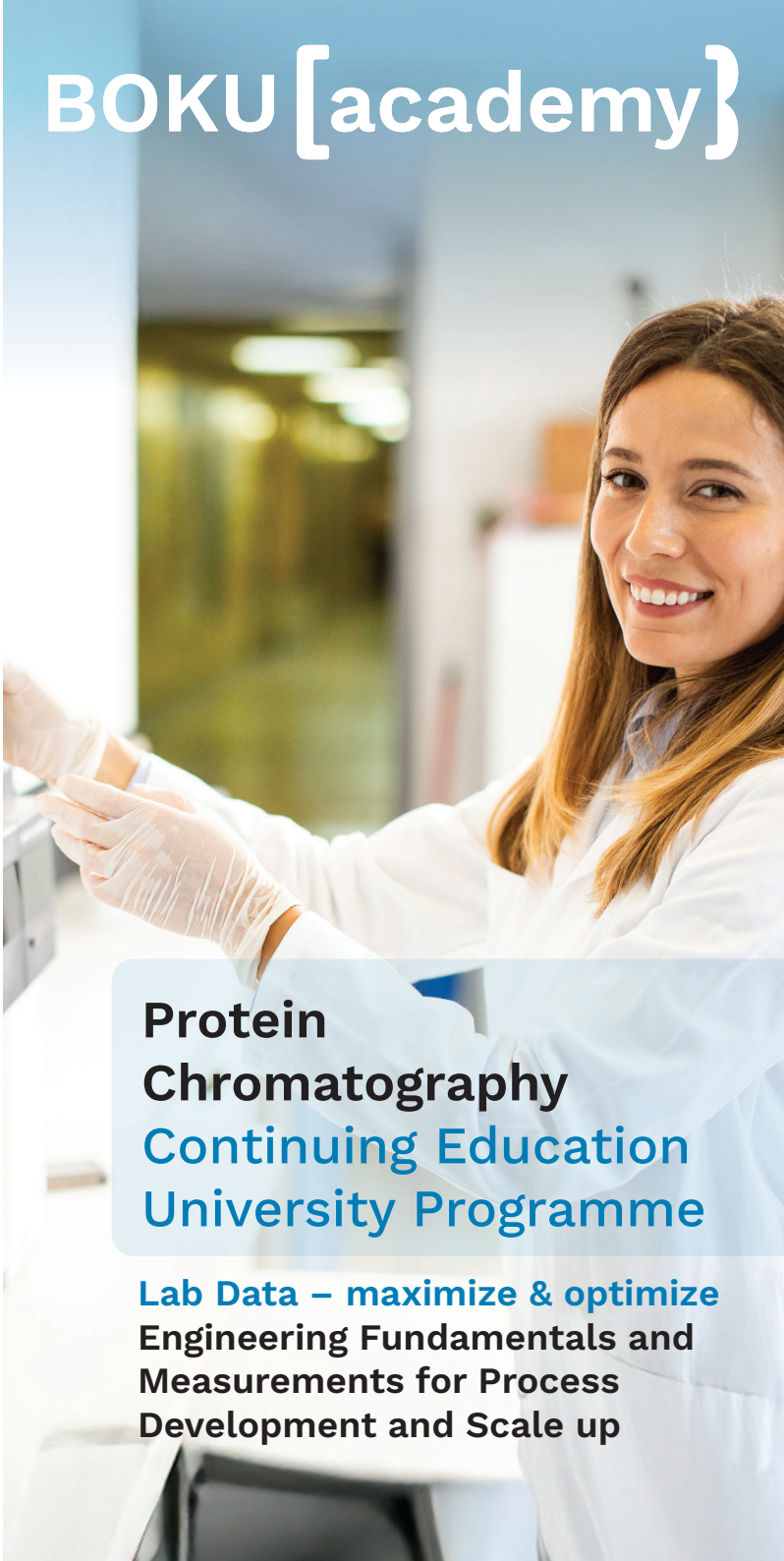

# Protein Chromatography
## Continuing Education University Programme

**Lab Data – maximize & optimize**
**Engineering Fundamentals and Measurements for Process Development and Scale up**

Chromatography has become an indispensable tool in biotechnological research. The method is frequently used for analytical and preparative processing. Equipment, separation media and auxiliary materials are now highly developed.

## Contents & Benefits

- insight in the application of chromatographic theory with special emphasis on the determination and use of key scale-up parameters

**Lectures** will cover:

- downstream processing of biotechnological products
- different modes of operation of chromatography
- characteristics of chromatographic media
- description of adsorption equilibria and mass transfer and their effects on chromatographic performance
- frontal analysis and linear gradient elution theories
- protein-protein and protein-surface interactions

**Hands-on lab practice**:

- pulse response experiments
- determination of retention factor and HETP
- frontal analysis and dynamic binding capacity experiments
- linear gradient elution experiments
- develop a column design that maximizes productivity

Detailed course notes and spreadsheet-based tools for data analysis are available.

## Expert Trainers

**Prof. Alois Jungbauer** (BOKU University) and **Prof. Giorgio Carta** (University of Virginia) are both experts in the field of chromatography. Together they published the book „Protein Chromatography: Process Development and Scale Up“.

- Participation Certificate
- Duration: 1 week
- Language: English
- Recognition: 5 ECTS credit points
- Participants: 20 max.
- Course Venue: BOKU University, Department of Biotechnology, Laboratory of Protein Technology and Downstream Processing

## who should attend

This course is designed for

- bioprocess development engineers
- separation scientists, biologists, biochemists, technical managers
- validation specialists, regulatory agents having some familiarity with downstream process development who want to develop a deeper understanding of chromatographic processes and their scale-up
- graduate students
- separation scientists in academia

▶ The number of participants is limited, all info, dates and registration here:
→ short.boku.ac.at/ulg-pch

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