

# 14th NACG workshop agenda

28-29 September 2023

Helsinki, Finland

**Theme: Benefits and challenges of artificial intelligence solutions in clinical genetics**

## Agenda summary

The 14th NACG workshop focuses on increasing the efficiency of clinical interpretation by cutting-edge solutions, including artificial intelligence (AI)-tools. The emerging AI-based tools hold a promise to boost variant interpretation, but they also come with challenges related to traceability and legal regulations. This 2-day workshop has a clinical and bioinformatic track. As always, the workshop will be highly interactive - aiming to foster Nordic collaboration and knowledge sharing.

## 28th September, Day 1

Time	Item	Responsible
10:00 - 10:30	Registration and coffee	
10:30 - 11:00	Welcome address	Dag Undlien, Anna-Kaisa Anttonen
11:00 - 12:00	<b>Invited keynote speaker:</b> Samuli Ripatti, Institute for Molecular Medicine Finland, University of Helsinki, Finland <i>Title of the talk: Responsible use of polygenic risk scores in the clinic: benefits, risks and gaps</i>	
12:00 - 13:00	National updates relating to development in national programs in genomic medicine, precision diagnostics and precision medicine. Speakers: Valtteri Wirta (Sweden), Eirikur Briem (Iceland), Ane Yde Schmidt (Denmark), Dag Undlien (Norway), Anna-Kaisa Anttonen (Finland)	
13:00 - 14:00	Lunch	
14:00 - 15:30	<b>Rapid-fire session on knowledge sharing</b> Every site should contribute. <i>Brief presentations (7+3 min) on essentially any topic relevant to NACG activities (does not have to be on the theme of the workshop). Also event sponsors may present new products and services. The purpose is to disseminate information regarding new tools, workflows, clinical cases etc. The session is in the beginning of the workshop to facilitate follow-up discussion during breaks and other social events.</i>	Dorte Launholt Lildballe

15:30 - 16:00	Coffee break	
16:00 - 17:30	<b>AI tools in variant interpretation</b>	Oleg Agafonov
17:30 - 19:30	Time on your own – spa, sauna or free time	
19:30 – 20:00	Pre-dinner drink and social activity	
20:00	Dinner	

## 29<sup>th</sup> September, Day 2

Time	Item	Responsible
08:30 - 10:00	<b>Clinical Interpretation: cutting edge tools, data integration and best practices in variant interpretation.</b> How have they helped the interpretation. Interesting cases and examples from different labs.	Kaisa Kettunen and Ksenia Lavrichenko
10:00 - 10:30	Coffee break	
10:30 - 11:45	<b>Parallel session 1:</b> TRACK 1 – AI-tools in genomics – legal challenges and opportunities <i>Recent and ongoing EU-regulatory activity: Informed consent and its harmonization (for clinical intervention) Consent and dynamic consent (for data processing activities, including data sharing), Clinical and research use without consent (possibilities afforded by the proposed EU regulation on a European Health Data Space), Trustworthy AI and clinical practice, AI predictive and generative tools. Q &amp; A</i>	Ana Nordberg and Oleg Agafonov
	<b>Parallel session 2:</b> TRACK 2 – BIOINFORMATICS – tools, pipelines, and their standardization <i>Short (5 min) presentations from the different sites: selected tools, pipelines and validation criteria. Is the tool an approved commercial solution?</i> <b>Workshop</b> on standardisation and validation of bioinformatics tools and pipelines.	Frederik Otzen Bagger
11:45 - 12:45	Lunch	
12:45 - 14:30	<b>Parallel session 1 continues:</b> TRACK 1 – AI-tools in genomics – legal challenges and opportunities <b>Workshop</b> on legal challenges and opportunities concerning AI tools. Small group discussions about the topic. What type of questions different labs have faced this far. What questions are about to rise. How labs have handled the issues and what are best ways to tackle the issues.	Ana Nordberg
	<b>Parallel session 2 continues:</b> TRACK 2 – BIOINFORMATICS – tools, pipelines, and their standardization <b>Workshop</b> on best practices and development guidelines of analysis pipelines in clinical settings. How to choose the tools and parameters. Benchmarking, validation, version control etc.	Frederik Otzen Bagger
14:30-15:00	<b>Summary &amp; farewell, announcement of next WS</b> Coffee break	Dag Undlien, Anna-Kaisa Anttonen