



PRIME-ROSE

Precision Cancer Medicine Repurposing System Using Pragmatic Clinical Trials

From shared data to better access: PRIME-ROSE at ESMO 2026

Ten presentations in Madrid, eight years of DRUP results in Nature, and new papers on the cross-border data infrastructure behind Europe's DRUP-like trials.

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HIGHLIGHT · FIRST OF ITS KIND

ESMO 2026 · Poster 827P

The first combined cohort within PRIME-ROSE

Patients with HER2-overexpressed / ERBB2-amplified, treatment-refractory metastatic colorectal cancer were treated with trastuzumab and pertuzumab in four national trials. Their outcome data have now been merged and analysed as one dataset.

DRUP Netherlands	FINPROVE Finland
IMPRESS-Norway Norway	ProTarget Denmark

➔ **1 merged cohort, analysed as one dataset**

For patients with rare molecular alterations, no single country has sufficient cases to build evidence quickly. Combining cohorts across borders, with shared endpoints and harmonised data, is exactly what PRIME-ROSE was built to do. This poster serves as the proof of concept.

SUN
25
Oct

Visit poster 827P at ESMO 2026, Madrid
Poster session 12:00–12:45

Eefsen RL, van der Pol H, Meltzer S, Hoelgaard M, Fagereng L, Jalkanen K ... Gelderblom H et al.

LEAD STORY · ESMO 2026, MADRID

Ten presentations from the DRUP-like trial network

The network's trials and work packages present 8 posters and 2 oral presentations at ESMO 2026. Alongside the first combined PRIME-ROSE cohort (above), trials from across the network present new results on off-label targeted treatment.

Policy is on the programme too. One of our presentations looks at Dutch cancer drugs that are used more off-label than on-label. Further work examines how the revised EU pharmaceutical legislation could support academic drug repurposing.

Friday 23 October · Poster session 15:15–16:00

1036P · Alectinib as a tumour-agnostic intervention for ALK fusion-positive cancers: the DETERMINE trial — Krebs MG et al.

1032P · Niraparib outside current label: results from the Danish ProTarget trial — Kringsbach TM et al.

4292P · Multi-omics predictive markers for off-label BRAF/MEK inhibitors in BRAF-V600E solid tumours — Oestergaard T et al.

4470P · First readout from FINPROVE: Stage 1 completed cohorts — Jalkanen K et al.

4489P · Panitumumab monotherapy in RAS/RAF wild-type tumours: results from DRUP — Evertse AE et al.

Sunday 25 October · Proffered papers 10:15–11:45

3312O · When off-label beats on-label: 11 cancer drugs used more off-label than on-label in the Netherlands — Huisman A · Policy session, Seville Auditorium

694O · Matched targeted therapy in CNS tumours: 349 patients in IMPRESS-Norway — Niehusmann P · CNS tumours, Murcia Auditorium

Sunday 25 October · Poster session 12:00–12:45

827P · Trastuzumab and pertuzumab in HER2-amplified colorectal cancer: merged data from DRUP, FINPROVE, IMPRESS-Norway and ProTarget — Eefsen RL, van der Pol H et al. · **First combined cohort**

3340P · Mapping endpoints and core variables in European PCM trials for the Joint Action on PCM — van der Pol H et al.

3356P · Academic drug repurposing and the revised EU Pharmaceutical Legislation — de Jong F et al.

ALSO IN MADRID

THU
22
Oct

Cancer Mission 'Diagnosis and treatment' cluster meeting

The third annual meeting of the 13 Horizon Europe projects in the cluster, with HaDEA. Round tables on data management, research and innovation, citizen engagement and inequalities will feed the cluster's conclusions and an EU policy brief.

ALSO PUBLISHED · NATURE

Eight years of DRUP: what genomics-guided off-label treatment delivers

The Drug Rediscovery Protocol (DRUP), the Dutch trial whose design the PRIME-ROSE network is built on, has published its prospective evaluation in Nature. Between 2016 and 2024, 1,610 patients started treatment with 37 off-label drugs.

1,610

patients treated off-label with 37 drugs

34.9%

clinical benefit rate among 1,363 evaluable patients

39%

of evaluable patients had a rare cancer

14 / 15

cohorts completing stage 2 met their success criteria

Activity across all tumour–drug combinations was modest. Defined molecular subgroups and exceptional responders (7%) did benefit meaningfully, and DRUP evidence has already informed reimbursement decisions in the Netherlands.

The authors' recommendation goes to the heart of PRIME-ROSE: use off-label precision medicines only inside frameworks that evaluate efficacy and toxicity, refine biomarkers and support stepwise assessment towards label expansion.

[Read the paper in Nature](#)

Verkerk K ... Voest EE. Prospective evaluation of genomics-guided off-label treatment. Nature 2026;653:558–566.

NEW PRIME-ROSE PUBLICATIONS · WORK PACKAGE 1

Merging trial data across borders

PRIME-ROSE is building a scalable, cross-border data infrastructure to accelerate precision oncology across Europe. Work Package 1 lays the foundation for cross-country, multi-cohort data use, so that researchers can merge, harmonise and analyse diverse datasets at scale.

Two papers in Acta Oncologica this year describe how it works: the procedures for merging outcome data from DRUP-like trials, and the use of the OMOP common data model across an international trial network. A third sets out a health-economic framework for molecularly targeted treatment.

1,100

patients aggregated across 400 national cohorts

40+

shared variables per patient across trials

~80%

of clinical terms mapped to international standards

5

fully enrolled cohorts already being analysed

[Read: data merging procedures](#)

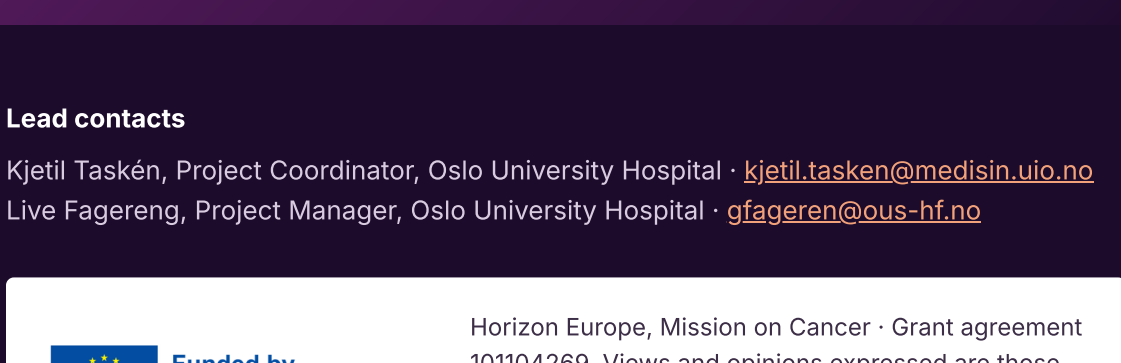
[Read: OMOP across borders](#)

van der Pol H et al. Acta Oncol 2026;65:1–8 · Martin Agudo M et al. Acta Oncol 2026;65:159–163. On 2 October, Henk van der Pol (LUMC) also presented this work to the OHDSI Ireland community.

THE NETWORK AT A GLANCE

Where the trials are

DRUP-like precision oncology trials across Europe share endpoints and data, so that patients with rare molecular alterations can be studied together, wherever they live.



28

partners

19

European countries

12

DRUP-like trials

70 M+

people in the catchment area

INSIDE PRIME-ROSE

From control cohorts to the patient voice

WP2 · CONTROL COHORTS

Finding the right comparison patients

Some tumour–biomarker combinations occur in only about 1% of patients. WP2 develops statistical methods to select external control cohorts accurately for these rare cases.

WP3 · EXPANSION COHORTS

Turning pooled data into treatment options

Expansion cohorts designed from the merged data refine biomarkers and endpoints and generate robust evidence on how well treatments work.

WP4 · EARLY ACCESS & REPURPOSING

Fair access to off-label medicines

WP4 maps national rules across Europe, analyses early-access and reimbursement models, and runs the DRUG Access Protocol to generate real-world evidence.

WP6 · SOCIAL INNOVATION

Measuring what matters to patients

WP6 brings the patient perspective into trial design, evaluating quality of life and patient-relevant outcomes, not only survival.

WHAT THIS MEANS FOR YOU

Evidence that health systems can act on

Policy makers, payers & regulators

A [new review in The Lancet Regional Health – Europe](#), drawing on more than 150 experts in over 20 countries, finds that molecular testing is becoming routine but access to matched treatment remains the main barrier, especially in rare cancers. Led by PRIME-ROSE project manager Live Fagereng, it recognises PRIME-ROSE as one of the projects closing that gap. DRUP-like trials already produce evidence used in reimbursement decisions, and a policy brief from the EU 'Diagnosis and treatment' cluster will follow its October meeting.

Patients & advocacy groups

Patients with rare cancers, who often have few treatment options, make up almost four in ten of those treated in DRUP. Pooling data across countries makes it possible to learn from even very small groups of patients. [Watch a patient's story](#) on why molecular testing matters.

Partners & industry

A single point of entry and one agreement for the whole consortium, with drug supply and treatment slots shared across the network. PRIME-ROSE has built its first multi-trial industry access agreement, and held 16 industry meetings at ASCO 2026.

SINCE THE LAST ISSUE

More publications, more collaboration

Mid-term meeting, Lyon · April. Centre Léon Bérard hosted the consortium's mid-term meeting, which included a public plenary on the future of precision cancer medicine in Europe.

ASCO 2026, Chicago · June. Live Fagereng presented “PRIME-ROSE: a blueprint for implementing precision cancer medicine in Europe”. The team also met the US TAPUR and Canadian CAPTUR studies to begin more concrete transatlantic collaboration. [Read more](#)

MTB Summit, Rome · 24–25 September. More than 150 precision cancer medicine colleagues met to discuss molecular tumour boards, which are central to PRIME-ROSE trials, and their role in EU Comprehensive Cancer Centre certification.

EU Cancer Mission Showcase, Brussels · 29 September–1 October. Kjetil Taskén spoke on data exchange for personalised oncology and Sahar van Waalwijk van Doorn-Khosrovani brought the payer perspective to sessions on making innovation reach patients.

Research exchange. Medical student Tine Østergaard (University of Copenhagen) spent four months with the Dutch DRUP team, linked to the Danish ProTarget trial. Her multi-omics work on BRAF-V600E tumours is presented at ESMO as poster 4292P.

Listen: Breaking barriers, the PRIME-ROSE project and off-label use

READ MORE

Recent publications

Procedures of data merging in precision cancer medicine: the PRIME-ROSE project

van der Pol H et al. Acta Oncol 2026;65:1–8

“Crossing borders” in data standardisation: application of OMOP CDM in an international clinical trial network in precision cancer medicine

Martin Agudo M et al. Acta Oncol 2026;65:159–163

A conceptual health economic modelling framework to assess the cost-effectiveness of molecular target-driven treatment regimens in oncology

Frisell O et al. Acta Oncol 2026;65:141–147

Landscape of cancer genomics and precision oncology in Europe

Fagereng GL ... Taskén K et al. Lancet Reg Health Eur 2026;10:1841 · Open access

Prospective evaluation of genomics-guided off-label treatment

Verkerk K ... Voest EE. Nature 2026;653:558–566

Overcoming the barriers to treatment of rare cancer patients in the era of precision oncology: a call to action

van der Graaf WTA, van Waalwijk van Doorn-Khosrovani S et al. Cancer Treat Rev 2025;140:103013

Follow the network

Results, events and publications from PRIME-ROSE and the DRUP-like trials across Europe.

[Visit prime-rose.eu](#)

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Lead contacts

Kjetil Taskén, Project Coordinator, Oslo University Hospital · kjetil.tasken@medisin.uio.no
Live Fagereng, Project Manager, Oslo University Hospital · gagereng@ous-hf.no

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