



BioMex Certificate Program

From Campus to Company

Blended Learning for the Biopharmaceutical Industry

Prof. Dr. Maik Lehmann



BioMex Certificate Program

From Campus to Company - Blended Learning for the Biopharmaceutical Industry



First Visit in Rwanda
2022

Fact-Finding Mission Biotechnologie
Ruanda 11.-17.7.2022



Prof. Dr. Maik Lehmann



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Kick-Off in Kigali/Rwanda
in 2024



WWW.ZFH.DE/BIOMEX-REGISTRATION



Prof. Dr. Maik Lehmann



May 2024
to
April 2025



BioMex Certificate Program

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Cluster BT

**Biotechnology
and Biomedicine**



Cluster PT

**Pharmaceutical Chemistry
and
Pharmaceutical Technology**



Cluster IM

**Innovation Management
and Intercultural
Cooperation**



Cluster EM

**Facility, Energy
and Environmental
Management**



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Biotechnology and Biomedicine

- Module BT01: Molecular Biology and Molecular Biotechnology
- Module BT02: Biostatistics and Data Literacy
- Module BT03: Physiology and Anatomy
- Module BT05: Molecular Cell Biology
- Module BT06: Immunobiology
- Module BT07: Medical Microbiology
- Module BT08: Genetic Engineering
- Module BT09: Immunotherapy
- Module BT10: Bioelectrical Signals and Sensors



Pharmaceutical Chemistry and Pharmaceutical Technology

- Module PT01: Pharmaceutical Chemistry and Pharmacology
- Module PT02: Basic Concepts in Pharmaceutical Industry
- Module PT03: Good Manufacturing Practice (GMP) and Quality Controls
- Module PT04: Fundamentals in Epidemiology and Clinical Trials
- Module PT05: Hygiene in Pharmaceutical Manufacturing Processes



Innovation Management and Intercultural Cooperation

- Module IM01: Innovation Management
- Module IM02: Entrepreneurship
- Module IM03: Intercultural Communication and Mediation
- Module IM04: Scientific Communication



Facility, Energy and Environmental Management

- Module EM01: Facility Management
- Module EM02: Environmental Management
- Module EM03: Energy Management

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Molecular
Cell Biology
Energy Management
Intercultural
Communication



Scientific
Communication



giz
Gesellschaft
für
Internationale
Zusammenarbeit (GIZ) GmbH

Pharmaceutical Chemistry and
Pharmacology
Immunobiology

Environmental
Management
Entrepreneurship



Maria, PhD, 30 years
old, Head of Laboratory
Start Up, Tanzania



Kofi, 27 years old,
Biological Laboratory
Technician, Pharma
Industry, Ghana

Diane, 23 years old, a
student of biosciences
at the University of
Rwanda, Kigali

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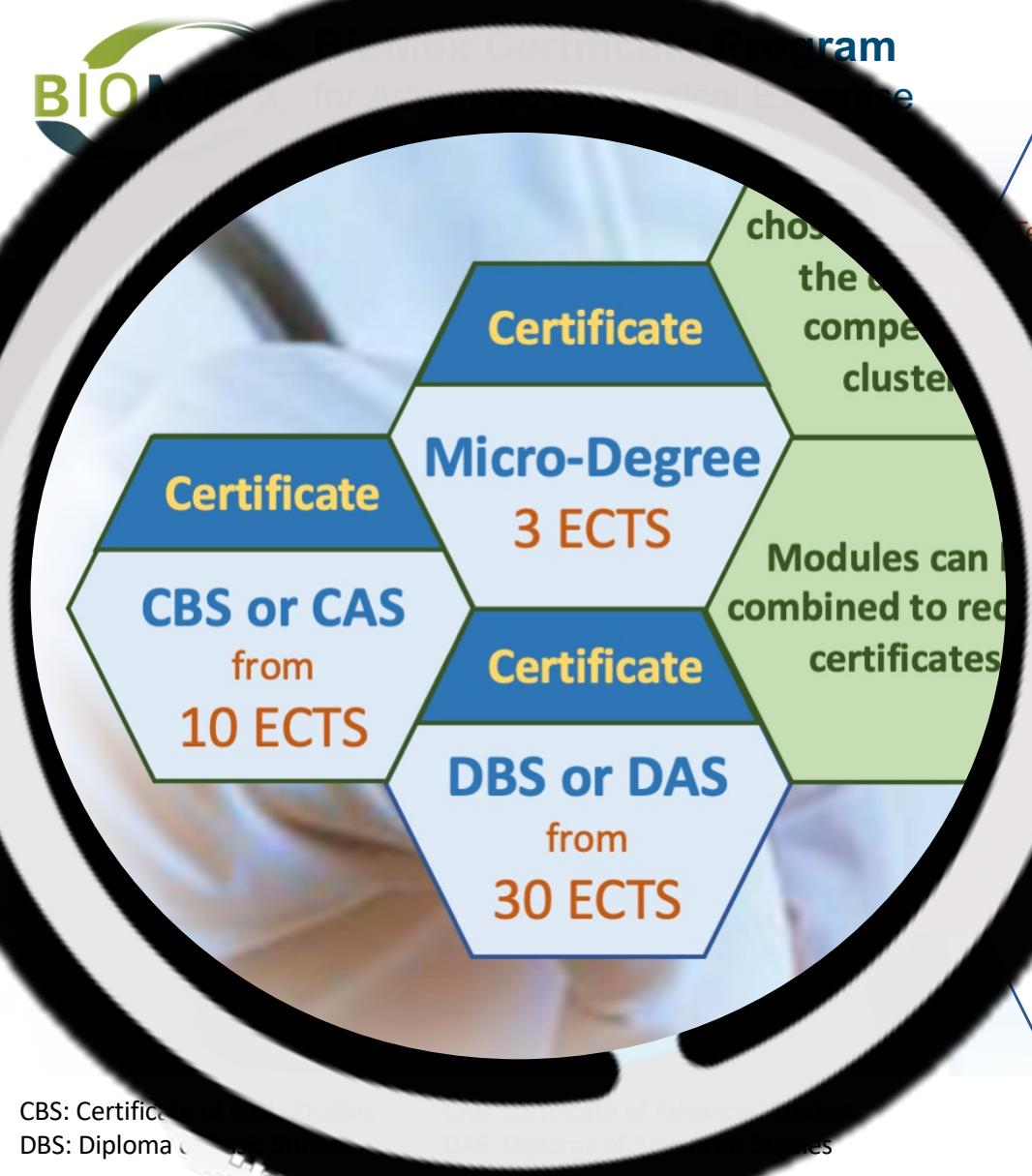
From Campus to Company



CBS: Certificate of Basic Studies
DBS: Diploma of Basic Studies

CAS: Certificate of Advanced Studies
DAS: Diploma of Advanced Studies







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BioMex Certificate Program

From Campus to Company



Technical University
of Applied Sciences Bingen
Germany

University of
South Carolina
USA

University of Applied Sciences Koblenz
Germany

Technical University
of Applied Sciences Mittelhessen
Germany

University of Applied Sciences Mainz
Germany

BioNTech SE Mainz
Germany

IMB
Institute of Molecular Biology
Mainz
Germany

University of
Parma
Italy

Bioscientia Laboratory Diagnostics
Ingelheim
Germany

INES Ruhengeri
Institute of Applied Sciences
Ruanda



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Learning independent of time and location using
Open Olat as Learn Managing System

 **OpenOlat**
infinite learning



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Learning
independent
of time and
location



BT1: Molecular Biology and Molecular Biotechnology (SoSe 25)
Blended Learning mit Thierry Habyarimana
15.03.2025 - 31.08.2025

BT2: Biostatistics and Data Literacy (SoSe 25)
Blended Learning mit Prof. Dr. Markus Neuhäuser
15.03.2025 - 31.08.2025

BT3: Physiology and Anatomy (SoSe 25)
Blended Learning mit Prof. Dr. Lukas Scheef
15.03.2025 - 31.08.2025

BT5: Molecular Cell Biology (SoSe 25)
Blended Learning mit Prof. Dr. Maik Lehmann
15.03.2025 - 31.08.2025

BT6: Immunobiology (SoSe 25)
Blended Learning mit Dr. Sebastian Newrzela
15.03.2025 - 31.08.2025

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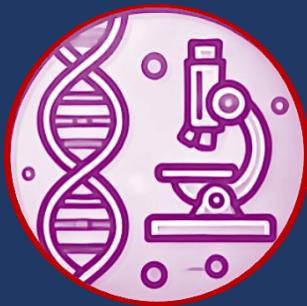


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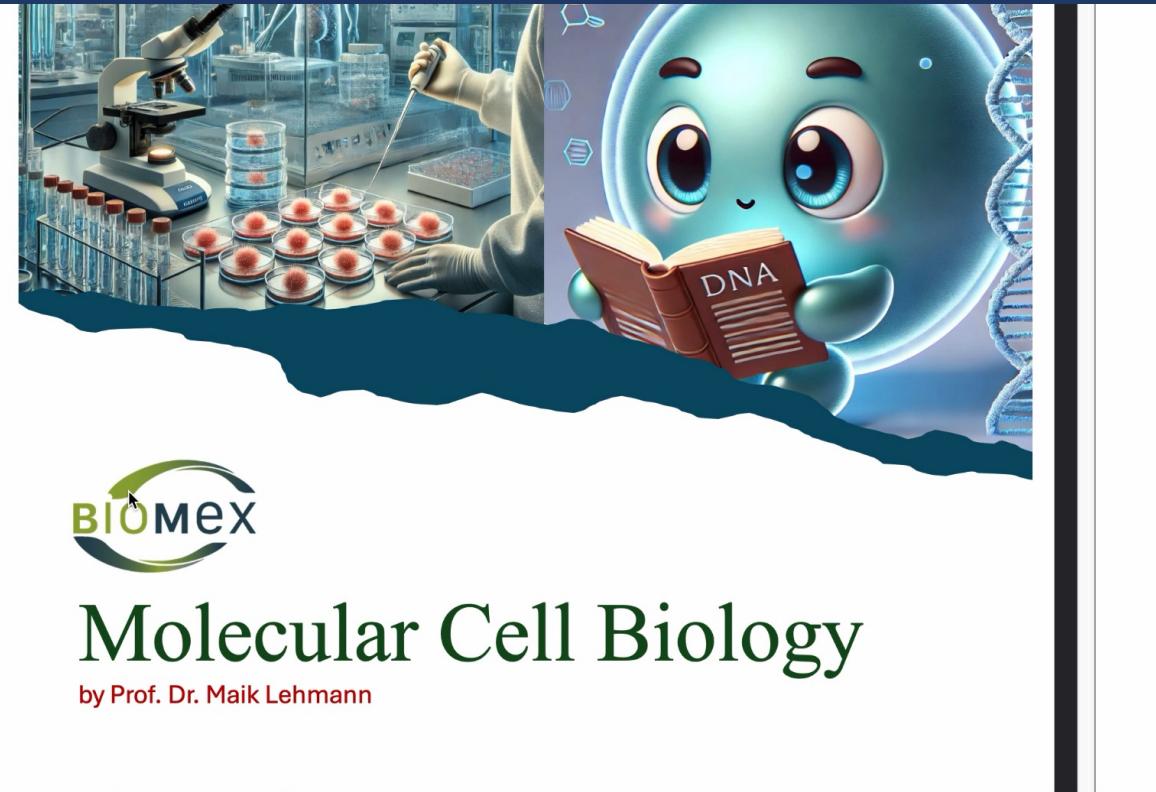
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Learning
independent
of time and
location



- Video 3
- Additional Material
- Questions
- 5. Cellular Organelles
- 6. Cellular Adhesions
- 7. The Cytoskeleton
- 8. The Cell Cycle
- 9. Immunity, Cell Death
- 10. Cell Culture
- References
- Contact instructor
- Contact participants
- Evaluation



Molecular Cell Biology

by Prof. Dr. Maik Lehmann

Prof. Dr. Maik Lehmann



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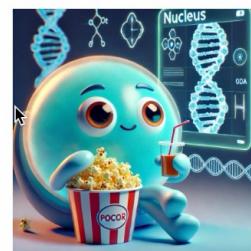


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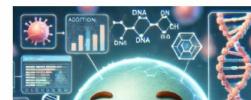
Nucleus recommends:



1 Reading Theoretical Background



2 Watching Video



3 Answer Questions

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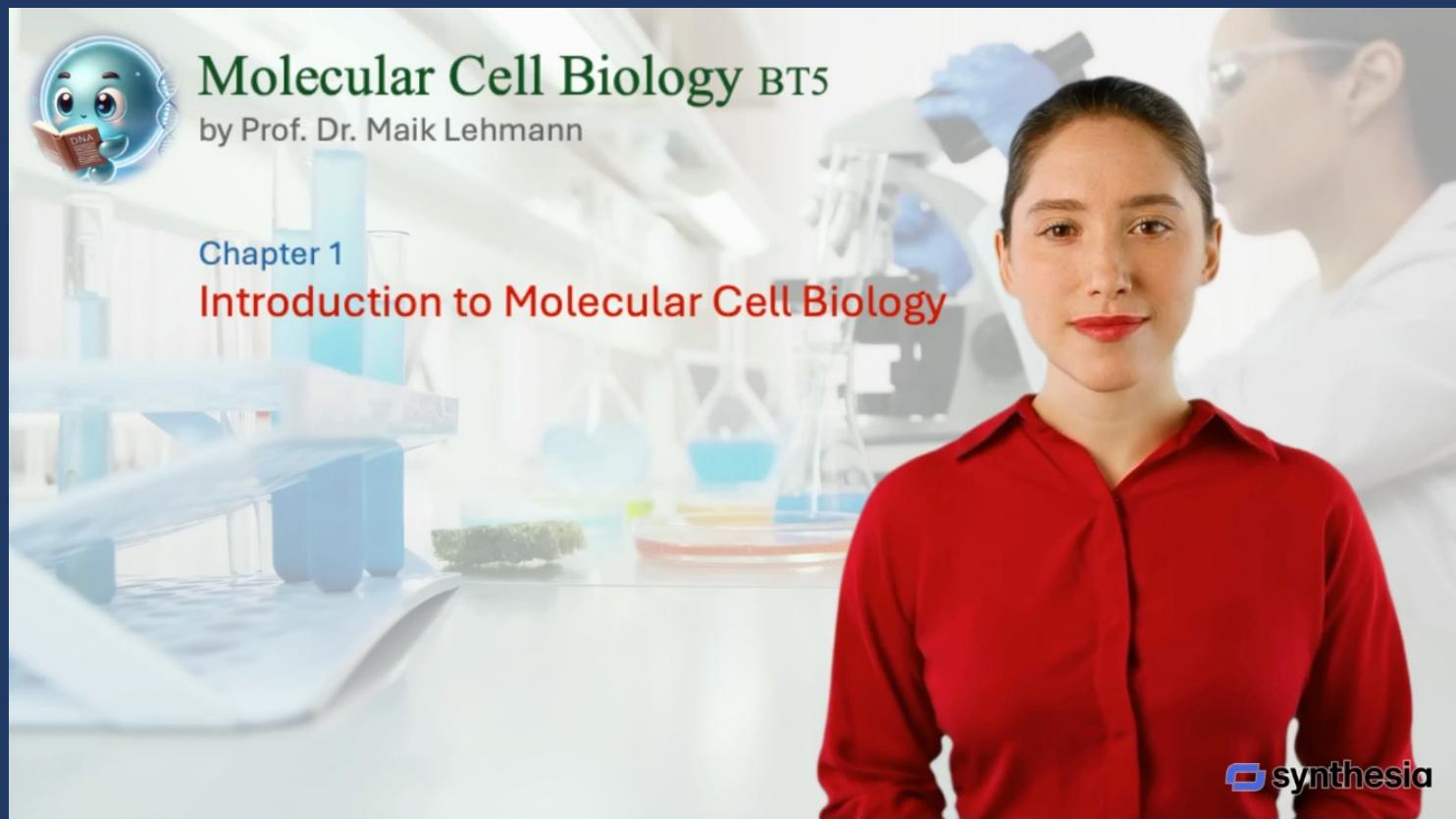


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The next level of education...



<https://h-da.de/studium/lehren-an-der-h-da/hdd/future-learning-spaces-fuels>



<https://www.youtube.com/watch?v=4Vjajj7ZggA>

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At least four reasons to choose BioMex...

Customize a **flexible digital upskilling program at your own pace**, connecting with enthusiasts and earning a globally accepted certificate.

1

2 Access **short training units** (90 h workload) with **text, videos and self-assessments**, covering biotechnology, biomedicine and more.

Benefit from an **expert-designed curriculum** that opens doors to diverse careers in biotechnology.

3

4 Modules can be customized to meet the **specific needs** of companies or institutions. They can also be **specially developed upon request**.

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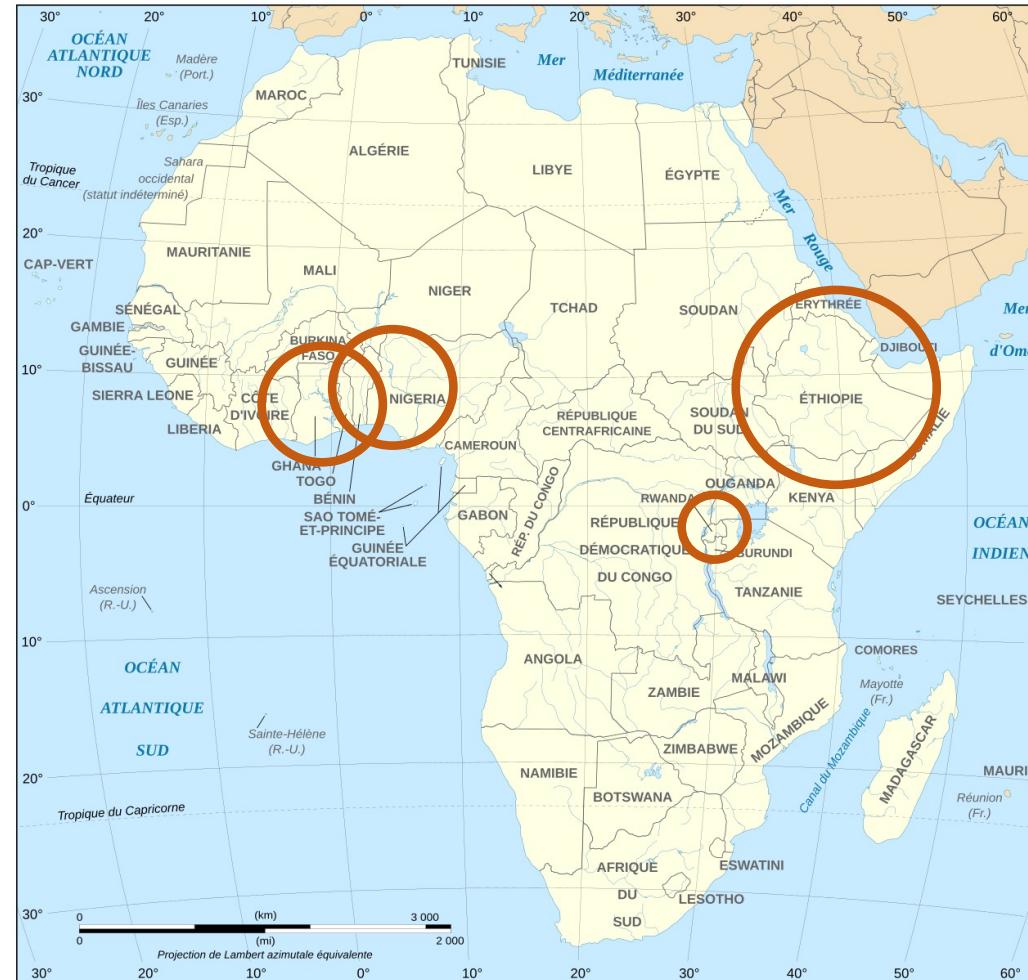


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We are excited to welcome you
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Thank You!



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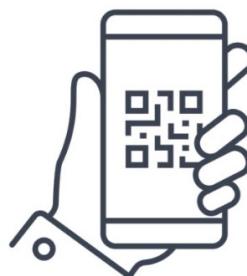


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Thank You!



Prof. Dr. Maik Lehmann

Professor for Biochemistry, Cell and Microbiology
Head of BioMex-Programm
Certificate Program for Advanced Biomedical Expertise



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<https://www.zfh.de/biomex/>