



**MET Research Day**  
**24-25 Nov 2022**  
**Final Programme**

## PROGRAMME CONTAINS



### KEYNOTE SPEAKERS

Jeffrey Anker, Toni Seppälä,  
and Yannis Missirlis



### PRESENTATIONS

Selected set of MET  
research presentations



### PITCHING & POSTERS

topical highlights chosen  
from the abstracts



### EXHIBITION

Commercial exhibition  
in the Yellow Hall



# PROGRAMME

Parallel to the program of presentations we have two exhibitions that are open for all. Poster exhibition is open on both days and Commercial exhibition is open on Friday. No registration required.

EVENT	PLACE	OPEN (FOR ALL)
Poster exhibition	Arvo main lobby and the cafeteria area next to Visakorpi auditorium	from Thu 24th Nov 8:30 to Fri 25th Nov 16:00
Commercial exhibition	Arvo Yellow Hall	Fri 25th Nov 9:00-15:00

## Thursday 24 Nov 2022 (Jarmo Visakorpi auditorium)

08:30 Opening words:  
Vice President for research Tapio Visakorpi & Dean Seppo Parkkila  
Chair: Professor Pasi Kallio

### 08:45 SESSION 1

08:45 **Keynote: Professor Jeffrey Anker, Clemson University**  
**"The curious case of the flashing magnetic microsphere and other stories: Developing novel sensors for biomedical applications"**

Chair: Professor Jari Hyttinen

09:30 MET research presentations (à 10 min)  
Chair: Associate Professor Oommen P. Oommen

1. Satu Jäntti: Modular platform for epilepsy modelling
2. Ella Lampela: A novel, animal-free culturing setup for introducing vasculature into an engineered muscle bundle
3. Henna Lappi: The 3D bioprinted cardiac model: human induced pluripotent stem cell-derived in vitro model for cardiac disease modelling and drug screening
4. Annika Lämsivaara: Wastewater-based surveillance as a pandemic preparedness tool – A WastPan consortium research (TAU, THL and UH)
5. Paula Puistola: Multi-material 3D bioprinting of human stem cell -based corneal stroma
6. Anne Skogberg: SEM characterization of cell morphology on non-transparent porous materials

10:30 Posters and coffee



## 11:00 SESSION 2

### 11:00 Research highlights from MET (à 15 min)

Chair: Associate Professor Minni Änkö

1. Dr. Sanna Hagman: Human induced pluripotent stem cells as a model to study Multiple Sclerosis pathology
2. Dr. Teemu Haikarainen: Structure-based drug discovery
3. Dr. Emma Raitoharju: Epigenetic profiles reflecting non-communicable diseases in population based cohorts

### 11:45 Poster pitching session 1 (à 3 min)

Chair: Professor Andre Ribeiro

### 12:30 Posters and lunch

## 13:30 SESSION 3

### 13:30 Industry afternoon – Arranged by the GHW project funded by Pirkanmaan liitto

Chair: Associate Professor Antti Vehkaoja

### 15:00 Poster session 1 at the poster exhibition (90 min)

## Friday 25 Nov 2022 (Jarmo Visakorpi auditorium)

### 08:30 Opening words: Professor Pasi Kallio

## 08:45 SESSION 1

### 08:45 **Keynote: Professor (Tenure track) Toni Seppälä, Tampere University** **“Organoids and circulating tumor DNA in clinical and translational research of gastrointestinal cancer”**

Chair: Professor Katri Kaukinen

### 09:30 MET research presentations (à 10 min)

Chair: Dr. Jack Morikka

1. Joanna Ciantar: Difference in DNA methylation profiles between East and West Finns
2. Valeriia Dotsenko: Transglutaminase 2 (TG2) inhibitor ZED1227 protects gluten-induced intestinal damage in celiac disease: Transcriptomic analysis of a randomized gluten challenge study
3. Helka Kaunisto: Dynamics of antigen-antibody interactions in dermatitis herpetiformis
4. Saara Lehmusvaara: EpsH mediated extracellular DNA alterations sensitize mycobacteria to antibiotics



5. Reetta Nätkin: Adaptive and non-adaptive gene expression responses in prostate cancer during androgen deprivation
6. lisa Tujula: Glial co-culture on a chip for modelling MS disease-related neuroinflammation in vitro

10:30 Industrial exhibition and coffee

## 11:00 SESSION 2

### 11:00 **Keynote: Professor Yannis Missirlis, University of Patras** **“Controversies and key nano insights in long standing physiological and biological dogmas”**

Chair: Professor Minna Kellomäki

### 11:45 **MET research presentations (à 10 min)**

Chair: Associate Professor Karolina Louvanto

1. Arttu Autio-Kimura: The role of human endogenous retroviruses in immune and inflammatory conditions
2. Yuliya Basikhina: Mitochondrial dysfunction in immune cells leads to distinct transcriptomic changes and improved immune competence in *Drosophila*
3. Barbara Genocchi: Astrocytes drive structural network formation in neuron-astrocytes cocultures
4. Antti Laurikka: Inflammatory glycoprotein YKL-40 is elevated after coronary artery bypass surgery and correlates with leukocyte chemotaxis and myocardial injury, a pilot study
5. Mikael Marttinen: Determining the molecular consequences of Alzheimer’s disease non-coding risk loci in human microglia
6. Veronika Zapilko: Building zebrafish models of ETV6::RUNX1 B-cell leukemias for large-scale drug screens

12:45 Industrial exhibition, posters and lunch

## 13:30 SESSION 3

### 13:30 **Poster pitching session 2 (à 3 min)**

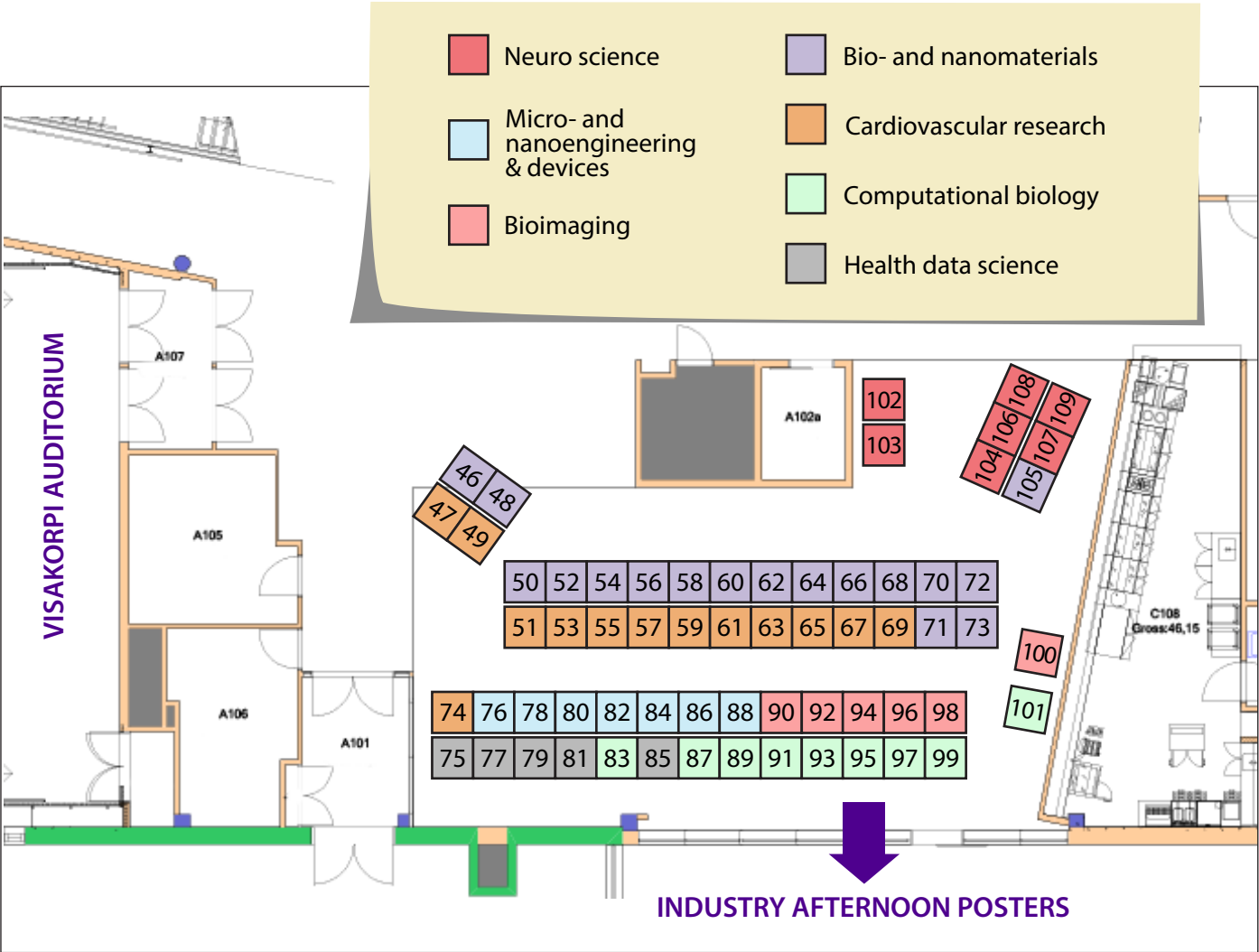
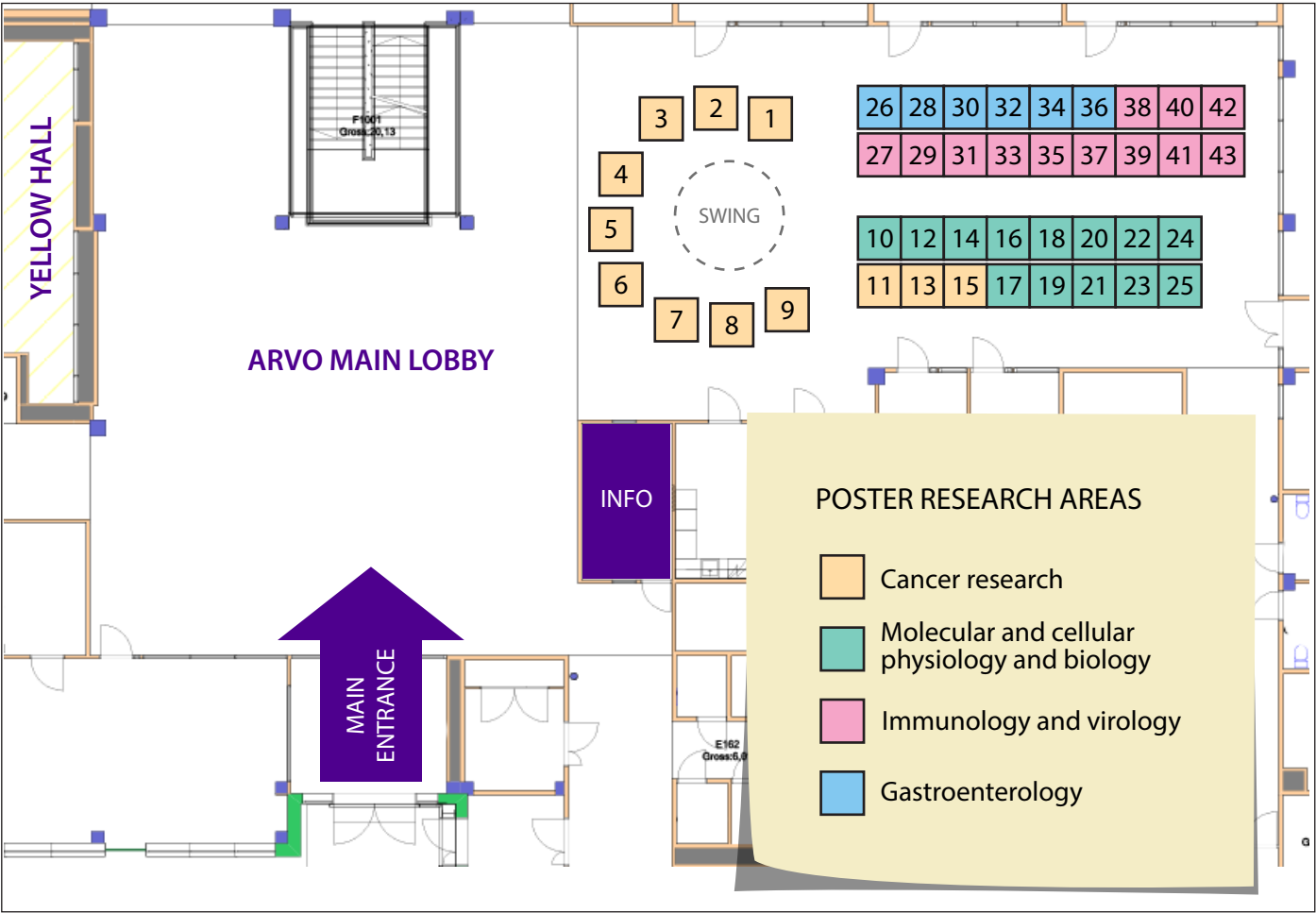
Chair: Dr. Aleksi Reito

### 14:15 **Best PhD thesis awards 2022, best publication award 2022 and education achievement award 2022**

Chair: Dean Seppo Parkkila

14:30 **Poster session 2 at the poster exhibition (90 min)**

POSTER EXHIBITION MAPS



# MET RESEARCH DAY COLLABORATORS

**FICANMid**  
SISÄ-SUOMEN SYÖPÄKESKUS

 Tays  
Syöpäkeskus  
[www.tays.fi/syopakeskus](http://www.tays.fi/syopakeskus)



Tampereen  
Biopankki



Neurocenter Finland  
Tampere Brain & Mind

Health Data  
Science

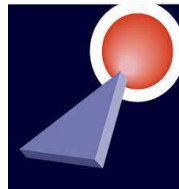
 **fisher** scientific  
part of Thermo Fisher Scientific

 **admescope**  
A SYMERES COMPANY

AH diagnostics

 **SARSTEDT**

**BIOTOP** JL



**BERNER**



Agilent Technologies

 **BioSite**

 **BioNordika**  
YOUR SCIENTIFIC SUPPLIER

 **TRIOLAB**

**10x**  
GENOMICS®

**PREMIX**

**ThermoFisher**  
SCIENTIFIC

software  
**point**  
A LABVANTAGE COMPANY



**Anton Paar**

**eppendorf**

 **MEDIQ**

**MERCK**

 **QIAGEN**



PIRKANMAA



**labnet**

 **LABOLINE**



**medfiles**  
SECURING A HEALTHIER TOMORROW

**VINGLAB**  
A PART OF VINGMED

**Granitics**

 **immuno**  
diagnostic oy

 **VWR**