

Bio-Hackathon MENA 2023

Agenda

Time	Activity	Location
Day 1 – 7 Feb 2023		
8:00-8:30	Registration	
8:30 -8:45	Opening Event (Prof Xin Gao and Prof Robert Hoehndorf)	
8:45-9:30	Parallel Session: Keynote Speaker Prof Michel Dumontier (KAUST Hotel) Keynote Speaker Prof Aida Al Akeel (KAUST Library)	
9:30-12:00	Project presentation	
12:00-1:00	Lunch	
1:00-2:30	Formation of teams	
2:30-5:00	Hacking	
5:00-6:00	Tutorial: High-Performance Computing (Mr. Nagarajan Katrihesan, the IBEX team, KAUST)	
7:00	Gala Dinner at KAUST Hotel	
Day 2 – 8 Feb 2023		
8:00-9:00	Tutorial: Open Science (Dr. Leyla Garcia, ZB MED)	
09.00-12:00	Hacking Session	
12:00-1:00	Lunch	
1:00- 3:00	Hacking Session	
3:00-10:00	Excursion and Dinner: Al Balad (Jeddah)	
Day 3 – 9 Feb 2023		
8:00 -9:00	Tutorial: MOWL- Machine Learning Library with Ontologies (Dr. Maxat Kulmanov, Mr. Fernando Zhapa, CBRC, KAUST)	
9:00-12:00	Hacking Session	
12:00-1:00	Lunch	
1:00-3:00	Hacking Session	
3:00-5:00	Presentations (Project updates)	
6:45 - 9:45	Dinner at Al Sayed Fish Restaurant, Thuwal	
Day 4 – 10 Feb 2023		
08:00 -9:00	Tutorial: Metagenomics (Dr. Intikhab Alam, CBRC, KAUST)	
09:00-12:00	Hacking Session	
12:00-1:00	Lunch	
1:00-9:00	Hacking Session	
Day 5 – 11 Feb 2023		
8:30-12:00	Final Presentations	
12:00-1:00	Lunch	

1:00-5:00	Manuscript writing	
5:00-5.15	Closing Session	

Presentation order

Project ID	Team leader's Name and Surname	Affiliation	Project Title
1	Asma Alkhaldi	Saudi Data and Artificial Intelligence Authority (SDAIA)	Toward the treatment of Vaso-Occlusive Crisis: A Reinforcement learning-based approach for non-opioid drug discovery
2	Batool Almarzouq	The University of Liverpool	A reproducible workflow using Nextflow for protein Molecular Dynamics (MD) simulations with documentation that supports RTL languages and non-Latin scripts.
3	Chang Sun	Institute of Data Science, Maastricht University	Embedding ontologies
4	Esraa Madi	Sequential Lab	End-to-end framework to enable analyzing data from DNA sequencing experiments utilizing AI
5	Hatoon Al Ali	KAUST	DNAPredict
6	Nicholas Dimonaco	McMaster University, Canada	Improving prokaryotic genome annotation through an interoperable and multi-platform bioinformatic pipeline.
7	Núria Queralt Rosinach	Leiden University Medical Center	MetaboliteNET: building a metabolite-centric knowledge base by ontology-based mining annotations from literature
8	Oleg Vlasovets	Helmholtz Munich	Open MENA Microbiome Project
9	Olga Mashkova	Lomonosov Moscow State University, Ivannikov Institute for System Programming of the Russian Academy of Sciences	The Middle East molecular database
10	Remzi Celebi	Maastricht University, Netherlands	Reproducing Machine Learning and AI methods using FAIR Workbench
11	Yan Gong	King Abdullah University of Science and Technology	Diabetes Atlas for MENA
12	Katherine Hardgrave	Trinity College Dublin	Bacteria sensing in wastewater treatment processes using transformer models

13	Nelson David Quiñones Virgen	ZB Med	Document similarity of articles in the bio-medical domain using multilabel-classification and ontology embeddings.
14	Alexander Kanitz	University of Basel	The ELIXIR::GA4GH Cloud - Global Engagement
15	Robert Hoehndorf	KAUST	Resources for genome workflows in the MENA population
16	Leyla Garcia	ZBMED	Metadata for Science with (bio)schemas
17	Asiyah Lin and Sara Alghamdi	NIH, KAUST	Creating a FAIR and Harmonized Ontology for Diseases and Phenotypes
18	Tazro Ohta	DBCLS	Cloud-native data analysis workflow execution service and quality assessment of published workflows
19	Jing-Dong Kim	DBCLS	Agile text mining with PubAnnotation/PubDictionaries, and its application to MENA Bioinformatics
20	Fernando Zhapa	KAUST	mOWL: Python library for machine learning with biomedical ontologies
21	Asiyah Lin and Núria Queralt Rosinach	NIH & LUMC	Harmonizing COVID-19 Epidemiology Ontologies
22	Turki Abdulaziz I. Althunian	SFDA	Predicting the risk of food contamination using machine learning models