THURSDAY

17 September

08:00 - 09:30 SESSION 16

Bone turnover markers for monitoring treatment for osteoporosis

Chairs: Professor *Niklas Rye Jørgensen* (Copenhagen DK) and Professor *Lasse Kristoffer Bak* (Copenhagen DK)

08:00 - 08:45

Bone turnover markers for monitoring osteoporosis treatment

Professor *Per Magnusson*

Department of Clinical Chemistry, Linköping University Hospital, Linköping, Sweden

08:45 - 09:15

Bone turnover markers in CKD-MBD

Ass. Professor *Hanne Skou Jørgensen*

Dept. of Clinical Medicine and Dept. of Medicine and Nephrology, Aarhus University Hospital, Aarhus, Denmark

Chronic kidney disease is common, affecting 10% of the population. CKD increases the risk of fracture, but a variable bone phenotype presents a challenge in treatment of CKD-associated osteoporosis. Bone turnover markers may help address the treatment gap by informing on the state of skeletal remodeling. This lecture will discuss the utility of bone turnover markers in the diagnosis and treatment of CKD-associated osteoporosis.

09:15 - 09:30

Health Economic Aspects of BTM use for monitoring osteoporosis treatment

Professor *Niklas Rye Jørgensen*

Department of Clinical Biochemistry, Copenhagen University Hospital – Rigshospitalet, Copenhagen, Denmark

08:00 - 09:30 SESSION 17

"Illt er í ætt gjarnast". Hereditary diseases in Iceland (session by IFKE)

Chairs: MscPharm *Leifur Franzson* (Reykjavik IS) and Senior Consultant *Ólöf Sigurðardóttir* (Reykjavik IS)

08:00 - 08:45

Hereditary Cystatin C Amyloid Angiopathy and related amyloidosis: Pathogenesis and clinical evaluation of NACA as a therapeutic candidate

Director of Clinical Development *Ásbjörg Ósk Snorradóttir*

Arctic Therapeutics, Iceland

08:45 - 09:30

Adenine phosphoribosyltransferase deficiency (APRT) ; a treatable rare cause of kidney stones and kidney failure. Is it time for newborn screening?

Professor *Vidar O. Edvardsson*

Department of Pediatric Nephrology and Solid Organ Transplantation. Barnaspítali Hringsins, Reykjavík, Iceland.

08:00 - 09:30 SESSION 18

Biomarkers of ageing

Chair: Professor *Jens Petter Berg (Oslo NO)*

08:00 - 08:25

Insights into Human Aging: Mechanisms and Research Challenges

Professor *Lene Juel Rasmussen*

Department of Cellular and Molecular Medicine, University of Copenhagen, Copenhagen, Denmark

The pursuit of understanding the molecular mechanisms underlying human longevity has emerged as a central focus in biomedical research, driven by the challenges posed by an aging global population. In this presentation, I will explore recent advancements in the identification and characterization of human longevity genes, shedding light on the complex interplay between genetic factors and lifespan regulation.

08:25 - 08:50

Refining biomarkers of aging

Associate professor *Sara Hägg*

Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm, Sweden

08:50 - 09:15

Markers of youth in the blood of centenarians

Professor *Karl-Heinz Krause*

Department of Pathology and Immunology, University of Geneva, Geneva, Switzerland

09:15 - 09:30

Discussion

09:45 -10:30 PLENARY LECTURE

The role of epigenetics in mediating health and disease

Chairs: Professor *Anders Lade Nielsen* (Aarhus, DK) and Professor *Holger Jon Møller* (Aarhus, DK)

Academy Research Fellow *Emma Raitoharju* , Faculty of Medicine and Health Technology, Biomedicine, Tampere University, Finland

Epigenetic profiles regulate cellular function and gene expression without altering the DNA sequence. These profiles, for example, ensure that daughter cells retain the identity (i.e. cell type) of their mother cells. From an individual's perspective, epigenetic mechanisms enable the body to adapt to environmental conditions and even allow the future offspring to adapt to anticipated conditions already during pregnancy. During lifespan, epigenetic profiles are responsive to external exposures, such as smoking and chronological age and can be used to measure these exposures indirectly, when data is not available. Epigenetic profiles also reflect broader phenotypes, such as rate of biological ageing, but the role of epigenetics in the pathology of non-communicable diseases as well as the clinical utility of these measurements is still under investigation.

10:45 -12:15 **PLENARY SESSION - PRIZE COMPETITION**

The Lorentz Eldjarn prize competition for best publication

Chair: Professor, Managing Editor of SJCLI, *Jens Petter Berg* (Oslo, NO)

Wikipedia

The Scandinavian Journal of Clinical and Laboratory Investigation (SJCLI) has set up a prize committee, that nominates three first authors from the most cited articles in SJCLI. The authors are invited to present their study as a part of the scientific program at the Nordic Congress of Clinical Chemistry. Based on the scientific quality of the studies and the clarity of the presentations, the Prize Committee shall reach a consensus on the recipient of the first (100.000 DKK), the second (50.000 DKK) and the third prize (30.000 DKK). The recipients of the Prize will be announced by the Chairman of the Prize Committee at the banquet Thursday evening.

12:15-13:15 **LUNCH**

12:45 -13:15 **POSTERWALK II**

13:15 -14:45 **PLENARY SESSION**

UNIVANTS of Healthcare Excellence Award

Chairs: TBA

15:00 - 15:20 **COMPANY SESSION**

Abbott laboratories A/S

15:00 - 15:20 **COMPANY SESSION**

Roche Diagnostics A/S

The potential of blood biomarkers in the diagnostic work-up of Alzheimer's disease

Clinical Associate Professor *Kristian Steen Frederiksen*
Danish Dementia Research Centre

As Alzheimer's cases rise, blood-based biomarkers like p-tau181 and p-tau217 offer cheaper, faster, and less invasive alternatives to scans and spinal taps. This session reviews their biology and how they accelerate diagnosis and access to treatment

15:00 - 15:20 **COMPANY SESSION**

Bio-rad Laboratories

Outcomes of an International Harm Severity Survey for Incorrect Lab Results : A Risk-Based Approach to Patient Safety

Quality Control Data Management Expert, *Ileyki Sanha Imu*
Bio-Rad Laboratories

In the context of ISO 15189:2022 and ISO 22367:2020, a first international survey published in CCLM addressed the lack of consensus on assessing severity of harm associated with erroneous reported results in routine laboratory medicine.

15:25 - 15:45 **COMPANY SESSION**

Tietoevry Ab

15:25 - 15:45 **COMPANY SESSION**

Becton Dickinson

15:25 - 15:45 **COMPANY SESSION**

Ascentry

Advancing Sample Identification and Traceability through the Digital Sample Pathway

Medical Affairs Manager *Megan Thomas* and Business Development Manager *Katie Dowson*

BD Specimen Management

Explore how BD Unique Sample Identification (USI) and the Digital Sample Pathway (DSP) enhance traceability, identification errors, and support pre analytical quality, while improving sustainability through more efficient, standardised workflows

16:00 - 17:30 SESSION 19

Biomarkers of chronic kidney disease

Chairs: Dr. *Jacob Rudjord Therkildsen* (Aarhus DK) and Associate professor *Søren Andreas Ladefoged* (Aarhus DK)

16:00 - 16:30

Biochemical assessment of kidney function/Which eGFR algorithm should be used?

Professor *Anders Larsson*

Department of Medical Sciences, Uppsala University, Uppsala, Sweden

16:30 - 17:00

New biomarkers of CKD — The unfulfilled promise?

Professor *Henrik Birn*

Department of nephrology, Aarhus University Hospital, Aarhus, Denmark

Over the past 20 years, numerous CKD biomarkers have been identified, but clinical practice still relies mainly on eGFR and albuminuria. Why are new biomarkers needed, and why have so many promising candidates failed to reach routine care? This talk examines the gap between discovery and implementation and discuss if next-generation biomarkers can advance precision nephrology.

17:00 - 17:30

Ammonium-pH index in urine – a measure of tubular function independent of GFR in chronic kidney insufficiency?

Postdoctoral researcher *Peder Matzen Berg*

Department of Biomedicine, Aarhus University, Aarhus, Denmark

The tubulointerstitial compartment constitutes most of the kidneys' tissue and is a key driver of chronic kidney disease progression. Yet no measure of tubular function is used in routine care. The urine ammonium-pH index, a composite of urine pH and ammonium, is a simple measure of kidney tubular function with potential to improve kidney function assessment and clinical care.

16:00 - 17:30 SESSION 20

From Algorithm to Insight: Practical Applications of AI in Diagnostics

Chairs: Associate professor *Anders Mønsted Abildgaard* (Aarhus DK) and Resident *Doctor Lea Tybirk* (Aarhus DK)

16:00 - 16:30

Creating large-scale AI solutions for prediction from population-wide EHR data

Professor *Søren Brunak*

Department of Public Health & Novo Nordisk Foundation Center for Protein Research, University of Copenhagen, Copenhagen, Denmark

16:30 - 17:00

Information-driven care: Some AI use cases

Professor *Mattias Ohlsson*

Computational Science for Health and Environment, Lund University, Lund, Sweden

17:00 - 17:30

Real-Time Identification of Pancreatic Cancer Cases Using Artificial Intelligence Developed on Danish Nationwide Registry Data

Clinical Data Science Specialist *Anders Bo Bojesen*

Department of Surgery, Aarhus University Hospital, Aarhus, Denmark

16:00 - 17:30 SESSION 21

Platelet function testing: old acquaintances and novel biomarkers

Chairs: Associate professor *Julie Brogaard Larsen* (Aarhus DK) and Associate professor *Johanne Andersen Højbjerg* (Aarhus DK)

16:00 - 16:30

Platelet function testing: State of the art

Associate professor *Peter Nissen*

Department of Clinical Biochemistry, Aarhus University Hospital, Aarhus, Denmark

16:30 - 17:00

Platelet micro-RNA: novel biomarkers in cardiovascular disease

Dr Oliver Pedersen

Department of Cardiology, Aalborg University Hospital, Aalborg, Denmark

17:00 - 17:30

TBA