



1st Scientific Workshop

How data science and AI transform research and care in haematology

September 17-19, 2026 – Malahide (Dublin), Ireland

Chairs: Claudia Haferlach, Franziska Michor, Kimmo Porkka, Thorsten Zenz

Thursday, September 17, 2026

14:30-14:40 Welcome

Conference chairpersons

SESSION I – The role of AI in haematology

Chairs: Claudia Haferlach (Munich), Franziska Michor (Boston)

14:40-15:00 The evolution of AI:
from historical roots to modern days

Silvana Quaglini (Pavia)

15:00-15:05 *Discussion*

15:05-15:25 Applications of AI in haematology and the roadblocks
to routine use

Carsten Niemann (Copenhagen)

15:25-15:30 *Discussion*

15:30-15:50 The future of AI in medicine:
emerging trends “Machine learning or AI”

Franziska Michor (Boston)

15:50-15:55 *Discussion*

15:55-16:05 Selected brief oral communication
Locally-hosted large language models for drafting
targeted NGS diagnostic reports in haematological malignancies: a feasibility study

Alex Wong (Sydney)*

16:05-16:10 *Discussion*

16:10-16:40 *Panel discussion*

16:40-17:10 Coffee Break

SESSION II – Modern statistics and AI methods in haematology

Chairs: Wolfgang Huber (Heidelberg), Thorsten Zenz (Zurich)

17:10-17:30 Overview of modern statistical techniques in
haematology research (machine learning)

Wolfgang Huber (Heidelberg)

17:30-17:35 *Discussion*

17:35-17:55 Introduction to AI methods: from supervised and
unsupervised learning to generative and agentic AI

Aziz Nazha (Philadelphia)

17:55-18:00 *Discussion*

18:00-18:20 Multimodal Agentic AI for Immunotherapy

Moritz Schaefer (Stanford)

18:20-18:25 *Discussion*

- 18:25-18:35 Selected brief oral communication Emmanuel Sleiman
Pre-trained foundation model embeddings capture (Toulouse)*
transcriptional signatures of teclistamab response in
multiple myeloma
- 18:35-18:40 *Discussion*
- 18:40-19:10 *Panel discussion*
- 19:20-21:00 Poster Walks and Welcome Get-Together buffet**

Friday, September 18, 2026

09:00-10:00 4 Simultaneous Meet the Expert sessions (clinical/research in parallel)

1. Data journey: Examples of workflows SC data & spatial data Jani Huuhtanen (New York)
2. Data analysis: Multi-omics factor analysis and more Wolfgang Huber (Heidelberg)
3. Data analysis: From Omics profiling to disease mechanisms Judith Zaugg (Basel)
4. Data sharing: Why and how Kimmo Porkka (Helsinki)

10:00-10:30 Coffee break

SESSION III – Big data integration, networking and federation

Chairs: Kimmo Porkka (Helsinki), Thorsten Zenz (Zurich)

- 10:30-10:50 Big Data Networking and Federation: why and how Kimmo Porkka (Helsinki)
10:50-10:55 *Discussion*
- 10:55-11:15 Swarm learning Joachim Schultze (Bonn)
11:15-11:20 *Discussion*
- 11:20-11:40 Data integration in the BEAT AML network Jeffrey Tyner (Portland)
(alternative Harmony)
11:40-11:45 *Discussion*
- 11:45-11:55 Selected brief oral communication Micol Caccia (Alessandria)*
Deep molecular inquiry by artificial intelligence algorithms
unveils the high diagnostic informative yield of srsf2, ras and chips allelic burden
- 11:55-12:00 *Discussion*
- 12:00-12:30 *Panel discussion*
- 12:30-13:45 Lunch**

SESSION IV – Big data and AI for improved diagnosis and prognostication in haematology

Chairs: Claudia Haferlach (Munich), Carsten Marr (Munich)

- 13:45-14:05 AI to optimize diagnostics in haematology Carsten Marr (Munich)
– the data scientist's perspective
- 14:05-14:10 *Discussion*

14:10-14:30	AI to optimize diagnostics in haematology – the diagnostic perspective	Christian Pohlkamp (Munich)
14:30-14:35	<i>Discussion</i>	
14:35-14:55	Leveraging big data and data science to understand disease mechanisms	Judith Zaugg (Basel)
14:55-15:00	<i>Discussion</i>	
15:00-15:10	Selected brief oral communication	Adrien De Voeght (Liege)*
	Marvin: a deep generative model for flow cytometry analysis informed by biological assumption	
15:10-15:15	<i>Discussion</i>	
15:15-15:45	<i>Panel discussion: Enhancing diagnostic and prognostic accuracy through big data</i>	
15:45-16:15	<i>Coffee break</i>	

SESSION V – Big data and synthetic data

Chairs: TBA

16:15-16:35	Synthetic data and the potential in haematology	Jan-Niklas Eckardt (Dresden)
16:35-16:40	<i>Discussion</i>	
16:40-17:00	Personalized treatment in haematology through big data analysis	Uri Ilan (Utrecht)
17:00-17:05	<i>Discussion</i>	
17:05-17:25	AI agents in tumorboards	Fabio Steffen (Zurich)
17:25-17:30	<i>Discussion</i>	
17:30-17:40	Selected brief oral communication	Runhai He (Helsinki)*
	Multimodal integration of bone marrow cell morphology and clinical variables for overall survival prediction in newly diagnosed multiple myeloma	
17:40-17:45	<i>Discussion</i>	
17:45-18:15	<i>Panel discussion: Translating research into practice - overcoming hurdles in integrating cutting-edge personalized medicine into clinical routine</i>	

Saturday, September 19, 2026

08:00-09:00 4 Simultaneous Breakfast Meet the Expert Sessions (clinical)

1.	How to optimize prompts for GPT-4, Claude, and Gemini for clinical and research questions	Moritz Schaefer (Stanford)
2.	How to plan an AI project	Matthias Heinig (Munich)
3.	How to integrate and validate AI tools into clinical routine	Uri Ilan (Utrecht)
4.	How to use AI tools for designing illustrations	Aziz Nazha (Philadelphia)

SESSION VI – AI in haematology: successes, setbacks, and the path to standardization

Chairs: Christian Pohlkamp (Munich), Jan Moritz Middeke (Dresden)

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| 09:10-09:30 | Revolutionizing haematological disease diagnosis with AI: a success story | Isolde Summerer (Munich) |
| 09:30-09:35 | <i>Discussion</i> | |
| 09:35-09:55 | Navigating the Pitfalls: what we can learn from an AI Project that required a second approach | Jan Moritz Middeke (Dresden) |
| 09:55-10:00 | <i>Discussion</i> | |
| 10:00-10:20 | Ensuring reproducibility and reliability in haematological data | Junyan Lu (Heidelberg) |
| 10:20-10:25 | <i>Discussion</i> | |
| 10:25 -10:35 | Selected brief oral communication
A patient-anchored dual-arm flow-cytometric MRD algorithm for AML -- frozen four-tier validation and a predictive skill score that rewards beating the obvious, in a transparent human--AI framework | Georgios Paterakis (Athens)* |
| 10:35-10:40 | <i>Discussion</i> | |
| 10:40-11:10 | <i>Panel discussion</i> | |
| 11:10-11:40 Coffee break | | |

SESSION VII – Infrastructure, security and collaboration in the age of digital haematology

Chairs: Matthias Heinig (Munich), TBA

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| 11:40-12:00 | Data security and privacy in haematology: best practices and challenges | Matteo Della Porta (Milan) |
| 12:00-12:05 | <i>Discussion</i> | |
| 12:05-12:25 | Fostering collaboration: the human cell atlas | Matthias Heinig (Munich) |
| 12:25-12:30 | <i>Discussion</i> | |
| 12:30-12:40 | Selected brief oral communication
Federated explainable bayesian networks for organ toxicity prediction after allo-HCT | Alexander Angleitner (Göttingen)* |
| 12:40-12:45 | <i>Discussion</i> | |
| 12:45-13:15 | <i>Panel discussion: Securing the digital future of haematology - strategies and solutions</i> | |
| 13:15-13:50 | <i>Final discussion on the benefits and challenges due to AI in haematology and Closing Remarks</i> | Conference chairpersons |

MEETING CLOSURE