

VAXINFECTIO-PD

VACCINE & INFECTIOUS DISEASE INSTITUTE & PRODUCT DEVELOPMENT



IOF Consortium UAntwerp
Active in Health

As a multidisciplinary platform, VAXINFECTIO-PD helps ideas grow into actual innovations that improve health. Prof. Martina Bamberger, IOF manager of VAXINFECTIO-PD, explains the unique way in which they make this happen:

“VAXINFECTIO-PD brings together disciplines such as infectious disease epidemiology, vaccine evaluation, medical microbiology, experimental hematology and design sciences. This multidisciplinaryity enables us to collaborate with a variety of companies and international institutions. These range from small biotech players in vaccine development and diagnostics companies, to medical device developers and large pharmaceutical companies.

You can contact us for R&D and clinical studies for vaccines, health technology assessments and research projects on

prevention, diagnosis and treatment of infectious diseases, cancer, and autoimmune disorders, including knowledge and advice in the field of regulations. VAXINFECTIO-PD also offers an extremely valuable network, via the opinion leaders and advisors who are part of the consortium.

What's more, we continue to innovate. For example, with the increased availability of data, we are developing predictive models and working on alternative ways of administering vaccines or medication, such as intradermal applications. Of course, the Vaccinopolis vaccine research

center should not be missing from this list. As the largest facility in the world for *controlled human infection model* (CHIM) studies at biosafety level 2 or 3, we make it possible to develop new vaccines within a shorter time frame.”

Do you think VAXINFECTIO-PD could help you? Ask Prof. Martina Bamberger.

► You can contact us for R&D and clinical studies for vaccines, health technology assessments and research projects on prevention, diagnostics and treatment of infectious diseases, cancer, and autoimmune disorders.

Vaccinopolis makes it possible to test candidate vaccines within a shorter time frame and thus accelerate vaccine development.

► **Vaccinopolis is the largest BSL-3 hotel in the world.**

Quote from Peter Piot (MD, PhD, EU Chief Scientific Advisor Epidemics)

► **Vaccinopolis, this jewel of a facility, is an asset of global importance, arriving in a really timely fashion.**

Quote from Richard Hatchett (MD, CEO of CEPI)



VAXINFECTIO-PD is ...

Vaccines · Infectious diseases ·
Cancer · Autoimmune diseases ·
Clinical trials · Controlled Human
Infection Model (CHIM) studies ·
Infectious disease simulation models ·
Innovative and improved diagnostics ·
Immunity assessment · Antibiotic use
and resistance · RNA · Cell therapy

VAXINFECTIO-PD

Research groups and expertise

VAXINFECTIO-PD combines the multidisciplinary and complementary expertise of five research groups:

Centre for the Evaluation of Vaccinations (CEV)

The Centre for the Evaluation of Vaccinations has more than 35 years of experience in conducting (international) vaccine research and studies. The CEV is part of an international network of clinical research centers for vaccines. The CEV is a reference center for the World Health Organization for the Control and Prevention of Infectious Diseases.

Centre for Health Economic Research and Modeling of Infectious Disease (CHERMID)

The Centre for Health Economic Research and Modeling of Infectious Diseases analyzes the impact (economic and pandemic) of infectious diseases and develops predictive models.

Laboratory for Medical Microbiology (LMM)

The LMM has a global reputation in conducting translational research into infectious diseases, including antibiotic resistance, epidemiology, pathogenesis and the development of rapid diagnostics and bioinformatics workflows for clinical applications. LMM's expertise includes standard microbiological techniques, cell culture/3D organoid models and new 'omics' technologies.

The LMM also coordinates LAB-Net, a European laboratory network to support clinical studies in infectious diseases.

Laboratory for Experimental Hematology (LEH)

The Laboratory for Experimental Hematology has a track record in the field of development of RNA-based cellular immunotherapies in the context of cancer and autoimmune diseases, stem cell research and evaluation of cellular immunity.

Product development (PD)

The mission of this Product Development research group is to increase scientific knowledge that enables the creation of innovative products to improve human well-being. PD develops and validates prototype concepts for innovative medical and diagnostic devices.

PD also offers early-stage development of medical devices: product definition, concept development, prototyping, proof-of-concepts and demonstrators.

Collaboration is possible through...

Contract research · Use of equipment and facilities ·
Service contracts and consultancy



Contact VAXINFECTIO-PD

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Unique features of our equipment

VAXINFECTIO-PD has advanced infrastructure, including:

- Various equipment for *high-throughput sequencing* (Illumina, PacBio, Nanopore, robotics)
- Sterile cell culture and cell manipulation laboratories, including sample processing and storage
- Various equipment for multiparametric flow cytometric analysis and *single-cell sorting* and other immunoassays
- Infrastructure for conducting clinical studies on antibiotic resistance
- Biofilm instrumentation for the evaluation of and impact on biofilm (static and flow)
- RNA design and production for basic and translational research
- Infrastructure for Phase I, II, III and CHIM clinical trials and BSL-2 and BSL-3 laboratories
- Microfluidics prototyping facilities, including expertise in rheology measurements

The innovative vaccine research center Vaccinopolis opened its doors in 2022. Vaccines and other interventions against all kinds of pathogens are being tested in this unique infrastructure, which can further accelerate the fight against new and existing diseases. With 6000m² and 30 beds, this is the largest facility in the world for biosafety level 3 CHIM studies.