

29 & 30 OCTOBER 2026

8TH SWISS SYMPOSIUM IN

POINT-OF-CARE DIAGNOSTICS



PROGRAM BROCHURE

OSTTOR Eventzentrum · Winterthur · Switzerland

www.pocdx.ch





WELCOME

Dear colleagues, past participants and new attendees

We are delighted to welcome you to the Swiss Symposium in Point-of-Care Diagnostics, taking place on 29 and 30 October 2026 at the Osttor Eventzentrum in Winterthur. Throughout the two days, the symposium brings together medical professionals, researchers and IVD industry experts to discuss the latest developments in point-of-care testing.

Thursday is dedicated to unmet medical needs, POC implementation and data handling, innovation in R&D and a start-up and industry spotlight. The morning features a keynote by the French adventurer and explorer Alban Michon. Friday focuses on regulatory requirements for IVD, software and AI.

We sincerely thank our sponsors, exhibitors and supporting partners, whose generous contribution makes this event possible, and we look forward to the poster presentations showcasing the remarkable work being done in this fast-moving field.

Warm regards,

Marc Fehlmann

Chair · Head of Innovation,
Network and
Communication ICBT, ZHAW
Wädenswil

Prof. Dr. Marc Pfeifer

Co-Chair · Head of the
Diagnostic Systems
Competence Area, HES-SO
Valais-Wallis, Institute of
Life Sciences

Dr. Samantha Paoletti

Co-Chair · Head of
Research and BD Life
Science Technologies,
CSEM

Table of contents

Organizers	4
Partners & sponsors	5
Scientific program · Thursday, 29 October	6–10
Scientific program · Friday, 30 October	11–12
Keynote	14
Speakers · Thursday	15–23
Speakers · Friday	24–28
Venue & practical information	29
About the organizers	30
Organizing institutes	31–34
Exhibition plan	35
Poster list	36–37
Poster abstracts	38–48
Program at a glance	49

DAY 1

Thursday, 29 October

09:00–18:15

DAY 2

Friday, 30 October

09:00–13:30

ORGANIZING PARTNERS

Organizers



CHAIR

Marc Fehlmann

Head of Innovation, Network and Communication ICBT, ZHAW Wädenswil

CO-CHAIR

Prof. Dr. Marc Pfeifer

Head of the Diagnostic Systems
Competence Area, HES-SO Valais-Wallis,
Institute of Life Sciences

CO-CHAIR

Dr. Samantha Paoletti

Head of Research and BD Life Science
Technologies, CSEM

POSTER JURY

Chair

Dr. Ramon Eichenberger

ZHAW

Member

Dr. Isabel Weinheimer

Roche Diagnostics International Ltd

Member

Dr. Dominik Meinel

FHNW

THANK YOU

Partners & sponsors

ORGANIZING PARTNERS



SUPPORTING PARTNERS



SILVER SPONSORS



EXHIBITORS



THURSDAY, 29 OCTOBER 2026

Scientific program

Moderated by Dr. Heiko Visarius · VISARTIS Healthcare GmbH

An experienced expert in healthcare innovation and diagnostics, Dr. Visarius will guide the discussion, facilitate audience engagement and highlight key insights from our speakers.

09:00–10:00 **Registration & exhibition**

10:00–10:15 **Welcome · Marc Fehlmann, Prof. Dr. Marc Pfeifer & Dr. Samantha Paoletti**
Welcome address · Prof. Dr. Christian Hinderling

SESSION 1

Unmet Medical Needs & Challenges

10:15–10:30 **Point-of-Care Testing Between Efficiency and Responsibility: Public Health Potential and Ethical Challenges**

Prof. Dr. Karin Nordström, Co-Programme Director, BSc Health Promotion and Prevention, ZHAW School of Health Sciences, Institute of Public Health

10:30–10:45 **Mild traumatic brain injury (mTBI) diagnostics at the POC: preventive medicine or overdiagnosis?**

Prof. Dr. Marc Pfeifer, Head of the Diagnostic Systems Competence Area, HES-SO Valais-Wallis, Institute of Life Sciences

10:45–11:00 **Quality Challenges Beyond the Laboratory: Lessons from Insulin Therapy at the Point-of-Care**

Dr. Stefanie Dobitz, Lead INSPIRE LAB, Diabetes Center Berne

11:00–11:45 **KEYNOTE**
POCT at the Limit

Alban Michon, Modern Times Explorer, Member of the Society of French Explorers

11:45–13:00 **Lunch, poster session & exhibition**

THURSDAY, 29 OCTOBER 2026

Scientific program

SESSION 2

POC Implementation & Data Handling

13:00–13:15

POCT@KSW

Dr. sc. Alexander Wepf, Director, Kantonsspital Winterthur,
Institute of Laboratory Medicine

13:15–13:30

How to implement diagnostic innovation such as POCD in clinical practice

Prof. Michael Nagler, Deputy Director of the Center for Laboratory Medicine, Inselspital, Bern University Hospital

13:30–13:45

POC applications for infectious diseases of poverty: progress and challenges

Jürg Utzinger, Director, Swiss Tropical and Public Health Institute (Swiss TPH)

13:45–14:00

From Data to Decision: Predict. Perform. Personalize.

Thomas Zaugg, Head of Open Innovation & External Networks RDI, Roche Diagnostics International Ltd.

Diagnostics for **Every** need.

Explore our comprehensive diagnostic solutions.



Respiratory Diseases &
Gastrointestinal



Drugs of Abuse



Infectious Disease



Rapid Testing for Diagnosis and Monitoring of Inflammatory Diseases

Quantum Blue®

- Innovative Solution based on Lateral Flow Technology
- Quantitativ
- RFID Technology

Calprotectin
Pancreatic Elastase
Infliximab
anti-Infliximab
Adalimumab
anti-Adalimumab

MENU

 **BÜHLMANN**

BÜHLMANN Laboratories AG
Baselstrasse 55
CH - 4124 Schönenbuch

Tel. + 41 61 487 12 12
info@buhlmannlabs.ch
www.buhlmannlabs.ch



screen tec

Screen-Printed
Electrodes

Electrochemical
Sensors

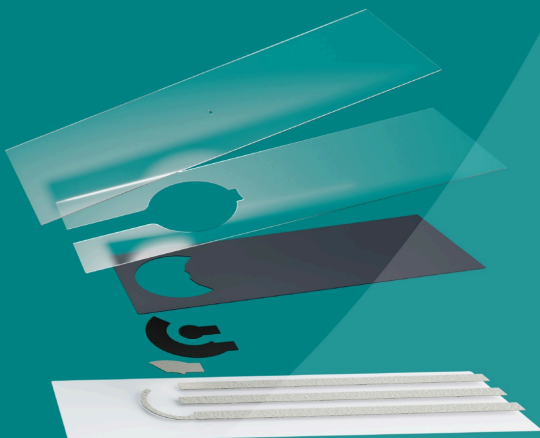
Microfluidic
Structures

Disposable
Sensing

Wearables

ISO 13485 certified CDMO
for Printed Electronics

From Concept to Scalable Manufacturing



 www.screen tec.com

THURSDAY, 29 OCTOBER 2026

Scientific program

SESSION 3

Innovation, R&D

- | | |
|-------------|---|
| 14:00–14:15 | From PCT Quick to MeMed BV – history might not repeat, but does it rhyme?
Prof. Dr. Beat Müller, CEO & Founder, HormoKine GmbH |
| 14:15–14:30 | Transforming Chronic Care with At-Home Blood Testing and Digital Health
Dr. sc. Alex Tanno, CEO and Co-Founder, Hemetron |
| 14:30–14:45 | Smart Point-of-Care Diagnostics: AI-Enabled Discovery, Design, and Deployment of Next-Generation Biosensors
Dr. Tim Heinemann, Group Leader AI for Life Science, CSEM |
| 14:45–15:00 | CLIA MDK: steps towards an open hardware CLIA analyser
Dr. Christopher Wood, Research Associate, Institute for Chemistry and Bioanalytics, FHNW |
| 15:00–15:30 | Coffee break, poster session & exhibition |



Custom Point-of-Care
Instruments

Made by
dg
technologies

THURSDAY, 29 OCTOBER 2026

Scientific program

SESSION 4

Start-up & Industry Spotlight

15:30–15:45	Machine Learning-Assisted Nanomotion: Cutting Time-to-Result for Phenotypic Antibiotic Susceptibility Testing in Sepsis Dr. Alexander Sturm, Chief Scientific Officer, Resistell
15:45–16:00	No-wash, 10-minute, real-time serology for diagnostics of vector-borne diseases Dr. Bruno Oesch, CEO, Elionova
16:00–16:15	From Technology to Clinical Practice: POC Diagnostics for Acute Care Dr. Iwan Märki, Chief Technology Officer, Abionic
16:15–16:30	Sample preparation integration into paper-based POCT: Application to cholesterol testing Prof. Dr. Jean-Manuel Segura, Professor of Analytical Chemistry, Institute of Life Sciences, HES-SO Valais-Wallis
16:30–16:45	Poster award
16:45–17:00	Closing remarks · Dr. Heiko Visarius & Marc Fehlmann
17:00–18:15	Apéro & networking
from 19:00	Networking & speakers' dinner · Restaurant Bloom, Parkhotel Winterthur (separate ticket)

The banner features the Elionova logo at the top left, followed by the text "REAL-TIME IMMUNOASSAYS". Below this, three dark blue boxes highlight the benefits: "10 MIN SPEED", "HIGH PRECISION", and "LOW COST". A QR code is positioned to the left of the contact information "elionova.com · info@elionova.com". On the right, a white Elionova device with a screen displaying a graph is shown. To the right of the device, three blue boxes with circular icons list the features: "Speed" (lightning bolt icon), "Precision" (target icon), and "No-Wash" (water drop icon).

Scientific program

Sessions chaired by **Prof. Dr. Andreas Gerber-Grote** and **Dr. Isabel Weinheimer**

On Friday, each of the two regulatory sessions is led by its own session chair, who will guide the discussion and Q&A.

09:00–09:30 **Registration**

09:30–09:40 **Welcome · Marc Fehlmann, Prof. Dr. Marc Pfeifer & Dr. Samantha Paoletti**
Welcome address · Prof. Dr. Christian Hinderling

SESSION 5

Regulatory Requirements for IVD, Software and AI · Part 1

Session chair: **Prof. Dr. Andreas Gerber-Grote**, Dean School of Health Sciences, Professor of Health Economics and Health Services Research, ZHAW

09:40–10:10 **The Future of Diagnostics in Light of New Digital Developments: Opportunities, Challenges and Responsibilities for the Healthcare Ecosystem**
Harald Borrmann, President, SVDI-ASID

10:10–10:25 **AI in Medical Devices: Europe Regulates, the US Guides – A Growing Transatlantic Divide**
Dr. Elena Lucano, Sr. Manager Quality & Regulatory Affairs, Digital Health Group, Veranex SA

10:25–10:40 **POCT: Practical Intersection of Cybersecurity Implementation and Regulatory Compliance**
Sushma Manjunatha, Senior Software Quality Engineer, Hilo

10:40–10:55 **What We Learned from the Initial 100 NB-Reviewed AI Devices**
Daniela Seneca, Regulatory Lead AI, BSI

10:55–11:30 **Coffee break & exhibition**

Scientific program

SESSION 6

Regulatory Requirements for IVD, Software and AI · Part 2

Session chair: **Dr. Isabel Weinheimer, MBA**, Business Enablement for Data, Analytics & Research, Roche Diagnostics

11:30–11:45	AI regulatory management in relation to clinical evidence and software updates Lara Gervaise, Co-Founder, Virtuosis
11:45–12:00	Usability Engineering and Performance Evaluation of Point-of-Care Devices – Practical Insights Alicja Ritz, Senior Manager Regulatory Affairs, IVDExpert, ISS AG
12:00–12:15	Precision Medicine in the Digital Era: Designing Innovative, Regulatory-Ready Software Sahar Hosseinian Ehrensberger, Chief Quality Officer, Prevision Medicine
12:15–12:25	Stronger Together: RAPS Switzerland as a Platform for Regulatory and Quality Professionals Dr. Charlotte Serra, President, RAPS Switzerland Chapter
12:25–12:35	The Regulatory Road Ahead: Upcoming Amendments and Their Impact on Diagnostics Dr. Silvia Anghel, Sr. Director, Quality & Regulatory Affairs, Veranex
12:35–12:45	Goodbye message · Marc Fehlmann, Prof. Dr. Marc Pfeifer & Dr. Samantha Paoletti Closing address · Prof. Dr. Christian Hinderling
12:45–13:30	Farewell light lunch, networking & exhibition



Take control of antibiotic misuse this flu season



Lower respiratory tract infections associated with antimicrobial resistance (AMR) resulted in 1.5 million deaths globally in 2019 (1). AMR isn't a problem we can worry about later – it's a threat we have to face today.

AMR is driven, in part, by antibiotic overuse and misuse. Fight back against AMR with QIAstat-Dx[®] respiratory testing. With QIAstat-Dx, you get results for multiple bacterial and viral targets in about an hour. Meaning you can get an evidence-based answer, fast, and use antibiotics more strategically.

Make targeted treatment decisions faster and reduce antibiotic misuse with QIAstat-Dx.



Learn more about our evidence-based diagnostics at
www.qiagen.com/respiratory-season

Reference:

1. Antimicrobial Resistance Collaborators (2022) Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. *Lancet* 399, 10325: 629–655

The QIAstat-Dx Analyzer is intended for in vitro diagnostic use.

Trademarks: QIAGEN[®], Sample to Insight[®], QIAstat-Dx[®] (QIAGEN Group). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law. PROM-21616-001 10/2022 © 2022 QIAGEN, all rights reserved.

Ordering www.qiagen.com/shop | Technical Support www.support.qiagen.com | Website www.qiagen.com

Sample to Insight

KEYNOTE • THURSDAY 11:00–11:45

POCT at the Limit



Photo: Andy Parant

Alban Michon

Modern Times Explorer

Member of the Society of French Explorers

Thursday, 29 October 2026

11:00–11:45 • Main hall

ABSTRACT

Drawing on his experiences beneath Arctic ice and during expeditions in remote regions, Alban will share compelling insights into resilience, risk management, human performance, and the importance of reliable technologies when operating far from conventional support systems. His keynote offers a fascinating perspective on the challenges faced by point-of-care diagnostics, where accurate information and dependable tools can be critical for decision-making under demanding conditions.

ABOUT THE SPEAKER

Alban Michon is a renowned French explorer, polar diver, and expedition leader who has spent decades operating in some of the world's most extreme and unforgiving environments.

Founder, Biodysseus underwater research station • www.biodysseus.com

President, Nautimoon • www.nautimoon.com

www.albanmichon.com

Speakers



THU · 10:15–10:30

Prof. Dr. Karin Nordström

Co-Programme Director, BSc Health Promotion and Prevention, ZHAW
School of Health Sciences, Institute of Public Health

*Point-of-Care Testing Between Efficiency and Responsibility:
Public Health Potential and Ethical Challenges*

Prof. Dr. Karin Nordström holds a PhD in Ethics and teaches and conducts research in various fields of ethics and public health ethics. She is the Head of the Bachelor's program in Health Promotion and Prevention at the Institute of Public Health, Department of Health Sciences at ZHAW Zurich University of Applied Sciences. In addition, she serves as Chair of the ZHAW Ethics Committee.



THU · 10:30–10:45

Prof. Dr. Marc Pfeifer

Head of the Diagnostic Systems Competence Area, HES-SO Valais-
Wallis, Institute of Life Sciences

*Mild traumatic brain injury (mTBI) diagnostics at the POC:
preventive medicine or overdiagnosis?*

Marc Pfeifer is a full professor in bioanalytical chemistry and the Head of the Diagnostic Systems Competence Area at the Institute of Life Sciences of the University of Applied Sciences and Arts Western Switzerland (HES-SO Valais-Wallis).

The design and development of high-sensitivity, multiplex assays and of novel signal amplification methods as well as the conception of smart POC diagnostic devices are among the specialities of his research group.

Prior to his faculty appointment he worked as a project manager in the area of molecular diagnostics in a large IVD corporation in Switzerland and the United States where he was also closely involved in regulatory submissions.

Marc has a Ph.D. in Life Sciences from the University of Zürich.

Speakers



THU • 10:45–11:00

Dr. Stefanie Dobitz

Lead INSPIRE LAB, Diabetes Center Berne

Quality Challenges Beyond the Laboratory: Lessons from Insulin Therapy at the Point-of-Care

Dr. Stefanie Dobitz leads the INSPIRE Lab at DCB (Diabetes Center Berne) and is CSO of Beyond Diagnostics AG. Stefanie received her doctorate for her work on protein and peptide medications from ETH Zürich. She spent the last 10 years in leading technical and commercial roles for medical device and drug development.

With a background in protein science and industry-driven product development, she leads the scientific and technical development of point-of-care medication quality testing. Her work focuses on LUMIQ, the first POC quality test for insulin, designed to ensure that PwD (people living with diabetes) use medicines that are effective and safe.



THU • 13:00–13:15

Dr. sc. Alexander Wepf

Director, Kantonsspital Winterthur, Institute of Laboratory Medicine

POCT@KSW

Alexander Wepf studied Molecular Biology and Biochemistry at ETH Zurich and earned his PhD at the Institute of Molecular Systems Biology. From 2010 to 2015, he completed the single-discipline FAMH specialist training in Clinical Chemistry, with a subspecialization in Hematology, at Analytica Medizinische Laboratorien AG, the University Hospital Zurich, and the University Children's Hospital Zurich.

After several years working in a private laboratory, Alexander Wepf joined Cantonal Hospital Winterthur. Since 2017, he has served as Director of the Institute of Laboratory Medicine. Owing to the close integration of the laboratory with the hospital's clinical operations, his professional interests focus on comprehensive, integrated laboratory diagnostics and the efficient design of the processes required to maximize both operational performance and clinical value.

Speakers



THU • 13:15–13:30

Prof. Michael Nagler

Deputy Director of the Center for Laboratory Medicine, Inselspital, Bern University Hospital

How to implement diagnostic innovation such as POCD in clinical practice

Michael Nagler, MD, PhD, is a laboratory medicine specialist, hematologist, and epidemiologist. From December 2026, he will serve as Director of the new Institute for Digital and Precision Laboratory Diagnostics at the University Hospital Zurich and Professor of Digital and Precision Laboratory Diagnostics at the University of Zurich. His work focuses on translating diagnostic innovation into clinical practice through diagnostic research methodology, digital transformation, automation, and explainable machine-learning-based decision support.



THU • 13:30–13:45

Prof. Dr. Jürg Utzinger

Director, Swiss Tropical and Public Health Institute (Swiss TPH)

POC applications for infectious diseases of poverty: progress and challenges

Jürg Utzinger is the Director of Swiss TPH and Professor of Epidemiology at the University of Basel. He is trained in environmental sciences at ETH Zurich, holds a PhD in epidemiology from the University of Basel, and pursued several years of postdoctoral research in demography and epidemiology at Princeton University in the US. Utzinger's research, teaching and training interests pertain to the epidemiology and integrated control of neglected tropical disease with a particular focus on schistosomiasis and soil-transmitted helminthiasis, as well as malaria and health impact assessment of large footprint projects in low- and middle-income countries. Utzinger is engaged in transnational global health consortia with ongoing projects in Africa and Asia.

Speakers



THU • 13:45–14:00

Thomas Zaugg

Head of Open Innovation & External Networks RDI, Roche Diagnostics International Ltd.

From Data to Decision: Predict. Perform. Personalize.

Thomas Zaugg is an experienced leader in technology and innovation, specializing in developing and implementing pioneering solutions in complex technological environments. Currently, Thomas serves as Head of Open Innovation and External Networks at Roche Diagnostics. In this role, he leads strategic innovation projects and technological advancements within diagnostics. His expertise particularly includes mobile & humanoid robotics, autonomous systems, process automation and always focusing strongly on practical applications in laboratory and production environments. Thomas gained extensive experience at leading technology companies. He is renowned for his ability to translate complex technical concepts into viable and economically successful solutions. Thomas holds degrees as MBA, Chemical Engineering, Electronics & Computer Science and Data Scientist@EPFL with additional specializations in Robotics and AI Agents. Thomas is recognized for his solution-oriented approach, his innovative spirit, and his ability to effectively lead and inspire interdisciplinary teams.

Speakers



THU • 14:00–14:15

Prof. Dr. Beat Müller

CEO & Founder, HormoKine GmbH

From PCT Quick to MeMed BV – history might not repeat, but does it rhyme?

Beat Müller studied medicine in Bern and South Africa and completed his specialist training at Swiss university hospitals as well as at Massachusetts General Hospital of Harvard University in Boston.

He headed the Department of Medicine at Kantonsspital Aarau for over 15 years, where at the Medical University Clinic he was responsible for General Internal Medicine, Emergency Medicine and Endocrinology, Diabetology & Metabolism, and he was a member of the executive management of KSA AG for more than a decade.

As a Professor of Internal Medicine and Endocrinology at the University of Basel, he is a dedicated mentor and the author of over 600 publications in leading journals and a multiple award-winning speaker at national and international conferences. His research focuses on so-called “hormokines”, encompassing classical hormones and inflammation-related cytokines that act as biomarkers and mediators in inflammation, infections, and endocrine and metabolic diseases. His innovative and evidence-based concepts for personalized antibiotic therapy, nutrition and hospitalization have gained worldwide recognition.

Today, he leads his companies (HormoKine GmbH, Criweba AG, Medvisis AG) and is active on several hospital boards (Spital Emmental AG, Psychiatrie Baselland).

Microsynth

THE SWISS DNA COMPANY

Speakers



THU • 14:15–14:30

Dr. sc. Alex Tanno

CEO and Co-Founder, Hemetron

Transforming Chronic Care with At-Home Blood Testing and Digital Health

Dr. Alex Tanno is the CEO and Co-Founder of Hemetron AG, a Zurich-based MedTech startup developing lab-grade at-home blood testing for chronic inflammatory diseases. He holds a PhD in Biosensing from ETH Zurich, where he developed the first generation of Hemetron's technology. He co-founded Hemetron to bring quantitative finger-prick blood testing out of the clinic and into patients' homes, where it is combined with digital health to enable remote monitoring and improved management of chronic diseases.

Under his leadership, Hemetron has raised CHF 3 million, completed a 194-patient clinical validation study, and established collaborations with leading clinical key opinion leaders across Europe and the United States.



THU • 14:30–14:45

Dr. Tim Heinemann

Group Leader AI for Life Science, CSEM

Smart Point-of-Care Diagnostics: AI-Enabled Discovery, Design, and Deployment of Next-Generation Biosensors

Dr. Tim Heinemann holds a degree in Systems Biology from the University of Heidelberg and completed his PhD at the German Cancer Research Center (DKFZ). His research focuses on theoretical biology, machine learning, and precision medicine, with the goal of developing robust, interpretable, and clinically relevant biomedical AI solutions. As Group Leader of the AI for Life Sciences group at the Centre Suisse d'Electronique et de Microtechnique (CSEM), he leads an interdisciplinary team and collaborative research initiatives combining artificial intelligence, computational biology, and healthcare. His work encompasses multimodal data integration, biomarker discovery, and translational AI, advancing innovation in digital health while strengthening the competitiveness of Swiss industry and research in the life sciences sector.

Speakers



THU • 14:45–15:00

Dr. Christopher Wood

Research Associate, Institute for Chemistry and Bioanalytics, FHNW

CLIA MDK: steps towards an open hardware CLIA analyser

Christopher Wood is a research associate in the Meinel group at the University of Applied Sciences and Arts Northwestern Switzerland (FHNW), where he develops a range of point-of-care diagnostic technologies. He also holds the position of Director of Research and Development at MOMM Diagnostics, a company bringing point-of-care preeclampsia diagnosis to the clinic.

He holds a PhD in chemistry from the University of Cambridge and has a background in bioengineering built through research at Imperial College London and the Karolinska Institutet. His work spans the full development path of point-of-care tests — from assay chemistry and label design through to device architecture and sample handling — with a focus on translating sensitive laboratory detection methods into robust formats that work at the bedside and in low-resource settings.



THU • 15:30–15:45

Dr. Alexander Sturm

Chief Scientific Officer, Resistell

Machine Learning-Assisted Nanomotion: Cutting Time-to-Result for Phenotypic Antibiotic Susceptibility Testing in Sepsis

Alexander Sturm is Chief Scientific Officer at Resistell AG in Basel, where he holds end-to-end accountability for the scientific operations of a nanomotion-based rapid antimicrobial susceptibility testing platform, from experimental design and assay development through to IVDR-certified delivery. He leads a multidisciplinary team spanning microbiology, data science, and instrumentation, and collaborates with hospitals and industry partners to translate the technology into clinical practice. He trained at ETH Zurich, where he earned his PhD, and held research positions at Columbia University and at the Broad Institute, Harvard Medical School, and Massachusetts General Hospital in Boston, working on bacterial persistence and tuberculosis. His work bridges molecular microbiology, machine-learning-assisted diagnostics, and regulated medical-device development, with more than 20 peer-reviewed publications spanning fundamental microbiology and applied diagnostic technology.

Speakers



THU • 15:45–16:00

Dr. Bruno Oesch

CEO, Elionova

No-wash, 10-minute, real-time serology for diagnostics of vector-borne diseases

Dr. Bruno Oesch is CEO of Elionova AG and an experienced biotech entrepreneur with a strong track record of translating scientific innovation into successful diagnostic solutions. Trained as a biochemist and molecular biologist, he earned his PhD from the University of Zurich and conducted research in prion biology in Switzerland and the United States.

In 1997, he co-founded Prionics AG, where he served as CEO, Head of R&D, and later Chairman. Under his leadership, Prionics successfully commercialized a rapid BSE test and grew into an internationally recognized animal diagnostics company.

Today, at Elionova AG, Bruno is driving the development and commercialization of ElioDX™, a real-time immunoassay platform designed to deliver rapid, quantitative results through a simple, wash-free workflow.



THU • 16:00–16:15

Dr. Iwan Märki

Chief Technology Officer, Abionic

From Technology to Clinical Practice: POC Diagnostics for Acute Care

Iwan Märki is Co-Founder and Chief Technology Officer at Abionic SA, a Swiss medtech company and EPFL spin-off. He is an expert in optical and nanophotonic technologies, with a strong background in biomedical research and clinical translation. After obtaining a Master's degree in Microengineering from EPFL and a PhD in nano-optical devices from IMT, Neuchâtel, he conducted research on single-molecule spectroscopy and imaging at EPFL's Laboratory of Biomedical Optics.

In 2010, he co-founded Abionic to develop advanced nanotechnology for point-of-care in-vitro diagnostics. Under his leadership, Abionic developed the abioSCOPE, a rapid quantitative diagnostic platform for applications including sepsis, COVID-19, allergies, and iron deficiency. He has led technology development, clinical research and validation, industrialization, and regulatory approval, contributing to the translation of innovative diagnostic technologies from research into routine clinical practice.

THURSDAY, 29 OCTOBER 2026

Speakers



THU • 16:15–16:30

Prof. Dr. Jean-Manuel Segura

Professor of Analytical Chemistry, Institute of Life Sciences, HES-SO Valais-Wallis

*Sample preparation integration into paper-based POCT:
Application to cholesterol testing*

Prof. Dr. Jean-Manuel Segura graduated from EPFL in chemical engineering and obtained his PhD from ETH Zurich in physical chemistry. He then specialized in biophysics and bioanalytics, especially in advanced fluorescence technologies, during several postdoc and group leader positions in the Netherlands and Switzerland. He joined the Institute of Life Sciences as a professor of general and analytical chemistry in 2008.

His research focuses on the design and development of novel bioanalytical assays and biosensors for various on-site applications, in particular for rapid point-of-care testing in in vitro diagnostics. His expertise lies at the crossroads of assay development, paper-based analytical devices, bioconjugate synthesis and fluorescence technologies.

biotechnet
switzerland

Find.
Connect.
Collaborate.



Networking events.
Applied research expertise.
biotechnet.ch/network



Speakers



FRI • 09:40–10:10

Harald Borrmann

President, SVDI-ASID

The Future of Diagnostics in Light of New Digital Developments: Opportunities, Challenges and Responsibilities for the Healthcare Ecosystem

After more than 40 years of experience in the IVD industry, Harald Borrmann retired in January 2025 and has since served as President of SVDI – the Swiss In Vitro Diagnostics Industry association. In this role, he aims to moderate and foster exchange among the different stakeholders in healthcare, with a particular focus on the value of diagnostics for better patient care.



FRI • 10:10–10:25

Dr. Elena Lucano

Sr. Manager Quality & Regulatory Affairs, Digital Health Group,
Veranex SA

AI in Medical Devices: Europe Regulates, the US Guides – A Growing Transatlantic Divide

Elena holds a PhD in Electronic Engineering from the University of Rome Sapienza. As a Senior Manager in Quality & Regulatory Affairs, she supports MedTech companies in submission and approval projects for the EU and US markets, with a special focus on Digital Health. With more than 10 years of experience in the MedTech industry, she has successfully supported clients in bringing medical devices to both the European and US markets through effective regulatory and quality strategies. In addition, as a certified DPO, she supports compliance with European Data Privacy Legislation. On the side, Elena manages Veranex's training programs, including the CAS CARAQA program.

Speakers



FRI • 10:25–10:40

Sushma Manjunatha

Senior Software Quality Engineer, Hilo

POCT: Practical Intersection of Cybersecurity Implementation and Regulatory Compliance

Sushma Manjunatha is a Senior Software Quality Engineer at Hilo (formerly Aktiia), working on software quality, regulatory compliance, risk management, and cybersecurity for a CE-marked Class IIa connected blood pressure monitoring device sold in Europe, Australia, and Canada. She has 15 years of experience in software development, including over 5 years in medical device software and connected healthcare systems. Her background spans Class IIa, Class IIb, and Class III medical devices. She has hands-on experience supporting FDA submissions, including a successful De Novo pathway. Her cybersecurity experience includes threat modelling, SBOMs, vulnerability monitoring processes.



FRI • 10:40–10:55

Daniela Seneca

Regulatory Lead AI, BSI

What We Learned from the Initial 100 NB-Reviewed AI Devices

Daniela Seneca is a biomedical engineer with over 20 years of experience in medical devices, covering technology transfer, product development, patents, prototyping, technical testing, clinical studies, regulatory affairs and Health Technology Assessment. After two years at an international CRO and several years as a self-employed consultant for medical device companies, she worked as lead auditor and medical device expert for the Italian Ministry of Health in European Commission working groups and Joint Assessments. She currently serves as Regulatory Lead at BSI, responsible for regulatory strategy, policies, procedures and accreditation/designation as a Conformity Assessment Body and Notified Body, following five years as technical specialist, clinical team leader and scheme manager for active medical devices, including artificial intelligence software. A former IEEE member, she now participates in CEN-CENELEC Joint Technical Committee 21 on Artificial Intelligence.

Speakers



FRI • 11:30–11:45

Lara Gervaise

Co-Founder, Virtuosis

AI regulatory management in relation to clinical evidence and software updates

Based on her thesis at EPFL, Lara co-founded Virtuosis AI, a pioneering company in voice biomarkers. With just a 30-second voice recording, Virtuosis AI's clinically validated models can assess up to 25 mental, cognitive, respiratory, and cardio-metabolic conditions. A former professional athlete and daughter of two engineers, Lara is committed to building AI that is fair, explainable, and responsible to improve society's health. Among several recognitions, Virtuosis AI was named Startup of the Year 2023 by Microsoft, and Lara was honored by French President Emmanuel Macron as one of the top 100 French AI talents.



FRI • 11:45–12:00

Alicja Ritz

Senior Manager Regulatory Affairs, IVDExpert, ISS AG

Usability Engineering and Performance Evaluation of Point-of-Care Devices – Practical Insights

Alicja is a biochemist with more than ten years of experience in Regulatory Affairs for in vitro diagnostics. At a medium-sized IVD manufacturer, she took on increasing responsibility and led regulatory initiatives at both operational and strategic levels, including the transition from IVDD to IVDR. She has guided products, including reagents and instruments for point-of-care use, throughout the entire lifecycle, from development and performance evaluation to post-market activities and vigilance. In her current role as a senior manager at ISS AG, she supports companies in navigating complex global regulatory requirements and ensuring sustainable market access for diagnostic solutions.

Speakers



FRI • 12:00–12:15

Sahar Hosseinian Ehrensberger

Chief Quality Officer, Prevision Medicine

Precision Medicine in the Digital Era: Designing Innovative, Regulatory-Ready Software

With over twenty years of experience in startup ecosystems, she has driven data strategies, created AI platforms, and managed the clinical validation of diagnostic products. She currently serves as Chief Quality Officer at Prevision Medicine, a spin-off from ETH Zurich, where she drives the regulatory strategy and commercialization of AI-powered technologies designed for personalized patient care. An entrepreneur at heart, she is dedicated to creating impactful, scalable solutions that leverage data and technology to advance precision oncology. Her leadership in innovative healthcare is grounded by a robust academic foundation, holding a PhD in Statistics from EPFL alongside executive education from IMD and MIT.



FRI • 12:15–12:25

Dr. Charlotte Serra

President, RAPS Switzerland Chapter

Stronger Together: RAPS Switzerland as a Platform for Regulatory and Quality Professionals

Charlotte Serra, PhD, has been President of the RAPS Switzerland Chapter since January 2026. She began her career in research and process development at Novartis, Genentech and J&J, then moved into quality 15 years ago. Since then she has held global executive quality leadership roles at NeoGenomics and at Galapagos, where she was VP, Global Head of Quality Operations – Cell Therapy. Her expertise spans diagnostics and medical devices (ISO 13485, MDSAP, IVDR, ISO 15189, CAP/CLIA) as well as cell therapy. She holds a PhD in Biology from EPFL and an MBA.

FRIDAY, 30 OCTOBER 2026

Speakers

FRI • 12:25-12:35

Dr. Silvia Anghel

Sr. Director, Quality & Regulatory Affairs, Veranex

The Regulatory Road Ahead: Upcoming Amendments and Their Impact on Diagnostics



Silvia Anghel brings over 15 years of experience in healthcare and IVD. Since joining Veranex in 2019, she has supported manufacturers in developing regulatory strategies for a wide range of IVD technologies and risk classes. Her expertise spans performance evaluation, technical documentation, notified body and authority interactions, and complex regulatory challenges. Silvia currently leads the European RA&QA team, providing strategic guidance for the successful market access and lifecycle management of IVD and medical device products.



Your Medical Device Manufacturing Partner



Custom Reel-to-Reel Manufacturing Excellence



Flexible
Electronics



Functional
Printing



Advanced
Converting



Precision
Assembly



Custom
Design

Venue & practical information

Venue	OSTTOR Eventzentrum Winterthur Gärtnerstrasse 18, 8400 Winterthur
By train	To Winterthur main station, then a 12-minute walk.
By bus	From Winterthur main station, bus no. 2, 3, 5 or 7 to 'Gewerbeschule' (2 stops).
By car	Via the A1, exit Winterthur-Töss, Oberwinterthur or Wülflingen, then continue towards the city centre.
Parking	Within walking distance: Teuchelweiher car park (455 spaces), Technikum car park (182 spaces) and Adlerstrasse 4 car park (48 spaces).
Accommodation	Several excellent hotels are located near the OSTTOR, offering a range of accommodation to suit different preferences and budgets.
Registration	Thursday from 09:00 · Friday from 09:00
Dinner	Thursday from 19:00 · Networking & speakers' dinner at Restaurant Bloom, Parkhotel Winterthur. Open to speakers and participants with a separate ticket.
Poster award	Thursday, 16:30–16:45 · Jury: see page 4
Photography	Photos will be taken during the event and published on www.pocdx.ch and LinkedIn. Please let us know at the registration desk if you do not wish to be photographed.
Questions?	info@pocdx.ch · www.pocdx.ch

About the organizers

ZHAW



The ZHAW is one of the leading universities of applied sciences in Switzerland. It offers teaching, research, continuing education and other services that are both practice-oriented and science-based. With locations in Winterthur, Zurich and Wädenswil, the ZHAW is firmly anchored in its region whilst collaborating with international partners. www.zhaw.ch

CSEM



CSEM is a non-profit-oriented public-private Swiss technology innovation center renowned for developing advanced technologies with profound societal impact. Our mission is to transfer these innovations to industries, strengthening the economy. www.csem.ch

HES-SO Valais-Wallis



The School of Engineering is a vibrant and welcoming community of students, professors and researchers, thriving at the heart of a campus at the cutting edge of technology and R&D. As a University of Applied Sciences, the School of Engineering values the «Learning by Doing» approach for both its bachelor's and master's degree programmes and contributes to fostering an innovation ecosystem ahead of its time. The 4 research institutes collaborate closely and extensively with industries and academia, yielding a turnover of 20 million Swiss francs and more than 400 projects per year. www.hevs.ch

FHNW



The University of Applied Sciences and Arts Northwestern Switzerland (FHNW) is one of Switzerland's largest universities of applied sciences. Through practice-oriented education, applied research and innovation, FHNW works closely with industry and public-sector partners to transform knowledge into solutions with real-world impact. With campuses across Northwestern Switzerland, FHNW fosters interdisciplinary collaboration and supports innovation in business, healthcare, technology and society. www.fhnw.ch

What's cooking at the

Institute of Chemistry and Biotechnology

Teaching – “life changing sciences”

BSc Biotechnology

MSc Life Sciences, profile
Pharmaceutical Biotechnology

BSc Biomedical Laboratory Diagnostics

since 2022, jointly with the School of
Health Sciences

BSc Chemistry

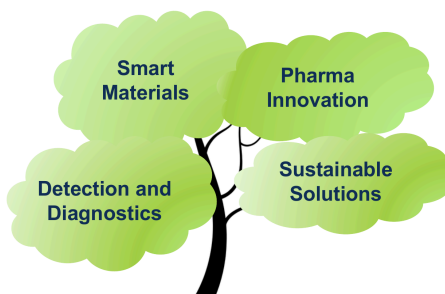
MSc Life Sciences, profile Chemistry for
the Life Sciences

Minors

- Bioanalytics and Diagnostics
- Food Biotechnology and Food Chemistry
- Digital Methods in the Life Sciences
- Pharmaceutical Technology
- Environmental Chemistry and Biotechnology
- Cell and Tissue Therapy
- Medicinal Chemistry and Drug Design

Research

Branching out ... our strategic branches



Where we are particularly strong:
competence centres @ ICBT



TEDD

Markus Rimann



CC Drug Discovery

Rainer Riedl



CC Bio

Margit Winkler

47

professors &
lecturers

27

research groups

~153

staff in total

~550

students

ORGANIZING PARTNER

About CSEM – Advancing life sciences with impactful solutions

CSEM is a non-profit-oriented public-private Swiss technology innovation center renowned for developing advanced technologies with profound societal impact. Our mission is to transfer these innovations to industries, strengthening the economy. We are at the forefront of life sciences, combining engineering skills, biological understanding, and cutting-edge infrastructure to revolutionize the field. By bridging precision manufacturing and digitalization, we develop disruptive biosystems that bring the lab to the patient and vice versa. From our advanced biosafety level 2 labs, we leverage cutting-edge technologies like cell microsystems, biomonitoring, lab automation, and AI to create impactful solutions. Our work narrows the gap between applied sciences and industrialization, enabling standardization and advancements for personalized medicine, diagnostics, and regenerative medicine. CSEM's tools for life sciences innovation are unlocking new possibilities in healthcare.

www.csem.ch





In vitro Diagnostics

FHNW School of Life Sciences

Research at the interface between technology
and medicine

The future of health services is closely connected to personalized medicine – tailored treatments for individual patients.

One of the key factors in successful personalized medicine is an accurate and timely diagnosis, allowing for improved patient management.

New diagnostic procedures, miniature mobile devices, apps, and virtual tools for self-diagnosis all add to improved management of the patient's treatment.

Our in vitro diagnostics team conduct research along the entire healthcare value creation chain. Contact us to find out how we can work together.

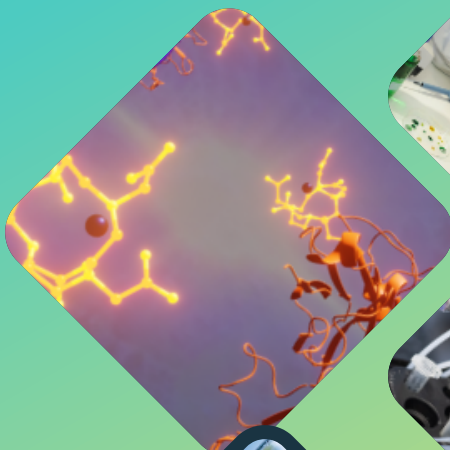


Prof. Dr. Dominik Meinel
Team leader, in vitro diagnostics and molecular bioanalytics
dominik.meinel@fhnw.ch
www.fhnw.ch/lifesciences

Institute of Life Sciences

COMPETENCE AREAS

- ✓ Diagnostic Systems
- ✓ Bioprocess Engineering and Biomanufacturing
- ✓ Biotherapeutics and Biomolecules Discovery
- ✓ Analytical Sciences
- ✓ Sustainable Food Systems



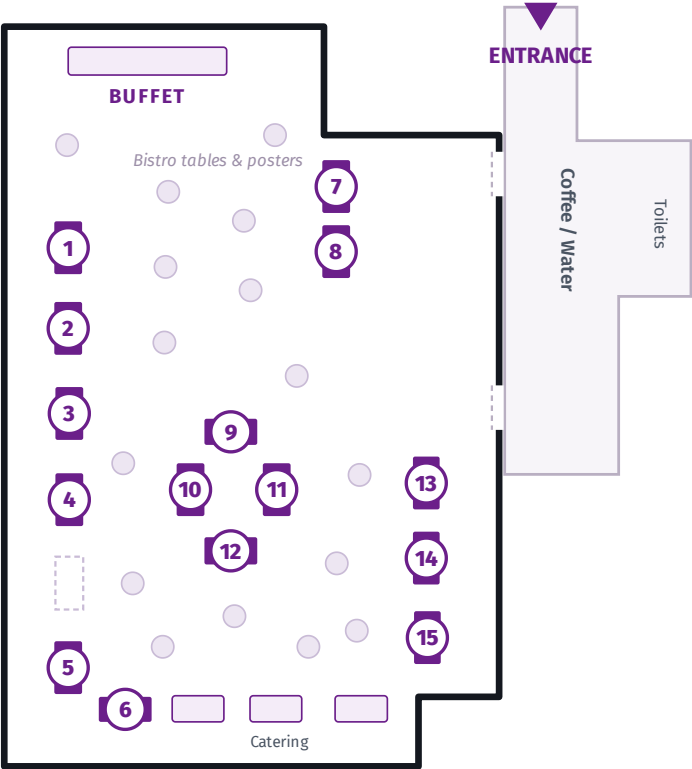
YOUR PROJECTS
OUR SOLUTIONS

HEVS.CH/ILS

energypolis
CAMPUS



Exhibition plan



1  **BÜHLMANN**

2  **pistor**
healthcare

3  **MP**
MP Biomedicals

4  **Microsynth**
THE SWISS DNA COMPANY

5  **firefinch**
software development

6  **ELIONOVA**

7  **QIAGEN**

8  **screentec**

9  **zhaw**

10  **Hes·so** VALAIS WALLIS

11  **n|w**

12  **csem**

13  **biotechnet**
switzerland

14  **Linxens**
Healthcare

15  **dg**
technologies

Poster list

POSTER 1 · abstract p. 38

Evaluation of agreement of Ca Ionic test between POC and laboratory operators

Elena Bukovetzky, Mona Nassar

Ziv Medical Center, Israel

POSTER 2 · abstract p. 39

Evaluation of Point-of-Care Ketone Testing Patterns versus Central Laboratory Services across Clinical Departments

Elena Bukovetzky, Mona Nassar

Ziv Medical Center, Israel

POSTER 3 · abstract p. 40

Climate-Resilient Point-of-Care Diagnostics for Urinary Tract Infections in Coastal Communities: A Mobile Clinical Decision-Support Tool Integrating Colorimetric E. coli Biosensing

Maria Daoutakou^{1,2}, Spyridon Kintzios^{1,2}

¹ Laboratory of Cell Technology, Department of Biotechnology, Agricultural University of Athens (EU-CONEXUS Alliance for Smart Urban Coastal Sustainability), Athens, Greece · ² Key2Core, Athens, Greece

POSTER 4 · abstract p. 41

GenomeMet: Building Trust in Genomic Diagnostics for Precision Oncology

Tobias Heck

Federal Institute of Metrology METAS, Switzerland

POSTER 5 · abstract p. 42

From POCT Management to PointS-of-CareoLogist: Redefining the Role of Biomedical Laboratory Professionals

Sylvia Kaap-Fröhlich, Katharina Übelhör

ZHAW Zurich University of Applied Sciences

POSTER 6 · abstract p. 43

Transcriptomic Characterization of Hypermutated Microsatellite Stable Tumors Reveals Distinct Proliferative and Immune Signatures

Olesia Kondrateva, Thimona Chrusciel, Maria Anisimova

ZHAW / University of Zurich

Poster list

POSTER 7 · abstract p. 44

prêXclude® – A Rapid On-Site Preeclampsia Test

Yosita Lackerbauer¹, Emre Gürsoy¹, Celine Gutmann¹, Sara Bieri¹, Mathias Wipf¹, Christopher S. Wood^{1,2}, Dominik Meinel²

¹ MOMM Diagnostics AG, Basel, Switzerland · ² FHNW School of Life Sciences, MuttENZ, Switzerland

POSTER 8 · abstract p. 45

Screening Accuracy of a Portable Optoelectronic Device for the Real-Time Detection of High-Grade Cervical Intraepithelial Neoplasia: A Multi-Center Study in Mexico

Ricardo Lua Alvarado², Neal Smith¹, Marco Ramirez¹, Blanca Villanueva², Lilian Macías², Carmen Suro², Maria Guadalupe Hernandez², Alvaro Peña Jimenez³, Claudia Plata Perez⁴, Jesus Seañez¹, Cinzia Donato¹

¹ Hera Biotech, Inc., San Antonio, TX, USA · ² Ginemed, Guadalajara, Jalisco, Mexico · ³ EMA, Mexico City, Mexico · ⁴ Platmed, Mexico City, Mexico

POSTER 9 · abstract p. 46

Concussion in Karate-Do: a low-incidence, high-prevalence “paradox” and the case for objective point-of-care diagnosis

L. A. Wehner, D. Prim, M. E. Pfeifer

Diagnostic Systems Research Group, Institute of Life Sciences, School of Engineering, HES-SO Valais-Wallis, Sion, Switzerland

POSTER 10 · abstract p. 47

A Molecularly Imprinted Membrane for High-Density Lipoprotein Extraction in Point-of-Care Testing

G. L. de Gregorio, D. Prim, A. Zavattoni, I. Mottini, D. Pezzoli, F. Roveda, M. E. Pfeifer, J.-M. Segura

Institute of Life Sciences, School of Engineering, HES-SO University of Applied Sciences and Arts Western Switzerland, Sion, Switzerland

POSTER 11 · abstract p. 48

Point-of-Care Detection of PIK3CA Mutations to Guide Breast Cancer Treatment

Manuela Hofner, Vanessa Thoeny, Thomas Maier, Norica Godja, Thomas Schalkhammer, Mariangela Fedel, Laszlo Sajti, Christine Deutschmann, Rainer Hainberger, Eva Melnik

AIT Austrian Institute of Technology GmbH, Vienna, Austria

Evaluation of agreement of Ca Ionic test between POC and laboratory operators

Elena Bukovetzky, Mona Nassar

Ziv Medical Center, Israel

Ionized calcium (Ca^{2+}) represents the biologically active fraction (45–50%) of total serum calcium. Its direct measurement is essential in critically ill patients, as total calcium levels are frequently confounded by albumin fluctuations and pH shifts, often masking true hypocalcemia.

The aim of the study is to evaluate the concordance between point-of-care (POCT) Ca^{2+} measurements performed by nursing staff in a pediatric ICU and central laboratory testing (GEM analyzer), while assessing patient sex as a potential confounder (n=35; 20 males, 15 females).

Results:

- **Paired t-test:** Revealed no statistically significant difference between POCT and laboratory measurements, indicating the absence of systematic bias.
- **Sex differences:** Patient sex had no significant effect on measurement discrepancies ($P=0.812$).
- **Pearson correlation:** Showed a statistically significant, moderate positive correlation ($R=0.462$, $P=0.0052$), reflecting consistent directional trends between devices.
- **Outliers:** Three paired samples exhibited a discrepancy exceeding 1 mg/dL, likely attributable to operator variation and pre-analytical delay.

Conclusion: POCT Ca^{2+} testing demonstrates sufficient agreement with central laboratory results to support rapid clinical decision-making. However, observed variances highlight the critical need for targeted nursing education regarding pre-analytical sample handling.

Keywords · Ca^{2+} , POCT measurement, GEM analyser, clinical decision, laboratory tests

Evaluation of Point-of-Care Ketone Testing Patterns versus Central Laboratory Services across Clinical Departments

Elena Bukovetzky, Mona Nassar

Ziv Medical Center, Israel

Diabetic ketoacidosis (DKA) represents the acute metabolic complication of insulin deficiency. DKA is life-threatening and requires immediate medical intervention, hospitalization, and monitoring. The pathophysiology of DKA involves severe hyperketonemia resulting from a metabolic shift. Blood ketone measurement serves as an essential diagnostic parameter in the management of this condition. In our institution, whole-blood β -hydroxybutyrate levels are analyzed using the StatStrip® Glucose/Ketone Hospital Meter. This study aimed to evaluate and compare the utilization patterns of POCT blood ketone testing across hospital departments against central laboratory sample submission, given that both pathways employ identical analytical hardware. Retrospective evaluation from 2023 through 2025 revealed an overall increase in total ketone testing across hospital departments. Nevertheless, approximately 15% of all samples continued to be measured in the central laboratory. The Emergency Department (ED) relied predominantly on central laboratory services despite the associated turnaround delays. The central lab processed 146 ED samples in 2024 and 160 in 2025, whereas bedside POCT performed by ED personnel totaled only 24 tests in 2024 and 119 in 2025. This study offers valuable insights into the differentiated utilization of POCT platforms between inpatient and emergency settings, highlighting potential risks of errors.

Keywords · StatStrip, ketone, DKA, laboratory services, POCT ketone screening

Climate-Resilient Point-of-Care Diagnostics for Urinary Tract Infections in Coastal Communities: A Mobile Clinical Decision-Support Tool Integrating Colorimetric E. coli Biosensing

Maria Daoutakou^{1,2}, Spyridon Kintzios^{1,2}

¹ Laboratory of Cell Technology, Department of Biotechnology, Agricultural University of Athens (EU-CONEXUS Alliance for Smart Urban Coastal Sustainability), Athens, Greece

² Key2Core, Athens, Greece

Climate change is reshaping Urinary Tract Infection (UTI) epidemiology, a condition already causing over 150 million diagnoses annually worldwide. Rising ambient temperature is independently associated with a dose-dependent increase in UTI incidence, while coastal populations face an added, geography-specific risk: recreational seawater contact is linked to elevated UTI rates, an exposure set to intensify as warming lengthens bathing seasons and tourist density, and as extreme-rainfall events raise uropathogenic E. coli loads in coastal waters via stormwater and sewage overflow. These pressures increase diagnostic and stewardship demands on primary-care and pharmacy services in coastal cities. Community pharmacies are increasingly decentralized diagnostic nodes, combining point-of-care testing with digital decision support to shorten time-to-treatment. We present a standalone, offline mobile clinical decision-support application for UTI risk assessment, for pharmacy or primary-care use in coastal, tourist-dense settings. It integrates patient-reported symptoms, dipstick urinalysis, a point-of-care colorimetric E. coli biosensor result, and patient risk modifiers into a transparent, rule-based probability score, with an independent alarm flag for upper-tract infection. Requiring no connectivity and storing no patient data, it is a low-cost, climate-adaptive triage tool for seasonal UTI risk surges coastal communities increasingly face.

Keywords · climate change; clinical decision support system (CDSS); coastal health; colorimetric biosensor; community pharmacy; point-of-care testing; urinary tract infection

GenomeMet: Building Trust in Genomic Diagnostics for Precision Oncology

Tobias Heck

Federal Institute of Metrology METAS, Switzerland

The increasing integration of genomic technologies such as Next Generation Sequencing (NGS) into clinical decision-making offers unprecedented opportunities for personalized healthcare. However, the growing diversity of analytical platforms and data interpretation approaches presents significant challenges for the comparability, reliability, and long-term sustainability of genomic measurements. GenomeMet, a project funded by the European Partnership on Metrology, aimed to strengthen the metrological foundations of genome-based tumor diagnostics by addressing critical aspects of measurement quality across the entire testing process. Through collaboration between metrology institutes, clinical laboratories, technology developers, and healthcare stakeholders, GenomeMet focused on improving the comparability of genomic results between laboratories, technologies, and clinical settings, while promoting robust quality assurance strategies that support confidence in diagnostic outcomes. A dedicated work package examined the NGS workflow from sample processing and sequencing to bioinformatics analysis and variant reporting. A guidance document summarizes key sources of measurement uncertainty (MU) in bioinformatics pipelines and provides recommendations for assessing variability in variant allele frequency (VAF) and variant detection. This work represents a systematic effort to characterize MU in genomic profiling and lays the foundation for future uncertainty estimation frameworks.

Keywords · molecular diagnostics, cancer genomics, next generation sequencing, NGS, measurement science, metrology, comparability, reliability, traceability

From POCT Management to PointS-of-CareoLogist: Redefining the Role of Biomedical Laboratory Professionals

Sylvia Kaap-Fröhlich, Katharina Übelhör

ZHAW Zurich University of Applied Sciences

Background: Point-of-care testing (POCT) is expanding rapidly, driven by decentralized care models and the growing use of patient self-testing. Biomedical laboratory professionals (BMLPs) possess the analytical and quality-management expertise needed to coordinate high-quality testing outside the traditional laboratory, yet their role in this rapidly evolving landscape remains underdefined.

Aim: This work examines how BMLPs can apply their core competencies to POCT coordination and proposes an expanded conceptual and professional framework to reflect the field's growing scope.

Approach: Using the REASSURED (Land et al., 2018) criteria as a foundation, we broaden the definition of POCT to explicitly encompass patient self-testing, introducing the combined concept of Self- and Point-of-Care Testing (SPOCT). This reframing opens new collaboration opportunities between BMLPs, clinicians, patients and other professions.

Outcome: Building on this expanded scope, we propose the title “PointS-of-CareoLogist” (Kaap-Fröhlich et al., 2026) to capture the combination of existing responsibilities (coordination, quality assurance, data management) with emerging activities, such as advising laypersons, participating in research and innovation, and teaching.

Conclusion: The term "PointS-of-CareoLogist" embodies a new identity of BMLPs between the traditional and the future working activities.

Keywords · Biomedical laboratory diagnostics, POCT, SPOCT, "PointS-of-CareoLogist"

Transcriptomic Characterization of Hypermutated Microsatellite Stable Tumors Reveals Distinct Proliferative and Immune Signatures

Olesia Kondrateva, Thimona Chrusciel, Maria Anisimova

ZHAW / University of Zurich

Hypermutated microsatellite stable tumors are a subgroup of cancers, representing approximately 1-2% of colorectal tumors. These tumors show increased immunogenicity and some biological features similar to microsatellite instability-high tumors. However, their transcriptomic characteristics remain poorly understood. In our project, we provide the first transcriptomic and premature miRNA characterization of hypermutated microsatellite stable tumors in colorectal cancer and endometrial cancer using The Cancer Genome Atlas (TCGA) datasets.

Our results indicate that hypermutated microsatellite stable tumors share proliferation- and replication-associated features across cancer types, while immune, regulatory, and metabolic patterns are more cancer-specific. These findings provide additional evidence that hypermutated microsatellite stable tumors represent a biologically distinct subgroup with partial transcriptomic overlap with microsatellite instability-high tumors and may have clinical relevance.

Keywords · microsatellite instability, tumor mutational burden, POLE, gene expression, microRNA, colorectal cancer, endometrial cancer

préXclude® – A Rapid On-Site Preeclampsia Test

Yosita Lackerbauer¹, Emre Gürsoy¹, Celine Gutmann¹, Sara Bieri¹, Mathias Wipf¹,
Christopher S. Wood^{1,2}, Dominik Meinel²

¹ MOMM Diagnostics AG, Basel, Switzerland

² FHNW School of Life Sciences, Muttentz, Switzerland

Preeclampsia is a leading cause of maternal and perinatal death worldwide, and its complications can escalate within days. Its onset is driven by an imbalance of angiogenic factors: soluble fms-like tyrosine kinase-1 (sFlt-1) rises and placental growth factor (PLGF) falls in maternal blood weeks before symptoms appear.¹ The sFlt-1/PLGF ratio is now part of international guidelines for the diagnosis of preeclampsia,² and defined cut-off values are used to rule out the disease.^{3,4} Currently, the ratio is measured in central laboratories, with a turnaround time of between 3 hours and a couple of days. The result often arrives after the clinical decision has already been made.

préXclude®, developed by MOMM Diagnostics AG, is a rapid point-of-care test designed to be accurate, cost-effective and easy to use. It combines an enzyme-linked lateral flow immunoassay with electrochemical detection: ion-sensitive electrodes integrated into a lateral flow immunoassay membrane read the enzymatically amplified signal as a voltage. This gives a 50–100-fold lower limit of detection than conventional lateral flow. Both biomarkers are quantified in picomolar concentrations from a 50 µL fingerstick in 25 minutes on a portable reader. This makes it possible to rule out preeclampsia within a single patient visit.

References

1. Levine RJ, Maynard SE, Qian C, et al. Circulating angiogenic factors and the risk of preeclampsia. *N Engl J Med*. 2004;350(7):672–683.
2. Magee LA, Brown MA, Hall DR, et al. The 2021 International Society for the Study of Hypertension in Pregnancy classification, diagnosis & management recommendations for international practice. *Pregnancy Hypertens*. 2022;27:148–169.
3. Zeisler H, Llurba E, Chantraine F, et al. Predictive value of the sFlt-1:PLGF ratio in women with suspected preeclampsia. *N Engl J Med*. 2016;374(1):13–22.
4. Stepan H, Herraiz I, Schlembach D, et al. Implementation of the sFlt-1/PLGF ratio for prediction and diagnosis of pre-eclampsia in singleton pregnancy: implications for clinical practice. *Ultrasound Obstet Gynecol*. 2015;45(3):241–246.

Screening Accuracy of a Portable Optoelectronic Device for the Real-Time Detection of High-Grade Cervical Intraepithelial Neoplasia: A Multi-Center Study in Mexico

Ricardo Lua Alvarado², Neal Smith¹, Marco Ramirez¹, Blanca Villanueva², Lilian Macías², Carmen Suro², Maria Guadalupe Hernandez², Alvaro Peña Jimenez³, Claudia Plata Perez⁴, Jesus Seañez¹, Cinzia Donato¹

¹ Hera Biotech, Inc., San Antonio, TX, USA · ² Ginemed, Guadalajara, Jalisco, Mexico · ³ EMA, Mexico City, Mexico · ⁴ Platmed, Mexico City, Mexico

IMPORTANCE: Every 90 seconds, a woman dies from cervical cancer in the world, mostly in low- and middle-income countries (LMICs) where despite its preventability, cervical cancer remains a leading cause of death. Furthermore, it is the 4th most common cancer in women, globally. Current screening methods like Papanicolaou (PAP), liquid-based cytology (LBC) and hr-HPV testing face limitations in sensitivity, cost, and infrastructure requirements, hindering effective "see-and-treat" protocols.

OBJECTIVE: To evaluate the diagnostic performance of Herafem™, a portable medical device combining Electrical Impedance Spectroscopy (EIS) and Light Scattering Spectroscopy (LSS) with AI-based algorithms for the real-time detection of high-grade cervical intraepithelial neoplasia (CIN2+).

MATERIALS AND METHODS: A multi-center, cross-sectional, blinded, diagnostic accuracy study was conducted in Jalisco, Mexico (November 2024 – January 2026). The cohort included 203 women undergoing routine screening or diagnostic follow-up. Herafem™ performance was compared to colposcopy and histopathology (reference standards), as well as LBC and hr-HPV genotyping.

RESULTS: Herafem™ demonstrated a sensitivity of 87.5% and a specificity of 79.2% for CIN2+ lesions. While the intra-study Negative Predictive Value (NPV) was 96.9%, adjustment for real-world Mexican prevalence (0.98%) yielded an unprecedented NPV of 99.6%. Herafem™ significantly outperformed LBC intra-study sensitivity (41%, $p < 0.001$) and correctly identified high-grade lesions missed by HPV testing. Biophysical clustering revealed that 66% of CIN1 cases mirror healthy tissue architecture ($p = 0.007$), supporting Herafem's ability to minimize overtreatment of CIN1 cases. The device showed robust performance across various ages and BMIs.

CONCLUSIONS AND RELEVANCE: Herafem™ provides a high-sensitivity, point-of-care alternative to traditional screening with a superior real-world NPV. Its portable, infrastructure-independent design facilitates immediate results, enabling scalable "see-and-treat" models that could significantly reduce cervical cancer mortality globally.

Keywords · Cervical Cancer, POC, optoelectronic device, HPV

Concussion in Karate-Do: a low-incidence, high-prevalence “paradox” and the case for objective point-of-care diagnosis

L. A. Wehner, D. Prim, M. E. Pfeifer

Diagnostic Systems Research Group, Institute of Life Sciences, School of Engineering, HES-SO Valais-Wallis, Sion, Switzerland

Mild traumatic brain injury (mTBI) represents a substantial proportion of injuries in combat sports following impacts to the head through falls, collisions and/or strikes. While boxing and mixed martial arts (MMA) are known for their relatively high incident rates (vs athlete exposures),^{1,2} less is reported in sports where strikes and collisions are restricted by the rule book, like karate. However, the most common injury in all combat sports is reported to be head and neck injury.^{3–8}

While severe hemorrhage and ischemic changes are detected by physiological effects (pain, SCAT, etc.)⁹ and imaging techniques (CT, MRI, etc.),¹⁰ milder cases can be overlooked and are expected to contribute to a high number of unreported cases. These limitations of current diagnostic methods highlight the relevance of biochemical assays. The acute intracranial lesions of affected brain tissue release a mixture of different biomolecules upon histological changes.¹¹ Freed ions, neurotransmitters, proteins and metabolites flow into the intercellular space and through the broken blood–brain barrier (BBB) into the blood stream.¹² Those molecules can be used as biomarkers in the detection of mTBI and monitoring in the recovery phase.^{13,14}

In karate and other sports with relatively lower exposure to head impacts, clinically undetected mTBI may benefit from point-of-care (POC) biomarker assessment. The poster summarizes the role of diagnostic tests in these sports as a practical approach for early detection of otherwise overlooked cases and for support in subsequent recovery monitoring. Challenges still to overcome are highly related to the kinetics of biomarker release and clearance after sport-related concussions. The specificity and sensitivity of the diagnostic tests, in combination with the practical constraints imposed by the competition environment, must merge the respective timeframes of the marker's bioavailability. In karate kumite, time between tournaments rarely exceeds 15 minutes.¹⁵ A clinically valuable POC test would need to be sensitive for the bioavailable markers within that timeframe to be useful in return-to-play decisions. Whether currently known biomarkers can be detected in blood with the required sensitivity has to be determined by future research.

Keywords · Traumatic brain injury, biomarkers, concussion, IVD, in vitro diagnostics, athlete exposure, sports diagnostics, contact sports, sports medicine

References 1–15 are available from the authors.

A Molecularly Imprinted Membrane for High-Density Lipoprotein Extraction in Point-of-Care Testing

G. L. de Gregorio, D. Prim, A. Zavattoni, I. Mottini, D. Pezzoli, F. Roveda, M. E. Pfeifer, J.-M. Segura

Institute of Life Sciences, School of Engineering, HES-SO University of Applied Sciences and Arts Western Switzerland, Sion, Switzerland

Low Density Lipoproteins (LDL), colloquially called “bad cholesterol”, distribute cholesterol from the liver to the body and tend to accumulate on blood vessels’ interior walls causing arteriosclerosis.

The determination of LDL cholesterol (LDL-C) levels in blood is therefore key to prevent cardiovascular diseases. Nowadays, LDL-C is quantified indirectly by assessing the quantity of total cholesterol and subtracting the amount in non-LDL lipoproteins such as in High Density Lipoproteins (HDL). The performance is limited by the uncertainties of the individual measurements. Therefore, the direct determination of LDL-C would be a more accurate strategy. To develop such an assay, Molecularly Imprinted Polymers (MIPs) are an interesting class of polymer-based molecular recognition reagents engineered to bind to a target compound.

We will present the results of a project aiming at the development of a novel POC test of LDL-C using MIP. A molecularly imprinted membrane (MIM) was used for the extraction of HDL in a paper-based lateral flow test. Samples travelled by capillarity through the MIM before reaching a detection zone where LDL cholesterol was quantified enzymatically. The MIM enabled the removal of HDL with an efficiency of typically 68%. However, quantification of LDL cholesterol suffered from strong non-specific binding. Nevertheless, our study demonstrates a novel, efficient, and potentially generic modality to integrate SPAE into paper-based POC diagnostic tests.

Keywords · Point-of-care testing; Cholesterol; Lipoprotein; Enzymatic assay; Molecularly imprinted polymer; Molecularly imprinted membrane; Solid-phase affinity extraction; Nanoparticle

Point-of-Care Detection of PIK3CA Mutations to Guide Breast Cancer Treatment

Manuela Hofner, Vanessa Thoeny, Thomas Maier, Norica Godja, Thomas Schalkhammer, Mariangela Fedel, Laszlo Sajti, Christine Deutschmann, Rainer Hainberger, Eva Melnik

AIT Austrian Institute of Technology GmbH, Vienna, Austria

Liquid biopsy of cell-free DNA (cfDNA) offers a minimally invasive approach to cancer diagnostics but requires sensitive point-of-care (POC) assays. The project NanoPredict targets three frequent PIK3CA mutations (H1047R, E545K, E542K) in metastatic HR-positive/HER2-negative breast cancer to guide targeted therapy.

A mutation-specific assay was developed using screen-printed gold electrodes, isothermal amplification, mutation-specific probes, and wild-type blocking sequences. Biotin-labelled products enable enzymatic electrochemical detection. In parallel, scalable printed-electronics technologies are being developed for integrated thermal control, reproducible electrodes, and nanozyme-based signal generation.

The assay achieves a detection limit of 224 copies/ μ L and detects mutations at allele fractions of $\geq 20\%$ amid wild-type DNA. Further optimization and patient plasma studies will assess the feasibility of cost-effective electrochemical POC testing for decentralized PIK3CA mutation detection.

Keywords · Liquid biopsy; PIK3CA mutations; Electrochemical point-of-care diagnostics

Program at a glance

Thursday, 29 October 2026

09:00	Registration & exhibition
10:00	Welcome & welcome address
10:15	Session 1 · Unmet Medical Needs & Challenges
11:00	Keynote · Alban Michon – POCT at the Limit
11:45	Lunch, poster session & exhibition
13:00	Session 2 · POC Implementation & Data Handling
14:00	Session 3 · Innovation, R&D
15:00	Coffee break, poster session & exhibition
15:30	Session 4 · Start-up & Industry Spotlight
16:30	Poster award
16:45	Closing remarks
17:00	Apéro & networking
19:00	Networking & speakers' dinner (separate ticket)

Friday, 30 October 2026

09:00	Registration
09:30	Welcome & welcome address
09:40	Session 5 · Regulatory Requirements for IVD, Software and AI · Part 1
10:55	Coffee break & exhibition
11:30	Session 6 · Regulatory Requirements for IVD, Software and AI · Part 2
12:35	Goodbye message & closing address
12:45	Farewell light lunch, networking & exhibition

Detailed program on pages 6–12 · Venue: OSTTOR Eventzentrum, Winterthur

Notes

News, events, training and tech notes – monthly.



Scan to sign up

Darmkrebsvorsorge ohne grossen Aufwand.

Früherkennung von Darmkrebs durch den
Nachweis von nicht sichtbarem Humanblut im Stuhl.



FOB-Schnelltest

Für medizinische Fachanwender, Praxen und
Gesundheitseinrichtungen.



Nur eine kleine Stuhlprobe notwendig



Ergebnis bereits nach 2 Min.



Diskret und unkompliziert



29 & 30 OCTOBER 2026 SWISS SYMPOSIUM IN POINT-OF-CARE DIAGNOSTICS



Osttor | Winterthur | Switzerland



Thank you for joining us in Winterthur.

Photos and the poster award winners will be published on www.pocdx.ch
and LinkedIn after the symposium.

www.pocdx.ch

info@pocdx.ch

ORGANIZING PARTNERS



SUPPORTING PARTNERS

