

Medical Informatics Europe

**MIE 2024**



# **34<sup>th</sup> MEDICAL INFORMATICS EUROPE CONFERENCE**

Digital Health & Informatics  
Innovations for Sustainable  
Health Care Systems



**August  
25-29  
2024**

[www.mie2024.org](http://www.mie2024.org)

Eugenides Foundation  
**Athens, Greece**

## **FINAL PROGRAMME**

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# Welcome

## BY THE MIE 2024 PRESIDENT

Dear participants,

We extend a warm welcome to you at MIE 2024, taking place at the Eugenides Foundation in Athens. We have the privilege of welcoming participants from all continents from a significant number of countries with diverse backgrounds, such as medicine, nursing, informatics, engineering, and computer technologists, as well as managers, economists, biologists, social workers, and all allied healthcare disciplines.

The conference theme is “Digital Health and Informatics Applications for Sustainable Health Care Systems.” The scientific sessions include keynote speeches, panel discussions, workshops, demonstrations, and tutorials, as well as scientific oral and poster sessions where you can share your expertise and experiences with other attendees. The conference offers a unique opportunity to understand the digital health and informatics applications that are revolutionising the global healthcare system.

The EFMI community welcomes all international colleagues who selected the MIE 2024 for sharing their international experiences with all of us.

We are looking forward to welcoming you to Athens with its unique heritage and culture, and we hope that you will find the appropriate time to visit the monuments in the city of democracy’s birthplace.

On behalf of the MIE2024 SPC,



**Professor John Mantas**  
MIE 2024 SPC Chair



# CONFERENCE TITLE

## “Digital Health and Informatics Innovations for Sustainable Health Care Systems”

The scientific program will consist of keynote speeches by distinguished scholars, peer reviewed oral presentations, e-poster presentations, panel discussions, workshops, demonstrations, and tutorials fostering the advancement of Biomedical and Health Informatics across the globe.



Professional Congress Organizer



# SCIENTIFIC PROGRAMME COMMITTEE

## CHAIR

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### **Professor John Mantas, PhD**

FGBHI, H.M. RAMS, FACMI, FEFMI  
FIAHSI Health Informatics Lab, National  
and Kapodistrian University of Athens,  
Greece

## CO-CHAIR

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### **Professor Arie Hasman, PhD**

FGBHI, FACMI, FEFMI, FIAHSI  
Department of Medical Informatics,  
Amsterdam UMC, location AMC,  
The Netherlands

## MEMBERS

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### **Professor George Demiris, PhD**

FACMI, FGBHI, FIAHSI  
Perelman School of Medicine, University of  
Pennsylvania, USA

### **Professor Dr. Dr. Michael Marschollek, MD**

FIAHSI, Peter L. Reichertz Institute for  
Medical Informatics, TU Braunschweig  
and Hannover, Medical School, Germany

### **Professor Kaija Saranto, RN, PhD**

FACMI, FAAN, FIAHSI  
President of IAHSI Department of Health  
and Social Management, University of  
Eastern Finland, Kuopio Campus, Finland

### **Professor dr Ivana Ognjanović, PhD**

Young EFMI chair, EFMI Exec  
Board member University of Donja  
Gorica, Montenegro

### **Prof. Arriel Benis, PhD**

EFMI Executive Officer, EFMI Exec  
Board Member Department of Digital  
Medical Technologies Holon Institute of  
Technology, Holon, Israel

### **Dr. Parisis Gallos, PhD**

EFMI Publications Officer, EFMI Exec Board  
Member, Greece

### **Professor Theodoros Arvanitis**

RT, DPhil, CEng, FRSM, FGBHI,  
Digital Health Technology, Dept. Electronic,  
Electrical & Systems Engineering,  
University of Birmingham, UK

### **Dr. Emmanouil Zoulias, PhD**

PhD, Health Informatics Lab, National and  
Kapodistrian University of Athens, Greece

### **Dr. Elisavet Andrikopoulou PhD**

PhD, Faculty of Technology, School of  
Computing, University of Portsmouth, UK

# KEYNOTE SPEAKERS

Monday 26 August 2024 | 09:15 am – 10:00 am



**George Demiris PhD, FACMI**

Mary Alice Bennett University Professor, Associate Dean for Research and Innovation, School of Nursing & Biomedical Informatics, Perelman School of Medicine, University of Pennsylvania



## **KEYNOTE LECTURE**

**Artificial Intelligence in Health and Aging:  
Considering New Models of Care ★**

Tuesday 27 August 2024 | 09:15 am – 10:00 am



**Professor Theodoros N. Arvanitis**

Digital Health Technology, Dept. Electronic, Electrical & Systems Engineering, University of Birmingham, UK



## **KEYNOTE LECTURE**

**Digital Health Innovations in the Provision of  
Sustainable, Quality Health and Social Care  
Services for Long-Term Conditions ★**

Wednesday 28 August 2024 | 09:15 am – 10:00 am



**Anne Moen, RN, PhD, FACMI, FIAHSI**

Professor at the Faculty of Medicine, University of Oslo, Norway, and adjunct Professor, Norwegian Center for eHealth Research, Tromsø, Norway



## **KEYNOTE LECTURE**

**Sustainable healthcare calls for digital support  
to personal health information management ★**

# Download the official Conference App

## 1 Conference App Download Instructions

Use your device to scan the QR Codes



ANDROID DEVICES



iOS DEVICES



## 2 Download The Event App by EventsAIR

## 3 When you are prompted for a code upon launching the App, insert **mie24**

In order to log in, tap the Log In icon and insert your email address and the 4-digit PIN that has been sent to you.



## Wifi

**Free WiFi** is available throughout the Eugenides Foundation premises

*Scan the QR*



# #MIE2024  
#EFMI

@EFMI-European  
Federation for  
Medical Informatics

[www.mie2024.org](http://www.mie2024.org)



# ABOUT ATHENS

A bustling, cosmopolitan metropolis, yet the cradle of democracy and civilization, Athens is central to economic, financial, industrial, political and cultural life of Greece. Standing at the crossroads of three continents, Greece's capital has been, due its geographical position, a melting pot of different cultures, which have come together throughout its long history and still do so today. It's the land of hospitality, known since ancient times, where Greek people give a warm welcome to every visitor traveling to Athens to catch up memories to a unique destination.



Athens is a modern European city with an old-town feel; ancient monuments fuse with a trendy, cosmopolitan scene. Masterpieces of significant architectural values stand tall today in a harmonious coexistence with impressive modern buildings. But, also, is an ideal congress destination, combining state-of-the-art infrastructure, excellent congress facilities and easy access from all over the world with world-class cultural attractions, modern amenities and diverse entertainment.

## Beat the Heat with **EXTREMA** Global Free App

Stay cool and safe during your stay in Athens for IGARSS 2024 with a free mobile app, designed to help you navigate the challenges of urban heat.

- ✓ Heat Health Risk Assessment
- ✓ Cooling spaces Locator
- ✓ Advice and Recommendations
- ✓ Cool routes Navigation via shaded streets

## **EXTREMA** Global Mobile App



Android Devices



iOS Devices

Scan the QR Codes to download the App



# ABOUT THE VENUE

## ABOUT EUGENIDES FOUNDATION

Founded in 1954 by Eugene Eugenides through his will, the Eugenides Foundation, has been a pillar contributing to the education of young people in Greece in the scientific and technical fields.

Apart from a Conference Center, the Eugenides Foundation, hosts a Planetarium and a Library, along with a Science and Technology Center, while they are also involved in Publications, Maritime Education giving Scholarships and Donations.



## EUGENIDES FOUNDATION LOCATION

387, Syggrou Avenue, 17564 Paleo Faliro, Athens, Greece

T. (+30) 210 94 69 600

W. <https://www.eef.edu.gr/en>

## HOW TO REACH THE VENUE

Reach the Eugenides Foundation by Public Transportation

please click [HERE](#) to see how to access Eugenides Foundation

## ACCESSIBILITY FOR INDIVIDUALS WITH DISABILITIES

The premises of the Eugenides Foundation are accessible and friendly to people with mobility impairment, sensory impairment and disabilities (entrance from 11 Pentelis Street) (accessibility chain).



# GENERAL INFORMATION A-Z

## A

### ACCESSIBILITY

The premises of the Eugenides Foundation are accessible and friendly to people with mobility impairment, sensory impairment and disabilities (entrance from 11 Pentelis Street) (accessibility chain).

### APP

#### Android devices

Search for The Event App by EventsAIR on PlayStore. When you are prompted for a code upon launching the App, insert **mie24**

#### iOS devices

Search for The Event App by EventsAIR on AppStore. When you are prompted for a code upon launching the App, insert **mie24**

In order to log in, tap the Log In icon and insert your email address and the 4-digit PIN that has been send to you.

## C

### CASH POINTS

A Piraeus Bank ATM machine is located in about 2 minutes walking distance from the Eugenides Foundation venue (Address: Leoforos Syggrou 383 & Pentelis 17 avenue). Banks in Greece operate daily form 08:00 to 14:00.

### CLOACKROOM

Cloackroom will be operating the following dates & hours: 25.08-28.08: 09:30-18:30 & 29.08: 08:00-14:00

### CONFERENCE DATES

Sunday, August 25, 2024	→ 09:30-20:00
Monday August 26, 2024	→ 08:00-20:00
Tuesday August 27, 2024	→ 08:15-20:00
Wednesday August 28, 2024	→ 08:15-20:00
Thursday August 29, 2024	→ 08:00-13:30

### CSR - CORPORATE SOCIAL RESPONSIBILITY & SUSTAINABILITY

MIE 2024 promotes CSR actions and initiatives which reflect our identity and sense of responsibility to society and people. MIE 2024 empowers the homeless with SHEDIA Magazine. We are supporting the homeless community through the sale of SHEDIA magazine. A dedicated booth will be available within the congress venue where delegates can purchase the magazine during breaks and networking sessions. This initiative provides a vital source of income and a platform for homeless individuals to share their stories and perspectives.

### CURRENCY / EXCHANGE

The Greek currency is euro (EUR). Exchange offices are located all around the city center

## E

### ELECTRICITY

The electrical power supply voltage in Greece is 220-240 Volts (US/Canada: 110-120 Volts).

### EMERGENCY PHONE NUMBERS

Police: 100  
Fire department: 199  
Medical emergency (ambulance): 166  
European emergency contact number (all the above): 112

### EXHIBITION OPERATING HOURS

Exhibitors are listed in the Sponsors and Exhibitors Acknowledgment Section and are indicated in Venue Floorplan. The exhibition will run during Conference dates and hours.

## F

### FOOD & BEVERAGES

Coffee and light lunches during official breaks are included in the delegates' registration fee and will be served in designated catering stations in Peristyle 1st Floor.

# GENERAL INFORMATION A-Z

## I

### INTERNET

Free Wi-Fi access will be available in all Conference areas throughout the Eugenides Foundation premises during MIE 2024. To get access online simply scan the QR below:



#### Alternatively:

- select EEF-WiFi\_5
- click and go to ARISTA EEF WiFi page
- and press continue.

## L

### LANGUAGE

English is the official language of MIE 2024. No simultaneous interpretation is provided.

## P

### PARKING

The Conference venue does not offer any parking space for delegates.

### PROCEEDINGS

The proceedings will be published by IOS Press in their open access series "Studies in Health Technology and Informatics". Volumes in the "Studies in Health Technology and Informatics" series are submitted (for evaluation) for indexing by MEDLINE/ PubMed; Web of Science: Conference Proceedings Citation Index – Science (CPCI-S) and Book Citation Index – Science (BKCI-S); Google Scholar; Scopus; EMCare.

## S

### SELF-CHECK-IN STATIONS

There will be Self Check-in service.

## T

### TAXI SERVICES

Delegates can hire online using apps such as Freenow or UBER (for taxis).

### TIME

Athens follows Eastern European Summer Time (UTC/GMT +3 hours) from mid-spring to mid-Autumn.

### TIPPING

In restaurants, hotels, taxis or other services, tipping is optional, and customized per case, depending on whether you are pleased with the service. Approximately 5% of the check is a good guideline.

## W

### WEATHER

The weather in August is usually bright and sunny with blue skies shining overhead. It's so sunny and warm, in fact, that the temperatures—which average about 90°F (32°C)—can sometimes feel sweltering. (August is actually one of the hottest months of the year).

# REGISTRATIONS

## BADGES

Registration badges will be used during MIE 2024. Participants will receive their badges upon check-in at the Registrations Desk. For identification purposes and admission to scientific sessions, participants are requested to wear their badges at all times. Admission to MIE 2024 areas will not be allowed without badge identification.

## CERTIFICATES OF ATTENDANCE

A Certificate of Attendance will be sent to all registered participants via email after completing a survey.

## REGISTRATION

The Registrations Desk and Onsite Secretariat is located on the Ground floor (Syggrou Avenue entrance).

### Operating dates & hours:

Sunday 25.08.2024	→ 08:30-20:00
Monday 26.08.2024	→ 08:00-20:00
Tuesday 27.08.2024	→ 07:15-20:00
Wednesday 28.08.2024	→ 07:30-20:00
Thursday 29.08.2024	→ 07:30-13:30

## REGISTRATION FEES

In-person (Physical) Attendance

CATEGORY	ONSITE FEE
EFMI Members*	750€
Non members	850€
Students**	300€

## Registration Documentation

\*EFMI MEMBERSHIP: EFMI membership requires someone to be a member of one of the national medical informatics association or one of the organizations that are members of EFMI. There is no individual membership. <https://efmi.org/members/>

\*\* Students are kindly requested to provide the Professional Congress Organizers with a valid student identity card through the online registration process.

## Registration Entitlements

### The fees include:

- ✓ Conference attendance
- ✓ Welcome Reception on Sunday, 25/8/2024
- ✓ Congress materials
- ✓ Access to Exhibition
- ✓ Coffee and lunch as per the daily programme of the conference





# PRESENTER GUIDELINES

## INSTRUCTIONS FOR SESSION CHAIRS / SPEAKERS / ORAL ABSTRACT PRESENTERS

Each full paper oral presentation is allocated a total of 10 minutes plus discussion, while short communication papers are presented in 5 minutes. Presenters are kindly requested to prepare their presentation accordingly, to ensure the smooth running of the conference program. The session chairs will make sure that each presenter is provided the same amount of time. The language of the conference is English and no simultaneous translation services will be provided.

Presentation files, in MS Powerpoint format, should be delivered to the Speaker Ready Room – preferably on the day before the session – and not later than during the morning of the day of the session, to ensure there is sufficient time to check and make any adjustments to the files. Speakers will not be able to use their own computers to present; they are also requested to be present at the session hall at least fifteen minutes before the scheduled opening time, to meet the chairs and converse on the session flow.

## INSTRUCTIONS FOR POSTER PRESENTERS

Poster presenters are required to be at the E-Posters Area during the session, to discuss their work with other attendees.

e-Posters will be available throughout Conference dates in one of the e-Poster stations in the venue, as well as in the mobile application.



# Social Events

## WELCOME RECEPTION

📍 Conference Venue - Eugenides Foundation @ Peristyle 2nd floor

📅 Sunday 25 August, 2024

🕒 19:00 – 20:00

👤 Casual

### Attendance:

included in registration entitlements.

### During The Welcome Reception:

There will be a modest gathering with finger food & wine.



## GALA DINNER

📍 Royal Olympic Hotel  
Ioannis Restaurant  
28-34, Athanasiou Diakou Str., 11743 Athens

📅 Tuesday August 27, 2024

🕒 21:00 – 00:00

👤 Cocktail Attire

👤 Paid ticket (88€ per person)

### Format:

Buffet dinner with colleagues in a relaxing atmosphere overlooking the Acropolis hill.



## TOURS IN ATTICA

Seize the opportunity and register for tours at the designated desk located within the conference center.

### Operating dates & hours:

Sunday 25.8.2024:

12:30 -13:30 & 18:15 -19:00

Monday 26.8.2024:

08:00 – 16:00



# CORPORATE SOCIAL RESPONSIBILITY

## EMPOWERING THE HOMELESS WITH SHEDIA MAGAZINE



Join us in making a positive impact at MIE 2024 by supporting the homeless community through the sale of SHEDIA magazine. A dedicated booth will be available within the congress venue where delegates can purchase the magazine during breaks and networking sessions. This initiative provides a vital source of income and a platform for homeless individuals to share their stories and perspectives.

## ABOUT SHEDIA AND THE INSP

SHEDIA is Greece's only street paper, sold by approved vendors from vulnerable groups, offering them a chance to earn a decent income and rebuild their lives. It plays a significant role in social integration and independent journalism, combating social exclusion and poverty. SHEDIA is part of the International Network of Street Papers (INSP), which unites over 112 street papers from 34 countries, reaching over 6,000,000 readers per publication and supporting more than 240,000 homeless individuals since 1994.



For more information about SHEDIA please click [HERE](#)



## SUNDAY 25 AUGUST

	BALLROOM	PERISTYLE 2 <sup>ND</sup> FLOOR
09:30–12:30	IMIA General Assembly	
13:30–18:30	EFMI Council	
19:00–20:00		Welcome Reception

## MONDAY 26 AUGUST

	AUDITORIUM	BALLROOM	CONFERENCE HALL
09:00–09:15	Opening Ceremony		
09:15–10:00	Keynote lecture George Demiris		
10:00–10:30	COFFEE BREAK		
10:30–12:00	<b>S1.1</b> – Artificial Intelligence in Medicine 1	<b>S1.2</b> – Interoperability and Standards 1	<b>S1.3</b> – Public Health Informatics 1
12:00–13:00	<b>S1.6</b> – Panel	<b>S1.7</b> – Health Technology 1	<b>S1.8</b> – Artificial Intelligence in Medicine 2
13:00–14:00	LUNCH BREAK		
14:00–15:30	<b>S1.11</b> – Artificial Intelligence in Medicine 3	<b>S1.12</b> – Artificial Intelligence in Medicine 4	<b>S1.13</b> – Clinical Informatics 1
15:30–16:00	COFFEE BREAK		
16:00–17:30	<b>S1.16</b> – Clinical Informatics 2	IAHSI Academy Meeting (by invitation)	<b>S1.17</b> – Interoperability and Standards 2
17:30–19:00	<b>S1.19</b> – Panel		<b>S1.20</b> – mHealth, Wearable Devices 1
19:00–20:00	<b>S1.23</b> – Short Comm	<b>S1.24</b> – Workshop EFMI Institutional Members	<b>S1.25</b> – Short Comm

## TUESDAY 27 AUGUST

	AUDITORIUM	BALLROOM	CONFERENCE HALL
08:15–09:15		<b>S2.1</b> – Workshop	<b>S2.2</b> – Tutorial
09:15–10:00	Keynote lecture Theodoros Arvanitis		
10:00–10:30	COFFEE BREAK		
10:30–12:00	<b>S2.5</b> – Sustainable Health Care Systems 4	<b>S2.6</b> – Short Comm	<b>S2.7</b> – Artificial Intelligence in Medicine 5
12:00–13:00	<b>S2.10</b> – Panel	<b>S2.11</b> – Panel	
13:00–14:00	LUNCH BREAK		
14:00–15:30	<b>S2.14</b> – Interoperability and Standards 3	<b>S2.15</b> – Sustainable Health Care Systems 6	<b>S2.16</b> – Artificial Intelligence in Medicine 6
15:30–16:00	COFFEE BREAK		
16:00–17:30	<b>S2.19</b> – Artificial Intelligence in Medicine 7	<b>S2.20</b> – Data Analytics and Big Data 2	<b>S2.21</b> – Public Health Informatics 2
17:30–19:00	<b>S2.24</b> – Clinical Informatics 3	<b>S2.25</b> – mHealth, Wearable Devices 2	<b>S2.26</b> – Sustainable Health Care Systems 7
19:00–20:00	<b>S2.29</b> – Panel	<b>S2.30</b> – Short Comm	<b>S2.31</b> – Panel
21:00–00:00	Gala Dinner		

# PROGRAMME OVERVIEW

## MONDAY 26 AUGUST

PERISTYLE 2 <sup>ND</sup> FLOOR	MEETING ROOM	PERISTYLE 1 <sup>ST</sup> FLOOR
<b>S1.4</b> – Data Analytics and Big Data 1	<b>S1.5</b> – Demonstration	e-Posters Display & Exhibition
<b>S1.9</b> – Sustainable Health Care Systems 1	<b>S1.10</b> – Workshop	
<b>S1.14</b> – Sustainable Health Care Systems 2	<b>S1.15</b> – Demonstration	
	<b>S1.18</b> – Demonstration	
<b>S1.21</b> – Health Technology 2	<b>S1.22</b> – Demonstration	
<b>S1.26</b> – E-learning and Education 1	<b>S1.27</b> – Workshop	

## TUESDAY 27 AUGUST

PERISTYLE 2 <sup>ND</sup> FLOOR	MEETING ROOM	PERISTYLE 1 <sup>ST</sup> FLOOR
<b>S2.3</b> – Sustainable Health Care Systems 3	<b>S2.4</b> – Workshop	
<b>S2.8</b> – Sustainable Health Care Systems 5	<b>S2.9</b> – Workshop	e-Posters Display & Exhibition
<b>S2.12</b> – Climate Crisis	<b>S2.13</b> – Workshop	
<b>S2.17</b> – Health Technology 3	<b>S2.18</b> – Bioethical issues and Security 1	
<b>S2.22</b> – Artificial Intelligence in Medicine 8	<b>S2.23</b> – Demonstration	
<b>S2.27</b> – Management of Information 1	<b>S2.28</b> – Demonstration	
<b>S2.32</b> – Short Comm	<b>S2.33</b> – Workshop	
Gala Dinner		



# PROGRAMME OVERVIEW

## WEDNESDAY 28 AUGUST

	AUDITORIUM	BALLROOM	CONFERENCE HALL
08:15–09:15		<b>S3.1</b> – Short Comm	
09:15–10:00	Keynote lecture Anne Moen		
10:00–10:30	COFFEE BREAK		
10:30–12:00	<b>S3.4</b> – Artificial Intelligence in Medicine 9	<b>S3.5</b> – Nursing Informatics	<b>S3.6</b> – Sustainable Health Care Systems 8
12:00–13:00	<b>S3.9</b> – Panel	<b>S3.10</b> – Panel	<b>S3.11</b> – Panel
13:00–14:00	LUNCH BREAK		
14:00–15:30	<b>S3.14</b> – Artificial Intelligence in Medicine 10	<b>S3.15</b> – Sustainable Health Care Systems 9	<b>S3.16</b> – Health Technology 5
15:30–16:00	COFFEE BREAK		
16:00–17:30	<b>S3.19</b> – Artificial Intelligence in Medicine 11	<b>S3.20</b> – Data Analytics and Big Data 4	<b>S3.21</b> – E-learning and Education 2
17:30–19:00	<b>S3.24</b> – Interoperability and Standards 5	<b>S3.25</b> – Bioethical issues and Security 2	<b>S3.26</b> – Clinical Informatics 4
19:00–20:00	<b>S3.29</b> – Panel	<b>S2.30</b> – Panel	<b>S3.31</b> – Short Comm

## THURSDAY 29 AUGUST

	AUDITORIUM	BALLROOM	CONFERENCE HALL
08:00–09:00	<b>S4.1</b> – Public Health Informatics 4	<b>S4.2</b> – Artificial Intelligence in Medicine 13	<b>S4.3</b> – Sustainable Health Care Systems 11
09:00–10:00	<b>Invited Tutorial:</b> The ICD-11 Framework and its IT systems provided by WHO	<b>S4.6</b> – Panel	
10:00–10:30	COFFEE BREAK		
10:30–12:15	<b>S4.9</b> – Artificial Intelligence in Medicine 14	<b>S4.10</b> – Sustainable Health Care Systems 13	<b>S4.11</b> – Artificial Intelligence in Medicine 15
12:15–12:30	BREAK		
12:30–13:30	Closing Ceremony		



## WEDNESDAY 28 AUGUST

PERISTYLE 2 <sup>ND</sup> FLOOR	MEETING ROOM	PERISTYLE 1 <sup>ST</sup> FLOOR
<b>S3.2</b> – Panel	<b>S3.3</b> – Data Analytics and Big Data 3	
<b>S3.7</b> – mHealth, Wearable Devices 3	<b>S3.8</b> – Workshop	e-Posters Display & Exhibition
<b>S3.12</b> – Workshop	<b>S3.13</b> – Health Technology 4	
<b>S3.17</b> – Public Health Informatics 3	<b>S3.18</b> – Workshop	
<b>S3.22</b> – Interoperability and Standards 4	<b>S3.23</b> – Artificial Intelligence in Medicine 12	
<b>S3.27</b> – Short Comm	<b>S3.28</b> – Sustainable Health Care Systems 10	
<b>S3.32</b> – Short Comm	<b>S3.33</b> – Workshop	

PERISTYLE 2 <sup>ND</sup> FLOOR	MEETING ROOM
<b>S4.4</b> – Panel	<b>S4.5</b> – Sustainable Health Care Systems 12
<b>S4.7</b> – Management of Information 2	<b>S4.8</b> – Workshop
<b>S4.12</b> – Interoperability and Standards 6	<b>S4.13</b> – Workshop

## DETAILED PROGRAMME

Time indicated in EEST (UTC+2h)

### DAY 1 Sunday, 25 August 2024

 Ballroom

09:30-12:30 IMIA General Assembly

12:30-13:30 COFFEE BREAK

 Ballroom

13:30-18:30 EFMI Council

18:30-19:00 COFFEE BREAK

 Peristyle 2nd Floor

19:00-20:00 Welcome Reception

### DAY 2 Monday, 26 August 2024

 Auditorium

09:00-09:15 Opening Ceremony

09:15-10:00 KEYNOTE LECTURE

Artificial Intelligence in Health and Aging: Considering New Models of Care  
George Demiris

10:00-10:30 COFFEE BREAK

 Peristyle 1st Floor

10:00-12:00 E-POSTERS DISPLAY & EXHIBITION

Initial Investigations into Physician Acceptance of Medical AI: Examining Trust, Resistance, Perceived Job Insecurity, and Usage Intentions  
Chia-Jung Chen, Chung-Feng Liu

Pitfalls of Artificial Intelligence in Medicine  
Bakheet Aldosari, Abdullah Alanazi

Multimodal model for predicting fetal acidosis in delivery room  
Byungjin Choi, Chang Eun Park, Jong Chan Park, Hye Jin Chang, Kyung Joo Hwang, Miran Kim, Sun Hyung Yum, Eunae Jo

Design and integration of an intelligent agent to a telemedicine platform, for the translation of exchanges between doctor and patient during teleconsultation: Methodology of design and technological choices  
Jonathan Kambire, Golo Seydou Barro, Pascal Staccini

A Concept for Integrating AI-based Support Systems into Clinical Practice  
Katja Hoffmann, Richard Gebler, Sophia Grummt, Yuan Peng, Ines Reinecke, Markus Wolfien, Martin Sedlmayr

August  
25-29  
2024

## DAY 2 Monday, 26 August 2024

Physicians' attitudes towards artificial intelligence: Results of the PEAK project  
**Sarah Negash, Jana Gundlack, Charlotte Buch, Timo Apfelbacher, Jan Christoph, Jan Schildmann, Thomas Frese, Rafael Mikolajczyk**

Network Insights of Dementia Comorbidities Based on Genetic Background  
**Fei-Hung Hung, Hsin Tung**

DATOS-CAT: OMOP-Common Data Model for the standardization, integration and analysis of population-based biomedical data in Catalonia  
**Aikaterini Lymperidou, Judith Martinez Gonzalez, Guillem Bracons Cucó, Santiago Frid, Rafael De Cid, Alberto Labarga**

Performance Evaluation of Commonly Used Portable Hemoglobin Sensors in Comparison to Clinical Test Results  
**Rafiqul Islam, Saori To, Rieko Izukura, Yoko Sato, Mariko Nishikitani, Kimiyo Kikuchi, Fumihiko Yokota, Subaru Ikeda, Nusrat Jahan, Ashir Ahmed, Masashi Miyazaki, Naoki Nakashima**

Online-survey study on the needs of former intensive-care patients for the development of a user-friendly app  
**Angelique Kurth, Denise Molinnus, Anne Mainz, Sven Meister, Johannes Bickenbach, Gernot Marx**

Linking Maternal and Child Health Data to Enhance Public Health Surveillance and Implement Sustainable Interventions  
**Brian E Dixon, Jill Inderstrodt, Daniel Riggins, John Price, Titus Schleyer, Shaun Grannis**

Development of a Digital Platform to Support Child Mental Health Care  
**Erin Rainosek, Stephen Whiteside, Bridget Biggs, Lilianne Gloe**

Enhancing Periodontal Treatment through the Integration of Deep Learning-Based Detection with Bayesian Network Models  
**Bhornsawan Thanathornwong, Kan Ouivirach, Patiwet Wuttisarnwattana, Mansuang Wongsapai, Siriwan Suebnukarn**

Converting entity-attribute-value data sources to OMOP's CDM: lessons learned  
**Florian Katsch, Rada Hussein, Georg Duftschmid**

Identifying patterns in long term CGM and insulin data - an explorative study  
**Iben Engelbrecht Giese, Morten Hasselstrøm Jensen, Thomas Kronborg, Therese Haagen Søndergaard, Stine Hangaard**

An Online Visual Elicitation Tool to Facilitate Conversations about Supportive Care in the Context of Cognitive Impairment  
**Anne Turner, Claire Child, Lyndsey Miller, Annie Chen**

Factors Influencing Facial Paralysis Recovery: A Retrospective Cohort Study Using Electronic Medical Records  
**EunKyoung Ahn, Yujin Choi, Suji Lee**

Insights into the Quality of Mobile Health Apps: Preliminary Results of an Analysis of MARS Scores  
**Hendrik Lef, Walter Swoboda, Johannes Schobel, Daniel Hieber, Felix Holl**

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### DAY 2 Monday, 26 August 2024

 Peristyle 1st Floor

#### 10:00-12:00 E-POSTERS DISPLAY & EXHIBITION

GameBus on FHIR

**Cunliang Geng, Alireza Khanshan, Pieter Van Gorp**

Real-World Data in Greece: Mapping the Papageorgiou General Hospital data to the OMOP Common Data Model

**Grigoris Papapostolou, Achilleas Chytas, Alexandros Rekkas, Maria Bigaki, Demetrios Zeimpekis, Lampros Dermentzoglou, George Tortopidis, Pantelis Natsiavas**

Mixed Reality in Medical Education - Introduction of a Practical Course Module

**Alexander Brenner, Yannik Warnecke, Michael Fujarski, Julian Varghese**

Digital Transformation of the Healthcare Sector in Africa: First Results from a Study on Success Factors and Barriers for the Implementation of mHealth in South Africa and Tanzania

**Felix Holl, Sandra Blessing, Felix Sukums, Peter Kuhn**

Advancing Healthcare Sustainability: Embracing MACH Architecture for Health IT System Transformation

**Tia Haddad, Pushpa Kumarapeli, Souheil Khaddaj, Sarah Barman, Simon de Lusignan**

Augmented Reality based Exergames for Persons with Intellectual Disability

**Antonio Martinez-Millana, Alejandro Gomez-Noe, Gunnar Hartvigsen, Henriette Michalsen, Audny Anke, Magnus Stellander, Dorthe Dybwad, Thomas Luzy, André Henriksen**

Precise Identification of Oral Cancer Lesions using Artificial Intelligence

**Patiwet Wuttisarnwattana, Mansuang Wongsapai, Sarit Theppitak, Jitjiraj Ittichaicharoen, Kritsath Warin, Bhornsawan Thanathornwong, Siriwan Suebnukarn**

A Pipeline for Real-Time Synchronization of Relevant Data in Pediatric Emergencies

**Michael Schmucker, Andreas Reiswich, Martin Haag**

Are You the Outlier? Identifying Targets for Privacy Attacks on Health Datasets

**Mehmed Halilovic, Thierry Meurers, Karen Otte, Fabian Prasser**

 Auditorium

#### 10:30-12:00 S1.1 - ARTIFICIAL INTELLIGENCE IN MEDICINE 1

**Chair: John Mantas**

User-centered development of explanation user interfaces for AI-based CDSS: Lessons learnt from early phases

**Ian-C. Jung, Maria Zerlik, Katharina Schuler, Martin Sedlmayr, Brita Sedlmayr**

Evaluating the Predictive Features of Person-Centric Knowledge Graph Embeddings: Unfolding Ablation Studies

**Christos Theodoropoulos, Natasha Mulligan, Joao H Bettencourt-Silva**

Enabling AI in radiology: Evaluation of an AI deployment process

**Line Silsand, Mari Kannelønning, Gro-Hilde Severinsen, Gunnar Ellingsen**

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Benchmarking Approaches: Time Series versus Feature-Based Machine Learning in ECG Analysis on the PTB-XL Dataset

Lucas Bickmann, Lucas Plagwitz, Julian Varghese

How Interoperability can enable Artificial Intelligence in Clinical Applications

Filip Rehburg, Adam S L Graefe, Miriam Hübner, Sylvia Thun

MedFrenchmark, a Small Set for Benchmarking Generative LLMs in Medical French

Amandine Quercia, Jamil Zaghir, Christian Lovis, Christophe Gaudet-Blavignac

 Ballroom

### 10:30-12:00 S1.2 - INTEROPERABILITY AND STANDARDS 1

Chair: Ivana Ognjanovic

Assessment of HL7 FHIR interoperability between EHR systems and the Survivorship Passport v2.0 platform to generate treatment summaries for childhood cancer survivors in six clinics: Preliminary testing results

Davide Saraceno, Catherine Chronaki, Giorgio Cangilioli, Anna-Liesa Filbert, Monica Muraca, Alessandra Berti, Rita Rielli, Nikos Thomopoulos, Lisa Knoerr, Diana Walz, Anke Neumann, Andrea Beccaria, Anna Aulicino, Brigitte Nicolas, Giacomo Cavalca, Anne Uyttebroeck, Maria van Helvoirt, Tom Brié, Erik Vanden Meersch, Ruth Ladenstein, Edit Bardi, Günter Schreier, Stefan Beyer, Markus Müllner-Rieder, María Teresa Tormo Alcañiz, Lucas Cervero Beltran, Jelena Rascon, Monika Kapitančukė, Justas Trinkunas, Eglė Stukaitė-Ruibienė, Paulius Ragauskas, Audronė Ciesiūnienė, Riccardo Haupt, Desiree Grabow

Digitalising Clinical Guidelines: the Challenge of Patient's Preference

Vije Rajput, Mette Kjer Kaltoft, Jack Dowie

Synergies Among Health Data Projects with Cancer Use Cases based on Health Standards

Amelie Gyrard, Philip Gribbon, Rada Hussein, Somayeh Abedian, Luis Marti Bonmati, Gibi Luisa Cabornero, George Manias, Gabriel Danciu, Stefano Dalmiani, Serge Autexier, Rick van Nuland, Mario Jendrosseck, Ioannis Avramidis, Eva Garcia Alvarez

Semantic interoperability of nursing data – Mapping an interface terminology to SNOMED CT

Renate Ranegger, Dieter Baumberger, Pero Grgic, Glorianna Jagfeld

Reformatted crosswalk-tables between annual ICD-10-versions for cross version data analysis

Tessa Ohlsen, Joshua Wiedekopf, Josef Ingenerf

 Conference Hall

### 10:30-12:00 S1.3 - PUBLIC HEALTH INFORMATICS 1

Chair: Arie Hasman

Nationwide Electronic Prescription Services in Finland in 2010–2023

Vesa Jormanainen

TikTok and YouTube Shorts by autistic individuals for increasing autism awareness

Hanna Sofie Berg Egge, Elia Gabarron



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#### 10:30-12:00 S1.3 - PUBLIC HEALTH INFORMATICS 1

Costs of health registries: an exploration for health services research

Jürgen Stausberg, Sonja Harkener, Martin Schönthaler

Understanding emotional dynamics in autism social media communities

Elia Gabarron, Enrique Dorronzoro, Octavio Rivera-Romero, Kerstin Denecke

Cluster-Based BERTopic Modeling on Swedish COVID-19 Vaccine Posts

Dimitrios Kokkinakis, Mia-Marie Hammarlin

A microbiology analytics tool to evaluate the burden of antibiotic-resistant infections

Moritz Grob, Christian Watzinger, Birgit Willinger, Florian Thalhammer, Walter Koller,  
Andrea Rappelsberger, Klaus-Peter Adlassnig

 Peristyle 2nd Floor

#### 10:30-12:00 S.1.4 - DATA ANALYTICS AND BIG DATA 1

Chair: Parisis Gallos

Monitoring variability of laboratory results in a Clinical Data warehouse using automatic dashboard

Morgane Pierre-Jean, Dalila Rabhi, Denis Delamarre, Claude Bendavid, Benoit Guillet,  
Guillaume Bouzillé, Marc Cuggia

How to accurately detect renal replacement therapy weaning in intensive care: Data quality and standardization considerations for the OMOP common data model

Benjamin Popoff, Boris Delange, Julien Kallout, Marc Cuggia, Thomas Clavier,  
Guillaume Bouzille

Multiple Logistic Regression Model for Assessing the Risk Factors of Traffic Accidents: Khon Kaen Model

Patcharawan Sujayanont, Wutjanun Muttitanon, Yann Chemin, Jaturong Som-Ard,  
Nantawan Tippayanate

Predicting Patient No-Shows: Situated Machine Learning with Imperfect Data

Christopher Gyldenkaerne, Jakob Grue Simonsen, Gustav From, Morten Hertzum

Unsupervised Learning of Eye State Prototypes for Semantically Rich Blinking Detection

Yuxuan Xie, Tim Büchner, Lukas Schuhmann, Orlando Guntinas-Lichius, Joachim Denzler

Predicting a Risk of Transition to a Higher Level of Care for Home Support Service Recipients

Junko Fukui Innes, Abdul Roudsari, Karen Courtney, Mary Ellen Purkis

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#### 10:30-12:00 S1.5 - DEMONSTRATION

Empowering Privacy-Preserving Research: Introducing the vantage6 Framework and GU

Djura Smits, Walter Baccinelli

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### 12:00-13:00 S1.6 - PANEL

Support for patient self-management and digital health literacy with more relevant health information

**Lene Lunde, Petter Hurlen, João Almeida, Jens Kristian Villadsen, Riccardo Leoni, Anne Moen**

 Ballroom

### 12:00-13:00 S1.7 - HEALTH TECHNOLOGY 1

**Chair: Ivana Ognjanovic**

How to tell whether patients engage and use a patient portal — an analysis of five features  
**Emil Aale Høeghermark, Julia Nemeth, Arild Faxvaag**

Enhancing Pulmonary Embolism Detection in COVID-19 Patients Through Advanced Deep Learning Technique

**Georgios Feretzakis, Konstantinos Dalamarinis, Dimitris Kalles, Chairi Kiourt, Georgios Pantos, Ioannis Papadopoulos, Spyros Kouris, Vassilios Verykios, George Ioannakis, Evangelos Loupelis, Aikaterini Sakagianni**

Use of TAM Questionnaire for Telemedicine and IT Healthcare Systems

**Maria Tsirintani**

INSAFEDARE Project: Innovative Applications of Assessment and Assurance of Data and Synthetic Data for Regulatory Decision Support

**Parisis Gallos, Nicholas Matragkas, Gregory Epiphaniou, Stuart Harrison, Marcel Haas, Giorgos Pappous, Simon Brouwer, Francesco Torlontano, Saadullah Farooq ABBASI, Omid Pournik, James Churm, John Mantas, Carlos Luis Parra-Calderón, Patrick Weber, Dimitrios Petkousis, Benjamin Dzingina, Chokri Mraidha, Carsten Maple, Jim Achterberg, Marco Spruit, Evi Saratsioti, Younes Moustaghfir, Theodoros N. Arvanitis**

 Conference Hall

### 12:00-13:00 S1.8 - ARTIFICIAL INTELLIGENCE IN MEDICINE 2

**Chair: Arie Hasman**

Comparing nnU-Net and deepflash2 for Histopathological Tumor Segmentation

**Daniel Hieber, Nico Haisch, Gregor Grambow, Felix Holl, Friederike Liesche-Starnecker, Rüdiger Pryss, Jürgen Schlegel, Johannes Schobel**

Secure Extraction of Personal Information from EHR by federated machine learning

**Mohamed El Azzouzi, Guillaume Bouzillé, Marc Cuggia, Gouenou Coatrieux, Reda Bellafqira**

Continuous, Learned Imputation of Missing Values in Parkinson's Disease

**Christopher Gundler, Monika Pötter-Nerger**

Initiating a One Digital Health Unified Terminology (ODH-UT) to Facilitate Community Expansion

**Helit Bauberg, Dana Nehama, Constantine Blinder, Roy Davidman, Eliyahu Cohen, Oscar Tamburis, Stefan Darmoni, Julien Grosjean, Arriel Benis**

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#### 12:00-13:00 S1.9 - SUSTAINABLE HEALTH CARE SYSTEMS 1

Chair: Joseph Liaskos

Optimizing the transition from written prescriptions into e-prescriptions in Germany

Marian Farh Danial Esskaros, Hamza Maatouk

A Greek Conversational Agent for Hematologic Malignancies: Usability and User Experience Assessment

Maria Chatzimina, Helen Papadaki, Charalampos Pontikoglou, Manolis Tsiknakis

Nordic citizens' willingness to share digital health data

Jeppe Eriksen, Camilla Bidstrup Hjermitslev, Jarmo Reponen, Gudrun Audur Hardardottir, Tuulikki Vehko, Arild Faxvaag, Christian Nøhr

Factors Influencing the Strategic Governance of EHR Interoperability: A Rapid Literature Review

Fuko Chiba, Alessia Nowak, Nicolas Frey, Sophie Anne Ines Klopfenstein, Falk Meyer-Eschenbach, Akira-Sebastian Poncette

 Meeting Room

#### 12:00-13:00 S1.10 - WORKSHOP

Improving the User Experience of User Experience Methodologies in Digital Health Tool Development

Liesbeth van den Berg, Romaric Marcilly, Thomas Engelsma, Linda Peute

#### 13:00-14:00 LUNCH BREAK

 Auditorium

#### 14:00-15:30 S1.11 - ARTIFICIAL INTELLIGENCE IN MEDICINE 3

Chair: John Mantas

Comparing Patient Perception and Physician's Records: Generative AI Performance Evaluation

Nattawipa Thawinwisan, Chang Liu, Kazumasa Kishimoto, Goshiro Yamamoto, Yukiko Mori, Tomohiro Kuroda

Exploring hospital overcrowding with an explainable time-to-event machine learning approach

Luca Marzano, Tobias Haraldsson, Harsha Krishna, Sven Lethval, Nina Falk, Patrik Bodeby, Jayanth Raghothama, Sebastiaan Meijer, Adam S. Darwich

Improving the Quality of Unstructured Cancer Data using Large Language Models: A German Oncological Case Study

Yongli Mou, Jonathan Lehmkuhl, Nicolas Sauerbrunn, Anja Köchel, Jens Panse, Daniel Truhl, Sulayman Sowe, Tim Brümmendorf, Stefan Decker

On Entity Embeddings for Ordinal Features as Representation Learning in Recurrence Prediction of Urothelial Bladder Cancer

Louisa Schwarz, Franz Rothlauf

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Term Candidate Generation to Enrich Clinical Terminologies with Large Language Models  
**Amila Kugic, Stefan Schulz, Markus Kreuzthaler**

Enhancing Asthma Self-Management with Environmental Passive-Monitoring Data and Machine Learning-Based Predictions  
**Kevin Tsang**

 Ballroom

### 14:00-15:30 S1.12 - ARTIFICIAL INTELLIGENCE IN MEDICINE 4 Chair: Michael Marschollek

Synthetic Generation of Patient Service Utilization Data: A Scalability Study  
**Joseph Howie, Sowmya Balasubramanian, Jonas Bambi, Kenneth Moselle, Venkatesh Srinivasan, Alex Thomo**

Healthcare LLMs Go to Market: A Realist Review of Product Launch New  
**Salma Sharifi, Morteza Namvar, Ali Intezari, Saeed Akhlaghpour**

A novel method and Python library for ECG signal quality assessment  
**Charles Berger, Hugues Turbé, Mina Bjelogrić, Christian Lovis**

Measured Performance and Healthcare Professional Perception of Large Language Models Used as Clinical Decision Support Systems: A Scoping Review  
**Solène Delourme, Akram Redjda, Jacques Bouaud, Brigitte Seroussi**

Exploring Explainable AI Techniques for Text Classification in Healthcare: A Scoping Review  
**Ibrahim Alaa Eddine Madi, Akram Redjda, Jacques Bouaud, Brigitte Seroussi**

 Conference Hall

### 14:00-15:30 S1.13 - CLINICAL INFORMATICS 1 Chair: Anne Moen

Leveraging Rule-Based NLP to Translate Textual Reports as Structured Inputs Automatically processed by a Clinical Decision Support System  
**Akram Redjda, Natallia Novikava, Emmanuelle Kempf, Jacques Bouaud, Brigitte Seroussi**

Toward a Patient-Centered Care Supporting System: Integration of Multidisciplinary Health Records in Breast Cancer Care  
**Atsuko Sugiyama, Kazuki Utsunomiya, Hayato Okumiya, Katsuhiko Fujimoto, Masaru Sanuki, Keitaro Kume, Takahiro Yano, Rina Kagawa, Hiroko Bando**

Similarity Analysis of Clinical Notes for Revealing Writing Styles in An Electronic Medical Record System  
**Wataru Murata, Chang Liu, Goshiro Yamamoto, Yukiko Mori, Tomohiro Kuroda**

Applying machine learning for prescriptive support: a use case with unfractionated heparin in intensive care units  
**Boris Delange, Guillaume Bouzillé, Isabelle Gouin, Yoann Launey, Alexandre Mansour, Marc Cuggia, Adel Maamar**



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### DAY 2 Monday, 26 August 2024

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#### 14:00-15:30 S1.13 - CLINICAL INFORMATICS 1

Mapping Medical Context: Workshop-Driven Clustering of Influencing Factors on Medical Decision-Making

**Katharina Schuler, Martin Sedlmayr, Brita Sedlmayr**

A Modular Service for Executing Containerized Algorithms in the Context of the Gaia-X Ecosystem

**Björn Filter, Florian Vierkant, Özgür Lütfü Özçep**

 Peristyle 2nd Floor

#### 14:00-15:30 S1.14 - SUSTAINABLE HEALTH CARE SYSTEMS 2

Chair: Arriel Benis

Digital Inertia: A Qualitative Study with a Caregiver Association Network about Informal Caregivers' Non-Use of IT Application

**Shweta Premanandan, Awais Ahmad, Åsa Cajander**

Semantic mapping of Named-Entities in openEHR templates and ad-hoc generation of compositions

**Nektarios Ladas, Stefan Franz, Dominik Wolff, Alina Rehberg, Michael Marscholke, Matthias Gietzelt**

Report from health professionals and cancer patients: Experiences and wishes from clinical practice about the integration of Quality of Life with an health app

**Chantal N. L. Beutter, Stephanie Berger, Uwe M Martens, Christian Fegeler**

Telemedicine and the digitalisation of health services - perspectives and overview of research

**Julia Sauter, Joanna Rogiewicz, Katarzyna Kozłowska, Ilona Lipka-Matusiak, Dariusz Trzmielak, Agata Bielecka-Dąbrowa**

FoPraNet-BW: An Infrastructure for Clinical Studies in Practice-based Research Networks in the German Health System

**Patrick Schmutz, Arthur Krauss, Sven Dörflinger, Arndt Becker, Roland Koch, Andreas Polanc, Elke Feil, Claudia Salm, Karin Scheeser, Frank Peters-Klimm, Christian Thies**

Univie: an App for Managing Digital Health Data of Refugees

**Ahmad Salah, Salah Alobid, Sahel Jalalzai, Denise Junger, Oliver Burgert**

 Meeting Room

#### 14:00-15:30 S1.15 - DEMONSTRATION

Empowering Cancer Patients for Self-Tracking Medication Safety During Transitions of Care

**Yue Yu, Yuheng Shi, Eric Yang, Katie Gahn, Heidi Mason, Yun Jiang, Yang Gong**

#### 15:30-16:00 COFFEE BREAK



## DAY 2 Monday, 26 August 2024

 Auditorium

### 16:00-17:30 S1.16 - CLINICAL INFORMATICS 2 Chair: Marianna Diomidous

Enhancing Clinical Practice: Creating Dynamic Medical Content in Electronic Medical Records  
**Mobin Yasini, Michael Dahlweid, Dennis Rausch, Lise Marin, Ingrid Hochheim, Irina Kozinova, Tracy McClelland, Laurent Gout, Gaurav Kumar**

Emergency Department Length of Stay Classification Based on Ensemble Methods and Rule Extraction

**Waqar Aziz, Andria Nicalaou, Charithea Stylianides, Andreas S. Panayides, Antonis Kakas, Efthymoulos Kyriacou, Constantinos S. Pattichis**

Sensor-based Fuzzy Inference of COVID-19 Transmission Risk in Cruise Ships

**Georgios Triantafyllou, Georgia Sovatzidi, George Dimas, Panagiotis Kalozoumis, Dimitris Drikakis, Ioannis Kokkinakis, Ioannis Markakis, Christina Golna, Dimitris Iakovidis**

Integrated Perspectives on Clinical Decision Support: A Comparative Analysis of Knowledge Management Approaches

**Moritz Grob, Robert A. Jenders, Andrea Rappelsberger, Klaus-Peter Adlassnig**

Decision Support in Cardiac Surgery: Early Exploration of Requirements with Cardiac Anesthetists and Surgeons

**Linda Lapp, Matt-Mouley Bouamrane, Marc Roper, Kimberley Kavanagh, Stefan Schraag**

Towards Efficient Value-Based Healthcare Measurement Across Hospital Care Pathways – A Scoping Review

**Denise Rodenburg, Monique Ardon, Marieke Sijm-Eeken**

 Conference Hall

### 16:00-17:30 S1.17 - INTEROPERABILITY AND STANDARDS 2 Chair: Elisavet Andrikopoulou

Protocol for a Validation Study of an Ontology of Administrable Dose Forms of Medicinal Products  
**Joseph Roumier, Robert Vander Stichele, Dirk van Nimwegen, Dipak Kalra**

Patient input into the electronic health record: co-designing solutions with patients and healthcare professionals

**Anna Dudkina, Sari Kujala, Maria Hägglund, Anna Kharko, Bo Wang, Hedvig Soone, Peeter Ross**

Knowledge base prototype creating with using interdisciplinary metathesaurus

**Pavel Astanin, Lev Ronzhin, Aleksandr Borisov, Anastasia Usova, Irina Potapova, Anna Budykina**

A proposal for a unifying model of quality management of healthcare

**Wouter Meijer**

Synthetic Data Generation in Hematology - Paving the Way for OMOP and FHIR Integration

**Waldemar Hahn, Najia Ahmadi, Katja Hoffmann, Jan-Niklas Eckardt, Martin Sedlmayr, Markus Wolfien**

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#### 16:00-17:30 S1.18 - DEMONSTRATION

An Online Clinical Dashboard Prototype for Predicting Postoperative Delirium  
**Niklas Giesa, Louis Agha-Mir-Salim, Nicolas Frey, Felix Balzer, Sebastian Boie**

 Ballroom

#### 16:00-19:00 IAHSI ACADEMY MEETING

 Meeting Room

#### 17:30-19:00 S1.19 - PANEL

The Role of Generative AI in Communicating with Patient Populations to Promote Engagement and Increase Access  
**George Demiris, Anne Turner, Sarah Iribarren**

 Auditorium

#### 17:30-19:00 S1.20 - MHEALTH, WEARABLE DEVICES 1 Chair: Theodoros Arvanitis

Unveiling the Potential of ChatGPT and YOLOv7 for Evaluating Children's Emotions Using their Artistic Expressions

**Uzair Shah, Sulaiman Khan, Mahmood Alzubaidi, Marco AGUS, Mowafa Househ**

Success Factors for Usability Testing of Digital Health Solutions

**Daniel Reichenpfader, Octavio Rivera-Romero, Kerstin Denecke**

User Engagement with the User Manuals of Smart Medical Wearable Technologies and Relevant Questions of User Behavior

**Aniko Simon, Qiu Xinyu, Ana Maksimovic, Melinda Talovics, Eszter Baranyai-Santa, David Berze, Viktoria Odor, Peter A. Kara**

Empowering Ageing with Ingenuity: A Scoping Review on the Methods and Technologies used into Elderly Health Monitoring

**Alexandros Moraitopoulos, Antonis Billis, Panagiotis Bamidis**

 Conference Hall

#### 17:30-19:00 S1.21 - HEALTH TECHNOLOGY 2 Chair: Maria Tsirintani

Developing a Help Desk Service for Enhanced Coordination in Health Informatics Projects: A Sharepoint and Power Automate Approach

**Omid Pournik, Bilal Ahmad, Shramika Gour, Ashley Peake, Chao Tong, James Churm, Theodoros N. Arvanitis**

Deep Learning-Based Synthetic Skin Lesion Image Classification

**Saadullah Farooq Abbasi, Muhammad Bilal, Teesta Mukherjee, James Churm, Omid Pournik, Gregory Epiphaniou, Theodoros N. Arvanitis**

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Serious Games in Orofacial Myofunctional Disorder Therapy for Children: an Expert Survey  
**Daniel Hieber, Anna Heindl, Maximilian Karthan, Felix Holl, Tobias Krüger, Rüdiger Pryss, Johannes Schobel**

Leveraging Clinical Data Treasures: Integration of an AI Platform into Clinical IT  
**Kfeel Arshad, Saman Ardalan, Björn Schreiweis, Bjoern Bergh**

Systematic collection of Acute Respiratory Infection clinical data from Primary Care computerised medical records to enable calculation of risk scores  
**G. Jamie, W. Elson, X. Fan, J. Macartney, J. Smylie, J. Ordonez-Mena, S. de Lusignan**

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### 17:30-19:00 S1.22 - DEMONSTRATION

Demonstration of an Ontology-based Approach Used in the DATOS-CAT Project for Adopting Common Data Models  
**Santiago Frid, Guillem Bracons Cucó**

 Meeting Room

### 19:00-20:00 S1.23 - SHORT COMM Chair: Joseph Liaskos

Standardizing X-Ray and Angiography Procedure Coding in Estonia: Validating TermX through the Implementation of SNOMED CT  
**Merit Marquis, Igor Bossenko, Peeter Ross**

Exploring user views on telemedicine to support cancer patients: Insights from focus group discussions in the context of the eCAN Joint Action  
**Anastasia Farmaki, Tugce Schmitt, Pantelis Natsiavas**

Feasibility of Calculating Indicators for Intensive Care Unit Antibiotic Use based on Routine Electronic Health Record Data  
**Daphne Stegink, Marie-José Roos-Blom, Dave Dongelmans, Nicolette F de Keizer**

Linking Dutch Intensive Care registry data to socioeconomic status scores  
**Daniëlle Koornneef, Sylvia Brinkman, Fabian Termorshuizen, Nicolette F de Keizer**

Enhancing Drug-Related Data Exchange: Advanced Technical Support for Information and Interoperability  
**Jean Nikiema, James Liang**

Data and process harmonisation of multi-national, multi-site research data  
**Jonathan Turner, Sinead Impey, Frances Gibbons, Anthony Bolger, Gaye Stephens, Lucy Hederman, Roghaiyeh (Ramisa) Gachpaz Hamed, Ferran De La Varga, John Kommala, Matthew Nicholson, Daniel Farrell, Miriam Galvin, Mark Heverin, Éanna Mac Domhnaill, Robert McFarlane, Dara Meldrum, Deirdre Murray, Orla Hardiman**

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### DAY 2 Monday, 26 August 2024

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#### 19:00-20:00 S1.24 - WORKSHOP EFMI INSTITUTIONAL MEMBERS

##### 1. Welcome & Introduction to the EFMI ATLAS Concept (7:00 - 7:10 PM)

**Moderator: Lars Lindsköld**

- Brief introduction to EFMI and the importance of the Institutional Members initiative.
  - Overview of the session's objectives and expected outcomes.
  - Introduction to the ATLAS Concept and its relevance to the EFMI community.
- Jacob Hofdijk

##### 2. The EFMI Knowledge Graph Project (7:10 - 7:30 PM)

**Presenter: Christophe Gaudet-Blavignac**

- Overview of the initiative, its objectives, and its roadmap.
- Presentation of the data currently available.
- Presentation of the student group.
- Introduction to the potential of the project for the EFMI ATLAS.

##### 3. Group Discussion: Exploring the Potential and Addressing Challenges (7:30 - 7:55 PM)

**Moderator: Lars Lindsköld**

*Participants will be divided into small groups to discuss the following key questions:*

- The potential of Knowledge Graphs:
- How do you see the added value of the ATLAS and KG project for institutional / working groups / national society members of EFMI?
- What could be the contribution from EFMI to the ATLAS project?
- How could the EFMI Knowledge ATLAS support interdisciplinary research and bridge gaps between academia / Healthcare providers and industry?
- Challenges and Drawbacks:
- What potential challenges exist in adopting Knowledge Graph technology within the EFMI community (e.g., technical, organizational, data privacy)?
- What might be the limitations of using Knowledge Graphs for visualizing and navigating the EFMI's scientific output?

##### 4. Next Steps & Closing Remarks (7:55 - 8:00 PM) / Lars Lindsköld

- Summary of key points and insights from the group discussions.
- Outline of the next steps for the EFMI Knowledge ATLAS project.
- Encouragement for continued engagement and participation in follow-up activities.



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19:00-20:00

### S1.25 - SHORT COMM

Chair: Mihaela-Marcella Crişan-Vida

Development of a Basal Insulin Titration System to Support Healthcare Providers in Treatment of People with Type 2 Diabetes: Preliminary Results

Camilla Heisel Nyholm Thomsen, Stine Hangaard, Thomas Kronborg, Peter Vestergaard, Ole Hejlesen, Morten Hasselstrøm Jensen

Intelligent Diabetes Telemonitoring for Patients on Insulin Therapy: a Randomized Controlled Trial Protocol

Camilla Heisel Nyholm Thomsen, Jannie Nørlev, Stine Hangaard, Morten Hasselstrøm Jensen, Sika Nuunu Slobodziuk Kristensen, Tinna Björk Aradóttir, Peter Vestergaard, Ole Hejlesen, Thomas Kronborg

Continuous monitoring by a wearable sensor did not enhance discharge decision-making in an acute admission ward: results of a randomized controlled trial

Niels Kant, Sjoerd H Garssen, Carlijn A Vernooij, Gert-Jan Mauritz, Mark V Koning, Frank H Bosch, Carine J.M. Doggen

The Influence of Self-Efficacy on Older Adults' Use of Mobile Health Applications

Kirsten Hannah Seerig, Kathrin Kim, Heiko Gewalt

Optimizing Data Extraction: Harnessing RAG and LLMs for German Medical Documents

Yingding Wang, Simon Leutner, Michael Ingris, Christoph Klein, Christian Hinske, Katharina Danhauser

Predicting epileptic seizures using biometric sensors – a pilot study protocol

Anja Davis Norbye, Erlend Hoftun Farbu, Gunnar Hartvigsen, André Henriksen

 Conference Hall

19:00-20:00

### S1.26 - E-LEARNING AND EDUCATION 1

Chair: Arriel Benis

Assessing Health Data Science Internships: A Comprehensive Study at the University of Lille  
Coline Andries, Ikram Ouddarour, Chloé Saint-Dizier, Benjamin Guinhouya, Antoine Lamer

Self-Reported Learning Strategies and Preferences in Health Informatics

Narjes Rohani, Michael Gallagher, Kobi Gal, Kasia Banas, Areti Manatakis

 Peristyle 2nd Floor

19:00-20:00

### S1.27 - WORKSHOP

Informatics to Promote Health Resilience to Climate Change and Pandemics

Sriram Iyengar, Wuleta Lemma, Jose Florez-Arango, Arletty Pinel



## DETAILED PROGRAMME

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### DAY 3 Tuesday, 27 August 2024

 Ballroom

**08:15-09:15 S2.1 - WORKSHOP**  
Enhancing nursing education and practice through e4nursing: an ontology-based software  
**Daniel Rodrigues, Ricardo Correia, Ernesto Morais**

 Conference Hall

**08:15-09:15 S2.2 - TUTORIAL**  
Crafting high-quality peer reviews of eHealth and Informatics research, with or without AI:  
A tutorial  
**Tiffany Leung, Mina Bjelogrljic, Pei-Yun Sabrina Hsueh, Donghua Tao, Shefali Haldar, Amaryllis Mavragani**

 Peristyle 2nd Floor

**08:15-09:15 S2.3 - SUSTAINABLE HEALTH CARE SYSTEMS 3**  
**Chair: John Mantas**  
  
Physicians' views of a digital intervention to support respiratory patients: Take-a-breath pre-pilot Usability Study  
**Panos Bonotis, Nikolaos Siopis, Antonios Lalas, Konstantinos Votis, Dimitrios Tzovaras, Pantelis Natsiavas**  
  
Preferences for injection device settings and the association with adherence to growth hormone treatment in patient with growth disorders  
**Paula van Dommelen, Octavio Rivera-Romero, Lilian Arnaud, Chantal Zucchiatti, Ekaterina Koledova**  
  
A hybrid-approach for Privacy Preserving Record Linkage - A case study from Germany  
**Max Ostermann, Igor Nesterow, Markus Wolfien**  
  
Real-time Visualization and Analysis Architecture for Data Integration Processes at Cologne University Hospital's Medical Data Integration Center  
**Md Mostafa Kamal, Ekaterina Kutafina, Oya Beyan**

 Meeting Room

**08:15-09:15 S2.4 - WORKSHOP**  
Towards a European Cancer Minimum Data Model and European Oncology FHIR Implementation Guide in the EHDS  
**Roberta Gazzarata, Catherine Chronaki, Giorgio Cangiolli, Eugenio Gaeta, Unai Zulaika, AnnaLisa Trama, Aurélien Jobard**


 Auditorium

**09:15-10:00 KEYNOTE LECTURE**  
Digital Health Innovations in the Provision of Sustainable, Quality Health and Social Care Services for Long-Term Conditions  
**Theodoros Arvanitis**

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## DAY 3 Tuesday, 27 August 2024

10:00-10:30 COFFEE BREAK

 Foyer 1st Floor

### 10:00-12:00 E-POSTERS DISPLAY & EXHIBITION Chair: John Mantas

Multi-source Data ETL (Extract, Transform, Load) for a Genetic Epilepsy Diagnosis and Treatment Dashboard

**Ariadna Pérez Garriga, Philipp Honrath, Stefan Wolking, Beatrice Coldewey, Susann A. Bozkir, Patrick May, Yvonne Weber, Rainer Röhrig, Myriam Lipprandt**

Investigation of Radiologist Diagnostic Difficulty Prediction without CT Images

**Kazumasa Kishimoto, Masahiro Yakami, Tomohiro Kuroda**

Prediction of Poor Glycemic Control in Children with Type 1 Diabetes

**Tanja Fredensborg Holm, Morten Hasselstrøm Jensen, Ole Hejlesen, Søren Hagstrøm, Mette Madsen, Stine Hangaard**

Harmonizing Microneurography Metadata with Local Data Hubs: A Concept

**Mayra Roxana Elwes, Barbara Namer, Alina Troglio, Toralf Kirsten, Oya Beyan, Ekaterina Kutafina**

Beyond Docker: Enhancing VANTAGE6 with Kubernetes for Federated Learning

**Héctor Cadavid, Cunliang Geng**

Intensive care quality indicators dashboard using OMOP CDM

**Boris Delange, Guillaume Bouzillé, Benjamin Popoff, Morgane Pierre-Jean, Adel Maamar, Marc Cuggia**

Developing a Sustainable Shared Child's Health Record in Low Resources Setting, Lao PDR

**Thepphouthone Sorsavanh, Yukiko Mori, Goshiro Yamamoto, Chang Liu, Tomohiro Kuroda**

GPT-based Model for Concise Summaries of Patient Health Information

**Zhi Chen, Masaharu Nakayama**

Machine Learning-Based Predictive Models for Early Detection of Cardiovascular Diseases: A Study Utilizing Patient Samples from a Tertiary Health Promotion Center in Korea

**Kanghyuck Lee, Seol Whan Oh, Taehoon Ko, Inyoung Choi, Sung-Hwan Kim**

Machine learning to predict the risk of malnutrition in hospitalized patients with pneumonia and analysis of related prognostic factors

**Mei Yuan Liu, May-I Sung, Chung-Feng Liu**

DESAM-ForNet Portal: A Novel Infrastructure to Integrate Distributed Information from Practice-Based Research Networks in the German Healthcare System

**Arndt Becker, Patrick Schmutz, Arthur Krauss, Roland Koch, Andreas Polanc, Leonor Heinz, Anna Niemeyer, Christian Thies**

RISKOCA: a Smartphone-based Digital Platform for Oral Cancer Self-examination

**Mansuang Wongsapai, Ekawit Jaidee, Bhornsawan Thanathornwong, Siriwan Suebnukarn, Patiwet Wuttisarnwattana**

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### DAY 3 Tuesday, 27 August 2024

 Foyer 1st Floor

#### 10:00-12:00 E-POSTERS DISPLAY & EXHIBITION

Analysis of Heart Rate Variability Characteristics of End-of-Life Patients Using Wearable Heart Rate Sensors

**Ying-Li Lee, Wan-Ting Hsieh, Hsin-Che Liu**

Sustainability in Participatory Health: Applying WHO's Operational Framework

**Carolyn Petersen, Guillermo Lopez-Campos**

Enhancing Outpatient Wound Care: Applying AI to Optimize Treatment of Patients with Diabetic Foot Syndrome – the EPWUF-KI Project

**Annika Weggen, Dirk Hochlenert, Mira Mertens, Kevin Cremanns, Cosku Gündogdu, Lars Gierschner, Timo Tromp, Hubert Otten**

Enhancing Healthcare Management: Assessing User Acceptance and Usability of the 'SmartCG' Mobile Application

**Niruwat Turnbull, Kannikar Hannah Wechkunanukul, Chanaphol Sriruecha, Nitchara Toontom, Kukiat Tudpor**

UNICOM Test Lab: Implementation of ISO's IDMP standards across the EU

**Haralampos Karanikas, Anargyros Gkogkidis, Alexander Berler, Nicole Veggiotti, Simone Diaco, Tommaso Foglia, Sofia Franconi, Giulio Spinozzi, José Costa Teixeira, Derek Ritz, Robert Stegwee, Zain Ishfaq, Marcello Melgara, Luca Garbarino**

A Conformal Prediction Approach to Enhance Predictive Accuracy and Confidence in Machine Learning Application in Chronic Diseases

**Christina Papangelou, Thomas Chatzikonstantinou, Kostas Stamatopoulos, Anastasia Chatzidimitriou, Evangelia Minga**

Integrating FHIR and UMLS in an Intelligent Tutoring System

**Nicolas Frey, Nina Haffer, Lennart Vogelsang, Julian Saß, Sylvia Thun, Felix Balzer, Philipp Landgraf**

From EHR to Machine Learning: a preliminary report on an ingestion pipeline based on JSON-LD

**Giulia Lucrezia Baroni, Vincenzo Della Mea, Gian Luca Foresti**

Key Research Areas for Building and Deploying a Common Data Model for an Intensive Medicine Data Space in Europe and Beyond

**Carlos Luis Parra-Calderón, Celia Alvarez-Romero, Silvia Rodriguez-Mejias, Kirsten Colpaert, Felix Balzer, Boris Delange, Marc Cuggia, Denis Delamarre, Christel Daniel, Maxim Moinat, Jan van den Brand, Michel van Genderen, Lucas Fleuren, Christian Jung**

Prediction of *A. baumannii* Amikacin resistance in clinical metagenomics

**Michael Aaron Sy, Mattia Prosperi, Serajian Mohammadali, Christina Boucher, Panagiotis Benos, Simone Marini**

Investigating Decision Factors Affecting Subjective Description Disclosure in Health Information Exchange in Japan

**Saki Hirayama, Yukiko Mori, Chang Liu, Goshiro Yamamoto, Tomohiro Kuroda**

Adapting a patient-centered tuberculosis digital adherence technology intervention for new patient populations

**Sarah Iribarren, Agnes Suyanto, Anne Turner**

## DAY 3 Tuesday, 27 August 2024

A web-based Questionnaire Builder to facilitate form management for the electronic data capture with REDCap

**Florian Auer, Verena Schmid, Frank Kramer**

Towards automatic migraine-event prediction using continuous sensor data

**Daniel Ursin, André Henriksen, Anja Davis Norbye, Erlend Hoftun Farbu**

Development and Testing of the WiseApp for Improving Medication Adherence Among Spanish Speakers

**Rebecca Schnall, Mina Halpern, Felix Olaya, Sergio Ozoria Ramirez, Pamela Baez Caraballo**

Contribution of a Tablet-Based Tests to the Diagnosis of Neurocognitive Disorders in Older Adults: a Feasibility Study

**Nathavy Um Din, Florian Maronnat, Quentin Le Boterff, Samir Otmame, Fadi Badra, Pålvel G. Lindberg, Joël Belmin**

 Auditorium

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### 10:30-12:00 S2.5 - SUSTAINABLE HEALTH CARE SYSTEMS 4 Chair: John Mantas

Elevating Patient Engagement: Implementing EHR-integrated medication reminders for kidney transplant patients

**Susan Oudbier, Linda Peute, Patty Teeuwisse, Juul Aarts, Sharon Janssen, Azam Nurmohamed, Ellen Smets, Hans Meij**

Detailed Insights into Basal Insulin Adherence in People with Type 2 Diabetes Using a Data-driven Assessment Method

**Jannie Nørlev, Thomas Kronborg, Ole Hejlesen, Morten Hasselstrøm Jensen, Peter Vestergaard, Stine Hangaard**

Identifying Reusable Core Assets of Digital Health App

**Richard May, Robin Glauser, Kerstin Denecke**

Smart FOX - Enabling Citizen-based Donation of EHR-standardised Data for Clinical Research in Austria

**Klaus Donsa, Karl Kreiner, Dieter Hayn, Angelika Rzepka, Sofia Ovejero, Michaela Topolnik, Andreas Ziegl, Bernhard Pfeifer, Sabrina Barbara Neururer, Saskia Kaltenbrunner, Elisabeth Klager, Kurt Zatloukal, Bernhard Zatloukal, Thomas Schabetsberger, Manuel Leal Garcia, Nikola Tanjga, Günter Schreier**

The Tromsø Study: lessons learnt about searching for information about health and illness

**Rolf Wynn, Gunnar Ellingsen, Lorena García Fernández, Vicente Traver, Johan Gustav Bellika, Sunday O. Oyeyemi, Elia Gabarron**

CLARA-MeD Tool – A System to Help Patients Understand Clinical Trial Announcements and Consent Forms in Spanish

**Leonardo Campillos-Llanos, Federico Ortega-Riba, Ana Rosa Terroba-Reinares, Ana Valverde-Mateos, Adrián Capllonch-Carrió**



## DETAILED PROGRAMME

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### DAY 3 Tuesday, 27 August 2024

 Ballroom

10:30-12:00

#### S2.6 - SHORT COMM

Chair: **Elisavet Andrikopoulou**

Translating between standardization and local fit in health information technology

**Charlotte Jonasson, Sidsel Villumsen, Jeppe Agger Nielsen**

Improving Clinical Documentation of Rare Neuromuscular Diseases: Development of a Standardised Information Model

**Elisabeth Nyoungui, Miriam Hübner, Elisabetta Gazzero, Jana Zschuentzsch, Dagmar Krefting, Josef Schepers, Richard Röttger**

Optimizing Integration with the Italian EHR: the use of LOINC Codes

**Ylenia Murgia, Mauro Cataldi, Maddalena Illario, Mauro Giacomini**

Modeling Rare Disease Datasets with ART-DECO

**Marco Schaarschmidt**

Enhancing Patient Care: Evaluating Clinical Utility in Measurement Instruments

**Eveline Prochaska, Elisa Henke, Martin Sedlmayr**

Developing a Change Readiness Survey for Health Technology Implementation

**Louis Agha-Mir-Salim, Merve Mükerrerem Sarica, Anne Rike Flint, Felix Balzer, Lina Mosch, Akira-Sebastian Poncette**

From Clinical Information Systems to Personalized Health Knowledge Graphs

**Sareh Aghaei, Remzi Celebi, Markus Kreuzthaler, Stefan Schulz**

 Conference Hall

10:30-12:00

#### S2.7 - ARTIFICIAL INTELLIGENCE IN MEDICINE 5

Chair: **Arie Hasman**

Beyond Tokens: Fair Evaluation of French Large Language Models for Clinical Named Entity Recognition

**Jamil Zaghir, Mina Bjelogrić, Jean-Philippe Goldman, Adel Bensahla, Yuanyuan Zheng, Christian Lovis**

Detection of Pharmaceutical Personal Protective Equipment in Video Stream

**Ksenia Balabaeva**

Multimodal Signal Fusion for Heartbeat Monitoring on eScooters

**Joana M. Warnecke, Himanshu Singh, Thomas Deserno, Alexander Picker, Nagarajan Ganapathy**

Explainable AI modeling in the prediction of cardiovascular disease risk

**Chara Skouteli**

Using Retrieval-Augmented Generation to Capture Molecularly-driven Treatment Relationships for Precision Oncology

**Kory Kreimeyer, Jenna V Canzoniero, Maria Fatteh, Valsamo Anagnostou, Taxiarchis Botsis**

Robust In-Vehicle Signal Quality Assessment Using Multimodal Signal Fusion

**Joana M. Warnecke, Laushya Senthilkumar, Julian Bollmann, Thomas Deserno**



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### 10:30-12:00 S2.8 - SUSTAINABLE HEALTH CARE SYSTEMS 5

Chair: Mauro Giacomini

Quality Assessment Framework of Clinical Routine Data for Secondary Use  
**Ka Yung Cheng, Ruwen Böhm, Claudia Bulin, Birgit Jandok, Björn Schreiweis**

Insights from the Implementation of Open Notes in Sweden  
**Åsa Cajander, Hilde Corneliussen, Morten Hertzum, Gunnar Ellingsen**

Privacy-Preserving Search on Medical Data  
**Britta Herres, Carolin Poschen, Konstantin Knorr**

Problem detection and optimization of a Personal Health Record driven by a help desk support tool  
**Lucila Bruchanski, Maria Florencia Grande Ratti, Carlos Otero, Fernando Plazzotta**

Dementia and Alzheimer's Disease Prevalence in Bulgaria during 2018: Nationally Representative Study  
**Evgeniy Krastev, Ralitsa Krasteva, Mario Fazli, Dimitar Tcharaktchiev**

Challenges of Integrating ICD 11 into Automatic Alerting Systems  
**Masresha Derese Tegegne, Maike Krips, Islam Ibrahim, Thomas Deserno**

📍 Meeting Room

### 10:30-12:00 S2.9 - WORKSHOP

EU-HIP workshop: Towards Interoperability with HERA's IT Platform  
**Emanuel Brađaćević, Line Andreassen Saele, Persephone Doupi, Pikka Jokelainen**

📍 Auditorium

### 12:00-13:00 S2.10 - PANEL

Women's Health Gap in the Real World: Informatics-driven strategies, innovations, and best practices to improve health equity  
**Anne Moen, Xinxin Zhu, Catherine Chronaki, Pei-Yun Sabrina Hsueh, Elena Petelos, Elaine Huesing, Brigitte Seroussi**

📍 Ballroom

### 12:00-13:00 S2.11 - PANEL

Inclusive Design and Co-Creation in Patient Education: Best Practices and Opportunities to Innovate  
**Carolyn Petersen, Panagiotis Bamidis, Kerstin Denecke, Elia Gabarron, Eleni Louizou**

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### DAY 3 Tuesday, 27 August 2024

 Peristyle 2nd Floor

**12:00-13:00 S2.12 - CLIMATE CRISIS**  
Chair: George Mihalas

Towards Efficient Resource Utilization Forecasting in Acute Heat Events using OMOP  
**Jakob Thiel, Igor Nesterow, Martin Sedlmayr, Jens Weidner, Elisa Henke**

Initiating a One Digital Health Unified Terminology (ODH-UT) to Facilitate Community Expansion  
**Helit Bauberg, Dana Nehama, Constantine Blinder, Roy Davidman, Eliyahu Cohen, Oscar Tamburis, Stefan Darmoni, Julien Grosjean, Arriel Benis**

 Meeting Room

**12:00-13:00 S2.13 - WORKSHOP**  
Accepting and Challenging Generative AI for Medical Informaticians: the Future of Education and Research  
**Thomas Engelsma, Liesbeth van den Berg, Martijn G. Kersloot, Linda Peute**

**13:00-14:00 LUNCH BREAK**

 Auditorium

**14:00-15:30 S2.14 - INTEROPERABILITY AND STANDARDS 3**  
Chair: Michael Marschollek

Challenges and Lessons Learned in Mapping HL7 v2 Data to openEHR: Insights from UKSH Medical Data Integration Center

**Michael Anywar, Mário Macedo, Santiago Pazmino, Benjamin Kinast, Tobias Bronsch, Ann-Kristin Kock-Schoppenhauer, Björn Schreiweis**

Linking Health Terminologies: A Unified Approach to the WHO Family of International Classifications

**Samson Tu, Ann-Helene Almborg, Andrea Martinuzzi, Vincenzo Della Mea, Kathy Giannangelo, Christopher Chute, Cassandra Linton, Ronald Cornet, Can Celik, Robert Jakob**

Active learning pipeline to identify candidate terms for a CDSS ontology

**Xia Jing, Rohan Goli, Keerthana Komatineni, Shailesh Alluri, Nina Hubig, Hua Min, Yang Gong, Dean Sittig, Paul Biondich, David Robinson, Christian Nøhr, Arild Faxvaag, Adam Wright, Timothy Law, Lior Rennert, Ronald Gimbel**

Advancing Healthcare Research through Live-Data Integration: Implementing IEEE 11073 and FHIR in Clinical Environment

**Tobias Hillmer, Kathrin Riech, Simon Gisch, Björn Schreiweis, Bjoern Bergh, Hannes Ulrich**

Development and Implementation of Clinical Decision Algorithms for Oncology

**Kees Ebben, Thijs Van Vegchel, Marieke Massa, Matthijs Sloep, Jurrian van der Werf**

Development and Implementation of Standardized, Structured Clinical Reporting for Oncology

**Kees Ebben, Astrid Swinkels, Marijke Dermois, Jurrian van der Werf, Lonneke Vermeulen**

## DAY 3 Tuesday, 27 August 2024

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### 14:00-15:30 S2.15 - SUSTAINABLE HEALTH CARE SYSTEMS 6

Chair: Ronald Cornet

Comparing NER approaches on French clinical text, with easy-to-reuse pipelines

**Adrien Coulet, Thibault Hubert, Ghislain Vaillant, Olivier Birot, Camila Arias, Antoine Neuraz**

Exploring Greek population attitudes towards using health-related websites for managing their health

**Niki Kokkinaki, Vassiliki Koufi, Emmanouil Zoulias, Flora Malamateniou**

Machine Learning with Clinical and Intraoperative Biosignal Data for Predicting Cardiac Surgery-Associated Acute Kidney Injury

**Changho Han, Sarah Soh, Hyun Il Kim, Jong Wook Song, Dukyong Yoon**

Video Consultations and Environmental Sustainability - Usability's impact on long-term use

**Irene Muli, Åsa Cajander, Hania Rahimi-Ardabili, Marina Taloyan, Maria Hägglund**

Integrating Chatbot Functionality in a Patient Summary based Healthcare System

**Aliki Vasili, Eirini Schiza, Christos Schizas, Constantinos S. Pattichis**

Using Natural Language Processing on Expert Panel Discussions to Gain Insights for Recruitment, Retention and Intervention Adherence for Online Social Support Interventions on a Stage II-III Clinical Trial among Hispanic and African American Dementia Caregivers

**Michelle Odlum, Soyoung Moon, Peter Broadwell, Niya Huang, Frederick F. Sun, Dante Tipiani, Nicole Davis, Milea Kim, Sunmoo Yoon**

 Conference Hall

### 14:00-15:30 S2.16 - ARTIFICIAL INTELLIGENCE IN MEDICINE 6

Chair: Anne Moen

Route Planning for Intra-Hospital Patient Transportation using Metaheuristics and Mixed Integer Linear Programming

**Saran Karthikeyan, Sasanka Potluri**

A Road Map of Prompt Engineering for ChatGPT in Healthcare: A Perspective Study

**Shahabedin Abhari, Somayeh Fatahi, Ashish Saragadam, Dmytro Chumachenko, Plinio P. Morita**

Explaining Deep Learning Models Applied in Histopathology: Current Developments and the Path to Sustainability

**Cătălin-Mihai Pesecan, Lacramioara Stoicu-Tivadar**

AI4Work Project: Human-centric Digital Twin Approaches to Trustworthy AI and Robotics for Improved Working Conditions in Healthcare and Education Sectors

**Ilias Maglogiannis, Filimon Trastelis, Parisis Gallos, Andreas Menychtas, Christos Panagopoulos**

Enhancing Patient Empowerment and Health Literacy: Integrating Knowledge Graphs with Language Models for Personalized Health Content Delivery

**Christine Kakalou, Christina Karamanidou, Theodore Dalamagas, Manolis Koubarakis**

Unobtrusive Monitoring of Clinical Deterioration in Smart Homes

**Sharareh Rostam Niakan Kalhori, Mozhgan Tanhapour, Thomas Deserno**

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#### 14:00-15:30 S2.17 - HEALTH TECHNOLOGY 3

Chair: Thomas Deserno

Assessing the Performance of Deep Learning for Automated Gleason Grading in Prostate Cancer

**Dominik Müller**, Philip Meyer, Lukas Rentschler, Robin Manz, Daniel Hieber, Jonas Bäcker, Samantha Cramer, Christoph Wengenmayr, Bruno Märkl, Ralf Huss, Frank Kramer, Iñaki Soto-Rey, Johannes Raffler

Deep Learning based Automatic Fibroglandular Tissue Segmentation in Breast Magnetic Resonance Imaging Screening

**Gülsüm Pehlivan**, Mathias Wild, Julia Baumgartl, Dennis Hartmann, Nina Ditsch, Frank Kramer, Dominik Müller

Quality Assessment for Secondary Use of Imaging Trials

**Friederike Seyderhelm**, Felix Balzer, Maria Bosserdt, James Bowden, Marc Dewey, Bernhard Föllmer, Norman Zerbe, Dagmar Krefting, Heiko Tzschätzsch, Alaa Bejaoui

Adapting Gamification Strategies According to Targeted Health Behavior Change: Findings from a Focus Group

**Frederic Ehrler**, Katherine Blondon

Exploration of Eye-tracking Methodologies in Usability Testing of Digital Health Technology: A Rapid Review

**Liesbeth van den Berg**, Thomas Engelsma, Linda Peute

A Work-Sampling Approach for Assessing Adequate Availability of Computers on Hospital Wards

**Mirela Prgomet**, Johanna Westbrook

 Meeting Room

#### 14:00-15:30 S2.18 - BIOETHICAL ISSUES AND SECURITY 1

Chair: Kaija Saranto

Health Data Re-Identification: Assessing Adversaries and Potential Harms

**Thierry Meurers**, Lena Baum, Anna Christine Haber, Mehmed Halilovic, Birgit Heinz, Vladimir Milicevic, Diogo Telmo Neves, Karen Otte, Anna Pasquier, Poikela Maija, Maryam Sheykholeslami, Felix Nikolaus Wirth, Fabian Prasser

Providing Provenance in eHealth

**Silvia Llorente**, Jaime Delgado, Daniel Naro, Nikolaos Fotos

Developing an Open-Source, User-Friendly, OWASP-Compliant Architecture for Healthcare Web Application Testing

**Ylenia Murgia**, Jaime Delgado, Mauro Giacomini

A Data Pipeline for Enhancing Quality of MAUDE-Based Studies

**Yuheng Shi**, Yue Yu, Yubo Feng, Yang Gong

Federated Electronic Health Records Using a Blockchain

**John Chelsom**, Luis Marco-Ruiz, Øivind Skeidsvoll Solvang, Sonja Cassidy, Ove Lintvedt, Conceição Granja, Terje Solvoll



## DAY 3 Tuesday, 27 August 2024

Reuse of Adverse Effect Reports from the French National Agency of Medicines: A Visual Analytic Tool to Improve Patient Safety

**Chloé Saint-Dizier, Florian Dufrenois, Emeric David, Maxime Bubrovsky, Antoine Lamer**

15:30-16:00 COFFEE BREAK

 Auditorium

### 16:00-17:30 S2.19 - ARTIFICIAL INTELLIGENCE IN MEDICINE 7 Chair: Michael Marscholke

Childhood Cancer Survivorship Passport Challenges in the European Health Data Space  
**Roberta Gazzarata, Michael Strübin, Catherine Chronaki, Giorgio Cangioli, Davide Saraceno, Günter Schreier, Stefan Beyer, Florian Trauner, Gerald Gredinger, Ruth Ladenstein, Ismay de Beijer, Giacomo Cavalca, Justas Trinkunas, Lucas Cervero Beltran, Mark Vanautgaerden, Ann-Kristin Kock-Schoppenhauer, Anke Neumann, Monica Muraca, Anna-Liesa Filbert, Riccardo Haupt, Desiree Grabow**

Earth Observation And Geoinformatics To Monitoring The Environmental Status Of Urban Streams Inextricably Linked To People's Mental Health  
**Efstratios Kokolakis, Eleni Kokinou, Catherine Chronaki, Anne Moen, Gora Datta**

Assessing the Reliability of Machine Learning Explanations in ECG Analysis through Feature Attribution  
**Lucas Plagwitz, Lucas Bickmann, Antonius Büscher, Julian Varghese**

On the Fidelity-Privacy Tradeoff of Synthetic Cancer Registry Data  
**Philipp Röchner**

Balancing Acts: Tackling Data Imbalance in Machine Learning for Predicting Myocardial Infarction in Type 2 Diabetes  
**Berk Ozturk, Tom Lawton, Stephen Smith, Ibrahim Habli**

Deep Learning-based Prediction of Daily COVID-19 Cases using X (Twitter) Data  
**Nourhan Ahmed, Khansa Saeed, Jeevitha Lora Rodrigues, Maha Naeem, Andrea Correa, Chairungroj Sanaboon, Sharareh Rostam Niakan Kalhori, Thomas Deserno**

 Ballroom

### 16:00-17:30 S2.20 - DATA ANALYTICS AND BIG DATA 2 Chair: Theodoros Arvanitis

Leveraging FHIR in Federated Learning Environments: A Data Harmonization Framework for Cohort Studies  
**Héctor Cadavid, Bauke Arends**

Variations in Dispensing Psychotropic Drugs to Adolescents Depending on School Periods: A French Nationwide Retrospective Study  
**Chloé Saint-Dizier, Julian Betremieux, Emmanuel Chazard, Maxime Bubrovsky, Antoine Lamer**

Privacy-Preserving Workflow for the Cross-Border Federated Analysis of Clinical Data  
**Miroslav Puskaric, Balasubramanian Chandramouli, Thomas Osmo, Roy Gusinow, Chiara Dellacasa, Elisa Rossi, Salvatore Cataudella, Anna Górska, Eugenia Rinaldi**



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#### 16:00-17:30 S2.20 - DATA ANALYTICS AND BIG DATA 2

Temporal Characterization and Visualization of Revolving Therapy-Events in Lung Cancer Patients

Jonas Hügel, Donata Antonia Schäfer, Jan Janosch Schneider, Jiazi Tian, Hossein Estiri, Raphael Koch, Tobias Raphael Overbeck, Ulrich Sax

SIMpat: a synthetic benchmark for similarity metrics on patient representations

Jean-Virgile Voegeli, Mina Bjelogrić, Christophe Gaudet-Blavignac, Richard Dubos, Myriam Zimmermann, Adel Bensahla, Yuanyuan Zheng, Julien Ehrsam, Christian Lovis

Harnessing the Power of Machine Learning and Electronic Health Records to Support Child Abuse and Neglect Identification in Emergency Department Settings

Maxim Topaz, Ashley Blanchard, Paritosh Kulkarni, Shahad Althobaiti, Betina Idnay, Desmond U. Patton, Kenrick Cato

 Conference Hall

#### 16:00-17:30 S2.21 - PUBLIC HEALTH INFORMATICS 2

Chair: Christian Lovis

Surveillance of Disease Outbreaks Using Unsupervised Uni-Multivariate Anomaly Detection of Time-Series Symptoms

Atiye Sadat Hashemi, Mirfarid Musavian Ghazani, Mattias Ohlsson, Jonas Björk, Dominik Dietler

An open information model-based repository for sustainable re-use of heterogeneous pandemics research data

Kristina Scheuermann, Philip Hufeland

Security and privacy in physical activity chatbots on social media: A scoping review

Dillys Larbi, Elia Gabarron, Paolo Zanaboni, Rolf Wynn, Eirik Årsand, Kerstin Denecke

Harnessing the Core Propagation Phenomenon Ontology to Develop a Knowledge Graph for Tracking Health-Related Phenomena

Gabriel H. A. Medeiros, Lina F. Soualmia, Cecilia Zanni-Merk

Open Data-driven Decision Making: Observations from COVID-19 Minimal Essential Data, Canton Zürich, Switzerland

Candice Louw

 Peristyle 2nd Floor

#### 16:00-17:30 S2.22 - ARTIFICIAL INTELLIGENCE IN MEDICINE 8

Chair: Paris Gallos

Evaluating ChatGPT 4.0's User Satisfaction Among Doctors Across Different Medical Departments

Loukas Triantafyllopoulos, Georgios Feretzakis, Lazaros Tzelvels, Aikaterini Sakagianni, Vassilios Verykios, Dimitris Kalles

## DAY 3 Tuesday, 27 August 2024

Explainable Machine Learning based Prediction of Severity of Heart Failure using Primary Electronic Health Records

**Rajarajeswari Ganesan, Simon C. Habraken, Frans N. Van De Vosse, Wouter Huberts**

Proposing an AI passport as a mitigating action of risk associated to Artificial Intelligence in Healthcare

**Juan M Garcia-Gomez, Vicent Blanes Selva, Ascensión Doñate-Martínez**

Exploring the Intersection of AI and Inclusive Design for People with Disabilities

**Sabine Fernandez, Damanjot Singh, Vaibhav Sawhney, Sabine Fernandes, Yahya El-Lahib, Rachel Gorman**

Automatic classification of conclusions from multi-tracer reports of PET brain imaging in cognitive impairment

**Jean-Philippe Goldman, Jamil Zaghir, Pablo Jané, Eliluan Pirazzo Andrade Teixeira, Débora Elisa Peretti, Valentina Garibotto, Christian Lovis**

Demystifying XAI: Requirements for Understandable XAI Explanations

**Jan Stodt, Christoph Reich, Martin Knahl**

 Meeting Room

### 16:00-17:30 S2.23 - DEMONSTRATION

FAIR principles for AI models: demonstration of an open-source platform for FAIR reporting of AI models

**Johan van Soest, Sander van Essel, Carlos Aguilera Medina, Chris van der Lans, Shashank Chakravarthy, Yenisel Plasencia Calaña, Judith Kamalski, Andre Dekker**

 Auditorium

### 17:30-19:00 S2.24 - CLINICAL INFORMATICS 3

Chair: Thomas Deserno

PICO to PICOS: Weak Supervision to Extend Datasets with New Labels

**Anjani Dhrangadhariya, Gaetano Manzo, Henning Mueller**

Efficient Clinical Information Extraction from Breast Radiology Reports in French

**Jamil Zaghir, Belinda Lokaj, Karen Kinkel, Amal-Dahila Djema, Hugues Turbé, Mina Bjelogrić, Valentin Durand de Gevigney, Jérôme Schmid, Christian Lovis, Jean-Philippe Goldman**

An integrated pipeline for phenotypic characterization, clustering and visualization of patient cohorts in a rare disease-oriented clinical data warehouse

**Xiaoyi Chen, Junyuan Wang, Carole Faviez, Xiaomeng Wang, Marc Vincent, Rosy Tsopra, Anita Burgun, Nicolas Garcelon**

Utilizing generalized linear mixed effects models for prediction of bone mineral decrease after lung transplant – a preliminary study

**Ronnie Sebro, Mahmoud Elmahdy**

Assessment of Follow-Up for Pulmonary Nodules from Radiology Reports with Natural Language Processing

**Kento Sugimoto, Shoya Wada, Shozo Konishi, Katsuki Okada, Keisuke Nakashima, Yasushi Matsumura, Toshihiro Takeda**

## DETAILED PROGRAMME

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### DAY 3 Tuesday, 27 August 2024

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#### 17:30-19:00 S2.24 - CLINICAL INFORMATICS 3

Comparison of imputation methods for categorical real-world prostate cancer data with natural order

Susanne Schmitt, Franz Rothlauf

 Ballroom

#### 17:30-19:00 S2.25 - MHEALTH, WEARABLE DEVICES 2 Chair: Theodoros Arvanitis

Revolutionizing Physical Activity: How Private Sector Physicians Harness Mobile Apps for Enhanced Health Outcomes

Hind Berrami, Zineb Boubekri, Fatima Zahra Mouzoune, Adelin Niyonsaba, Fatima Ezzahra Bouriss, Manar Jallal, Zineb Serhier, Mohammed Bennani Othmani

Implementation and scale up of telemonitoring in the Netherlands

Harm Gijbers, Linda Peute, Tom van de Belt, Marlies Schijven

An In-Depth Exploration of Mapping openEHR and PGHD: A Case Study on Fitbit-Generated Data

Somayeh Abedian, Rada Hussein, Sten HANKE, Perscha Severin, Michael Djouris, Christian Taucher

Optimizing Remote Health Monitoring for Digital Platforms: Evaluating the Efficacy of Gamification in Enhancing Data Collection

Michele Atzeni, Luca Cossu, Martina Vettoretti, Giacomo Cappon

An Iterative Approach to Usability Evaluation: A Workplace Wellness Mobile Application Example

Janessa Griffith, Helen Monkman, Sydney Penner, Kamilla Karoli, Cameron Stockdale

Evaluating the Usability of a Telehealth System for People with COPD: A Cross Sectional Study

Julie Egmose, Sisse Heiden Laursen, Flemming Witt Udsen, Lisa Korsbakke Emtækær Hæsum, Thomas Kronborg, Ole Hejlesen, Stine Hangaard

 Conference Hall

#### 17:30-19:00 S2.26 - SUSTAINABLE HEALTH CARE SYSTEMS 7 Chair: Arie Hasman

Never mind the codes of conduct. DARE you to tackle ethics in software development for eHealth

Julia Krumme, Linda Wienands, Alexandra Teynor

Data Quality in Medical Real-World Data – An Oncological Use Case

Julia Gehrmann, Oya Beyan

Social and Web Data Framework for Understanding Loneliness

Hurmat Ali Shah, Mowafa Househ

Physicians' Experiences of EHR Technical Quality: Results from Four Large Cross-Sectional Surveys in 2010–2021

Tinja Lääveri, Johanna Viitanen, Jarmo Reponen, Jari Renko

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## DAY 3 Tuesday, 27 August 2024

From Theory to Practice: Practical Applications of the MOLD-US framework  
**Thomas Engelsma, Monique Jaspers, Linda Peute**

Tunable Privacy Risk Evaluation of Generative Adversarial Networks  
**Bayrem Kaabachi, Farah Briki, Bogdan Kulynych, Jérémie Despraz, Jean Louis Raisaro**

 Peristyle 2nd Floor

### 17:30-19:00 S2.27 - MANAGEMENT OF INFORMATION 1 Chair: **Jacob Hofdijk**

Towards autonomous living meta-analyses: a framework for automation of systematic reviews and meta-analyses  
**Anna Górska, Evelina Tacconelli**

Improving health information systems data quality in sub-Saharan Africa  
**Bry Sylla, Léon Gueswendé Blaise Savadogo, Gayo Diallo**

Public Availability of Data Management and Analysis Scripts of Studies Conducted on Open-Access Intensive Care Databases  
**Coline Andries, Benjamin Popoff, Paul Quindroit, Ikram Ouddarour, Antoine Lamer**

Towards regional population health management: A Prospective Analysis Using the Adjusted Clinical Groups Classification  
**Felix Cillessen, Jacob Hofdijk, Pim Steenbergh**

Sustainability in Secondary Use of Health Data - A Scoping Review  
**Tim Kilgus, Alessia Nowak, Martin Gersch, Daniel Fürstenau**

Information Platform for Antibiotics  
**Ankica Babic**

 Meeting Room

### 17:30-19:00 S2.28 - DEMONSTRATION

Modernizing Clinical Decision Support: Introducing ArdenSuite Enhanced with Arden Syntax on FHIR  
**Moritz Grob, Leonhard Hauptfeld, Klaus-Peter Adlassnig**

 Auditorium

### 19:00-20:00 S2.29 - PANEL

Meeting the Editors of Biomedical Informatics Journals: a perspective on research publications  
**Heimar Marin, Suzanne Bakken, George Demiris, Yu-Chuan (Jack) Li, Sabine Koch, Mor Peleg**



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### DAY 3 Tuesday, 27 August 2024

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19:00-20:00

#### S2.30 - SHORT COMM

Chair: **Elisavet Andrikopoulou**

Assessing the proficiency of LLMs with various tasks and evaluator

**Tong Min Kim, Youngrong Lee, Chansik Kim, Taehoon Ko**

Well-tempered medical prompt engineering for explainable extubation

**Sujung Lee, Won Ik Cho, Chansung Park, Taehoon Ko**

Quality Assessment of Brain MRI Defacing Using Machine Learning

**Sina Sadeghi**

Automation of Trainable Datasets generation for Medical-Specific Language Model: using MIMIC-IV discharge notes

**Youngrong Lee, Chansik Kim, Taehoon Ko**

Distributed ledger-based system to support health data integrity and transparency

**Marten Kask, Gunnar Piho, Peeter Ross**

Towards a FHIR-based Framework for Analyzing Nursing-related Data in smaller sized Care Facilities

**Steffen Netzband, Dominik Müller, Stefanie Meyer, Jeton Iseni, Frank Kramer**

How do Cancer Patients Keep Track of Their Patient Journeys?

**Anna Grøndahl Larsen, Ingrid K. Ledel Solem, Line Melby, Ragnhild Halvorsrud**

 Conference Hall

19:00-20:00

#### S2.31 - PANEL

Mitigating Epistemic Injustice through Health Informatics and Data Science Innovations: A Global Perspective

**Suzanne Bakken, Kenrick Cato, Anne Moen, Catherine Chronaki**

 Peristyle 2nd Floor

19:00-20:00

#### S2.32 - SHORT COMM

Chair: **Mihaela-Marcella Crişan-Vida**

A Decision Support Alert for Promoting Prophylactic Laxative Use with Clozapine

**Milan Sundermann, Susanna Every-Palmer, Paul Chin**

Tumor Board Visualization: Integrating Clinical and Laboratory Insights

**Akhila Abdulnazar, Markus Kreuzthaler, Stefan Schulz, Barbara Prietl, Laurin Herbsthofer**

User Experience Design for Intensive Care Alarm Management

**Anne Rike Flint, Patrick Heeren, Sophie Anne Ines Klopfenstein, Akira-Sebastian Poncette**

STOP-HCV-HCC Program: Privacy-preserving innovation to enable remote data access and analytics at federally qualified health centers in South Texas

**Catherine Craven, Raudel Bobadilla, Edward Yao, Caleb Castillo, Julio Cerroblanco, Alex Radunsky, Mamta Jain, Craig Gentry, Mikulas Plesak, Riddhiman Das, Gharib Gharibi**



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## DAY 3 Tuesday, 27 August 2024

Dementia Ontology Development to Facilitate Collection of High-quality Dementia Data  
**Ahjung Byun, Hyesil Jung**

A Precision Oncology Platform to Support Genotype-tailored Therapy Selection  
**Taxiarchis Botsis, Jonathan Spiker, Kory Kreimeyer, Maria Fatteh, Jamie Wehr, Mimi Najjar, Jessica Tao, Rena Xian, Nicole Imamovic, Ander Pindzola, Adrian Dobs, Jenna V Canzoniero, Valsamo Anagnostou**

 Meeting Room

### 19:00-20:00 S2.33 - WORKSHOP

What more can be done to implement remote patient monitoring? A workshop to define the research agenda

**Harm Gijsbers, Minke Holleboom**

 Royal Olympic Hotel "Ioannis" Restaurant

### 21:00-00:00 GALA DINNER

## DETAILED PROGRAMME

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### DAY 4 Wednesday, 28 August 2024

 Ballroom

**08:15-09:15 S3.1 - SHORT COMM**  
**Chair: Joseph Liaskos**

Unsupervised Extraction of Body Text from Clinical PDF Documents  
**Adel Bensahla, Jamil Zaghir, Christophe Gaudet-Blavignac, Christian Lovis**

Telemonitoring of COPD patients to evaluate the "Rome Proposal"  
**Petra Jacobson, Leili Lind, Hans Lennart Persson**

Digital Cognitive Test for Early Detection of Dementia  
**Olga Vasileiou, Haralampos Karanikas**

 Peristyle 2nd Floor

**08:15-09:15 S3.2 - PANEL**

Digital health: from pilotitis to pilotanic  
**Konstantinos Antypas, Line Melby, Aslak Steinsbekk, Torunn Hatlen Nøst, Anne Moen**

 Meeting Room

**08:15-09:15 S3.3 - DATA ANALYTICS AND BIG DATA 3**  
**Chair: John Mantas**

An LLM-based Visualization and Analysis Aid for a Secondary Use Clinical Data Platform  
**Sören Spiegel, Thore Wendt, Christopher Gundler, Frank Ückert, Layla Tabea Riemann**

From Data Mining of Public Sources to Clinical Decision Support in Personalized Medicine  
**Valeriya Vishnevskaya, Stefan Sigle, Christian Fegeler**

An Overview of Public Retinal Optical Coherence Tomography Datasets: Access, Annotations, and Beyond  
**Anastasiia Rozhyna, Gábor Márk Somfai, Henning Mueller, Manfredo Atzori**

Visualizing Nursing Narratives: An Evaluation of Latent Dirichlet Allocation Modeling for Care Reports  
**Martin Danler, Werner O Hackl, Sabrina B. Neururer, Lukas Huber, Bernhard Pfeifer**

 Auditorium

**09:15-10:00 KEYNOTE LECTURE**

Sustainable healthcare calls for digital support to personal health information management  
**Anne Moen**

**10:00-10:30 COFFEE BREAK**

## DAY 4 Wednesday, 28 August 2024

 Peristyle 1st Floor

### 10:00-12:00 E-POSTERS DISPLAY & EXHIBITION

HeXEHRs: FHIR-based cloud EHR services to support healthcare in depopulated areas driven by digital twin

**Tomohiro Sawa, Rytoa Sakurai, Kazuhiko Oh**

Harmonization of data across cohorts using standard terminologies

**Ahjung Byun, Sumi Sung, Jiyeon Yu, Eunsuk Chang, Hyeoun-Ae Park**

A Framework to Support the Standardized Management of Real-World Data

**Evangelia Minga, Thomas Chatzikonstantinou, Theodore Dalamagas, Kostas Stamatopoulos, Anastasia Chatzidimitriou**

Enhancing Medical Device Management with IoT Powerstrip

**Shintaro Oyama, Takanobu Otsuka, Yoshinori Ideno, Kosuke Shima, Hideki Miyagi**

Beating the Clock: A Prediction Model for timely Care in Emergency Departments

**Jonas Bienzeisler, Wiliam Hoy, Alexander Kombeiz, Mohamed Alhaskir, Rainer Röhrig, Raphael W. Majeed, Jenny Unterkofler, Behrus Puladi**

HL7 FHIR in Health Research: A FHIR Specification for Metadata in Clinical, Epidemiological, and Public Health Studies

**Thimo Hölter, Sophie Anne Ines Klopfenstein, Paula Josephine Mayer, Julian Saß, Sylvia Thun, Carina Nina Vorisek**

Data for AI in Congenital Heart Defects: Systematic Review

**Paula Josephine Mayer, Rasim Atakan Poyraz, Thimo Hölter, Sylvia Thun, Carina Nina Vorisek**

Developing an AI-Assisted Platform to Support Tuberculosis Care Delivery

**Sarah Iribarren, Weichao Yuwen, Martine De Cock**

Enhancing Healthcare Efficiency: Integrating ChatGPT in Nursing Documentation

**Chia-Jung Chen, Chia-Te Liao, Yu-Chen Tung, Chung-Feng Liu**

Rapid Deployment of a Pseudonymization Service in a Distributed Research Data Infrastructure – Lessons Learned

**Hamam Abu Attieh, Mehmed Halilovic, Thierry Meurers, Armin Müller, Diogo Telmo Neves, Fabian Prasser**

Environmental Geomarker to assess impact on hospitalization

**Kikue Sato, Taiki Furukawa, Daisuke Kobayashi, Shintaro Oyama, Yoshimune Shiratori**

Machine Learning upon RDF Knowledge Graphs for drug safety: a case study on Reactome data

**Kalliopi Kastampolidou, Pantelis Natsiavas, George Gavriliadis**

Development of an Austrian HL7 Member FHIR IG Supporting Medication Ordering, Prescription and Dispense Processes

**Matthias Frohner, Lilly Maria Tremel, Daniel Latikaynen, Annemarie Goldmann, Stefan Leipold, Herwig Loidl, Philipp Urbauer**

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### DAY 4 Wednesday, 28 August 2024

 Peristyle 1st Floor

#### 10:00-12:00 E-POSTERS DISPLAY & EXHIBITION

Design of a Digital Twin of the Heart for the Management of Heart Failure Patients

**Andrea Scotto, Noemi Giordano, Samanta Rosati, Gabriella Balestra**

The Effect of a Mobile-based Intervention on Physicians' Laboratory Test Ordering Behavior

**Fateme Shojaezadea, Zahra Meidani, Hossein Akbari, Ehasn Nabovat, Davood Kheirkhan, Felix Holl**

Reproducibility of Radiomic Features in Glial Brain Tumors

**Gleb Danilov, Alexander Shevchenko, Ramin Afandiev, Artem Batalov, Eduard Pogosbekyan, Natalia Zakharova, Svetlana Shugay, Igor Pronin**

The Effect of Antidepressants on Withdrawal in Patients with Alcohol Dependence:  
A Retrospective Study

**Crystal Tomlin, Peter Elkin, Kenneth Leonard, Prahalad Rangan, Shmuel Tiosano, Zackary Falls, Muhammad Piracha, Rachel Stephens**

Evaluating the Effectiveness of a Novel Personalized Health Education Approach for Hemodialysis Patients: A Four-Week Study Using a Widely-Used Communication App in Taiwan

**Yu Ting Lin, Cai-Mei Zheng, Kuo-Chin Hung, Hsuan-Chia Yang, Mei-Ling Zheng, Fei-Hung Hung, Chih-Wei Huang**

Advancing CPR Training with Virtual Reality: A Review

**Nikiema Delwendé Serge Lebian Wilfried, Golo Seydou Barro, Yves Marie Kévin Kantagba, Pascal Staccini**

Can Existing Cybersecurity Frameworks Secure Healthcare Data? Short Literature Review

**Muhammad Adnan, Ekaterina Kutafina, Oya Beyan**

Open digital health workshops – a model for mutual contact and knowledge exchange with the local community

**Gunnar Hartvigsen, Silje Paulsen, Ole Hejlesen, Clara Bender, Stine Hangaard, Eirik Årsand, Tina Rishaug, André Henriksen**

Reference Information Model and Interoperable Architecture for Digital Health Twins, position paper

**Fernando Portilla, Martin Gerdes, Frank Reichert, Georgi Chaltikyan**

Standardized reasons for consultations on a french telemedicine platform

**Bénédicte Melot, Florian Drouet, Céline Gérard, Bérénice Mahé, Samuel Cousin, Julie Salomon, Julien Grosjean, Catherine Duclos**

Designing a social snus cessation mobile application with an integrated AI function

**Eunji Lee, Alba Puyuelo Citoler**

Montenegrin Digital Academic Innovation Hub: experience in supporting digital health innovations

**Ramo Šendelj, Luka Lakovic, Christoph Reich, Manav Madan, Laszlo Bokor, Peter Kara, John Mantas, Emmanouil Zoulias, Martina Golob, Nataša Šimšić, Irena Orović, Jelena Terzic, Tanja Radusinović, Nada Rakocevic, Jevto Erakovic, Milovan Roganovic, Nataša Žugić, Marijan Marijanovic**



## DAY 4 Wednesday, 28 August 2024

The Role of Information and Communication Technologies (ICT) in Decision Making of Healthcare Protection Patients with Long Covid  
**Izet Masic**

 Auditorium

### 10:30-12:00 S3.4 - ARTIFICIAL INTELLIGENCE IN MEDICINE 9 Chair: Arie Hasman

Applying Large Language Models to Interpret Qualitative Interviews in Healthcare  
**Janna Hastings, Marie Wosny**

Causal Deep Learning for the detection of Adverse Drug Reactions: Drug-induced Acute Kidney Injury as a case study  
**Stella Dimitsaki, Pantelis Natsiavas, Marie-Christine Jaulent**

An overview of explainable AI studies in the prediction of sepsis onset and sepsis mortality  
**Andria Nicolaou, Charithea Stylianides, Waqar A. Sulaiman, Zinonas Antoniou, Lakis Palazis, Anna Vavlitou, Constantinos S. Pattichis, Andreas S. Panayides**

How trueness of clinical decision support systems based on machine learning is assessed?  
**Alex Poiron, Sandie Cabon, Marc Cuggia**

Multi-Objective Performance Optimization of Machine Learning Models in Healthcare  
**Maryam Moradpour, Zully Ritter, Anne-Christin Hauschild**

 Ballroom

### 10:30-12:00 S3.5 - NURSING INFORMATICS Chair: Patrick Weber

Large Language Models in Nursing Education: State-of-the-Art  
**Daniel Rodrigues, Ricardo Correia**

Development of a data model to predict nursing workload using routine clinical data  
**Dirk Hunstein, Lena Frischen, Madlen Fiebig**

Continuing Educational Program in Nursing Informatics for Greek Nurses  
**Joseph Liaskos, Sotirios Anagnostopoulos, Spyros Zogas, John Mantas**

Exploring delays in cardiac care processes through electronic health records  
**Laura-Maria Peltonen, Hanna von Gerich, Emmi Myllymäki, Julia Walsh, Matej Medvecký**

Nurses' experience of using an electronic medical records -OpenMRS module for the management of Hypertension and diabetes in Rwanda: a qualitative study  
**Isaac Ntakirutimana, Dieudonne Kayiranga, Augustine Muhirwa, Emmanuel Nkurunziza, Emmanuel Sibomana, Angelique Uwamahoro, Theophilla Igihozo, Amelie Ndoli, Emmanuel Niyonshuti, Eugene Rwubaka, Isidore Tuyishime, Emma Marie Umutoniwase, Michael Mugisha**

Acquiring Formal Knowledge to Support Episodic Evidence-Based Nursing Care  
**Shai Jaffe, Bruria Ben Shahr, Yuval Shahr, Ayelet Goldstein, Erez Shalom, Maya Slivanova, Efraim Rimon, Odeya Cohen**

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### DAY 4 Wednesday, 28 August 2024

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#### 10:30-12:00 S3.6 - SUSTAINABLE HEALTH CARE SYSTEMS 8

Chair: Theodoros Arvanitis

Challenges Implementing Patient and Public Involvement in a Digital Health Agile Project which Includes Research, Business and Software Development

**Tiia Yrttiaho, Guido Giunti, Minna Isomursu**

Digital Health in Brazil: trends and opportunities

**Luciana Portilho, Fabio Senne, Alexandre Barbosa, Heimar Marin**

Enhancing the Value of the BfArM's DiGA Directory: Strategies for Improved Usability and Stakeholder Satisfaction

**Ute von Jan, Lukas Rieländer, Urs-Vito Albrecht**

Towards building decision support tools for older adults at home: a qualitative analysis

**Claudia Lai, Paul Holyoke, Helen Monkman, Elizabeth Borycki, France Legare**

Data integration for a global deep-phenotyping registry for pulmonary hypertension – lessons learned

**Meike Tabea Funderich, Philipp Krieb, Werner Seeger, Raphael W. Majeed**

Towards Accountable E-health Policies in the Nordic Countries

**Arild Faxvaag, Jarmo Reponen, Tuulikki Vehko, Johanna Viitanen, Jeppe Eriksen, Sabine Koch, Christian Nøhr, Gudrun Audur Hardardottir**

 Peristyle 2nd Floor

#### 10:30-12:00 S3.7 - MHEALTH, WEARABLE DEVICES 3

Chair: Paris Gallos

Development of a Concourse for Two Q-Method Studies Exploring Perspectives of Patients with Multiple Sclerosis and Healthcare Professionals on the Use of Wearable Technology- Lessons Learnt

**Shemah Alsulami**

An eHealth Coaching Solution to Improve Transitional Care of Seniors with Heart Failure: Long-Field Trial

**Laetitia Gosetto, Julie Guebey, Christian Lovis, Ionut Anghel, Tudor Cioara**

Tracking Usage Patterns of a Mobile Application for Dementia Risk Assessment in Elderly Individuals

**Hannes Hilberger, Markus Bödenler, Sten Hanke**

Quality of Electrocardiography Recorded with Consumer Smart Shirts

**Paulo Haas, Nicolai Spicher, Joana M. Warnecke, Thomas Deserno**

DR.BEAT: Rule-based Algorithm for SCG Analysis without ECG Reference

**Marie Cathrine Pickert, Tabea Tharra, Ulf Kulau, Christoph Richter, Philip Zettner, Michael Marschollek, Klaus-Hendrik Wolf**

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## DAY 4 Wednesday, 28 August 2024

Empowering Citizens through Translated Patient Summary Access and Sharing in Digital Health Ecosystems

**Theodoros Solomou, Ionut - Cristian Canciu, Marios Christodoulou, Panayiotis Savva, Constantinos Yiasemi, Zinonas Antoniou, Ioannis Constantinou, Christos Schizas, Constantinos Pattichis**

Meeting Room

**10:30-12:00 S3.8 - WORKSHOP**  
FAIRness4FHIR: Aligning the FAIR data principles and HL7 FHIR profiling  
**Matthias Löbe, Celia Alvarez-Romero, Giorgio Cangioli, Catherine Chronaki, Sophie Anne Ines Klopfenstein, Carina Nina Vorisek, Carlos Luis Parra-Calderón**

Auditorium

**12:00-13:00 S3.9 - PANEL**  
Precision Care and Prevention in the Age of Deep Learning and Generative AI  
**Xinxin (Katie) Zhu, Yves Lussier, Christian Nøhr, Craig Kuziemsky, Jan Jensen, Peter Elkin**

Ballroom

**12:00-13:00 S3.10 - PANEL**  
Foundation Model and Electronic Health Records: A SWOT Analysis  
**Giovanna Nicora, Alessia Gerbasi, Lucia Sacchi, John Holmes, Riccardo Bellazzi**

Conference Hall

**12:00-13:00 S3.11 - PANEL**  
Reporting Guidelines for eHealth Research: Best Practices for Online Surveys, Randomized e-Trials, Implementation Reports, and Machine Learning Studies  
**Tiffany Leung, Khaled El Emam, Caroline Perrin Franck, Gunther Eysenbach**

Peristyle 2nd Floor

**12:00-13:00 S3.12 - WORKSHOP**  
"Research on the Format" – on the European EHR Exchange Format  
**Anne Moen, Catherine Chronaki, John Mantas, Henrique Martins**

Meeting Room

**12:00-13:00 S3.13 - HEALTH TECHNOLOGY 4**  
**Chair: Theodoros Arvanitis**  
  
What People Know vs. What They Should Know About Laboratory Reference Ranges  
**Dana Bailey, Leah MacDonald, Helen Monkman**  
  
Improving Interpretability of Leucocyte Classification with Multimodal Network  
**Manon Chossegros, Xavier Tannier, Daniel Stockholm**

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#### 12:00-13:00 S3.13 - HEALTH TECHNOLOGY 4

Integrated and Interoperable Platform for Detecting Masses on Mammograms

**Edouard Chatzopoulos, Sébastien Jodogne**

Challenges in Daily Computerized Assessment of Cognitive Functions of Post-COVID Patients

**Ann-Kathrin Knak, Mandy Roheger, Antje Wulff**

#### 13:00-14:00 LUNCH BREAK

 Auditorium

#### 14:00-15:30 S3.14 - ARTIFICIAL INTELLIGENCE IN MEDICINE 10

Chair: Thomas Deserno

How Data Infrastructure Deals with Bias Problems in Medical Imaging

**Feifei Li, Ekaterina Kutafina, Mirjam Schöneck, Liliana Lourenco Caldeira, Oya Beyan**

Comparison of Ensemble Learning methods for classification in cancer registries

**Nico Schult, Timo Wolters, Marc Hermes, Klaas Dähmann, Andreas Hein**

Accelerating Clinical Text Annotation in Underrepresented Languages: A Case Study on Text De-Identification

**He Xu, Valentin Loftsson, Bogdan Kulynych, Bayrem Kaabachi, Jean Louis Raisaro**

Comparative Analysis of Macular and Optic Disc Perfusion Pre and Post Silicone Oil Removal: A Machine Learning Approach

**Georgios Feretzakis, Christina Karakosta, Aris Gkoulalas-Divanis, Dimitrios Karapiperis, Andreas F. Gkontzis, Evgenia Paxinou, Christina Kourentis, Vassilios Verykios**

Advancing Cardiovascular Mortality Trend Analysis: A Machine Learning Approach to Predict Future Health Policy Needs

**Georgios Feretzakis, Nikolaos Theodorakis, Georgia Vamvakou, Christos Hitas, Dimitrios Anagnostou, Sofia Kalantzi, Aikaterini Spyridaki, Zoi Kollia, Michailitsa Christodoulou, Dimitris Kalles, Andreas F. Gkontzis, Vassilios Verykios, Maria Nikolaou**

 Ballroom

#### 14:00-15:30 S3.15 - SUSTAINABLE HEALTH CARE SYSTEMS 9

Chair: Arie Hasman

Strategies to address statin medication intolerance among patients at risk of cardiovascular disease identified through electronic health records: A literature review and pooled analysis

**Shagoofa Rakhshanda, Siaw-Teng Liaw, Joel Rhee, Kerry-Anne Rye, Jitendra Jonnagaddala**

A Real-Time Dashboard Approach to Decision Support: An Exercise in Co-Design

**Julie Li, Craig Scowen, Conrad Loten, Alex Eigenstetter, Judith Thomas, Mirela Prgomet, Melissa Baysari, Andrew Georgiou**

Gender and Geographical Representation on Editorial Board Members of Medical Informatics Journals

**Amaryllis Mavragani, Gunther Eysenbach, Tiffany Leung**



## DAY 4 Wednesday, 28 August 2024

Virtual Coaching for Home Rehabilitation - Evidence of an Empirical Study  
**Hannes Schlieter, Kai Gand, Thure Weimann, Massimo Caprino, Massimo Corbo, Agnese Seregni, Peppino Tropea, Rocio Del Pino, Juan Carlos Gomez Esteban, Inigo Gabilondo, Andreea Lacraru, Stefan Busnatu**

Toward Laboratory Notification in Pediatric Emergency Departments  
**Alexandre De Masi, Johan N. Siebert, Frédéric Ehrler**

Proposal for a Patient Centered Health Information Framework for Clinical and Personal Data Movement  
**Pierangelo Veltri, Wouter Meijer, Vije Rajput**

 Conference Hall

### 14:00-15:30 S3.16 - HEALTH TECHNOLOGY 5 Chair: Ivana Ognjanovic

Testing usability of a medical device using virtual reality  
**Laura Douze, Elie Netter, Laura Wallard, Florent Occelli, Thomas Paget, Pierre Charlier, Jessica Schiro**

Implementation of an Atrioventricular Valve Intervention Registry: Comparative Study of REDCap vs. CDR-based openEHR Registry  
**Benjamin Kinast, Henrik Rohde, Michael Anywar, Tobias Bronsch, Jakob Christoph Voran, Felix Kreidel, Derk Frank, Björn Schreiweis**

Usability Checklists for Health Technology: Case Study and Experts' Opinions  
**Romarc Marcilly, Helen Monkman, Paul Quindroit, Annaëlle David, Blake Lesselroth**

A Comparison of Websites Offering Laboratory Test Information Targeted to Citizens  
**Helen Monkman, Dana Bailey**

A model for context-sensitive digital integrators  
**Craig Kuziemyky, Casper Knudsen, Christian Nøhr, Sidsel Villumsen, Melissa Baysari**

 Peristyle 2nd Floor

### 14:00-15:30 S3.17 - PUBLIC HEALTH INFORMATICS 3 Chair: Jacob Hofdijk

Coordination and referral platforms for children with neurodevelopmental outcome: what data for developmental trajectories and research?  
**Marie Ansoborlo, Valentin Gaudichon, Margaux Hazard, Hugo Zoppé, Diane Defresne, Katty Guinoiseau, Christine Salpérier, Leslie Grammatico-Guillon, Frédérique Bonnet-Brilhault**

Development of a Framework for Establishing 'Gold Standard' Outbreak Data from Submitted SARS-CoV-2 Genome Samples  
**Yannan Shen, Russell Steele, Philip AbdelMalik, David L. Buckeridge**

Patient Selection Is the Key for Successful Video Appointments: Lessons Learned from the COVID-19 Pandemic  
**Ilkka Rauma, Marja Niiranen, Hanna Kuusisto**

## DETAILED PROGRAMME

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### DAY 4 Wednesday, 28 August 2024

📍 Peristyle 2nd Floor

#### 14:00-15:30 S3.17 - PUBLIC HEALTH INFORMATICS 3

Visualizing Mental Health Insights: A Pipeline from Social Media to Chernoff Faces  
**Fatima Nagi, Mahmood Alzubaidi, Uzair Shah, Hurmat Ali Shah, Majid Alabdulla, Mowafa Househ, Marco Agus**

Performance of a NLP tool for text classification from orthopaedic operative reports, using data from the large network of clinical data warehouses of the West of France: the HACRO-HUGORTHO project

**Marie Ansoberlo, Jérémy Cardoso, Julien Herbert, Christine Salpérier, Guillaume Bouzillé, Marc Cuggia, Philippe Rosset, Louis-Romée Le Nail, Leslie Grammatico-Guillon**

A Web-Based Thai School Lunch Program Promotes Children's Heights: A Cross-Sectional Study in Rural Schools

**Kukiat Tudpor, Niruwan Turnbull, Worrameth Kareechum, Charnyuth Sriphuwong, Ke Nghiep Le**

📍 Meeting Room

#### 14:00-15:30 S3.18 - WORKSHOP

Training and certification in digital health technologies

**Emmanouil Rigas, Lacramioara Stoicu-Tivadar, Antonis Billis, Maria Nikolaidou, Savvas Anastasiades, Panagiotis Bamidis, John Mantas**

#### 15:30-16:00 COFFEE BREAK

📍 Auditorium

#### 16:00-17:30 S3.19 - ARTIFICIAL INTELLIGENCE IN MEDICINE 11

Chair: Lars Lindsköld

Evaluation of BERT-Based Models on Patient Data from French Social Media

**Emma Le Priol, Manissa Talmatkadi, Nathalie Texier, Stéphane Schück, Anita Burgun**

Exploring Offline Large Language Models for Clinical Information Extraction: A Study of Renal Histopathological Reports of Lupus Nephritis Patients

**Isaac CY.Tai, Emmanuel CK. Wong, Joseph T. Wu, Kathy Leung, Desmond YH. Yap, Zoie Shui Yee Wong**

A digital tool supporting Pathology practice, identifying leucocytes

**Dumitru-Cristian Apostol, Antonela-Maria Chiuzbăian, Mihaela Crișan-Vida, Lacramioara Stoicu-Tivadar, Marius Marcu**

A Comprehensive Natural Language Processing Pipeline for the Chronic Lupus Disease

**Livia Lilli, Silvia Laura Bosello, Laura Antenucci, Stefano Patarnello, Augusta Ortolan, Jacopo Lenkowicz, Marco Gorini, Gabriella Castellino, Alfredo Cesario, Maria Antonietta D'Agostino, Carlotta Masciocchi**

Experimentation of AI models towards the prediction of medium-risk Emergency Department cases disposition outcome

**Styliana Siakopoulou, Antonis Billis, Evangelos Logaras, Maria Zouka, Barbara Fyntanidou, Veroniki Stelmach, Panagiotis Bamidis**

## DAY 4 Wednesday, 28 August 2024

Fine-Tuning SSL-Model to Enhance Detection of Cilioretinal Arteries on Colored Fundus Images

**Warnes Gobalakrishnan, Julian Zimmermann, Michael Storck, Kemal Yildirim, Nicole Eter, Viktoria Brücher, Julian Varghese**

 Ballroom

### 16:00-17:30 S3.20 - DATA ANALYTICS AND BIG DATA 4

Chair: George Demiris

Towards a Reporting Guideline for Studies on Information Extraction from Clinical Texts

**Daniel Reichenpfader, Kerstin Denecke**

Development of a CNN for Adult Brain Tumour Characterisation: Implications and Future Directions for Transfer Learning

**Teesta Mukherjee, Shramika Gour, Saadullah Farooq Abbasi, Omid Pournik, Theodoros N. Arvanitis**

Comparing sequence-based and literature-based pathogenicity scoring methods for human variants

**Luc Mottin, Nona Naderi, Anaïs Mottaz, Pierre-André Michel, Gerieke Been, Lennart Johansson, Morris Swertz, Andrew Stubbs, Emilie Pasche, Julien Gobeill, Patrick Ruch**

A chatbot-like platform to enhance the discovery of OMOP CDM databases

**João António Reis, João Rafael Almeida, Tiago Melo Almeida, Jose Luis Oliveira**

Automatic extraction of medication data from semi-structured prescriptions

**Johannes Oehm, Oliver Wenning, Michael Storck, Xiaoyi Jiang, Julian Varghese**

The Ouest Data Hub: an interregional health data sharing ecosystem for research

**Marc Cuggia, Leslie Grammatico-Guillon, Pierre-Antoine Gourraud, Jean-Marie Chretien, François Bocquet, Valentine Guifon, Eric Stindel**

 Conference Hall

### 16:00-17:30 S3.21 - E-LEARNING AND EDUCATION 2

Chair: Kaija Saranto

Technological Literacy as a Framework for Health Professions Education in the Digital Era

**Aviv Shachak, Helen Monkman, Blake Lesselroth, Wei Wei Lee, Maria Alkureishi**

Teaching Artificial Intelligence to Medical Students

**George Mihalas, Casiana Boru, Coralía Cotoraci**

Education Challenges among Early Career Researchers in Medical Informatics

**Narjes Rohani, Michael Gallagher, Kobi Gal, Areti Manataki**

Teaching and Evaluating the Virtual Physical Exam in Telemedicine

**Ryan Yarnall, Helen Monkman, Mohamad Akel, Lana Mnajjed, Vaishnavi Reddy, Lauren Taylor, Aviv Shachak, Juell Homco, Andrew Liew, Blake Lesselroth**

Feasibility and Educational Value of Clinical Cases Generated Using Large Language Models

**Anna Berbenyuk, Leigh Powell, Nabil Zary**

## DETAILED PROGRAMME

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### DAY 4 Wednesday, 28 August 2024

📍 Peristyle 2nd Floor

#### 16:00-17:30 S3.22 - INTEROPERABILITY AND STANDARDS 4 Chair: Maria Tsirintani

Comparing the Accuracy of Traditional vs. FHIR®-based Extraction of Electronic Health Record Data for Two Clinical Trials

**Maryam Garza, Christina Spencer, Muayad Maallah, Michael Liss, Manju Bikkanuri, Mahanazuddin Syed, Sunita Yadav, Gurtejpal Bhardwaj, Amar Chahal, Keith Goodman, Eric Eisenstein, Byeong Yeob Choi, Meredith Zozus**

ONCO-FAIR project: Improving data interoperability in oncology chemotherapy treatments for data reuse

**Baptiste Guilbert, Tristan Rieu, Denis Delamarre, Frederic Laurent, Fanny Serre, Sarah Leroy, Elliott Paillard, Nolwenn Le Buhan, Alain Ribault, Marc Cuggia**

Data standardization in the medical field through FHIR and FAIR implementation: a systematic review

**Adina Nitulescu, Lacramioara Stoicu-Tivadar**

From Syntactic to Semantic Interoperability using a Hyperontology in the Oncology Domain

**Mirna El Ghosh, Varvara Kalokyri, Melanie Sambres, Morgan vaterkowski, Catherine DUCLOS, Xavier Tannier, Gianna Tsakou, Manolis Tsiknakis, Christel Daniel, Ferdinand Dhombres**

A missing link on semantic interoperability

**Angelo Rossimori, Gerard Freriks, Sandro Girolami**

Review of Key Elements in Developing a Common Data Model for Rare Diseases: Identifying Common Success Factors

**Adam S L Graefe, Filip Rehburg, Miriam Hübner, Sylvia Thun, Oya Beyan**

📍 Meeting Room

#### 16:00-17:30 S3.23 - ARTIFICIAL INTELLIGENCE IN MEDICINE 12 Chair: Casimir Kulikowski

Exploring Prediabetes Pathways Using Explainable AI on Data from Electronic Medical Records

**Davide Console, Marta Lenatti, Davide Simeone, Karim Keshavjee, Aziz Guergachi, Maurizio Mongelli, Alessia Paglialonga**

Comparative Evaluation of pre-trained Language Models for Biomedical Information Retrieval

**Franziska Weber, Dennis Toddenroth**

Classifiers of data sharing statements in clinical trial records

**Saber Jelodari Mamaghani, Cosima Strantz, Dennis Toddenroth**

Integrated Cognitive Ergonomics of the Remote Evaluation of the Grafts with Robotics and Machine Organ Perfusion Technology in Solid Organ Transplantation

**Constantinos S Mammias, Adamantia S Mamma**

Stratification of heart sounds morphology through unsupervised learning

**Noemi Giordano, Irene Bolognini, Marco Knaflitz, Samanta Rosati, Gabriella Balestra**



## DAY 4 Wednesday, 28 August 2024

 Auditorium

### 17:30-19:00 S3.24 - INTEROPERABILITY AND STANDARDS 5

Chair: **George Mihalas**

Classifier Chains for LOINC Transcoding

**Théodore Michel-Picque**, **Sandra Bringay**, **Pascal Poncelet**, **Namrata Patel**,  
**Guilhem Mayoral**

Integration of Oncological Data into openEHR: A Path Towards Improved Cancer Care and Research

**Jan Schladetzky**, **Niklas Reimer**, **Herwig Nicolaus**, **Hauke Busch**, **Björn Schreiweis**,  
**Ann-Kristin Kock-Schoppenhauer**

Development and Implementation of Semantic Information Standards for Oncology

**Kees Ebben**, **Lonneke Vermeulen**, **Astrid Swinkels**, **Matthijs Sloep**, **Jurrian van der Werf**

Scalar values in SNOMED CT: a proposed extension

**Julien Ehrsam**, **Christophe Gaudet-Blavignac**, **Christian Lovis**

Interoperable integration of automatic ECG processing using DICOMweb and the AcuWave Software Suite

**Lennart Graf**, **Dagmar Krefting**, **Tibor Kesztyüs**, **Maximilian Oremek**, **Sven Zenker**,  
**Nicolai Spicher**

Mapping OMOP-CDM to RDF: Bringing Real-World-Data to the Semantic Web realm

**Achilleas Chytas**, **Nick Bassiliades**, **Pantelis Natsiavas**

 Ballroom

### 17:30-19:00 S3.25 - BIOETHICAL ISSUES AND SECURITY 2

Chair: **Lars Lindsköld**

Use of Beacon v2 for Improving Genomics Based Research in a Clinical Setting

**Daniel Naro**, **Jaime Delgado**, **Silvia Llorente**, **Mikel Hernaez**

Challenges and Opportunities of Artificial Intelligence in CDSS and Patient Safety

**Yang Gong**, **Hua Min**, **Xia Jing**, **Ping Yu**

Developing a Generative AI-Powered Chatbot for Analyzing MAUDE Database

**Yue Yu**, **Yuheng Shi**, **Yubo Feng**, **Yang Gong**

What Technologies Based on Unique Patient Identifiers are Used for Patient Identification in Healthcare?

**Katerina Švandová**, **Zdenek Smutný**

Securing Reproducibility and Accountability in Distributed Healthcare Analytics: a Framework Based on Blockchain and Cryptography

**Leonardo Nucciarelli**, **Benedetta Gottardelli**, **Roberto Gatta**, **Andrea Damiani**

The Problem of Sequential Entry of Nurses as a Disincentive to Medical Safety and a Factor Increasing Overtime

**Satoko Tsuru**, **Tetsuro Tamamoto**, **Akihiro Nakao**, **Tatsunori Hara**, **Seiichi Yasui**

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### DAY 4 Wednesday, 28 August 2024

 Conference Hall

#### 17:30-19:00 S3.26 - CLINICAL INFORMATICS 4

Chair: Ilias Maglogiannis

Remote Monitoring, AI, Machine Learning and Mobile Ultrasound Integration upon 5G Internet in the Prehospital Care to Support the Golden Hour Principle and Optimize Outcomes in Severe Trauma and Emergency Surgery

**Constantinos S Mammas, Adamantia S Mamma**

SemOntoMap: a hybrid approach for semantic annotation of clinical texts

**Ons Aouina, Jean Charlet, Jacques Hilbey**

Creating Digital Rescue Sheets

**Viktor Maria Georg Sobotta, Thomas Deserno**

Discordance between Mealtimes reported by Trial Participants with Type 2 Diabetes and Healthcare Professionals

**Nynne Sophie Holdt-Caspersen, Claus Dethlefsen, Ole Hejlesen, Peter Vestergaard, Stine Hangaard, Iben Engelbrecht Giese, Julie Egmos, Morten Hasselstrøm Jensen**

Augmented Reality Eyewear for assisting in the Preparation and Control of Cancer Therapies: Assessing the Learning Curve and Level of Adoption

**Arthur Lecoutre, Michèle Vasseur, Justin Courtin, Sarah Ben Othman, Slim Hammadi, Sylvia Pelayo, Bertrand Decaudin, Pascal Odou**

Evaluation of Machine Learning Algorithms for Pressure Injury Risk Assessment in a Hospital with Limited IT Resources

**Cynthia Abi Khalil, Antoine Saab, Jihane Rahme, Jana Abla, Brigitte Seroussi**

 Peristyle 2nd Floor

#### 17:30-19:00 S3.27 - SHORT COMM

Chair: Joseph Liaskos

Telemedicine Alert API Engine System for Vital Signs

**Jakir Hossain Bhuiyan Masud, Humberto Fernán Mandirola Brieux, Fernando La Rosa**

Pre-pilot Usability Study of the Take-A-Breath Project: a Personalized Platform for Respiratory Disease Management

**Panos Bonotis, Nikolaos Siopis, Antonios Lalas, Konstantinos Votis, Dimitrios Tzovaras, Pantelis Natsiavas**

Fill in the blank, MIMIC the procedure: Tracking patient record for medical data reconstruction

**Sujung Lee, Deachul Seo, Taehoon Ko**

Unlocking the Power of Real-World Data: A Framework for Sustainable Healthcare

**Ashkan Pirmani, Yves Moreau, Liesbet Peeters**

Usability evaluation of a web-based remote patient monitoring application: an ongoing study

**Pernille Heyckendorff Secher, Julie Egmos, Ole Hejlesen, Stine Hangaard**

Electronic prescribing by medical students: descriptive data and inferred clinical impact

**Paul Chin, Lorna Pairman, John Quayle**

## DAY 4 Wednesday, 28 August 2024

Development of a Maturity Model for Medical Patient Registries – A Community Approach  
**Anna Niemeyer, Anne C. Regierer, Tobias Hartz, Christof Veit, Neeltje van den Berg, Irina Beckedorf, Irene Schluender, Emily Neubauer, Wolfgang Hoffmann, Sebastian Claudius Semler, Rainer Röhrig**

From Affect Regulation to BMI: Unveiling Childhood Obesity Patterns Through Advanced Clustering Techniques  
**Georgios Feretzakis, Athanasia Harokopou, Olga Fafoula, Athanasios Anastasiou, Efstathia Katoikou, Athina Balaska, Antriana Koulountzou, Georgios Zagkavieros, Stamatia Batzaki, Lida Morou, Ioannis Katsikogiannis, Ilias Dalainas, Georgios Gkritzela**

 Meeting Room

### 17:30-19:00 S3.28 - SUSTAINABLE HEALTH CARE SYSTEMS 10 Chair: Casimir Kulikowski

Digital Health Empowerment in Surgery: Exploring Total Hip Arthroplasty as a Model for Transformation

**Emily Hickmann, Thure Weimann, Peggy Richter, Attila Hoehne, Martin Burwitz, Malte Bornholdt, Hosun Lee, Hannes Schlieter**

Extracting Evidence from Health IT Studies to Populate Logic Models  
**Michelle Bindel, Elske Ammenwerth, Christiane Kreyer**

Using health IT standards to facilitate metadata exchange between research data management systems

**Matthias Löbe, Xiaoming Hu, Sophie Anne Ines Klopfenstein**

HCE2RNFC: an efficient methodology for Reusing the EHR in the Spanish National Hip Fracture Registry

**Paula Rubio Mayo, Cristina Ojeda, María Jesús Jiménez Cerezo, Noelia Garcia Barrio, Juan Luis Cruz Bermúdez, Miguel Pedrera Jiménez**

 Auditorium

### 19:00-20:00 S3.29 - PANEL

Generative Large Language Models for Clinical Practice, Education and Knowledge Searching: Shall We Count on Them?

**Stéphane Meystre, Enea Parimbelli, Julia Ive, Fabio Rinaldi**

 Ballroom

### 19:00-20:00 S3.30 - PANEL

How can real-world data interoperability and AI help to realize the EHDS aims?

**Rada Hussein, Philip Gribbon, Christian Muehlendyck, George Manias, Gabriel Danciu, Maria Giuffrida**

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### DAY 4 Wednesday, 28 August 2024

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19:00-20:00

#### S3.31 - SHORT COMM

Chair: **Mihaela-Marcella Crişan-Vida**

Towards a Learning Health System for Symptom Management in Hospice Care  
**Marieke Massa, Marijke Dermois, Jennifer Caffarel, Christine Cramer-van der Welle, Dianne Boxman, Everlien de Graaf, Saskia Teunissen, Jurrian van der Werf**

TermX: A game changer in the healthcare interoperability

**Igor Bossenko, Gunnar Piho, Peeter Ross**

Evaluation of End-User Participation in Artificial Intelligence Nursing Projects

**Alessia Nowak, Rahel Gubser, Akira-Sebastian Poncette, Daniel Fürstenau**

OMOP-on-FHIR: A FHIR Server Development to Facilitate Data Interaction with the OMOP-CDM and FHIR for PGHD

**Prabath Jayathissa, Lukas Rohatsch, Stefan Sauermann, Rada Hussein**

Technological aspects of device-based monitoring and the impact on hospital services

**Anne-Jet Jansen, Guido Peters, Laura Kooij, Carine Doggen, Wim van Harten**

Embedding ethics in the implementation of a vital sign monitoring technology

**Eva Meier, Minke Holleboom, Harm Gijsbers, Marieke Bak, Linda Peute**

Analyzing the Efficacy of an Open Access Biomedical Informatics Boot Camp

**Skyler Resendez, Gillian Franklin, Rachel Stephens, Heather Maness, Srikar Chamala, Peter Elkin**

 Peristyle 2nd Floor

19:00-20:00

#### S3.32 - SHORT COMM

Chair: **Joseph Liaskos**

Undergraduate Degree in Medical Data Science: A Conceptual Framework

**Louis Agha-Mir-Salim, Susanne Michl, Felix Balzer**

Pubmed Retrieval with RAG Techniques

**Alex Thomo**

Monitoring of Artificial Intelligence in Hospitals

**Arian Ranjbar, Jesper Ravn**

Generative AI potential for Decision Support regarding Interval Breast Cancer Detection

**Clara Enström, Anna Tidstam, Matilda Åboge Eriksson**

Application of Artificial Intelligence in Clinical Practice - Perception of a Multinational Group of Nephrologists

**Eliana Silva, Carla Santos-Araújo, Ricardo Correia, Fernando Macário**

Greek Tweets on Long COVID: Topic Modelling following Sentiment Analysis and ChatGPT Interpretation

**Afroditi Katika, Emmanouil Zoulias, Vassiliki Koufi, Flora Malamateniou**





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## DAY 4 Wednesday, 28 August 2024

Generative AI Analysis of Topics from IMIA Historical Narratives in Medical Informatics  
**Casimir Kulikowski**

Futureproofing medical education through Scenario Analysis: Instrumental Case Study  
**Guido Giunti, Colin P Doherty**

 Meeting Room

### 19:00-20:00 S3.33 - WORKSHOP

Assessment Metrics for Successful Implementation of Health Technology

**Lina Mosch, Merve Mükerrerem Sarica, Anne Rike Flint, Felix Balzer, Louis Agha-Mir-Salim, Akira-Sebastian Poncette**

## DETAILED PROGRAMME

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### DAY 5 Thursday, August 29, 2024

 Auditorium

#### 08:00-09:00 S4.1 - PUBLIC HEALTH INFORMATICS 4 Chair: John Mantas

Understanding WHO SMART Guidelines: narrative review of an innovative global digital health approach

**Martin Saban, Melina Denise Zavala, Alejandro López Osornio, Diego Kaminker, Martin Miguel Diaz Maffini, Adolfo Rubinstein, Santiago Esteban, Daniel Alejandro Rizzato Lede**

Deep Learning Models for Health-Driven Forecasting of Indoor Temperatures in Heat Waves in Canada: An Exploratory Study Using Smart Thermostats

**Jasleen Kaur, Gurjot Singh, Arlene Oetomo, Navneet Kaur, Plinio P. Morita**

Leveraging Zero-Effort Technology for Quantification of Sleep Quality Metrics

**Jasleen Kaur, Vivek Chauhan, Arlene Oetomo, Plinio P. Morita**

 Ballroom

#### 08:00-09:00 S4.2 - ARTIFICIAL INTELLIGENCE IN MEDICINE 13 Chair: Thomas Deserno

Comparing a large language model with previous deep learning models on named entity recognition of adverse drug events

**Théophile Tiffet, Alexis Pikaar, Béatrice Trombert-Paviot, Marie-Christine Jaulent, Cédric Bousquet**

A Comparative Analysis of Federated and Centralized Learning for SpO2 Prediction in Five Critical Care Databases

**Johanna Schwinn, Seyedmostafa Sheikhalishahi, Matthäus Morhart, Mathias Kaspar, Ludwig Christian Hinske**

Speech Emotion Recognition Using openSMILE and GPT 3.5 Transformer

**Darius Turcian, Vasile Stoicu-Tivadar**

Evaluating Synthetic Data Augmentation to Correct for Data Imbalance in Realistic Clinical Prediction Settings

**Nina Wahler, Bayrem Kaabachi, Bogdan Kulynych, Jérémie Despraz, Christian Simon, Jean Louis Raisaro**

 Conference Hall

#### 08:00-09:00 S4.3 - SUSTAINABLE HEALTH CARE SYSTEMS 11 Chair: Kaija Saranto

The role of health informatics research A case of a large-scale implementation in central Norway

**Pieter Jelle Toussaint**

Unlocking the Potential of Free Text in Electronic Health Records with Large Language Models (LLM): Enhancing Patient Safety and Consultation Interactions

**Pushpa Kumarapeli, Tia Haddad, Simon de Lusignan**

Towards a Chatbot for Medical Diagnosis Based on Patient Symptoms

**Sawadogo Omar**

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## DAY 5 Thursday, August 29, 2024

📍 Peristyle 2nd Floor

### 08:00-09:00 S4.4 - PANEL

Telehealth Today: New Challenges for Integration, Standardization, Regulation & Compensation

**Wouter Meijer, Thomas Deserno, Sheila John, Jai Ganesh Udayasankaran**

📍 Meeting Room

### 08:00-09:00 S4.5 - SUSTAINABLE HEALTH CARE SYSTEMS 12

Chair: **Arie Hasman**

Muzima mobile application for screening hypertension and diabetes: a user experience of the app among community health workers in Rwanda

**Michael Mugisha, Isaac Ntakirutimana, Dieudonne Kayiranga, Augustine Muhirwa, Emmanuel Nkurunziza, Emmanuel Sibomana, Angelique Uwamahoro, Theophilla Igihozo, Amelie Ndoli, Emmanuel Niyonshuti, Eugene Rwubaka, Isdore Tuyishime, Emma Marie Umutohiwase, Emmy Mugisha**

A Comparative Study of Access Analysis Service Utilization on Japanese Medical Institutions' Websites with GDPR-Compliant Cases

**Tomohisa Seki, Yoshimasa Kawazoe, Kazuhiko Ohe**

Supporting the Episodic Application of Clinical Guidelines over Significant Time Periods

**Bruria Ben Shahr, Yuval Shahr, Shai Jaffe, Odeya Cohen, Erez Shalom, Maya Slivanova, Efraim Rimon, Ayelet Goldstein**

A Digital Clock Drawing Test on Tablet for the Diagnosis of Neurocognitive Disorders in Older Adults

**Nathavy Um Din, Florian Maronna, Sylvie Pariel, Fadi Badra, Joël Belmin**

📍 Auditorium

### 09:00-10:00 INVITED TUTORIAL

The ICD-11 Framework and its IT systems provided by WHO

📍 Ballroom

### 09:00-10:00 S4.6 - PANEL

Data Collection, Governance, and Sharing for Special Populations: Challenges and Opportunities

**Catherine Craven, Carol Hullin, Rosemary Kennedy, Carolyn Petersen**

📍 Peristyle 2nd Floor

### 09:00-10:00 S4.7 - MANAGEMENT OF INFORMATION 2

Chair: **Mihaela-Marcella Crișan-Vida**

Pre-processing of categorical features within medical analysis systems

**Marc Hermes, Timo Wolters, Nico Schult, Andreas Hein**

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#### 09:00-10:00 S4.7 - MANAGEMENT OF INFORMATION 2

Development of a Big Data Platform for the Collection and Utilization of Korea Biobank Network Clinical Information

YunSeon Im, Seol Whan Oh, Kim Ki-Hoon, Wona Choi, Inyoung Choi

MeDaX: A knowledge graph on FHIR

Ilya Mazein, Tom Gebhardt, Felix Zinkewitz, Lea Michaelis, Sarah Braun, Dagmar Waltemath, Ron Henkel, Judith Wodke

📍 Meeting Room

#### 09:00-10:00 S4.8 - WORKSHOP

From Principles to Practice: Accelerating FAIR Data Management Training in Health Research for Trainers and Trainees

Martijn G. Kersloot, Celia Alvarez-Romero, Matthias Löbe, Ronald Cornet

#### 10:00-10:30 COFFEE BREAK

📍 Auditorium

#### 10:30-12:15 S4.9 - ARTIFICIAL INTELLIGENCE IN MEDICINE 14

Chair: Lacramioara Stoicu-Tivadar

Integrating Automation, Interactive Visualization, and Unsupervised Learning for Enhanced Diabetes Management

Carlos Baviera-Martinez, Antonio Martinez-Millana, Francisco de Borja Lopez Casanova

Germany's approach for the secondary use of federated real-world data in the German Portal for Medical Research Data

Philip Kleinert, Marie Gebhardt, Karoline Buckow, Julian Gruendner, Thomas Ganslandt, Hans-Ulrich Prokosch, Sebastian Claudius Semler

Finding groups in the Portuguese population through lifestyle: a cross-sectional study

Andreia Teixeira, Rosália Páscoa, Carlos Martins, Pedro Pereira Rodrigues

Computer Vision for Assessing Surgical Movements in Neurosurgery

Gleb Danilov, Vasiliy Kostyumov, Oleg Pilipenko, Eugeny Ilyushin, David Pitskhelauri, Alexandra Zelenova, Andrey Bykanov

Bridging Gaps with Generative AI: Enhancing Hypertension Monitoring Through Patient and Provider Insights

Katerina Andreadis, Danissa Rodriguez, Anastasiya Zakreuskaya, Ji Chen, Javier Gonzalez, Devin Mann

Unveiling Medical Insights: Advanced Topic Extraction from Scientific Articles

Ehsan Bitaraf, Maryam Jafarpour, Sina Shool, Reza Saboori Amleshi

Assessment of Valance Emotional State using EEG-EDA Coupling and Explainable Classifiers

Sourabh Banik, Himanshu Kumar, Nagarajan Ganapathy, Ramakrishnan Swaminathan



## DAY 5 Thursday, August 29, 2024

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### 10:30-12:15 S4.10 - SUSTAINABLE HEALTH CARE SYSTEMS 13

Chair: Ivana Ognjanovic

Experiences of Decision-Making and Attitudes toward Digital Health Services among Older Adults in Finland

Milla Rosenlund, Tuuli Turja, Virpi Jylhä, Kaija Saranto, Hanna Kuusisto

Synthesizing clinical data warehouse content for enhanced external collaboration: a preliminary proposal

Franck Mouney, Sandie Cabon, Guillaume Bouzille, Denis Delamarre, Morgane Pierre-Jean, Marc Cuggia

Development and Evaluation of a Data Quality Management System for the Korea Biobank Network

Seol Whan Oh, Kim Ki-Hoon, YunSeon Im, Wona Choi, Inyoung Choi

Advancing Healthcare through Interoperability: Implementing Scalable Technical and Semantic Solutions for Patient Care Integration

Shramika Gour, Ashley Peake, Chao Tong, James Churm, Bilal Ahmad, Omid Pournik, Theodoros N. Arvanitis

Using one app only – collecting a comprehensive set of health-related data for prevention of chronic conditions

Eirik Årsand, Miroslav Muzny, Tina Rishaug, Ana Wagner, Carmelo Betancort, Conceição Granja, Cristina Soguero, Gunnar Hartvigsen, Mihai Namolosanu, Mikael Rinnetmäki, André Henriksen

 Conference Hall

### 10:30-12:15 S4.11 - ARTIFICIAL INTELLIGENCE IN MEDICINE 15

Chair: Patrick Weber

A Qualitative Study with Informal Caregivers and Healthcare Professionals for Individuals with Head and Neck Cancer on the Usage of AI Chatbots

Awais Ahmad, Shweta Premanandan, Åsa Cajander, Ulrica Langegård, Ece Uereten, Ylva Tiblom Ehrsson

Enhancing Clinical Data Extraction from Pathology Reports: A Comparative Analysis of Large Language Models

Sunghyeon Park, Wona Choi, Inyoung Choi

Integrating AI-Generated Summaries of Medication Leaflets into a Mobile Application for Medication Management

Lisa Heiler, Katharina Kirchsteiger, Simon Hartl, Oliver Perkics, Sten Hanke, Markus Bödenler

A Vision on User-centered Implementation and Evaluation of Explainable AI for Predicting Hospital-onset Bacteremia

Anna Thalea Hoogestraat, Antje Wulff

## DETAILED PROGRAMME

Time indicated in EEST (UTC+2h)

### DAY 5 Thursday, August 29, 2024

 Conference Hall

#### 10:30-12:15 S4.11 - ARTIFICIAL INTELLIGENCE IN MEDICINE 15

Merging Biomedical Ontologies with BioSTransformers  
**Safaa Menad, Saïd Abdeddaïm, Lina Fatima Soualmia**

A Governance Framework for the Implementation and Operation of AI Applications in a University Hospital  
**Timo Apfelbacher, Sude Kocman, Hans-Ulrich Prokosch, Jan Christoph**

 Peristyle 2nd Floor

#### 10:30-12:15 S4.12 - INTEROPERABILITY AND STANDARDS 6

Chair: **Parisis Gallos**

Enhancing Healthcare Informatics: Integrating Category Theory Reasoning into OMOP-CDM Ontology Model  
**Rodrigo Albarrán, Jean-Baptiste Lamy**

OntoBridge versus Traditional ETL: Enhancing Data Standardization into CDM Formats Using Ontologies within the DATOS-CAT Project

**Guillem Bracons Cucó, Jessyca Gil Rojas, Petter Peñafiel Macías, Xavier Borrat Frigola, Aikaterini Lymperidou, Judith Martinez Gonzalez, Alberto Labarga, Santiago Frid**

Linked Care: A Harmonized Workflow for Medication Ordering, Prescription and Dispensing in Mobile Care Settings

**Philipp Urbauer, Gerda Huber, Timothy Berens, Benedikt Salzbrunn, Stefan Sauermann, Matthias Frohner**

Privacy-Preserving Linkage of Distributed Pseudonymised Datasets in a Virtual European Rare Disease Platform

**Dieter Hayn, Emanuel Sandner, Abishaa Vengadeswaran, Elena-Alexandra Tătaru, Mark Wilkinson, Marc Hanauer, Karl Kreiner, Günter Schreier**

'SNOMEDizing' Questionnaires for Standardizing Stroke Registry Data

**Andrea Riedel, Stefan Schulz, Catalina Martinez-Costa**

Incorrect and sex-inconsistent mapping of disorders: Identification of Sex Biases in the ICD-10, ICD-11 and SNOMED CT and how to work around them

**Nina Haffer, Sylvia Thun**

 Meeting Room

#### 10:30-12:15 S4.13 - WORKSHOP

Will Adoption of AI in Medicine Mirror the Evolution of Medical Informatics?

**George Mihalas, Casimir Kulikowski, Arie Hasman, Kaija Saranto, John Mantas**

 Auditorium

12:30-13:30

CLOSING CEREMONY

# ACKNOWLEDGEMENTS

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