

# EU Africa PerMed “Summer School”

## Standards in personalised medicine research

Cape Town South Africa

22 & 23 February 2023

The [EU Africa PerMed](#) project, funded by the European Commission’s Horizon Europe programme, aims to build bridges between African and European countries in the field of personalised medicine (PM). In order to achieve its objectives a series of activities are planned within the project, such as webinars and in-person interactive training events or “Summer Schools”, which allow young professionals to acquire new knowledge and skills in PM research. Lectures on key topics, illustrated by case studies and examples of current and past work of the lecturers, are followed by “working groups” where participants analyze a case study, respond to a questionnaire or perform other interactive work with their peers. Prior to the training event, participants are provided with bibliography on the topics to be covered. At the end of the event, participants must pass a short exam on the content of the lectures to obtain their certificate of attendance.

The Summer Schools provide a platform for sharing insight and experiences in PM research in both regions, and to share and discuss examples of EU – Africa PM collaborations. They also aim to foster collaboration in PM research between EU and African research teams, providing an opportunity for networking among participants and lecturers

The first Summer School focusing on “Standards in personalised medicine research” will cover key stages of PM research and will allow participants to understand the importance integrating standards for quality research at each stage and its relevance for international collaborations in PM. It will also have a session focused on research teams with ongoing Africa – EU collaborations to allow participants to exchange with research teams on opportunities and challenges for bi-regional collaboration.

The organization of this first summer school of the EU Africa PerMed consortium, is led by the European Clinical Research Infrastructure Network (ECRIN), in collaboration with the African Population and Health Research Center (APHRC), the Italian Ministry of Health, the Institute for Health Research Epidemiological Surveillance and Training (IRESSEF) and Innovatec. It will be hosted by the South African Medical Research Council.



DAY 1: Wednesday 22 February, 2023	
TIME	AGENDA ITEM
8h30 – 9h00	<b>Registration</b>
9h00 – 9h20	<b>Welcome and opening</b> Local authorities – Department of Science and Innovation of South Africa TBC South African Medical Research Council representatives EU Africa PerMed Project coordinator – Erika Sela, Innovatec
9h20 – 9h30	<b>Introduction to the project and the training event’s objectives</b> Paula Garcia, ECRIN (Paris, France) <b>Round of introductions</b>
<b>SESSION 1 - Introduction to Personalised Medicine Research and research standards</b>	
09h40 - 10h40	<b>Personalised Medicine Research – an overview</b> <ul style="list-style-type: none"> <li>- Definition of personalised medicine</li> <li>- Main actors in the research ecosystem</li> <li>- Main stages of the research pipeline</li> <li>- Examples</li> </ul> <b>Working groups</b> EU Africa PerMed representative
10h40 – 11h00	<b>TEA &amp; COFFEE BREAK</b>
11h00 – 12h00	<b>Standards in research</b> <ul style="list-style-type: none"> <li>- Definition of standards and their importance</li> <li>- Who develops them, and how they are adopted</li> <li>- Importance of standards in clinical research</li> <li>- Examples of standard development</li> </ul> <b>Working groups</b> <i>EUStands4PM project representative TBC</i>

<p><b>12h00 - 12h30</b></p>	<p><b>Developing recommendations for personalised medicine research methodologies – the PERMIT project experience</b></p> <ul style="list-style-type: none"> <li>- Development of methodological guidelines for personalised medicine research</li> <li>- Application of best practices: the best practices recognition program of the ICPeMed</li> </ul> <p>Paula Garcia – ECRIN (Paris, France)</p>
<p><b>12h30-13h30</b></p>	<p><b>LUNCH</b></p>
<p><b>Participant presentations part I</b></p>	
<p><b>13h30 – 14h10</b></p>	<p>Each participant will have 4 min to present themselves and their current work.</p>
<p><b>SESSION 2 - Data collection and management for PM research</b></p>	
<p><b>14h10 – 15h10</b></p>	<p><b>Generating data - standards in genomics</b></p> <ul style="list-style-type: none"> <li>- Data generation techniques</li> <li>- Ensuring data quality at collection</li> <li>- Following standards</li> <li>- Example(s) and use case(s)</li> </ul> <p><b>Working groups</b></p> <p><i>Rokhaya Ndiaye Diallo – Univeristy of Dakar (Dakar, Senegal) TBC</i></p>
<p><b>15h10 – 16h10</b></p>	<p><b>Data management</b></p> <ul style="list-style-type: none"> <li>- Data storage and management</li> <li>- Quality control and monitoring</li> <li>- Data sharing challenges and best practices</li> <li>- Data standards</li> </ul> <p><b>Working groups</b></p> <p>African Population and Health Research Center (APHRC) representative TBC – (Nairobi, Kenya)</p>
<p><b>16h10-16h20</b></p>	<p><b>TEA &amp; COFFEE BREAK</b></p>
<p><b>SESSION 3 – Data analysis for biomarker identification and stratification</b></p>	

<b>16h20-17h20</b>	<p><b>Biomarker development</b></p> <ul style="list-style-type: none"> <li>- Stages and potential challenges</li> <li>- Analysis for biomarker identification</li> <li>- Validation process</li> <li>- Best practices</li> <li>- Example(s) of full pipeline of development</li> </ul> <p><b>Working groups</b></p> <p><i>TBC</i></p>
<b>17h20 – 17h30</b>	<b>Closing remarks of the day</b>
<b>19h00</b>	<b>SOCIAL EVENT - DINNER</b>

## DAY 2: Thursday 23 February, 2023

TIME	AGENDA ITEM
<b>8h45 – 9h00</b>	<p><b>Welcome and agenda for the day</b></p> <p>EU Africa PerMed Project coordinator /Summer School coordinators</p>
<b>SESSION 3 – Data analysis for biomarker identification and stratification - continued</b>	
<b>9h00 – 10h00</b>	<p><b>Machine learning and AI for patient stratification</b></p> <ul style="list-style-type: none"> <li>- Definition and applications</li> <li>- When to apply machine learning stratification</li> <li>- Challenges and constraints</li> <li>- Best practices</li> <li>- Example(s) and use case(s)</li> </ul> <p><b>Working groups</b></p> <p>Enrico Glaab – University of Luxembourg (Luxembourg)</p>
<b>SESSION 4 - Translational research – preclinical stages</b>	
<b>10h00 - 10h50</b>	<p><b>Overview translational research for personalised medicine</b></p> <ul style="list-style-type: none"> <li>- What preclinical models are used in personalised medicine and how are they used?</li> <li>- Illustrative use cases</li> </ul> <p><b>Working groups</b></p> <p><i>European Infrastructure for Translational Medicine (EATRIS) representative TBC</i></p>

10h50-11h00	<b>TEA &amp; COFFEE BREAK</b>
<b>SESSION 5 – Clinical research</b>	
11h00 – 11h50	<p><b>Clinical trials in personalised medicine</b></p> <ul style="list-style-type: none"> <li>- What they are and what they are not</li> <li>- Most common designs – current examples</li> <li>- Challenges</li> <li>- Best practices and recommendations</li> </ul> <p><b>Working groups</b></p> <p><i>Raphaël Porcher – Université de Paris (Paris, France) TBC</i></p>
11h50 – 12h30	<p><b>Regulatory experiences for personalised medicine</b></p> <ul style="list-style-type: none"> <li>- Regulatory perspective from Africa and Europe for personalised medicine</li> </ul> <p><i>TBC</i></p> <p><b>Q&amp;A and discussion</b></p>
12h30-13h30	<b>LUNCH</b>
<b>Participant presentations part II</b>	
13h30-14h15	Each participant will have 4 min to present themselves and their current work.
14h15 – 15h15	<p><b>Standards in Implementation of Clinical Pharmacogenetics</b></p> <ul style="list-style-type: none"> <li>- Current standards applied in this field</li> <li>- Examples and use cases</li> </ul> <p>Collen Masimirembwa - African Institute of Biomedical Science and Technology, AiBST (Harare, Zimbabwe)</p> <p><b>Working groups</b></p>
15h15-15h30	<b>COFFEE BREAK</b>
<b>SESSION 6 – International collaborations for personalised medicine research</b>	
15h30-16h30	<p><b>EU – AU collaboration experiences</b></p> <ul style="list-style-type: none"> <li>- SAMARA project on childhood leukemia genomics (Tanzania – Ireland)</li> <li>- IRST – Bugando collaboration on precision oncology (Italy – Tanzania)</li> <li>- <i>PerMedina consortium in North Africa – Yosr Hamdi Pasteur Institute Tunis TBC</i></li> </ul> <p>Q&amp;A and general discussion on challenges and opportunities</p>
16h30-17h00	<p><b>Funding opportunities from Horizon Europe/ the European Partnership for Personalised Medicine</b></p> <p>EU Africa PerMed consortium representative</p>



<b>17h00 – 17h45</b>	<b>Final Exam</b> Participants will complete a brief exam with questions from the lectures.
<b>17h45-18h00</b>	<b>Closing remarks</b> EU Africa PerMed Project coordinator – Erika Sela, Innovatec South African Medical Research Council (SAMRC) authorities

DRAFT