

**UK Biobank Meeting: Population Health Studies and the African research community  
2<sup>nd</sup> to 3<sup>rd</sup> November 2022 / University of Cape Town, South Africa**

**PROGRAMME**

**Wednesday 2<sup>nd</sup> November 2022 (Day 1)**

09:00 – 09:30 **Arrival and refreshments**

**Session 1 - Overview of the global population health landscape**

Chair: Professor Dan Stein, Head of Department: Psychiatry & Mental Health, University of Cape Town

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|---------------|---|--|
| 09:30 – 09:40 | <b>Welcome and Introductions</b> <ul style="list-style-type: none"> <li>• Session aims and objectives</li> </ul>  | <b>Prof. Dan Stein</b><br>University of Cape Town  |
| 09:40 – 10:00 | <b>UK Biobank overview</b> <ul style="list-style-type: none"> <li>• Introduction to UK Biobank</li> <li>• Key outputs / research findings so far</li> <li>• What is the value of analysing UK Biobank data for African researchers?</li> </ul>                | <b>Prof. Rory Collins</b><br>PI/CEO, UK Biobank  |
| 10:00 – 10:15 | <b>Why multiple cohorts matter? The IHCC experience</b> <ul style="list-style-type: none"> <li>• Overview of population health studies</li> <li>• What is the need for multiple cohorts?</li> <li>• Facilitating sharing of best practices</li> </ul>         | <b>Prof. Geoff Ginsburg</b><br>Chief Medical and Scientific Officer,<br>All of Us Research Program, NIH<br>(IHCC Co-Chair) |
| 10:15 – 10:30 | <b>Landscape of health research in Africa</b> <ul style="list-style-type: none"> <li>• What exists and is planned in Africa?</li> <li>• Best practices and key successes</li> <li>• What replication datasets are needed (and where are the gaps?)</li> </ul> | <b>Prof. Michèle Ramsay</b><br>University of Witwatersrand<br>(IHCC Co-Chair)  |
| 10:30 – 11:00 | <b>Panel Discussion</b>   | <b>All</b>   |
| 11:00 – 11:30 | <b>Break</b>  |  |

**Session 2 - Achieving diversity in large-scale population cohort studies**

Chair: Professor Karen Sliwa-Hahnle, Director of Cape Heart Institute, University of Cape Town

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|---------------|---|--|
| 11:30 – 11:40 | <b>Welcome and Introductions</b> <ul style="list-style-type: none"> <li>• Session aims and objectives</li> </ul>  | <b>Prof. Karen Sliwa-Hahnle</b><br>University of Cape Town   |
| 11:40 – 11:50 | <b>Studying the determinants of disease</b> <ul style="list-style-type: none"> <li>• Ensuring range of exposures/disease risks</li> </ul>                       | <b>Prof. John Danesh</b><br>University of Cambridge          |
| 11:50 – 12:00 | <b>SAPRIN (South African Population Research Infrastructure Network)</b> <ul style="list-style-type: none"> <li>• Study objectives, research aims...</li> </ul> | <b>Dr. Kobus Herbst</b><br>African Health Research Institute |

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| 12:00 – 12:10 | <b>Non-Communicable Diseases Genetic Heritage Study (NCD-GHS) consortium</b> <ul style="list-style-type: none"> <li>• Study objectives, research aims...</li> </ul> | <b>Prof. Segun Fatumo</b><br>Co-Director, NCD-GHS            |
| 12:10 – 12:20 | <b>African Population Cohort Consortium</b> <ul style="list-style-type: none"> <li>• Study objectives, research aims...</li> </ul>                                  | <b>Dr. Kobus Herbst</b><br>African Health Research Institute |
| 12:20 – 12:30 | <b>Relevance of UKB as a large-scale cohort study</b> <ul style="list-style-type: none"> <li>• Genetic and non-genetic risk factors</li> </ul>                      | <b>Dr. Luca Lotta</b><br>Regeneron Genetics Centre           |
| 12:30 – 13:00 | <b>Panel Discussion</b>   | <b>All</b>   |
| 13:00 – 14:00 | <b>Lunch</b>  |  |

### Session 3 - Current research focus in Africa and data resources they are accessing

Chair: Dr Obed Ogega, Programmes Manager, African Academy of Science

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|---------------|---|--|
| 14:00 – 14:10 | <b>Welcome and Introductions</b> <ul style="list-style-type: none"> <li>• Session aims and objectives</li> </ul>  | <b>Dr. Obed Ogega</b><br>Programmes Manager, AAS   |
| 14:10 – 14:25 | <b>Cardiovascular disease</b> <ul style="list-style-type: none"> <li>• What data resources would be useful; challenges in accessing resources</li> </ul>                            | <b>Prof. Karen Sliwa-Hahnle</b><br>Director of Cape Heart Institute<br>University of Cape Town |
| 14:25 – 14:40 | <b>Cerebrovascular disease</b> <ul style="list-style-type: none"> <li>• What data resources would be useful; challenges in accessing resources</li> </ul>                           | <b>Prof. Mayowa Owolabi</b><br>Centre for Genomic and Precision Medicine; University of Ibadan |
| 14:40 – 14:55 | <b>Diabetes</b> <ul style="list-style-type: none"> <li>• What data resources would be useful; challenges in accessing resources</li> </ul>  | <b>Prof. Andre Kengne</b><br>Director, SAMRC NCD Research Unit                                 |
| 14:55 – 15:10 | <b>Potential value of UK Biobank</b> <ul style="list-style-type: none"> <li>• Relevance to African researchers</li> <li>• Linkages, no. of cases, research possibilities</li> </ul> | <b>Prof. Naomi Allen</b><br>Chief Scientist, UK Biobank  |
| 15:10 – 15:40 | <b>Panel Discussion</b>   | <b>All</b>   |
| 15:40 – 16:10 | <b>Break</b>  |  |
| 16:10 – 16:25 | <b>Mental health</b> <ul style="list-style-type: none"> <li>• What data resources would be useful; challenges in accessing resources</li> </ul>                                     | <b>Prof. Dan Stein</b><br>University of Cape Town  |
| 16:25 – 16:40 | <b>Cancer</b> <ul style="list-style-type: none"> <li>• What data resources would be useful; challenges in accessing resources</li> </ul>  | <b>Dr. Mazvita Muchengeti</b><br>National Cancer Registry                                      |
| 16:40 – 16:55 | <b>Neurodegenerative disease</b> <ul style="list-style-type: none"> <li>• What data resources would be useful; challenges in accessing resources</li> </ul>                         | <b>Dr. Mahmoud Maina</b><br>University of Sussex   |
| 16:55 – 17:10 | <b>Potential value of UK Biobank</b> <ul style="list-style-type: none"> <li>• Relevance to African researchers</li> <li>• Linkages, no. of cases, research possibilities</li> </ul> | <b>Prof. Naomi Allen</b><br>Chief Scientist, UK Biobank  |
| 17:10 – 17:40 | <b>Panel Discussion</b>   | <b>All</b>   |

17:40 – 17:50      **Wrap-up of Day 1**      **Prof. Dan Stein**  
University of Cape Town

18:30 – 21:30      *Conference Dinner and Networking*

### Thursday 3<sup>rd</sup> November (Day 2)

08:30 – 09:00      **Arrival and refreshments**

#### **Session 4 – Accessing UKB data for health-related research**

Chair: Professor Liesl Zühlke, Vice President, South African Medical Research Council (SAMRC)

09:00 – 09:10      **Welcome and Introductions**      **Prof. Liesl Zühlke**  
• Aims and objectives      Vice President, SAMRC

09:10 – 09:20      **UK Biobank and neuro-related data**      **Prof. Paul Matthews**  
• Examples/deep-dive breadth/depth of data      Imperial College London

09:20 – 09:30      **UK Biobank and cardiac-related data**      **Prof. Steffen Petersen**  
• Examples/deep-dive breadth/depth of data      Queen Mary University of London

09:30 – 09:40      **UK Biobank and genetic characterisation**      **Prof. Jonathan Marchini**  
• Examples/deep-dive breadth/depth of data      Regeneron Genetics Centre

09:40 – 09:50      **UK Biobank and availability of other omics data**      **Dr Chris Whelan**  
• Examples/deep-dive breadth/depth of data      Janssen Pharmaceuticals

09:50 – 10:00      **GWAS of Pulmonary Function**      **Dr Sinkala Musalula**  
• Risk factors African/non-African populations      University of Cape Town  
• Challenges in accessing the data

10:00 – 10:10      **Genetic Architecture of Amygdala Nuclei**      **Dr Mary Mufford**  
• Use of imaging and genetics data in UKB      University of Cape Town  
• Challenges in accessing the data

10:10 – 10:20      **Access to the UK Biobank resource**      **Jonathan Sellors**  
• Open science policy      Company Secretary, UK Biobank  
• Support for LMIC researchers

10:20 – 10:50      **Group Discussion**      **All**  
• What are the barriers to using the resource?

10:50 – 11:20      *Break*

#### **Session 5 – Technology platforms to enable data access**

Chair: Tariq Khokhar, Head of Data for Science and Health, Wellcome

11:20 – 11:30      **Welcome and Introductions**      **Tariq Khokhar**  
• Aims and objectives      Head of Data Science, Wellcome

11:30 – 11:45      **H3aBionet – Pan-African Bioinformatics Network and CIDRI Data Integration Platform**      **Prof. Nicky Mulder**  
• Experiences, opportunities, challenges      University of Cape Town

11:45 – 12:00      **Approach to Data Integration Platforms**      **Prof. Nicki Tiffin**  
Experiences, opportunities, challenges      University of Western Cape

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| 12:00 – 12:15 | <b>Research Analysis Platform and Research Credits</b> <ul style="list-style-type: none"> <li>• Advantages of Platform access to data</li> <li>• Accessing research credits</li> </ul> | <b>Dr. Mark Effingham</b><br>Deputy CEO, UK Biobank |
| 12:15 – 12:30 | <b>Democratising access to technology resource</b> <ul style="list-style-type: none"> <li>• Support via AWS Health Equity Programme</li> </ul>   | <b>Kira Levy</b><br>Head of Healthcare, AWS         |
| 12:30 – 13:00 | <b>Panel Discussion</b>  | <b>All</b>  |
| 13:00 – 14:00 | <b>Lunch</b>   |   |

### Session 6 - Skills, enablement and collaboration

Chair: Professor Cecilia Lindgren, Director of the Big Data Institute, University of Oxford

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|------------------------------------|---|--|
| 14:00 – 14:10                      | <b>Welcome and Introductions</b> <ul style="list-style-type: none"> <li>• Aims and objectives</li> </ul>  | <b>Prof. Cecilia Lindgren</b><br>University of Oxford  |
| 14:10 – 14:25                      | <b>Data analysis and the skills gap</b> <ul style="list-style-type: none"> <li>• Current issues and identifying obstacles</li> <li>• Opportunities for skills/enablement/training</li> </ul>  | <b>Prof. Alan Christoffels</b><br>Director, South African National<br>Bioinformatics Institute, University<br>of the Western Cape                        |
| 14:25 – 14:40                      | <b>Training programmes in Africa</b><br>Or Coalition of African Research and Innovation<br>(CARI) or AAS Mentorship Scheme  | <b>Dr. Laura Povlich</b><br>Program Officer, NIH Fogarty Centre<br>Harnessing Data Science for Health<br>Discovery and Innovation in Africa<br>programme |
| 14:40 – 14:55                      | <b>Opportunities for mentoring/outreach</b> <ul style="list-style-type: none"> <li>• Opportunities to link with other institutes</li> </ul>   | <b>Paballo Chauke</b><br>MalariaGen  |
| 14:55 – 15:10                      | <b>Technology applied to population health studies</b> <ul style="list-style-type: none"> <li>• Building for the futures, technologies, skills</li> </ul>   | <b>Dr. Jonah Cool</b><br>Science Program Officer,<br>Chan Zuckerberg Initiative  |
| 15:10 – 15:25                      | <b>Approaches to help African researchers use UK<br/>Biobank</b> <ul style="list-style-type: none"> <li>• Usefulness of findings to African<br/>populations – need for replication</li> <li>• Research credits</li> <li>• Data analysis experience</li> <li>• Career development</li> </ul> | <b>Dr. Mark Effingham</b><br>Deputy CEO, UK Biobank  |
| 15:25 – 15:40                      | <b>Value to Early Career Researchers</b> <ul style="list-style-type: none"> <li>• Examples of support/opportunities</li> </ul>  | <b>Dr. Hannah Meyer</b><br>Fellow, CSHL Cancer Center  |
| 15:40 – 16:10                      | <b>Panel Discussion</b>   | <b>All</b><br><b>(incl. additional panel discussants)</b>  |
| <b>Summary and closing remarks</b> |   |  |
| 16:10 – 16:30                      | <b>Next steps and meeting wrap-up</b>   | <b>Prof. Rory Collins &amp; Prof. Dan Stein</b>  |