

Congress Report PEth IN MIND

THE 2024 PEth-NET CONFERENCE IN LUCERNE, SWITZERLAND

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Forty participants with forensic and clinical backgrounds from nine different countries attended the 2024 PEth in Mind conference of the Society of PEth Research (PEth-NET). The conference aimed to present and discuss the utility of Phosphatidylethanol (PEth) as an innovative, direct alcohol biomarker.

The two-day conference was held in Lucerne, Switzerland, and featured 19 presentations and two workshop sessions, where novel innovations and the international harmonization of PEth results were discussed. The first day primarily centered on the technical aspects of PEth measurement and interpretation. Key topics included the pre-analytical process of sample preparation, addressing regioisomer interferences, and improving quantification accuracy. One of the presentations focused on the use of PEth in real-life medico-legal cases. It demonstrated how combining data from EtG in hair, PEth, and EtG in blood can enhance the interpretation of alcohol consumption patterns. The results showed the value of testing PEth alongside current EtG tests, regardless of hair length.

The evening of the first day concluded with a boat transfer to the Swiss Museum of Transportation, where attendees enjoyed a themed dinner. Aptly suited for a conference on alcohol biomarkers, the dinner was titled "Wine and Beer Battle." Throughout the meal, a beer sommelier and a wine sommelier presented curated selections of beer and wine to accompany

each course. After each pairing, participants voted for their preferred beverage. By the end of the evening, wine emerged as the clear favorite for every food pairing.

The second day of the conference centered on the application of PEth in clinical settings. Two talks might be mentioned in example. Keynote speaker Susana Rodrigues, a hepatologist at the University Hospital Bern in Switzerland, discussed the use of PEth in the liver transplant setting. She effectively highlighted the advantages, challenges, and unanswered questions related to incorporating PEth testing for identifying alcohol intake in patients with liver diseases.

Michael McDonell, serving as psychologist at the Washington State University, USA, discussed the use of PEth in a virtual contingency management intervention for alcohol use disorders. In this intervention, participants provided a PEth sample while being monitored by webcam and then sent the sample to the lab. To motivate participants to remain abstinent, decreasing PEth values were rewarded with a gift voucher. This approach, successfully tested in a feasibility study, is now beginning a definitive trial.

At the conclusion of the conference, following thorough evaluations by scientific board members of PEth-NET, two speakers were distinguished with PEth-NET Awards from a pool of exceptional presentations. Christina Ververi from the University of Turin, Italy, received the Best Presentation



ABOVE LEFT: SUSANA RODRIGUES TALKING ABOUT THE APPLICABILITY OF PETH IN THE LIVER TRANSPLANT SETTING; RIGHT: TIAFT MEMBERS JUDY HAHN AND WOLFGANG WEINMANN CONTRIBUTED TO THE DISCUSSION ON PETH HARMONIZATION.



ABOVE LEFT: THE RECIPIENTS OF THE 2024 PETH-NET AWARDS ARE CHRISTINA VERVERI, AWARDED FOR BEST PRESENTATION, AND MATTHIAS BANTLE, RECOGNIZED FOR BEST INNOVATION; RIGHT: PAUL NEILSEN FROM ECHELON BIOSCIENCES PRESENTED ON AN IMMUNOASSAY DESIGNED TO MEASURE TOTAL PETH IN MICROSAMPLES.

Award for her talk titled "Towards the Implementation of a PEth Reference Measurement System: Setting Up a Reference Measurement Procedure." Her contribution focused on establishing a gravimetry-based procedure for preparing calibration and quality control samples, in contrast to volumetric pipetting methods.

Matthias Bantle from the University of Bern, Switzerland, was honored with the Best Innovation Award for his presentation "Lyso-Phosphatidylethanol: Another Marker for Alcohol Consumption Monitoring?" This novel marker may enhance the significance of PEth measurements and will remain an ongoing topic of research. To expedite progress, representatives from Echelon Biosciences announced at the conference the dissemination of commercial reference material for Lyso-PEth.

A general assembly of PEth-NET was held on Saturday afternoon, during which members voted on the budget and

elected the new PEth-NET Board. Wolfgang Weinmann from the University of Bern was elected to replace the retiring Treasurer, Marion Luginbühl, at the beginning of 2025. The next in-person meeting of PEth-NET is expected to take place in 2026.

We extend our heartfelt gratitude to all individuals who contributed to the realization of this meeting. For more information about the conference, PEth, and PEth-NET, as well as our inter-laboratory comparison program, please visit www.peth-net.org.



ABOVE LEFT: CONFERENCE PARTICIPANTS ENGAGED IN DISCUSSIONS REGARDING FUTURE INNOVATIONS IN THE FIELD OF PETH ANALYTICS; RIGHT: CONFERENCE PARTICIPANTS DURING THE CONFERENCE DINNER AT THE MUSEUM OF TRANSPORTATION.