

pHealth 2021 Program

	Monday, 8 November 2021	
9:00 – 10:20	Welcome and Keynote Session	
	Chairs: Lenka Lhotska, Czechia, Mauro Giacomini, Italy	
	Welcome Address: Catherine Chronaki, EFMI President	5'
	Welcome Address: Matteo Rosso, National of Regional Department for Health	5'
	Welcome Address: Lucia Sacchi, President of the Italian Scientific Society for BioMedical Informatics	5'
	Welcome Address: Sergio Martinoia, University of Genoa, Italy	5'
	Welcome Address: Gianni Rolando, Federation of Engineers Liguria, Italy	5'
	Welcome Address: Bernd Blobel, SPC Chair, pHealth 2021	5'
	Welcome Address: Mauro Giacomini, LOC Chair, pHealth 2021	5'
	Keynote Autonomous Systems and Artificial Intelligence – Hype or Prerequisite for P5 Medicine? Bernd Blobel, Pekka Routsalainen, Mathias Brochhausen	45'
10:20–10:30	Break	
10:30-12:00	Data and Knowledge Management and Methodologies (Part 1)	
	Session Chairs: Stephen Kay, UK; Giorgio Cangioli, Italy	
	Invited Speech Communicating about Mortality in Health Decision Support: 'What and Why and When' and 'How and Where and Who' Jack Dowie, Mette Kjer Kaltoft, Vije Kumar Rajput	30'
	A New Paradigm for Ensuring Digital Drug Care Quality Monitoring Based on Ontology Tools Tatiana Lugovkina, Sergey Gorshkov, Evgeniy Svalov	20'
	The Building Blocks of Information are Selections - Let's Define them Globally! Wolfgang Orthuber	20'
	ContSOnto: A Formal Ontology for Continuity of Care (09) Subhashis Das, Pamela Hussey	20'
12:00-13:00	Break	
13:00-14:10	Data and Knowledge Management and Methodologies (Part 2)	
	Session Chairs: Frédéric Ehrlé, Switzerland; Lucia Sacchi, Italy	
	Understanding the Gap between Information Models and Realism-based Ontologies Using the Generic Component Model Mathias Brochhausen, Sarah Bost, Nitya Singh, Christoph Brochhausen, Bernd Blobel	20'
	Predicting the Aortic Aneurysm Postoperative Risks Based on Russian Integrated Data Juliia Lenivtceva, Sofia Grechishcheva, Georgy Kopanitsa, Dmitry Panfilov, Boris Kozlov	20'

	A NLP Pipeline for the Automatic Extraction of Microorganisms Names from Microbiological Notes Sara Mora, Jacopo Attene, Roberta Gazzarata, Giustino Parruti, Mauro Giacomini	20'
	Factors Predicting Sexual Risk Behaviors of Adolescents in North-Eastern Thailand Athiwat Butdabut, Pissamai Homchampa	5'
	Conceptual Model for Behaviour Change Progress – Instrument in Design Processes for Behaviour Change Systems Helena Lindgren, Saskia Weck	5'
14:10-14:25	Break	
14:25-15:45	Data and Knowledge Management and Methodologies (Part 3)	
	Session Chairs: Pekka Ruotsalainen, Finland; Francesco Pinciroli, Italy	
	Invited Speech Towards Personalized Medication Michael Huptych, Jiri Potucek, Lenka Lhotská	30'
	Statistical Inference for Clustering Results Interpretation in Clinical Practice Alexander Kanonirov, Ksenia Balabaeva, Sergey Kovalchuk	20'
	Development of a Didactic Online Course Concept for Heterogeneous Audience Groups in the Context of Healthcare IT Matthias Katzensteiner, Stefan Vogel, Jens Hüsters, Jendrik Richter, Johannes Hölken, Natalia Lesniewska, Oliver J. Bott	20'
	Automatic Extraction and Decryption of Abbreviations from Professional Texts Michil Egorov, Anastasia Funkner	5'
	Mapping of OpenEHR Archetypes to FHIR Resources in Use Case Oncology Abdul-Mateen Rajput, Ina Brakollari	5'
15:45-16:00	Break	
16:00-17:30	Round Table Discussion on Health and Social Care Transformation	
	Bernd Blobel, Mauro Giacomini, Gabriella Paoli, Massimo Nicolò, Maurizio Michellini, Pekka Ruotsalainen, Lenka Lhotska	
	Tuesday, 9 November 2021	
9:00-10:30	Data and Knowledge Management and Methodologies (Part 4)	
	Session Chairs: Oleg Metsker, Russia, Romania; Silvana Quaglini, Italy	
	Invited Speech The International Patient Summary and the Summarization Requirement Stephen Kay	30'
	Predictive Modeling of COVID and Non-COVID Pneumonia Trajectories Nikita Mramorov, Ilya Derevitskii, Sergey Kovalchuk	20'
	A Modeling Framework for Decision Support in Periprosthetic Joint Infection Treatment Vasiliy Leonenko, Yulia Kaliberda, Vasili Artyukh	20'
	A Web Based Tool to Support a Personalized Therapeutic Path through the Use of Psychological Tests	20'

	Elena Lazarova, Sara Mora, Davide Armanino, Alessandro Poiré, Fabio Furlani, Mauro Giacomini	
10:30-10:45	Break	
10:45-12:00	Data and Knowledge Management and Methodologies (Part 5)	
	Session Chairs: Jaime Delgado, Spain; Mauro Giacomini, Italy	
	Treatment Trajectories Graph Compression Algorithm Based on Cliques Svetozar Milykh, Sergey Kovalchuk	20'
	Machine Learning Based Metagenomic Prediction of Inflammatory Bowel Disease Andrea Mihajlović, Katarina Mladenović, Tatjana Lončar-Turukalo and Sanja Brdar	20'
	Dynamic Aortic Aneurism Risk Factors Oleg Metsker, Georgy Kopanitsa, Olga Irtyuga, Vladimir Uspenskiy	20'
	Detection of COVID-19 from Chest CT Images Using CNN with MLP Hybrid Model Sakthi Jaya Sundar Rajasekar, Vasumathi Narayanan, Varalakshmi Perumal	5'
	Psychological Stress is a Risk Factor for Type 2 Diabetes Mellitus in College Students Kukiat Tudpor, Chatcharida Saisawai, Sasina Kaewpho, Amarporn Jitseeda	5'
	An openEHR Virtual Patient Template for Pancreatic Cancer Samer Alkarkoukly, Abdul-Mateen Rajput	5'
12:00-13:00	Break	
13:00-15:00	Personal Health Records, Patient-Centered Data Management, and Cloud Services	
	Session Chairs: Mathias Brochhausen, USA; Roberta Gazzarata, Italy	
	Digital Phenotypes for Personalized Medicine Carlos Molina, Belén Prados-Suarez	20'
	A Multilayer LSTM Auto-Encoder for Fetal ECG Anomaly Detection Inna Skarha-Bandurova, Tetiana Biloborodova, Illia Skarha-Bandurov, Yehor Boltov, Maryna Derkrach	20'
	Prerequisites of Personal Health Record for Chronic Kidney Disease: A Scoping Review and Evaluation of the Content Validity Fatameh Salehi, Peivand Bastani, Leila Ahmadian, Katayoon Samadi, Azita Yazdani, Roxana Sharifian	20'
	An Unsupervised Approach to Structuring and Analyzing Repetitive Semantic Structures in Free Text of Electronic Medical Records Varvara Koshman, Anastasia Funkner, Sergey Kovalchuk	20'
	Toward an Agile System: Iranian Information System for Covid-19-Affected Patients Data Collection from Iranian Hospitals Somayeh Abedian, Pirhossein Kolivand, Hamid Reza Lornejad	20'
	Data-Driven Modeling of Complex Business Process in Heterogeneous Environment of Healthcare Organization with Health Information Systems Alexander Kshenin, Sergey Kovalchuk	20'
15:00-15:15	Break	

15:15-16:45	Security, Privacy, Safety, and Ethics Issues in pHealth (Part 1)	
	Session Chairs: Georgy Kopanitsa, Russia; Giulio Iannello, Italy	
	Invited Speech How a Service User Knows the Level of Privacy and to whom Trust in pHealth Systems? Pekka Ruotsalainen, Bernd Blobel	30'
	Implementation of Privacy and Security for a Genomic Information System Jaime Delgado, Silvia Llorente, Guillem Reig	20'
	Sentiment Analysis on USA vs. New Zealand on Health and Safety Mandates during Early Stages of COVID-19 Pandemic Joshua Dales, Farhaan Mirza, Amr Adel	20'
	A User-Centered, Integrated Model to Improve Medication Prescription, Administration and Adherence in Switzerland Katherine Blondon, Frédéric Ehrler	20'
	Wednesday, 10 November 2021	
9:00-10:00	Security, Privacy, Safety, and Ethics Issues in pHealth (Part 2)	
	Session Chairs: Michal Huptych, Czechia; Carmelina Ruggiero, Italy	
	Regulation Modeling and Analysis Using Machine Learning During the Pandemic of Covid-19 in Russia Egor Trofimov, Oleg Metsker, Georgy Kopanitsa	20'
	Association between Physical Activity and Osteoarthritis of Knee with Quality of Life in Community-Dwelling Older Adults Nachalida Yukalang, Niruwan Turnbull, Wisit Thongkum, Adisorn Wongkongdech, Kukiattudpor	20'
	Reinforcing Health Data Sharing through Data Democratization Yuhang Wang, Bian Yang	20'
10:00-10:15	Break	
10:15-11:45	Solutions for Personalized Care (Part1)	
	Session Chairs: Bian Yang, Norway; Laura Pastorino, Italy	
	Invited Speech eHealth Turning Points as Forced by the Covid-19 Dramatic Experience Francesco Pincioli	30'
	Lifestyle Cancer Survival Predictors: Influence of Vegetarian Diet on the Relapse of Endometrial Cancer Georgy Kopanitsa, Oleg Metsker, Ekaterina Bolgova, Sergey Kovalchuk	20'
	Gait Analysis Platform for Measuring Surgery Recovery Marc Codina, Manuel Navarrete, Ashkan Rezaee, David Castells-Rufas, Maria Jesús Torrelles-Pijuan, Stefan Burkard, Holger Arndt, Sabine Drevet, Medhi Boudissa, Jerome Tonetti, Isabelle Marque, Alexandre Moreau-Gaudry, Armand Castillejo, Jordi Carrabina	20'
	The Effectiveness of Telemedical Monitoring Program DiabCare Tirol for Patients with Gestational Diabetes Mellitus Gihan El Moazen, Bernhard Pfeifer, Agnes Loidl, Peter Kastner, Christian Ciardi	20'
11:45-13:00	Break	

13:00-14:20	Solutions for Personalized Care (Part2)	
	Session Chairs: Sergey Kovalchuk, Russia; Stefano Lotti, Italy	
	Social Media Chatbot for Increasing Physical Activity: Usability Study Dillys Larbi, Elia Gabarron, Kerstin Denecke	20'
	A Mobile App to Improve Patient Management in Emergency Departments: Caregiver Needs Analysis, Design and Early Technology Acceptance Assessment Frédéric Ehrler, Carlotta Tuor, Robin Rey, Johan N. Siebert	20'
	Assessment of mHealth Solutions Applied to Fall Detection for the Elderly Fellipe Soares de Oliveira, Camila Carvalho da Silva, Talita Santos Pinheiro, Larissa Mayumi Yokoi, Harki Tanaka, Priscyla Waleska Simoes	20'
	Continuous Stress Detection of Hospital Staff Using Smartwatch Sensors and Classifier Ensemble Muhammad Ali Fauzi, Bian Yang	20'
14:20-14:40	Break	
14:40-15:30	Closing Ceremony	50'
	Students' Best Paper Award	
	Students' Best Poster Award	
	Next pHHealth Event	
	Closing Remark of SPC and LOC	