



BioMex Certificate Program

From Campus to Company

Blended Learning for the Biopharmaceutical Industry

Prof. Dr. Maik Lehmann



BioMex Certificate Program

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Fact-Finding Mission Biotechnologie
Ruanda 11.-17.7.2022



First Visit in Rwanda
2022



Prof. Dr. Maik Lehmann

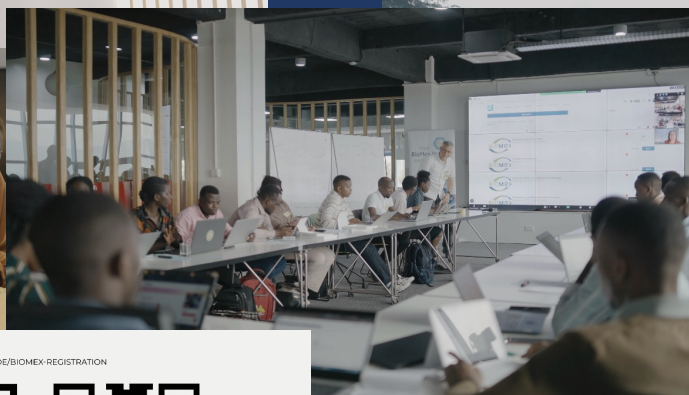
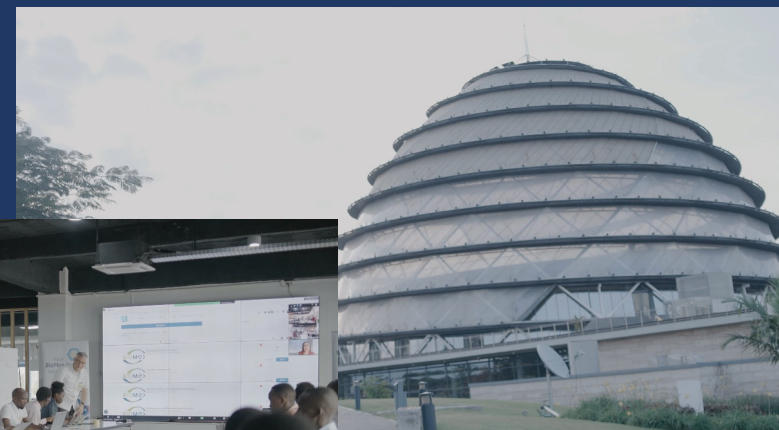


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Kick-Off in Kigali/Rwanda
in 2024



Prof. Dr. Maik Lehmann

An aerial photograph of a city, likely Nairobi, Kenya, featuring a large orange circle in the center. The circle contains the text "May 2024 to April 2025" in white. The background shows a dense urban landscape with various buildings, including a prominent one with a blue and yellow facade and another with a curved, metallic, dome-like structure. A large green park area with a central fountain is visible in the lower right. The sky is overcast.

May 2024
to
April 2025



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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



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





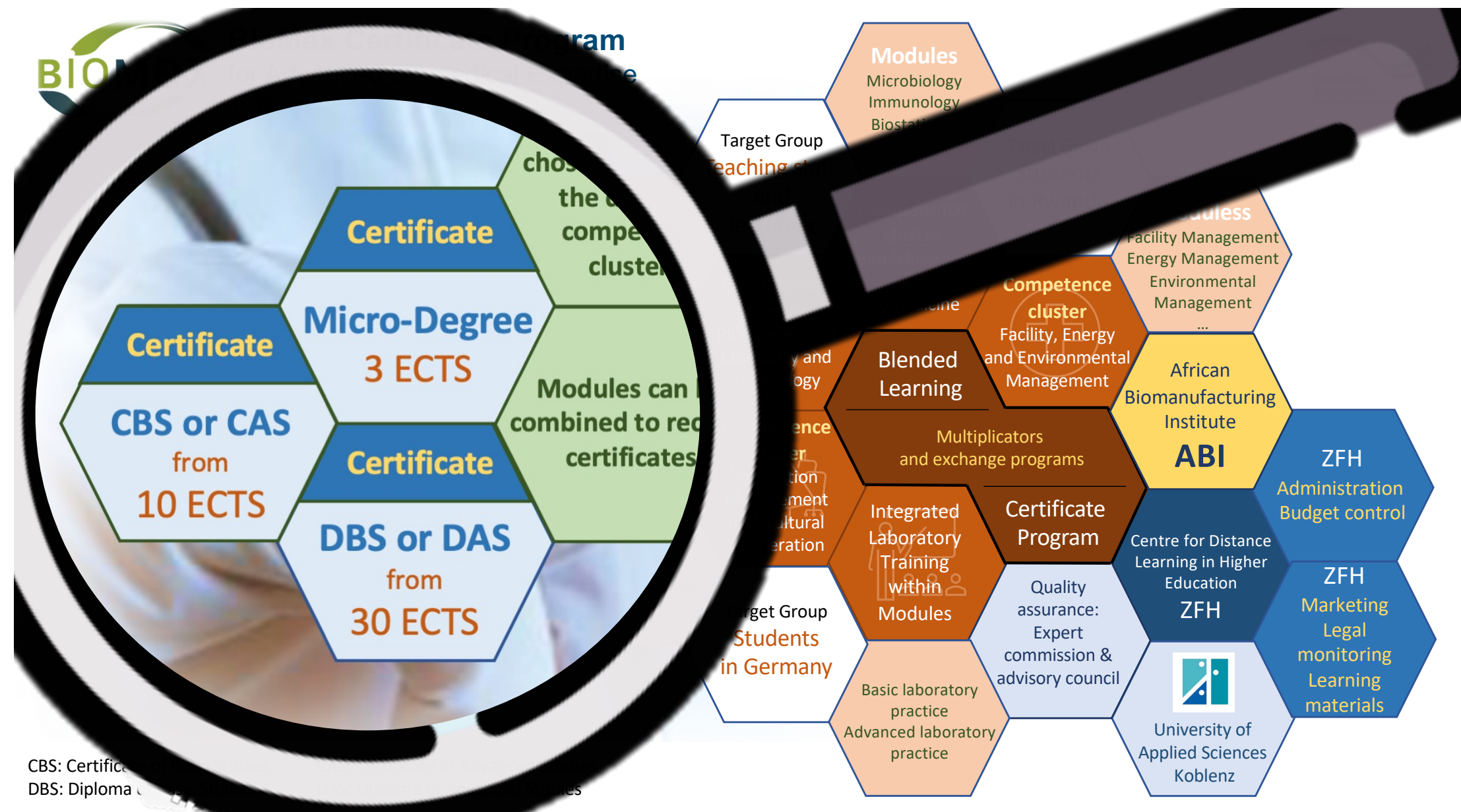
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CBS: Certificate of Basic Studies
DBS: Diploma of Basic Studies

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





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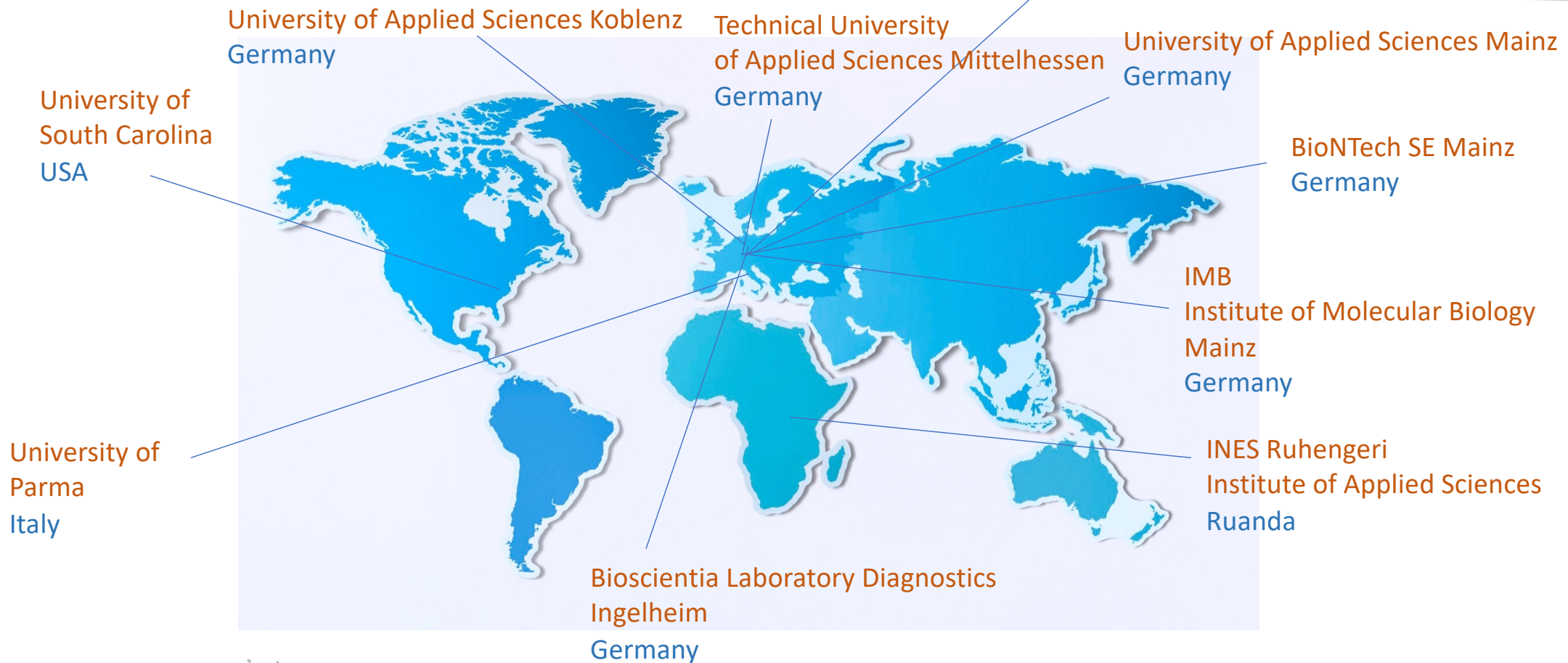
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Learning independent of time and location using Open Olat as Learn Managing System



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Learning
independent
of time and
location



	BT1: Molecular Biology and Molecular Biotechnology (SoSe 25) <small>Blended Learning mit Thierry Habyarimana</small> 15.03.2025 - 31.08.2025		Infoseite starten >
	BT2: Biostatistics and Data Literacy (SoSe 25) <small>Blended Learning mit Prof. Dr. Markus Neuhäuser</small> 15.03.2025 - 31.08.2025		Infoseite starten >
	BT3: Physiology and Anatomy (SoSe 25) <small>Blended Learning mit Prof. Dr. Lukas Scheef</small> 15.03.2025 - 31.08.2025		Infoseite starten >
	BT5: Molecular Cell Biology (SoSe 25) <small>Blended Learning mit Prof. Dr. Maik Lehmann</small> 15.03.2025 - 31.08.2025		Infoseite starten >
	BT6: Immunobiology (SoSe 25) <small>Blended Learning mit Dr. Sebastian Newrzela</small> 15.03.2025 - 31.08.2025		

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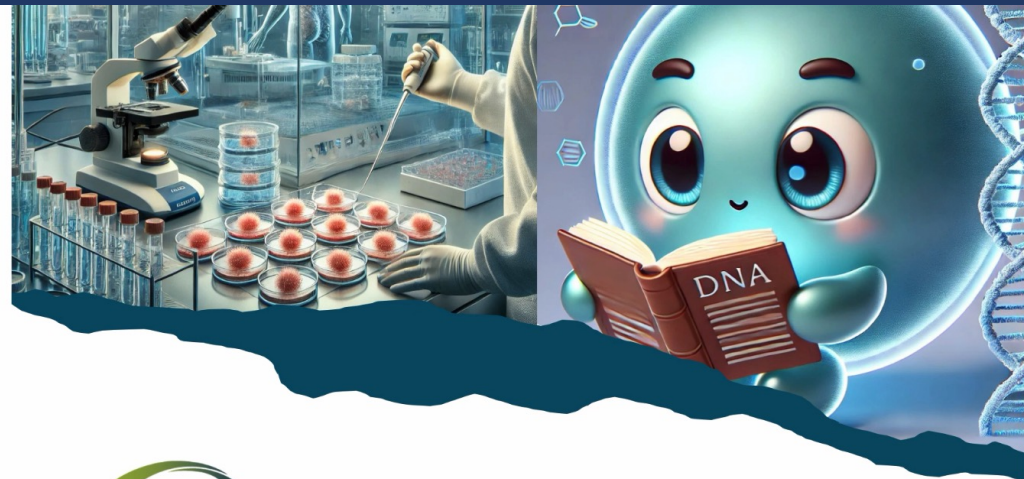
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Learning
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location



- 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



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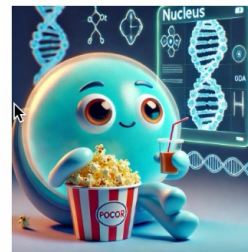


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Nucleus recommends:



1 Reading Theoretical Background



2 Watching Video



3 Answer Questions

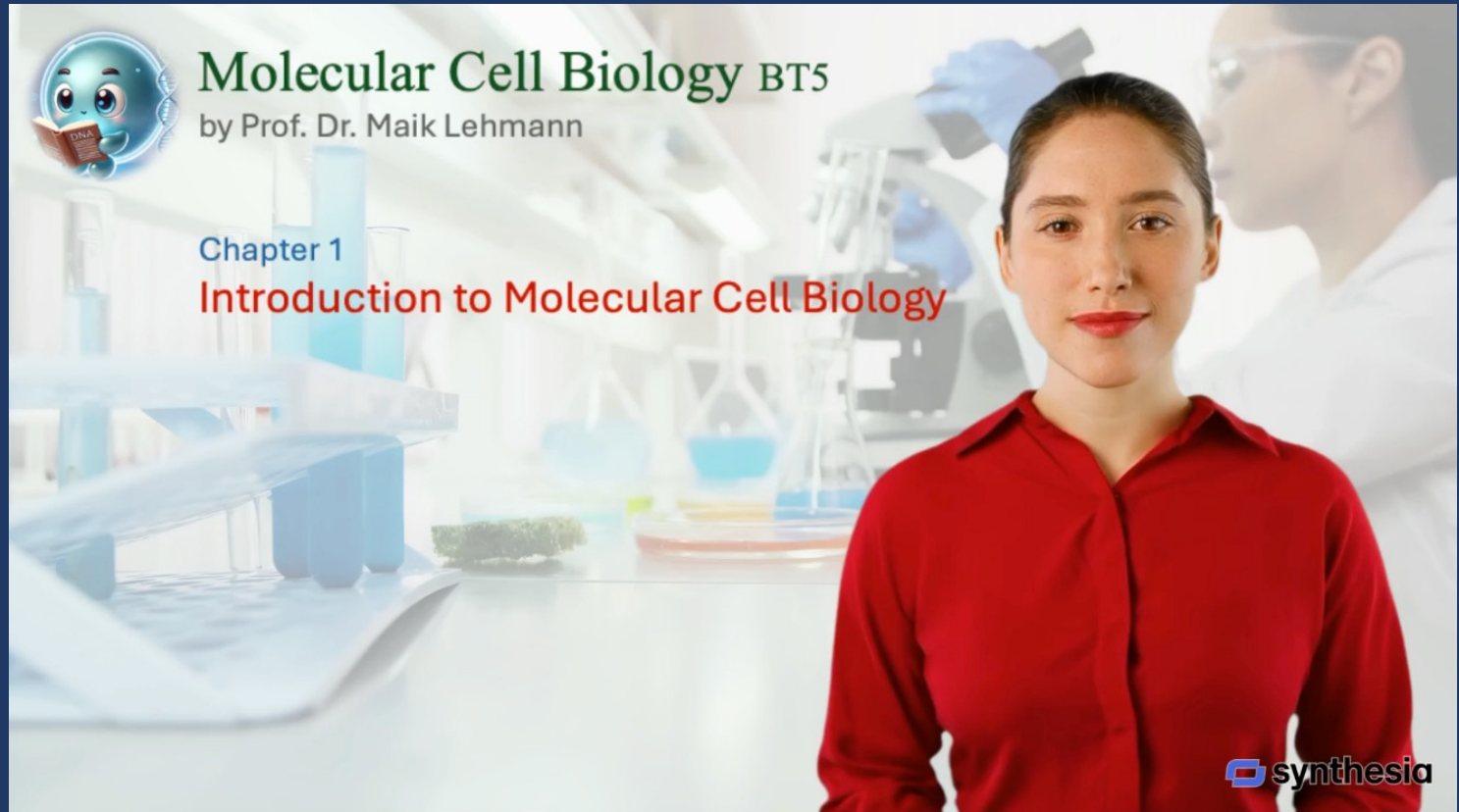


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The next level of education...



<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...

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

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

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

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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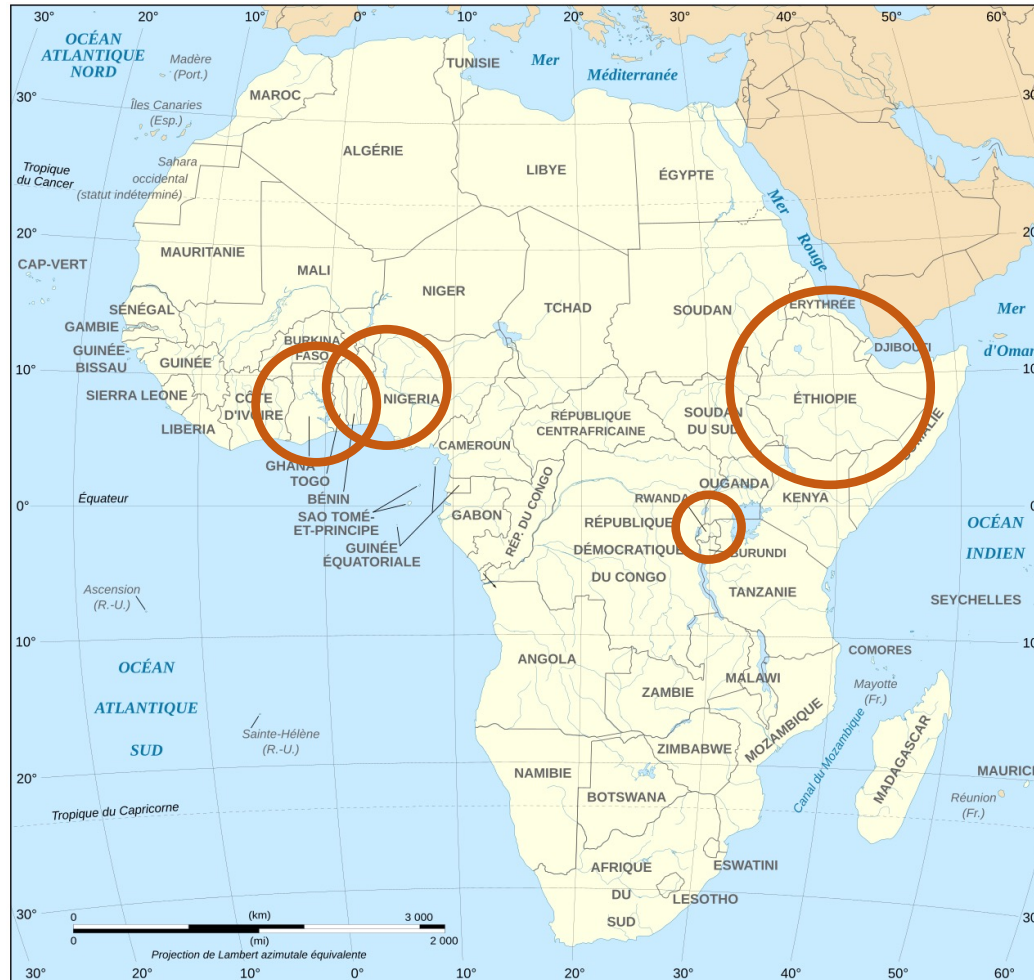






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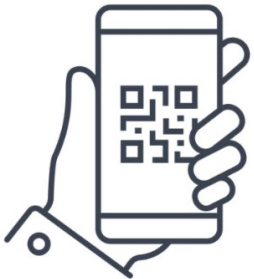


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We are excited to welcome you
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Thank you!



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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/>