# Pragmatic trials in precision oncology: state of the art

Chairperson: Åslaug Helland, Oslo Comprehensive Cancer Centre

Speakers: Denis Lacombe, EORTC Kristoffer Staal Rohrber, The National Hospital, Copenhagen, Denmark

# Pragmatic trials

- Randomized controlled trials (RCTs) have been the mainstay of clinical research
- Traditional RCTs are slow and expensive
- Traditional TCTs does not work well in precision cancer medicine
- Need for more pragmatic approaches

# Many ongoing similar studies in cancer precision medicine

### the Drug Rediscovery Protocol Expanded use of existing anticancer drugs

## **ProTarget**

A Danish Nationwide Clinical Trial on Targeted Anti-Cancer Treatment based on Molecular Profiling

> FINPROVE DRUG REDISCOVERY PROGRAM IN FINLAND

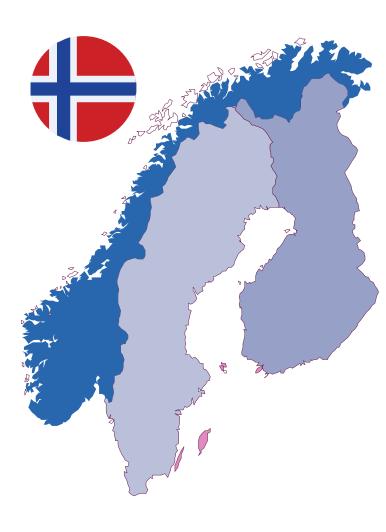




MEGALIT



# Implementing precision cancer medicine in Norway via interconnected initiatives:



## InPreD Norway:

National **in**frastructure for **pre**cision **d**iagnostics

## **IMPRESS-Norway:**

**Im**proving public cancer care by implementing **pre**cision medicine in Norway

## MATRIX:

<u>M</u>ultimodal <u>Approach Targeting treatment</u> <u>Refractory cancers us</u><u>Ing</u> ne<u>X</u>t generation technologies and trials

## TRAIN:

Tumour Response Evaluation using Artificial Intelligence for Norway

## **INSIGHT / INCLUDE:**

Sustainable implementation of precision cancer medicine

## CONNECT Public-private partnership:

Norwegian Precision Cancer Medicine Implementation Consortium

\*See also Taskén K. et al, Nature Medicine May 2022, 28(5):885-887 for description

# Strategic development towards a national trial as a publicprivate cooperation

### **Bottom up:**

- White paper for Norwegian concept, National PI assigned (Åslaug Helland)
- Buy-in from oncology, haematology, pathology environments in all Norwegian health regions -> National approach

### Top down:

- Dialogue with health authorities (regional health care systems, ministry)
- Engaging key national stakeholders: NoMa, NIPH, HDIR, Cancer Registry, Cancer Society



## International: Joined DRUP network and building Nordic Task Force

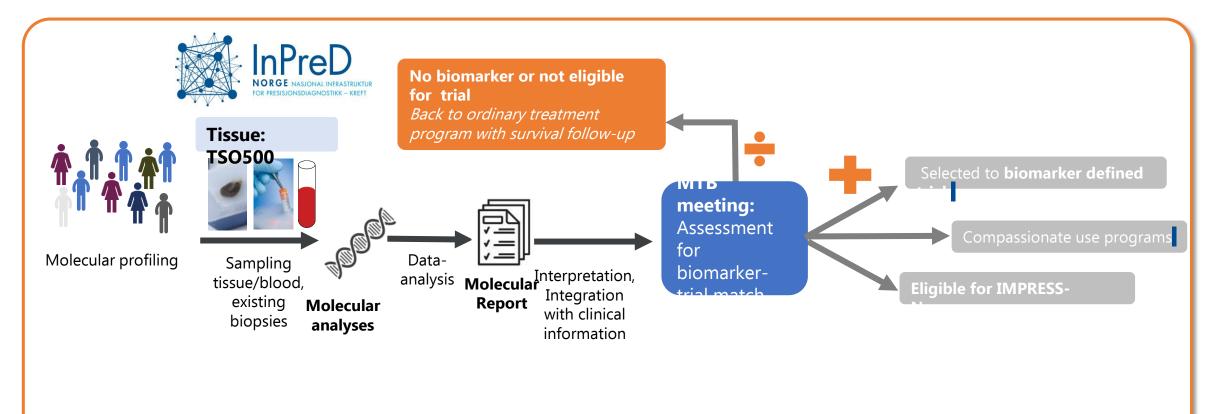


Public-private: Dialogue with industry partners: trial participation and consortium formation for public-private partnership

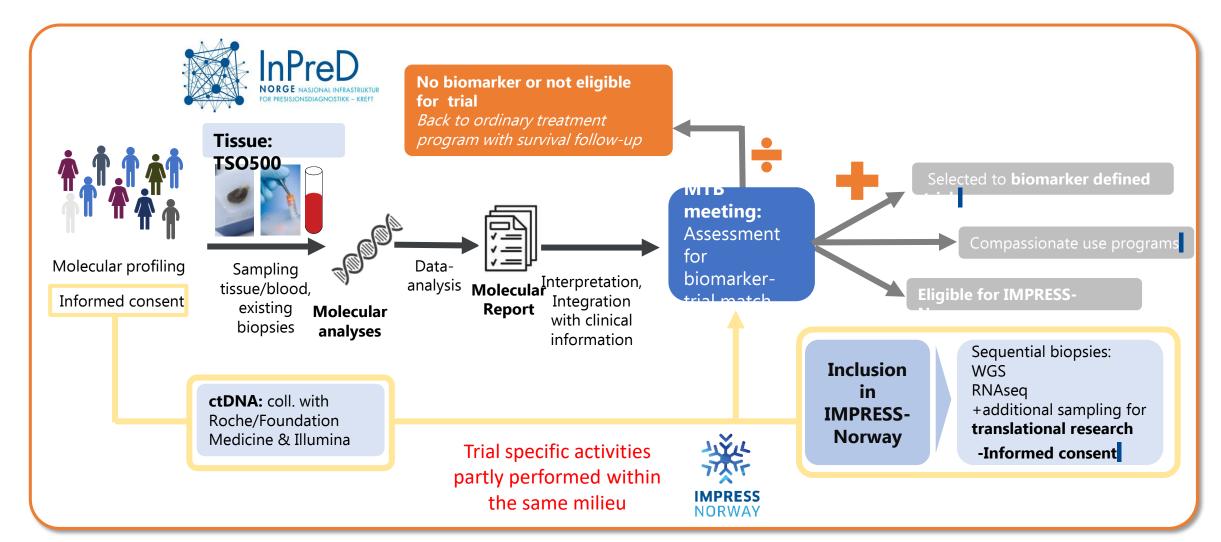


Parallel development of diagnostic platforms (InPreD), PCM PPP (CONNECT) and research on RWE & controls, health economy & HTA, ethics, legal & org. of PCM (INSIGHT)

# InPreD: Diagnosis and assessment for cancer patients where experimental treatment and clinical trial inclusion is an option

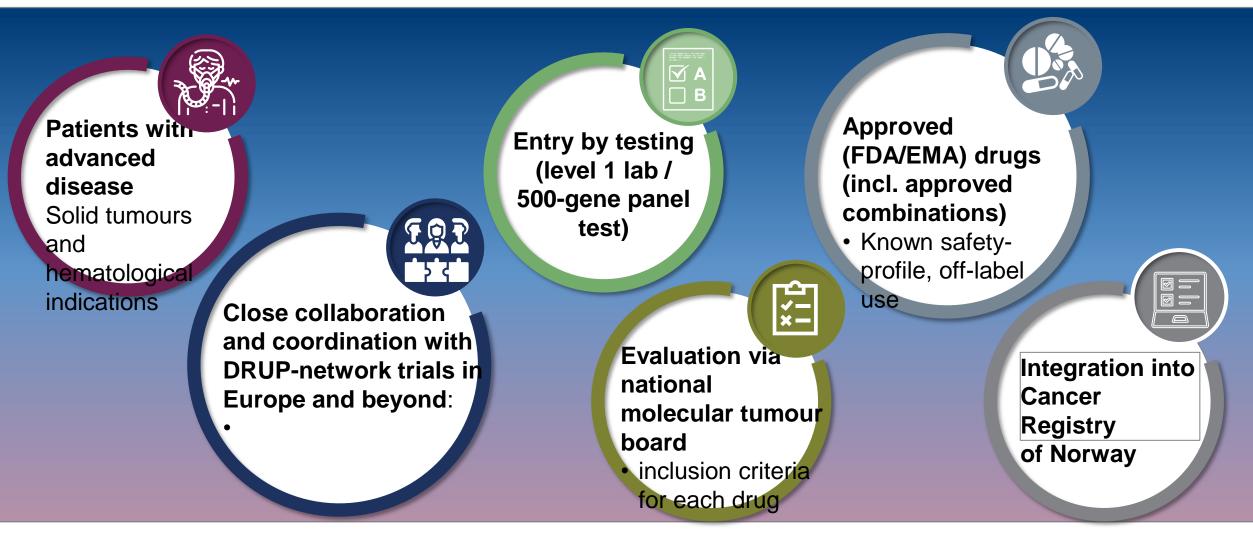


# InPreD: Diagnosis and assessment for cancer patients where experimental treatment and clinical trial inclusion is an option

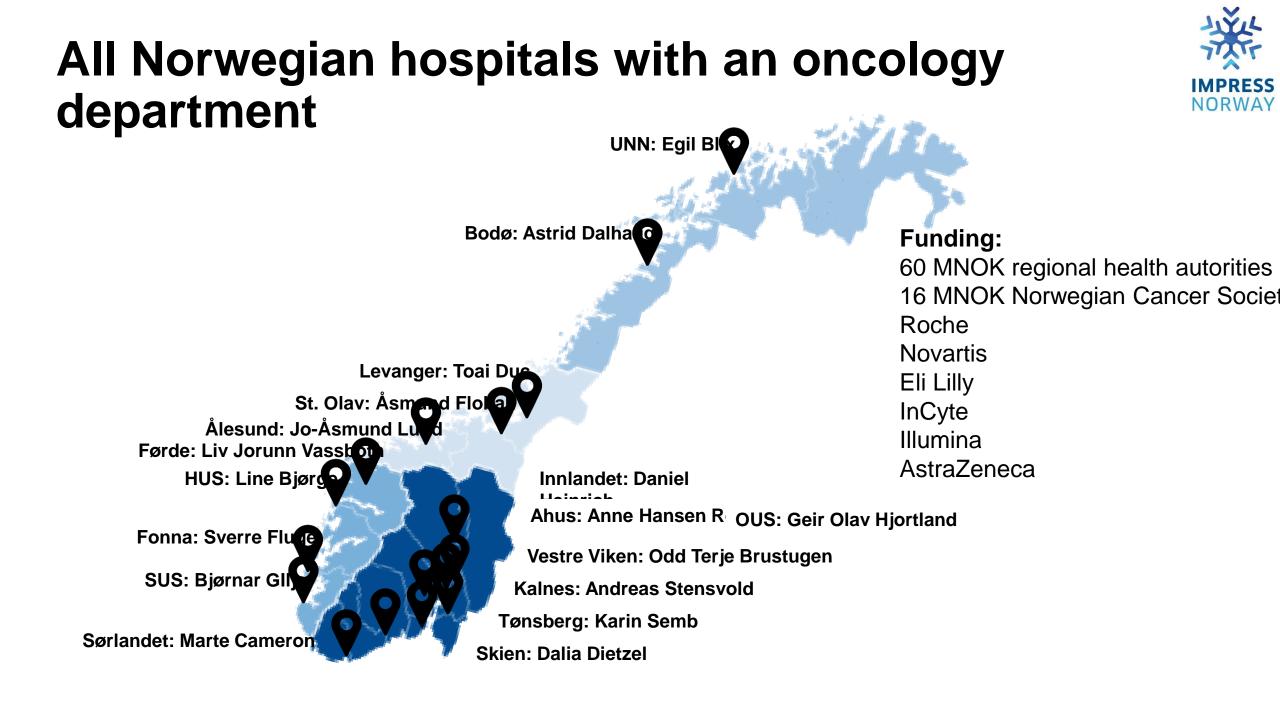


# IMPRESS-Norway: Improving public cancer care by implementing precision medicine in Norway\*



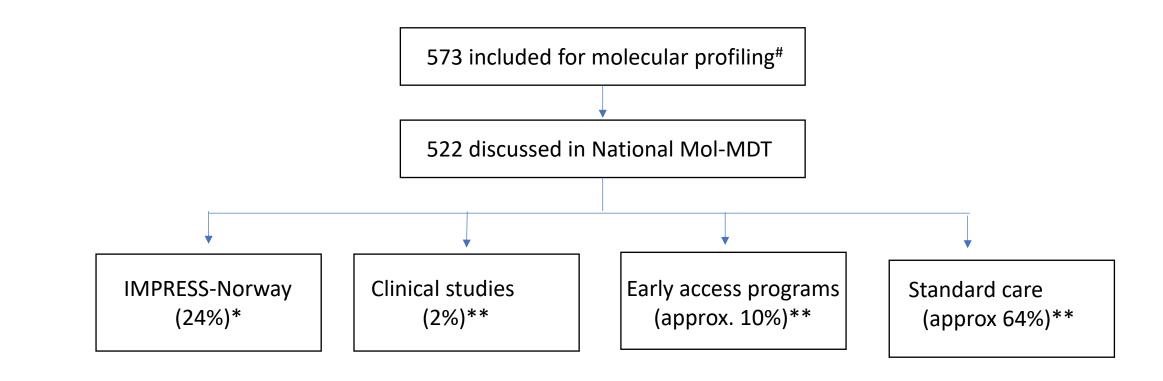


\*See also Helland, Å. et al, J. Transl. Med. May 2022, 20(1), 225 for description of protocol





Infrastructure for precision diagnostics 01.04.2021 – 12.10.2022

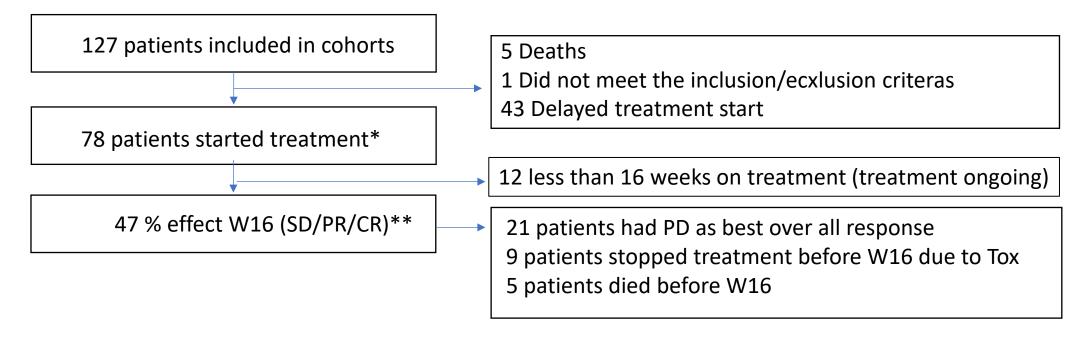


\* 127 patients included in a cohort of 522 discussed in National Mol-MDT

\*\* lag time for screening before inclusion into clinical trials and early access program giving uncertain no. of acctual included.

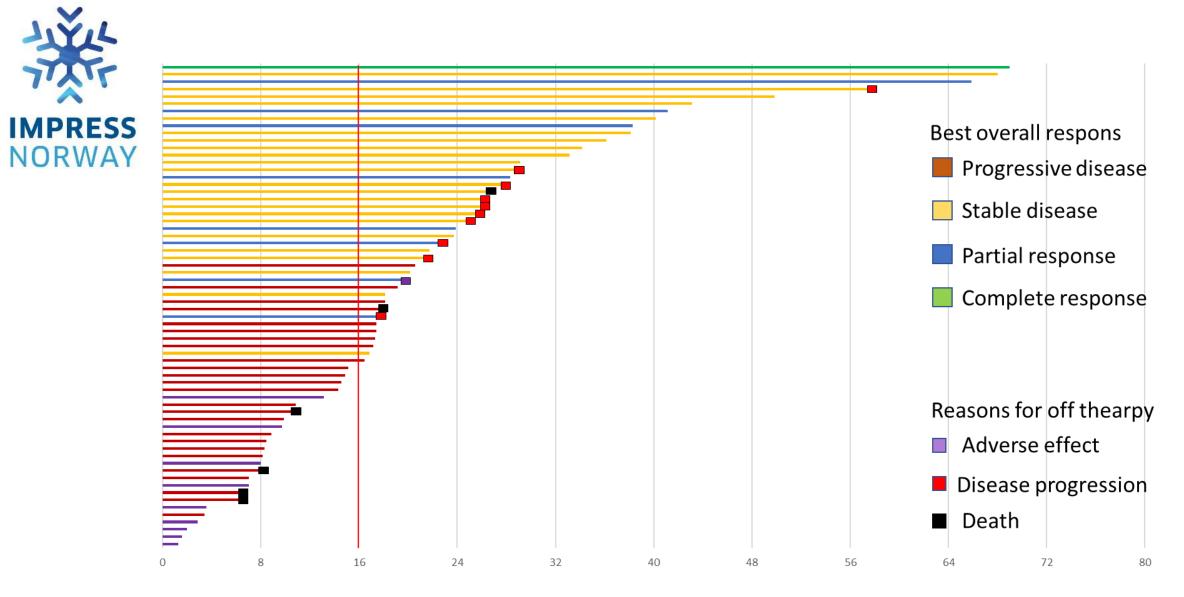


# IMPRESS-Norway – in treatment 01.04.2021 – 12.10.2022



\* Lag time between included into cohort and start treatment mainly due to still effect of last line of treatment.

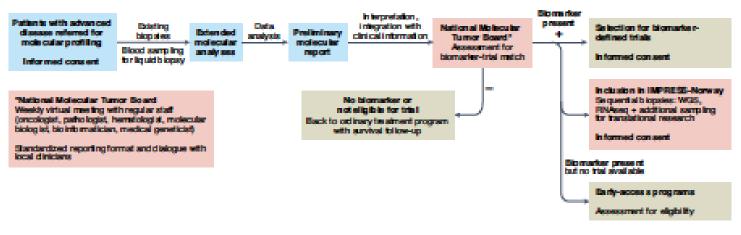
\*\* 31/66 patients clinical effect at W16



66 patients evaluated at W16. 5 patients died before W16, 9 patients stopped treatment before W16 due to toxicity and 21 patients had progressive disease as best overall response. 31/66 patients had effect according to protocol at W16. 1 patients had complete response at W16, 8 patients had partial response at W16 and 22 patients had stable disease at W16.

### Nature Med. May 5th 2022

# A national precision cancer medicine implementation initiative for Norway



Check for updates

#### correspondence

Table 1   CONNECT: a public-private partnership of stakeholders in precision cancer medicine			
CONNECT working-groups interfacing			
InPreD (WGI)	IMPRESS (WG2)	Innovative Implementation methods (WG3)	Data governance, storage and sharing for secondary use and analysis (WG4)
InPreD national testing infrastructure	IMPRESS-Norway national PCM trial	INSIGHT-INCLUDE: Impact of precision cancer medicine health economics and regulatory framework for implementation	INSIGHT-INCLUDE legal framework InPreD ICT solution; IMPRESS aggregation of data in Europe

CONNECT is operationalized via working groups (WGI-WG4) that angage experts from the public and private sector. p ICT, information and communications technology; PCM, precision cancer medicine.

Kieti Taskén (2012), Hege E. G. Russnes 224, Eline Aas<sup>14</sup>, Line Bjørge<sup>119</sup>, Egil S. Blix<sup>10</sup>7, CONNECT Public-Private Partnership Consortium\*, Espen Enerly<sup>4</sup>, Gro L. Fagereng<sup>4</sup>, Asmund Flobak<sup>34,39</sup>, Bjørnar Gilje<sup>36</sup>, Bjørn T. Gjertsen <sup>(1)</sup><sup>40</sup>, Tormod K. Guren<sup>46</sup>, Jutta Heix<sup>19</sup>, Elvind Hovig<sup>(20,2)</sup>, Randt Hoyland<sup>22</sup>, InPreD-Norway and National Molecular Turnor Board Consortium\*, IMPRESS-Norway Consortium\*, Per E. Lenning<sup>8,20</sup> Leonardo A. Meza-Zepeda<sup>20,24</sup> Per M. Mæhle<sup>2s</sup>, Hilde L. Nilsen<sup>2,24</sup>, Steinar Ø, Thoresen<sup>9,27</sup>, Ketil Widerberg<sup>9</sup>, Støblørn Smeland<sup>2,26</sup> and Aslaug Helland<sup>©2,c/8</sup>

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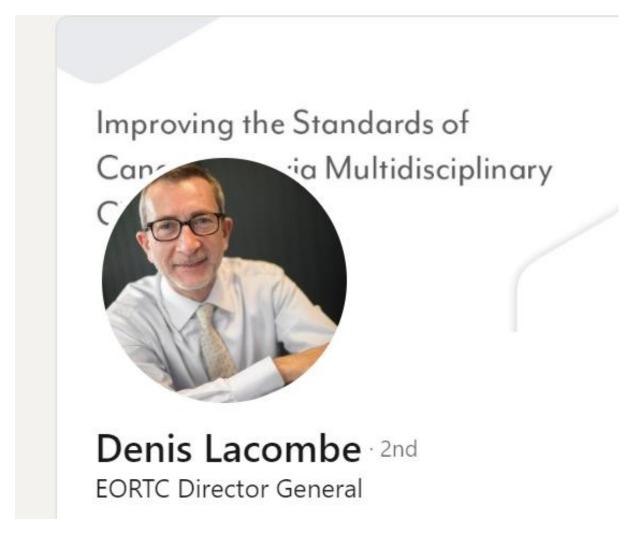
#### Author contributions

K.T. wrote the manuscript and integrated edits from other authors. Important discussions and contributions to the initiatives described were made by all authors. All authors have approved the final series of the text.

#### Competing Interests

Participation in the CONNECT Publik - Private Partnership is regulated by a consertium agreement that handles conflicts of interest and regulation interaction with the publicly funded infrastructure InTPED-Norway and the investigator-initiated and publicly funded trial INTPERSE Norway, IMPERS-Norway (principal Investigator ALL) has company contribution from Roche, Novarita, Incyte and Hi Lilly and collaboration projects with Roche Poundation Medicine and Illumins, regulated by separate agreements with Onio University Thospital as the coordinating intilution. The authors declare no competing Interests.

# SPECTA platform and downstream projects



# ProTarget – a pragmatic clinical study exploring precision cancer medicine



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Oncology. Phase 1 trials. Pr...

# Questions - discussion

- How can we learn as much as possible from every patient?
- How can we collaborate and share data (consent, GDPR) any challenges?
- Small subgroups precision cancer medicine
- Future pragmatic trials
- Off-label use of drugs protocols