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The Norwegian Radium Hospital
Institute for Cancer Research

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INSTITUTE FOR CANCER RESEARCH ANNUAL REPORT 2024

Institute for Cancer Research

ANNUAL REPORT 2024

OSLO UNIVERSITY HOSPITAL | HELSE SØR-ØST | UNIVERSITY OF OSLO

“Research and innovation with patient benefit in mind”

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FRONT PAGE:
To mark the 70-years anniversary of Institute for Cancer Research in 2024, the cover shows scientists working in the institute more than 60 years ago and in 2024.
Photo: Ørnelund, Leif Krohn/Oslo Museum

PAPER: 150/300 Profimatt
CIRCULATION: 800

Contents

“the ICR sets out to maintain the excellent science and to further contribute to the grand challenges in cancer medicine”

Dedicated to Cancer Research

I am proud to present our Annual Report for 2024. The eleven key topics of the report encapsulate the work and output from our research organisation, the Institute of Cancer Research (ICR), and communicate the key features of what we do. As you will see, our scientific output is now back at 200 peer-reviewed papers per year, of which half have 1st or senior authors at the ICR (this after a surge during Covid and a post-Covid dip in 2023). I am also happy that the quality is increasing (by median impact factor).

Alongside outstanding research, the report also demonstrates how we excel in recruitment, training and career development, translation and innovation, dissemination and public outreach, and collaboration in Norway and abroad. Members of the ICR disseminated our science by giving more than 400 scientific and popular talks, organising some 45 meetings and events, and participating in the public debate with nearly 80 news items in 2024. ICR groups are also key partners in more than 20 clinical trials and lead more than 120 translation and innovation projects, many with industry partners.

The competence of our staff is the most valuable asset of the ICR. Our 370 employees in six research departments, 26 research groups, 29 project groups and seven core facility units represent a competence hub of required expertise that allows Oslo University Hospital to establish new strategic areas. Prominent examples are in precision cancer medicine and cell-gene therapy, where we spearhead national initiatives and play in a European arena and, more recently, in radioligand therapy and preclinical proton therapy research. These strategic developments also create new career paths.

The ICR was established in 1954 and celebrated its 70th anniversary in 2024. It is a fully fledged cancer research organisation and has developed into a vibrant and dynamic place where great minds meet to conduct cutting-edge cancer research. I hope this development will continue in the next 70 years!

I encourage you to read the report and see the highlights of our exciting research. In line with our vision, values, and objectives, the ICR sets out to maintain excellent science and further contribute to the grand challenges in cancer medicine, continue to attract top talents and position the ICR in national and international alliances and consortia. Enjoy the reading!

March 2025

Kjetil Taskén
Head of the ICR

The Institute

6 research departments | **26** research groups | **7** core facilities | **29** project groups

Chief Administrative Officer
Kari Aalrust Berger

Administration

Service Lab

HEAD OF INSTITUTE
Kjetil Taskén

The Institute for Cancer Research is organized in 6 research departments with 26 research groups and a total of >55 PIs, and one Department of (7) Core Facilities.

CANCER GENETICS
Therese Sørlie

- **Gry Aarum Geitvik**
  Lab Technology
- **Breast Tumor Evolution**
  Therese Sørlie
- **Computational Systems Medicine in Cancer**
  Tero Aittokallio
- **Translational Studies on Solid Tumors**
  Åslaug Helland
- **Molecular Biology of Breast Cancer**
  Hege Russnes

CANCER IMMUNOLOGY
Johanna Olweus

- **Experimental Immunotherapy**
  Johanna Olweus
- **Immuno-therapy against solid cancers**
  Jon Amund Kyte
- **NK Cell Biology and Cell Therapy**
  Karl-Johan Malmberg
- **Lymphoma Biology**
  June H. Myklebust
- **Immunomodulation and Targeted Therapies**
  Mouldy Sioud
- **Cell Signaling and Immune Regulation**
  Kjetil Taskén

MOLECULAR CELL BIOLOGY
Harald A. Stenmark

- **Cellular Membrane Dynamics**
  Harald A. Stenmark
- **Cancer Molecular Medicine**
  Jorrit Enserink
- **Tumor-Host Biology**
  Tor Erik Rusten
- **Autophagy**
  Anne Gjøen Simonsen

MOLECULAR ONCOLOGY
Ragnhild A. Lothe

- **Genetics**
  Ragnhild A. Lothe
- **Epigenetics**
  Guro Elisabeth Lind
- **Genome Biology**
  Rolf I. Skotheim

RADIATION BIOLOGY
Eirik Malinen

- **Preclinical and translational proton therapy**
  Eirik Malinen
- **Photochemical Internalization**
  Kristian Berg (retired 30.6)/Pål Kristian Selbo (acting from 1.7)
- **Targeted Alpha Therapy**
  Asta Juzeniene
- **Clinical Radiation Biology**
  Heidi Lyng
- **Radiation Biology and DNA Damage Signaling**
  Randi Syljuåsen

TUMOR BIOLOGY
Gunhild M. Mælandsmo

- **Metastasis Biology and Experimental Therapeutics**
  Gunhild M. Mælandsmo
- **Translational Cancer Therapy**
  Kjersti Flatmark
- **Computational Cancer Genomics**
  Eivind Hovig
- **Molecular Biology of Sarcomas**
  Jørgen Wesche

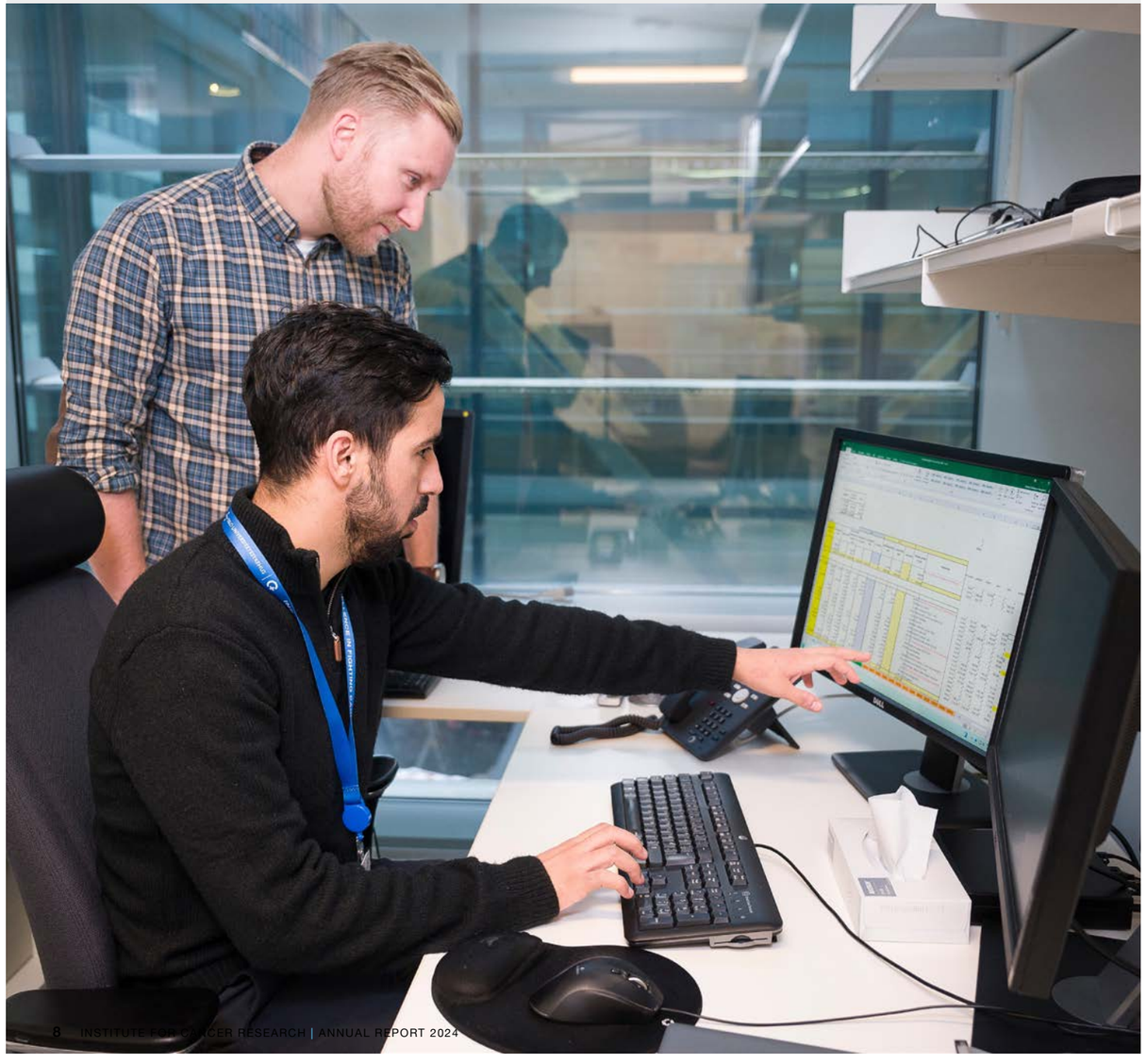
CORE FACILITIES
Leonardo A. Meza-Zepeda

- **Preclinical Proton Therapy and Imaging**
  Tord Hompland
- **Genomics and Bioinformatics**
  Susanne Lorenz
- **Flow Cytometry**
  Idun Dale Rein
- **Advanced Light and Electron Microscopies**
  Ellen Skarpen

The Institute
Administration

Chief Administrative Officer:
Kari Aalrust Berger / Employees: 10

Administration | **Service Lab**



Peter Wiedswang, Ikram Mahnin (until 1.6), Yili Gan (until 18.8), Gro Live Fagereng, Helene Wold Ranum, Mona Hagen, Karen-Marie Heintz, Kari Aalrust Berger and Linda Uv Mjøen. Absent: Yong Fang Po, Martin Gullaksen Haugland and Hamayoun Karim

The ICR administrative unit consists of ten people, and our achievements in 2024 include:

- Financial management and accounting for around 400 externally funded projects
- Project management of PRIME ROSE, support in application processes and grant writing
- Handling all HR-related tasks and leading the project group “Competence Development for Engineers”
- Health, Safety and Environment and management of technical installations in the building
- Public relations and ICR website, coordinating the ICT-support group and transference to new network solutions for the majority of the ICR staff
- Responsibility for ICR conference and meeting facilities, project managed the organizing of the Norwegian Cancer Symposium 2024
- Operating Service Lab with washing and autoclaving facility for the building
- Two new recruitments, Hamayoun Karim (from September 2024) and Martin Gullaksen Haugland (from October 2024), that we warmly welcome to the ICR and the Administration.

“Serving to let our scientists excel at the ICR”

The Institute

Scientific Advisory Board members

Professor
Carl-Henrik Heldin
Department of Medical Biochemistry and Microbiology, Uppsala University, Sweden. SAB Chair

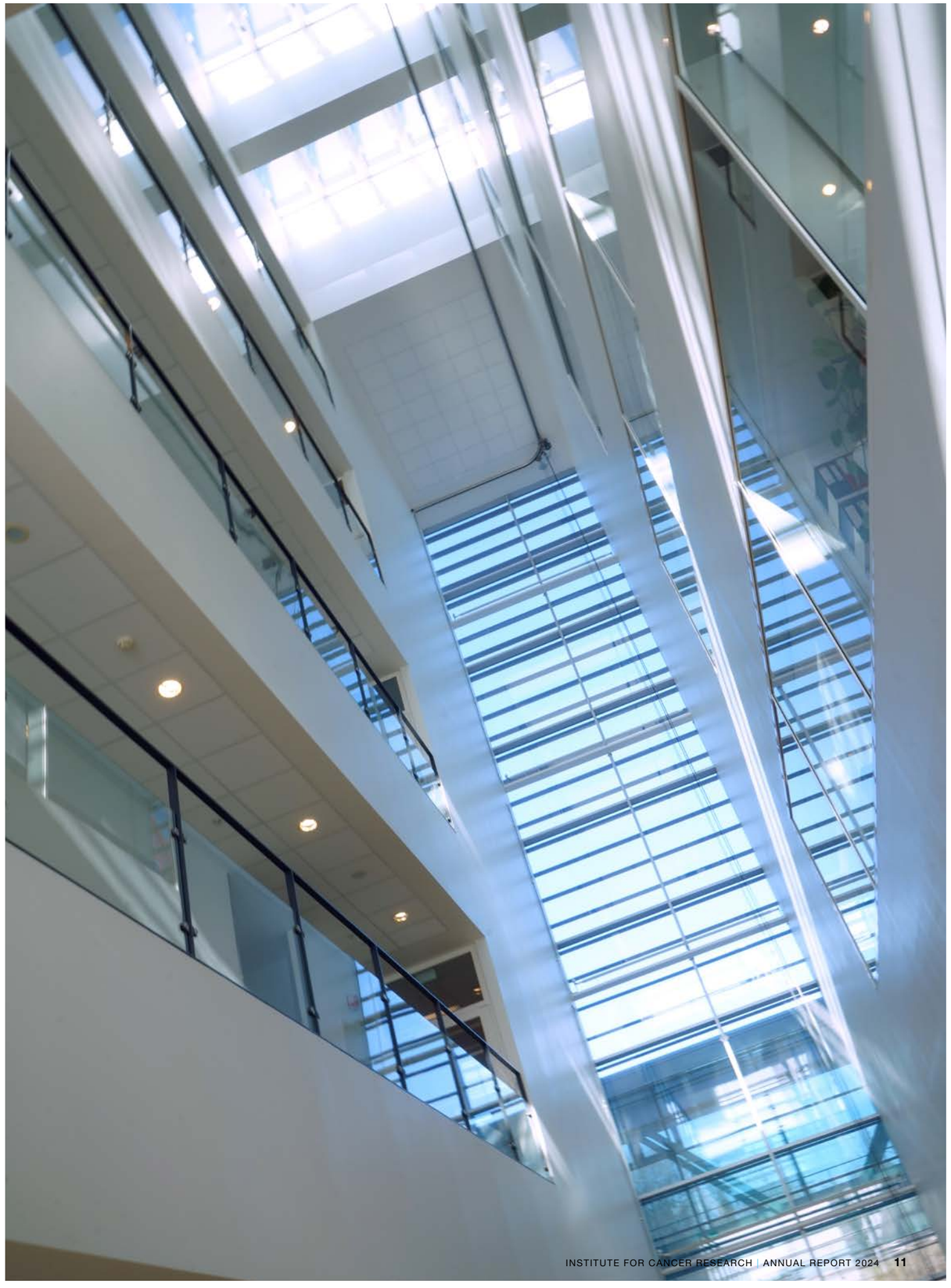
Professor
Carl Figdor
Head, Dept of Tumor Immunology, Institute for Molecular Life Sciences, Radboud UMC, The Netherlands

Professor
Margaret C. Frame
FRSE, FmedSci, OBE, Professor of Cancer Research and Director, MRC Institute of Genetics and Molecular Medicine, University of Edinburgh, UK

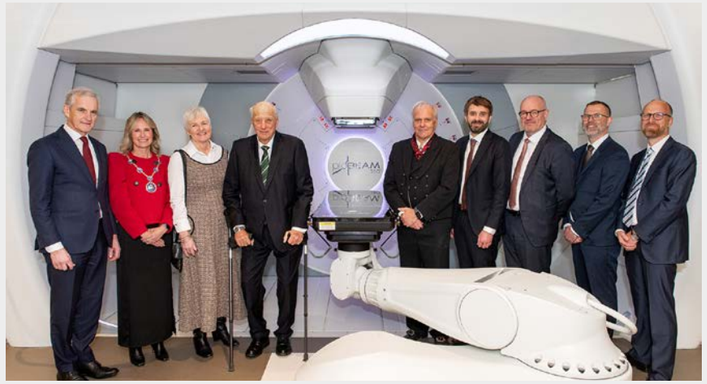
Professor
Ruth Palmer
Institute of Biomedicine, University of Gothenburg, Sweden

Professor
Karen-Lise Garm Spindler
Department of Experimental Clinical Oncology, University of Aarhus; Consultant Oncologist, Aarhus University Hospital, Denmark

Professor Giulio Superti-Furga
Scientific Director, Research Center for Molecular Medicine (CeMM) of the Austrian Academy of Sciences, and Professor for Medical Systems Biology, Center for Physiology and Pharmacology Medical University of Vienna, Austria



The Highlights

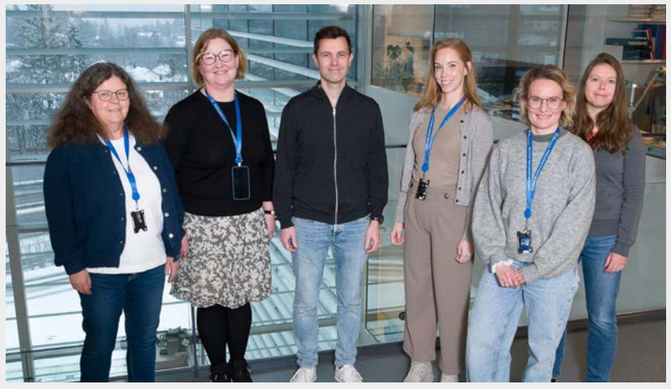


New Radium Hospital

HM King Harald V officially opened the new clinical hospital buildings on 17 October. With new buildings for patients, a new organization on the clinical side and our walking bridge back up, it is now clear how the ICR is embedded in the operation of the Comprehensive Cancer Centre. Furthermore, the new proton therapy centre, which will treat the first patient in March 2025 (picture from gantry #1) includes a pre-clinical gantry to be operated by the ICR Dept. of Core Facilities (see page 34).

Major Awards

ICR researchers received 11 prizes and awards in 2024, including the Porto Municipal Medal of Merit - Gold grade to Ragnhild A. Lothe, the Oslo University Hospital Excellent Researcher Award to Kjetil Taskén and the 1st prize in the 100 pitches competition at DNB NXT and ICR Researcher-of-the-Year Award to Anette Weyergang (picture).



Career Development

A project group has developed a Competency Development Program for Engineers at the ICR which is implemented from 2025 (see page 51). *Picture: Members of the working group (from left): Merete Thune Wiiger, Karen-Marie Heintz, Thomas Fleischer, Idun Dale Rein, Karin Teien Lande and Evy Marie Thorkildsen. Ane Sofie Viset Fremstedal, Catherine Sem Wegner, Gry Aarum Geitvik and Ina Katrine Nitschke Pettersen were not present.*

Major Funding

In 2024, Institute researchers were granted funding for more than 40 new projects (>450 mill NOK, see also page 38 for current funding). Highlights include a new 13.6 mEUR, EU Cancer Mission project (PREDI-LYNCH) on heritable cancer led by Mev Dominguez-Valentin at the ICR, and a 50 mNOK grant funded by RCN to ATMP Norway as a new national research infrastructure to support pre-GMP, GMP and quality control across several nodes (PIs Kalle Malmberg and Anna Pasetto).

Recognition of our Young Talents

Kushtrim Kryeziu and Raquel Bartolome-Casado both received 8 mNOK grants from the Norwegian Cancer Society (picture), and Sigrid Skånland won a new 18 mNOK, EP PerMed grant, CLL-OUTCOME, including 6 partners. Among the prizes and honors were also awards to six younger scientists: Anette Weyergang, Viola Nähse, Kay Schink, Eirini Giannakopoulou, Mehrdad Rakaee and Jonas Langerud (See page 19). Ivana Spasevska gave an oral presentation at the European Congress of Immunology and Kushtrim Kryeziu was an invited speaker at the 1st joint Precision Medicine conference of the European Haematology Association and the Society for Functional Precision Medicine in Copenhagen in September.

National and International Conference Organisation

ICR researchers were central in organizing >45 national and international scientific and popular meetings in 2024, including the Norwegian Cancer Symposium 2024 – 70th Anniversary of the ICR (page 14) and the 59th Contact Meeting of the Norwegian Bioscience Society (NBS), which took place at Storefjell, Gol in January (picture). The NBS meeting featured excellent world-leading, international and national speakers in cancer biology and immunology, precision cancer medicine, exosomes, neurobiology, phase separation, and microscopy combined with artificial intelligence. Many young researchers from the ICR also got the possibility to present their results. The NBS meeting had more than 200 attendees. ICR researchers Kirsten Sandvig and Tore Skotland were elected NBS honorary members. Also, the 11th Norwegian Flow meeting in Tromsø was organized by The Flow Cytometry Core Facility.

Translational and clinical research

Institute researchers have numerous translational projects, play key roles in >20 ongoing clinical trials (page 46), and registered >100 ongoing innovation projects and industry collaborations. By the end of 2024, a total of >2400 patients have been included in the screening phase of IMPRESS-Norway and more than 400 in treatment cohorts. The Cancer Mission project PRIME-ROSE coordinating precision medicine trials like IMPRESS-Norway (28 partners in 19 countries, 11 open or starting DRUP-like clinical trials), has aligned more than 200 cohorts on diagnosis and biomarker definitions, merged and filled 20 cohorts between the six open trials and is now starting the first joint expansion cohort. *Picture: From PRIME-ROSE Community Advisory Board Workshop, January 2024*

Fantastic 70th anniversary

during the Norwegian Cancer Symposium 2024

The Institute for Cancer Research marked its 70th anniversary by organizing the Norwegian Cancer Symposium 2024. The event took place at The Hub in Oslo on 9-10 September and gathered altogether 430 participants over two days.

State Secretary Karl Kristian Bekeng from the Ministry of Health and Care Services opened the anniversary conference, followed by warm greetings from Ingrid Stenstadvold Ross, Secretary General of the Norwegian Cancer Society, Terje Rootwelt, CEO of the South-Eastern Norway Regional Health Authority, as well as Per Morten Sandset, Vice-Rector at the University of Oslo. Greetings also came at dinner from Bjørn Atle Bjørnbeth, CEO of OUH, Hanne Harbo, Dean of Faculty of Medicine at UiO, Sigbjørn Smeland, Head of OUH-CCC and Division of Cancer Medicine, and Jan Vincents Johannessen, CEO of the Radium Hospital Foundation.

The scientific program was kicked off with a keynote lecture by Professor Douglas Hanahan from the Ludwig Institute for Cancer Research and Swiss Federal Institute of Technology Lausanne (EPFL). He set the standard with a very interesting lecture about Hallmarks of Cancer 2024.

In addition to the opening lecture, the program included 15 invited speakers of which 11 were international, and eight selected short talks distributed over five sessions. Moreover, 118 posters were presented during two vibrant poster sessions. The program reflected the breadth of cancer research taking place at the institute, and the topics of the five sessions were:

- The tumour microenvironment, metastasis and therapy resistance
- Risk stratification, current and emerging treatment regimens
- Norwegian cancer research
- Computational and functional precision cancer medicine
- Cancer immunology and immunotherapy

Throughout the conference, there was great engagement with good questions from the audience to all speakers. There was also plenty of opportunity for more informal discussions and interactions during the conference banquet dinner.

The Norwegian Cancer Symposium 2024 was made possible through support from Norsk Hydro's Fund for Cancer Research and the Radium Hospital Foundation.

"We are very happy with the Symposium and the 70th anniversary that featured a number of great talks as well as very vibrant poster sessions. We also heard a number of speeches that praised the achievements we have made in the past 70 years and continue to make. I am very proud of what the Institute for Cancer Research has delivered and the excellence we stand out with at present. Expectations are high also for the future, and I am sure we will continue to deliver also in the coming years", Kjetil Taskén, Head of Institute for Cancer Research.

Professor Douglas Hanahan

State Secretary Karl Kristian Bekeng

New concepts cancer prevention, detection, diagnosis and treatment

Research-based developments starting

1950s-1960s Advancements in Radiation Therapy

1960s-1970s Chemotherapy Innovations

1970s-1980s Discovery of Cancer-related Genes

1980s Bone Marrow Transplantation Advances

1990s Understanding Cancer Metastasis

2000s Personalized Medicine and Biomarkers

2000s Cancer bioinfomatics and systems biomedicine

2010s Development of Immunotherapy

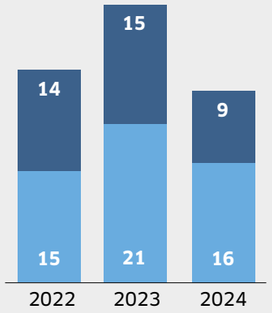
2010s Precision Oncology and Molecular Diagnostics

2010s Development of Immuno- and Cell-therapy

2020s Artificial Intelligence and Cancer Research

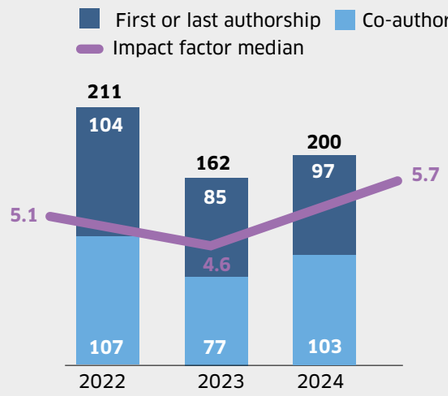
The Achievements

Completed PhDs and M.Sc.-degrees



M.Sc.-degrees PhDs

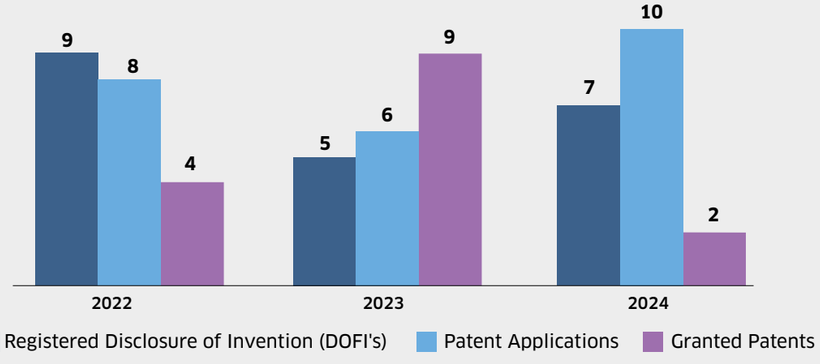
Articles published



IMPACT FACTOR

	2022	2023	2024
Median	5.1	4.6	5.7
Mean	8.4	7.4	10.1

DOFIs and Patent Applications



Selected publications from Institute for Cancer Research in 2024 (first and last author from ICR)

1. **Andresen NK**, Røssevold AH, Quaghebeur C, Gilje B, Boge B, Gombos A, Falk RS, Mathiesen RR, Julsrud L, Garred Ø, Russnes HG, Lereim RR, Chauhan SK, Lingjærde OC, Dunn C, Naume B, **Kyte JA** (2024)
Ipilimumab and nivolumab combined with anthracycline-based chemotherapy in metastatic hormone receptor-positive breast cancer: a randomized phase 2b trial
J Immunother Cancer, 12 (1).
Main findings: Clinical trial showing that immune checkpoint inhibitors administered together with chemotherapy in metastatic hormone receptor positive breast cancer increased toxicity without improving efficacy, whereas sequential administration of checkpoint inhibitors and chemotherapy was tolerable and induced clinical responses.

2. **Brativnyk A**, Ankill J, Helland Å, **Fleischer T** (2024)
Multi-omics analysis reveals epigenetically regulated processes and patient classification in lung adenocarcinoma
Int J Cancer, 155 (2), 282-297.
Main findings: Genome-wide expression-methylation analysis of 453 lung carcinoma patients indicated that the expression of genes involved in hormone response and lipid metabolism in these patients are epigenetically regulated through DNA methylation and enhancer-promoter interactions.

3. **Egeland EV**, Seip K, Skourti E, Øy GF, Pettersen SJ, Pandya AD, Dahle MA, Haugen MH, Kristian A, Nakken S, Engebraaten O, Mælandsmo GM, **Prasmickaite L** (2024)
The SRC-family serves as a therapeutic target in triple negative breast cancer with acquired resistance to chemotherapy
Br J Cancer, 131 (10), 1656-1667.
Main findings: RNA sequencing and protein array profiling of patient-derived xenografts of paclitaxel sensitive and -resistant tumours revealed upregulation of SRC family protein kinases in a subset of chemoresistant tumours.

4. **Haakensen VD**, Öjlert ÅK, Thunold S, Farooqi S, Nowak AK, Chin WL, Grundberg O, Szejniuk WM, Cedres S, Sørensen JB, Dalen TS, Lund-Iversen M, Bjaanæs M, **Helland Å** (2024)
UV1 telomerase vaccine with ipilimumab and nivolumab as second line treatment for pleural mesothelioma - A phase II randomised trial
Eur J Cancer, 202, 113973.
Main findings: Phase II randomised clinical trial suggesting that the UV1 telomerase vaccine may have beneficial effects as second line treatment for pleural mesothelioma in combination with immune checkpoint inhibition.

5. **Langerud J**, Eilertsen IA, Moosavi SH, Klokkerud SMK, Reims HM, Backe IF, Hektoen M, Sjo OH, Jeanmougin M, Tejpar S, Nesbakken A, Lothe RA, **Sveen A** (2024)
Multiregional transcriptomics identifies congruent consensus subtypes with prognostic value beyond tumor heterogeneity of colorectal cancer
Nat Commun, 15 (1), 4342.
Main findings: Multiregional transcriptomics of 1093 colorectal tumour samples showed frequent intra-tumour heterogeneity, which complicates the clinical value of transcriptomic classifications.

6. **Lund-Andersen C**, Torgunrud A, Kanduri C, Dagenborg VJ, Frøysnes IS, Larsen MM, Davidson B, Larsen SG, **Flatmark K** (2024)
Novel drug resistance mechanisms and drug targets in BRAF-mutated peritoneal metastasis from colorectal cancer
J Transl Med, 22 (1), 646.
Main findings: Targeted DNA sequencing of 230 tumour samples from patients with peritoneal mestastatic colorectal cancer showed frequent BRAF mutations, which correlated with poor prognosis.

7. **Migliano SM**, Schultz SW, Wenzel EM, Takáts S, Liu D, Mørk S, Tan KW, Rusten TE, Raiborg C, **Stenmark H (2024)**
Removal of hypersignaling endosomes by simaphagy.
Autophagy, 20(4):769-791.
Main findings: A new type of selective autophagy was identified, simaphagy, which entails degradation of hypersignalling endosomes.

8. **Netskar H**, Pfefferle A, Goodridge JP, Sohlberg E, Dufva O, Teichmann SA, Brownlie D, Michaëlsson J, Marquardt N, Clancy T, Horowitz A, **Malmberg KJ** (2024)
Pan-cancer profiling of tumor-infiltrating natural killer cells through transcriptional reference mapping
Nat Immunol, 25 (8), 1445-1459.
Main findings: Single-cell transcriptomics of healthy and tumour-infiltrating natural killer (NK) cells identified an NK cell population susceptible to tumour microenvironment-induced immunosuppression and another population resistant to such immunosuppression.

9. **Nunes L**, Stenersen JM, Kryeziu K, Sjöblom T, Glimelius B, Lothe RA, **Sveen A** (2024)
Co-occurring mutations identify prognostic subgroups of microsatellite stable colorectal cancer
Mol Cancer, 23 (1), 264.
Main findings: Whole-genome sequencing of 819 stage I-IV microsatellite stable colorectal cancers revealed co-occurring mutations, suggesting that co-mutations can improve the prognostic stratification compared to single mutations alone.

10. **Pankiv S**, Dahl AK, Aas A, Andersen RL, Brech A, Holland P, Singh S, Bindesbøll C, **Simonsen A** (2024)
BEACH domain proteins function as cargo-sorting adaptors in secretory and endocytic pathways
J Cell Biol, 223 (12).
Main findings: Identification of BEACH domain proteins as novel cargo-sorting adaptors in endocytic and exocytic membrane traffic through recognition of the cytosolic tails of transmembrane cargo proteins.

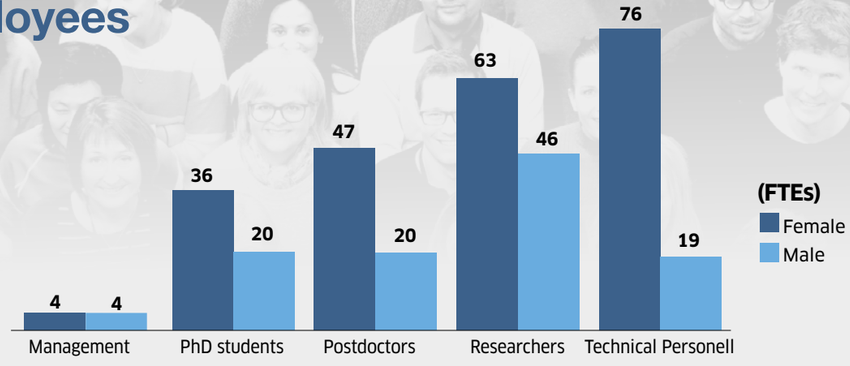
11. **Skingen VE**, Salberg UB, Hompland T, Fjeldbo CS, Helgeland H, Frikstad KM, Ragnum HB, Vlatkovic L, Hole KH, Seierstad T, **Lyng H** (2024)
Spatial analysis of microRNA regulation at defined tumor hypoxia levels reveals biological traits of aggressive prostate cancer
J Pathol, 264 (3), 270-283.
Main findings: Correlation analyses between hypoxia levels and miRNA expression in prostate cancer biopsies revealed that, in aggressive, hypoxic tumours, cancer cells exhibit different proliferative gene expression programs regulated by miRNAs.

12. **Thunold S**, Hernes E, Farooqi S, Öjlert ÅK, Francis RJ, Nowak AK, Szejniuk WM, Nielsen SS, Cedres S, Perdigo MS, Sørensen JB, Meltzer C, Mikalsen LTG, Helland Å, Malinen E, **Haakensen VD** (2024)
Outcome prediction based on [18F]FDG PET/CT in patients with pleural mesothelioma treated with ipilimumab and nivolumab +/- UV1 telomerase vaccine
Eur J Nucl Med Mol Imaging, 52 (2), 693-707.
Main findings: Tumour volume measurements with PET and CT in patients with pleural mesothelioma provided evidence that metabolic tumour volume provides prognostic value in this cancer.

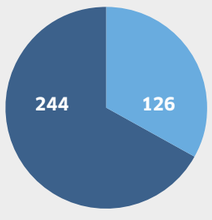
13. **Wenzel EM**, Pedersen NM, Elfmark LA, Wang L, Kjos I, Stang E, Malerød L, Brech A, Stenmark H, **Raiborg C** (2024)
Intercellular transfer of cancer cell invasiveness via endosome-mediated protease shedding
Nat Commun, 15 (1), 1277.
Main findings: Invasive breast cancer cells were shown to convert non-invasive cells into an invasive phenotype by transferring the soluble form of a matrix metalloprotease by a mechanism involving its proteolytic cleavage in acidic endosomes.

The People

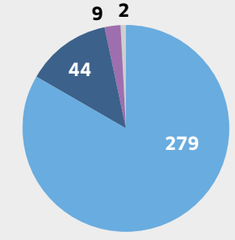
Employees



Employees by Gender
(total 370)

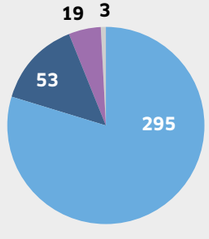


FTEs by Employer
(total 333)



*other than ICR

Employed by
(total 370)



*other than ICR

Prizes and Honors 2024

- Oslo University Hospital Excellent Article Prize to Viola Nähse, Kay Schink and Harald Stenmark for work in Nature Comms. fall 2023 (June 2024)
- Porto Municipal Medal of Merit - Gold grade to Ragnhild A. Lothe
- Oslo University Hospital Excellent Researcher Award to Kjetil Taskén
- Highly Cited Researcher status (Clarivate) to Tero Aittokallio
- Institute for Cancer Research "Researcher of the Year 2024" award to Anette Weyergang
- K.G.Jebsen Centers' best publication prize to Eirini Giannakopoulou and Johanna Olweus for work in Nature Cancer 2023.
- Onkologisk Forum's Career Fellowship awarded to Mehrdad Rakaee
- Acta Oncologica Award by the Swedish Society of Oncology to Kjetil Taskén
- Oslo University Hospital Excellent Article Prize to Jonas Langerud and Anita Sveen for work in Nature Comms. spring 2024 (Nov 2024).
- Institute for Cancer Research "Employee of the Year 2024" to Kari Aalrust Berger
- Anette Weyergang won the 100 pitches competition at DNB NXT

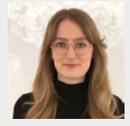
Completed PhDs 2024

Jørgen Ankill
Cancer Genetics
Functional effects of epigenetic alterations: towards targeted epigenetic treatment of breast cancer

Dennis Clement
Cancer Immunology
Molecular regulation of Natural Killer Cell function - role of Ca2+ signaling from the secretory lysosome

Liv Anker Elfmark
Molecular Cell Biology
Protrudin in membrane contact sites regulates phagocytosis, apoptosis and exocytosis

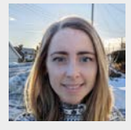
Julian Hamfjord
Cancer Genetics
Colorectal cancer - survival trends and prognostic role of circulating cell-free DNA



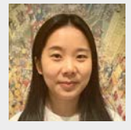
Susanne Kidd
Molecular Oncology
Prognostic classification of localized prostate cancer - taking intrapatient heterogeneity into account

Andreas Hagen Røssevold
Cancer Immunology
Immunotherapy and immunological biomarkers in breast cancer

Vilde Eide Skingen
Radiation Biology
Development and application of a histopathology platform for spatial investigations of hypoxia in prostate cancer



Stina Stålberg
Cancer Genetics
Pancreatic and periampullary carcinoma. Proteomics and metabolite profiles



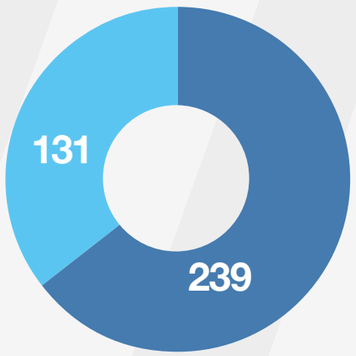
Qindong Zhang
Cancer Immunology
Development of Macrophage-Targeting Strategies for Cancer Immunotherapy

The People

International Staff Distribution

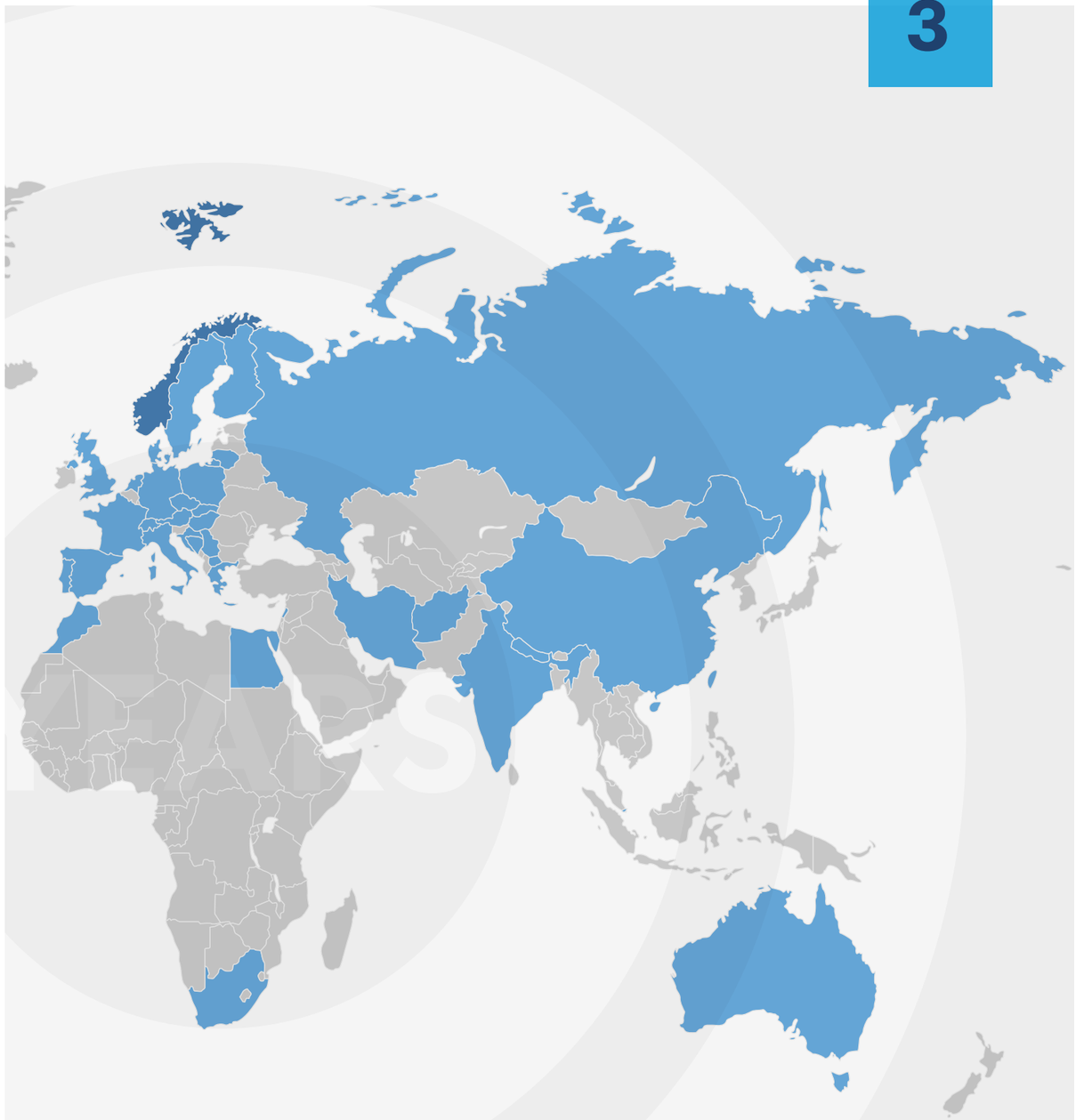
131
people in total from outside Norway

32
nations are represented



- Norwegian: **239 (65%)***
- International: **131 (35%)**

*Including naturalised foreigners



01
Countries represented by one person
Afghanistan
Colombia
Czech Republic
Denmark
Morocco
Peru
Poland
Russia
Serbia
Slovak Republic
South Africa

02
People
Austria
Croatia
Hungary
Iran
Lebanon
Netherlands
Portugal

03
People
Finland
Nepal

04
People
Australia
Great Britain
USA

05
People
France
Lithuania

06
People
Greece

10
People
India
Sweden

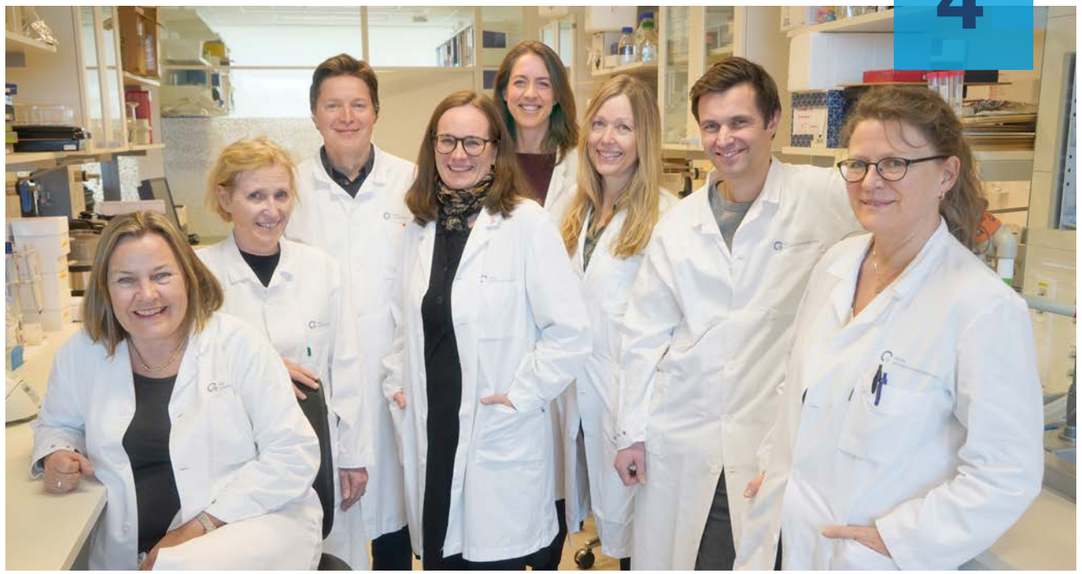
11
People
China

12
People
Italy
Spain

17
People
Germany

Department of Cancer Genetics

“Our mission is to improve the lives of cancer patients through scientific advances in precision oncology”.



Gry Aarum Geitvik, Elin Kure (retired 31.5), Tero Aittokallio, Hege E. G. Russnes, Vilde Drageset Haakensen, Therese Sørlie, Thomas Fleischer, Åslaug Helland

Head of Department: Therese Sørlie / Employees: 56

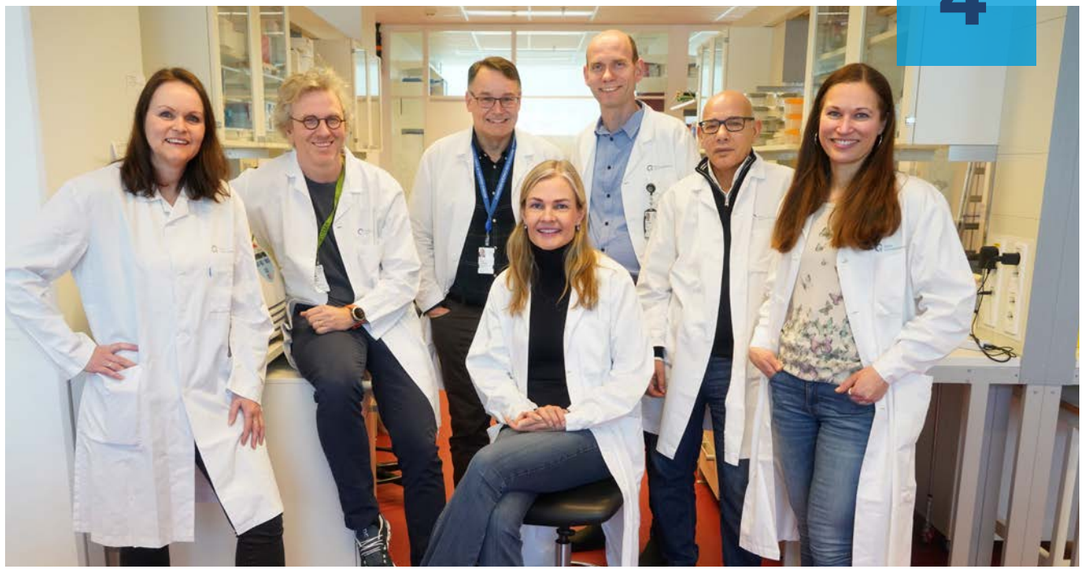
Breast Tumor Evolution	Computational Systems Medicine in Cancer	Lab Technology	Translational Studies on Solid Tumors	Molecular Biology of Breast Cancer
Therese Sørlie	Tero Aittokallio	Gry Aarum Geitvik	Åslaug Helland	Hege Russnes
	Epigenomics of Breast Cancer Thomas Fleischer		**Therapy Prediction in Lung Cancer** Vilde Drageset Haakensen	
			Translational Research in Pancreatic and Colorectal Cancers Elin Kure	

- We received major grants from Norwegian Cancer Society, South-Eastern Norway and Northern Norway Regional Health Authorities (to Helland, Rakaee, Sahu, Lindemann/Sørlie) and KlinBeForsk (Helland)
- Two projects received EU funding; from Marie Skłodowska-Curie Actions and EP PerMed (to Aittokallio)
- Scientists from the department are authors on 56 scientific articles published in 2024
- Onkologisk Forum’s Career Fellowship for 2024 was awarded to Mehrdad Rakaee
- 3 PhD and 3 master’s degrees awarded
- Aittokallio recognized as Highly Cited Researcher in Clarivate’s list for 2024
- By end of 2024, a total of >2400 patients have been included in IMPRESS-Norway, 950 during 2024, all biobanked at Dept of Cancer Genetics

Department of

Cancer Immunology

“Our goal is to improve cancer diagnostics and therapy through cutting edge research on tumor immunology and lymphocyte biology”



June H. Myklebust, Karl-Johan Malmberg, Kjetil Taskén, Johanna Olweus, Jon Amund Kyte, Mouldy Sioud, Sigrid Skånland

Head of Department: Johanna Olweus / Employees: 74

Experimental Immunotherapy Johanna Olweus	**Immuno-therapy against solid cancers** Jon Amund Kyte	**NK Cell Biology and Cell Therapy** Karl-Johan Malmberg	**Lymphoma Biology** June H. Myklebust	**Immuno-modulation and Targeted Therapies** Mouldy Sioud	**Cell Signaling and Immune Regulation** Kjetil Taskén
					Functional Precision Medicine for Haematological Cancers Sigrid Skånland

- Kyte group completed breast cancer immunotherapy trial ICON. Results published in *J Immunother Cancer, NPJ Breast Cancer and Mol Oncol*
- Tasken received the Excellent Researcher Award, Oslo University Hospital and the Acta Oncologica Award by the Swedish Society of Oncology
- Malmberg group reported transcriptional NK-cell reference map *(Nature Immunology)*, strategies to improved T/NK-cell persistence (Cell Stem Cell) and reviewed this topic *(Nature Reviews Immunology)*
- Myklebust group reported genetic alterations associated with outcome in lymphoma in *Blood Cancer Journal* and *Blood Cancer Discovery*
- Olweus group first in Nordics to be partner on CRUK/NIH Cancer-Grand-Challenge grant (25m$, *MATCHMAKERS*), including Nobel Prize winner Baker (Chemistry, 2024)
- Major grants: Open Call Norwegian Cancer Society (Sioud, Tasken) and Helse Sør-Øst (Tasken). Klinbeforsk (Malmberg, Kyte). EP PerMed (Skånland coordinator).
- German Federal Ministry of Science appointed Olweus member of the International Scientific Committee of DKFZ, 2024-.
- Carole Beck (Kyte Group) collected Nordic Early Stage Professional Award and the Poster Award at ISCT Europe 2024

Department of Molecular Cell Biology

“Uncovering the cellular basis of cancer development”

Project Leaders: Alicia Llorente, Marina Vietri, Camilla Raiborg, Kaisa Haglund, Andreas Brech, Tore-Geir Iversen, Antoni Wiedlocha. Absent: Alf Håkon Lystad, Maja Radulovic, Maja Radulovic

Group Leaders: Anne Simonsen, Harald Stenmark, Jorrit Enserink, Tor Erik Rusten

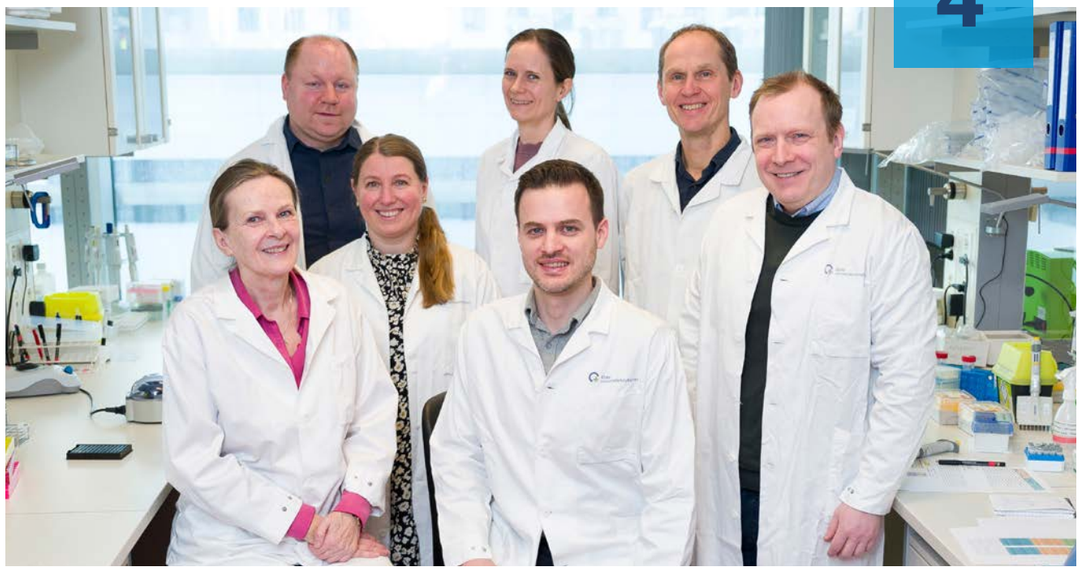
Head of Department: Harald A. Stenmark / Employees: 76

Cellular Membrane Dynamics Harald A. Stenmark	Cancer Molecular Medicine Jorrit Enserink	Tumor-Host Biology Tor Erik Rusten	Autophagy Anne Simonsen
Unit of Cellular Electron Microscopy Andreas Brech **Cytokinesis in Development and Carcinogenesis** Kaisa Haglund **Nanoparticles in Biomedicine: In Vitro Studies** Tore-Geir Iversen **Exosomes and Prostate Cancer** Alicia Martinez Llorente **Autophagy and Related Pathways** Alf Håkon Lystad **Mechanisms and importance of lysosome repair** Maja Radulovic **Protein Dynamics in Tumor Suppressor Pathways** Camilla Raiborg **Membrane Dynamics in Tumorigenesis** Marina Vietri **Protein Internalisation and Signaling** Antoni Wiedlocha			

- MCB was led by Anne Simonsen during the second half of 2024 when Harald Stenmark was on sabbatical at University of California at Berkeley.
- MCB scientists published 25 papers in 2024, 13 of these as first or last authors. The mean impact factor was 17.9 and the median impact factor was 9.4.
- MCB scientists were first/last authors of papers published in leading journals such as *Nature Cell Biology, Nature Reviews Molecular Cell Biology, Nature Communications, PNAS, Cell Research, Journal of Cell Biology, Journal of Extracellular Vesicles,* and *Autophagy.*
- Anne Simonsen was interviewed in the journal *Cell.*
- Liv Anker Elfmark, supervised by Camilla Raiborg, successfully defended her PhD in November 2024.
- Audun Kvalvaag received a Research Grant from the Cancer Society.
- Alf Håkon Lystad, Viola Nähse and Jorrit Enserink received Open Project Grants from Helse Sør-Øst.

Department of Molecular Oncology

“Biological discoveries for improved precision cancer medicine”



Ragnhild A. Lothe, Edward Leithe, Guro E. Lind, Anita Sveen, Kushtrim Kryeziu, Rolf I. Skotheim, Bjarne Johannessen

HEAD OF DEPARTMENT: Ragnhild A. Lothe / Employees: 37

Genetics Ragnhild A. Lothe

Functional Oncology
Kushtrim Kryeziu

Cell Signalling
Edward Leithe

Computational Oncology
Anita Sveen

Epigenetics Guro E. Lind

Genome Biology Rolf I. Skotheim

Cancer Informatics
Bjarne Johannessen

- We published computational oncology studies in Nat Commun, JCI Insight and Mol Cancer, co-authored studies in Nature, NEJM and Eur Urol, and reviewed prostate cancer heterogeneity for BBA Rev on Cancer.
- Anita Sveen’s project group was awarded the OUS - excellent article prize for work on tumor heterogeneity in colorectal cancer.
- Ragnhild A. Lothe received the Porto Municipal Medal of Merit - Gold grade for her long-term contribution to scientific institutions in Porto.
- Two ongoing innovation projects reached their milestones for 2024, received support from three funding bodies, and a European patent was granted.
- Two young talents, Kushtrim Kryeziu and Raquel Bartolome-Casado received open call grants from the Norwegian Cancer Society.
- Four students successfully defended their academic degrees (1 PhD and 3 MSc).
- Invited speakers at 24 meetings/conferences, including the 39th Annual Meeting of the European Assoc. of Urology (Paris, FR); the European Hematology Assoc. and Society for Functional Precision Medicine (Copenhagen, DEN); and EUDIP2024 - European Digital PCR symposium (Ghent, BE).
- Lothe was a scientific committee member and co-organizer of “Current precision cancer medicine and emerging opportunities” at IPATIMUP/i3S in Porto, Portugal.

Department of

Radiation Biology

“Our vision is to understand responses to ionizing and non-ionizing radiation on the molecular, cellular, and physiological levels, and utilize this knowledge to improve cancer outcomes with new biomarkers, therapies, and technologies.”

Asta Juzeniene, Eirik Malinen, Pål Kristian Selbo, Kristian Berg, Heidi Lyng, Randi Syljuåsen.
Absent: Theodossis A. Theodossiou, Beata Grallert, Anette Weyergang

Head of Department: Eirik Malinen / **Employees:** 44

Preclinical and translational proton therapy
Eirik Malinen

Protonics
Theodossis A. Theodossiou

Recombinant Light Activated Therapeutics
Anette Weyergang

Photochemical Internalization
Kristian Berg (retired 30.6)
Pål Kristian Selbo (acting from 1.7)

Light-Controlled Delivery of Cancer Immunotherapeutics

Targeted Alpha Therapy
Asta Juzeniene

Clinical Radiation Biology
Heidi Lyng

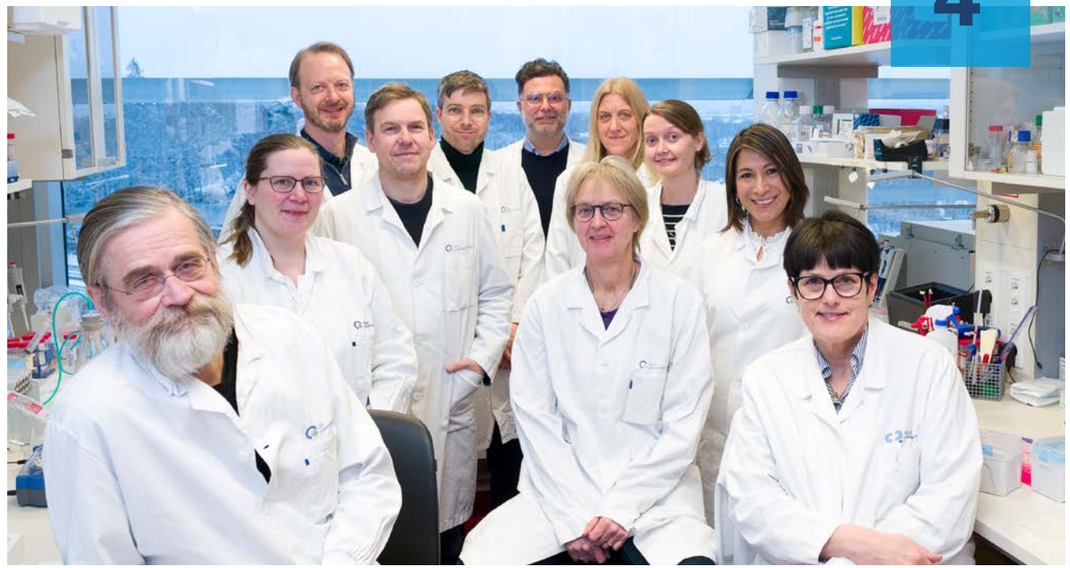
Radiation Biology and DNA Damage Signaling
Randi Syljuåsen

Regulation of Translation in Cell Cycle and Stress
Beata Grallert

- Pål Kristian Selbo was appointed group leader for the PCI group
- Anette Weyergang was awarded *Researcher of the year 2024* by ICR, OUS, and won the *100 pitches* competition at DNB NXT
- Kristian Berg presented the IUPB Finsen Medal keynote prize lecture at the 18th International Congress on Photobiology, Perth, Australia
- Grants from South-Eastern Norway Regional Health Authority for a PhD (Syljuåsen) and an open project (Malinen)
- Grants to proton therapy: (1) Establishing a new national standard of care for soft tissue sarcoma (Klinbeforsk; Malinen is partner) and (2) Planning a national proton therapy research infrastructure (Research Council of Norway; Malinen is PI)
- Start-up of the interventional RADPAINT-3 trial testing a novel radiotherapy delivery technique in patients with head and neck cancer with funding from South-Eastern Norway Regional Health Authority (partner lab: Malinen, Lyng).
- The EIC Pathfinder open project NuCapCure, with the Department as partner, kicked off in 2024 (Theodossiou)
- Organized the NIRO annual meeting in radiotherapy research for the south-eastern Norway region (Lyng, Syljuåsen, Malinen) and co-organized the 59th Contact Meeting of the Norwegian Bioscience Society, Storefjell, Norway (Selbo)

Department of Tumor Biology

“Preclinical and clinical efforts towards precision oncology”



Eivind Hovig, Karianne Giller Fleten, Nikolai Engedal, Jørgen Wesche, Mads H. Haugen, Alfonso Urbanucci, Gunhild M. Mælandsmo, Lina Prasmickaite, Ellen M. Haugsten, Mev Dominguez-Valentin, Kjersti Flatmark. Absent: Kristin A. Taskén, Leonardo A. Meza-Zepeda

Head of Department Gunhild M. Mælandsmo / Employees: 56

Metastasis Biology and Experimental Therapeutics Gunhild M. Mælandsmo	Translational Cancer Therapy Kjersti Flatmark	Computational Cancer Genomics Eivind Hovig	Molecular Biology of Sarcomas Jørgen Wesche
Molecular Precision Medicine in Breast Cancer Mads H. Haugen	**Experimental Treatment of Peritoneal Metastasis** Karianne Giller Fleten	**Inherited and Familial Cancer** Mev Dominguez-Valentin	**Cancer Cell Migration, Invasion and Metastasis** Ellen M. Haugsten
Tumor-Stroma Interactions in Metastasis and Therapy Lina Prasmickaite		**Autophagy in Cancer** Nikolai Engedal	**Translational Genomics** Leonardo A. Meza-Zepeda
Urological Molecular Biology Kristin A. Taskén		**Genomic Regulation for Precision Cancer Medicine** Alfonso Urbanucci	

- Prestigious grant to Mev Dominguez-Valentin on heritable cancer from the EU Cancer Mission program. The project “Validated non-invasive liquid biopsy tests for cancer PREDIction in LYNCH Syndrome”, with 28 partners all over Europe, was granted with 13,6 mill EUR.
- Three group leaders / project leaders secured major funding from the Cancer Society or the Regional Health Authority for South-Eastern Norway
  - Tumor-secreted factors in formation of the premetastatic niche (to Haugsten)
  - A novel signalling mechanism promoting cancer in the bone microenvironment (to Wesche)
  - Molecular examinations of longitudinal samples from a neoadjuvant clinical study in breast cancer (to Engebråten)
- KLINBEFORSK grant for research on proton therapy to Boye on the project “Proton therapy in sarcoma: establishing a new national standard of care”
- Startup of a clinical trial (PERELI), investigating the combination of FGFR inhibitors and immunotherapy in liposarcoma (PI: Boye).
- EU funding to Flatmark for one project on nanomedicine in colorectal cancer (under the program ERA4Health Partnership NANOTECMEC) and to Hovig for a project aiming to develop national cancer data nodes for research (under the EU Cancer Mission program).
- 50 publications in peer review journals of which 35% as first or last author

Department of

Core Facilities

“Providing cutting-edge technology and competence to excel research”

Tord Hompland, Susanne Lorenz, Idun Dale Rein, Ellen Skarpen, Leonardo A. Meza-Zepeda.

Head of Department: Leonardo A. Meza-Zepeda / Employees: 16

Preclinical Proton Therapy and Imaging	**Genomics and Bioinformatics**	**Flow Cytometry**	**Advanced Light and Electron Microscopies**
Tord Hompland	Susanne Lorenz	Idun Dale Rein	Ellen Skarpen

- The Advanced Light Microscopy facility has enhanced its capabilities by introducing the Zeiss LSM 980 Airyscan2 confocal super-resolution microscope for live-cell imaging.
- Secured funding will allow the Advanced Light Microscopy facility to acquire an Incubation microscope, ideal for monitoring live samples for prolonged periods.
- The Electron Microscopy facility has advanced its 3D imaging capabilities by implementing array STEM tomography for large-volume analysis.
- The Bioinformatics Core Facility has developed expertise in analysing data from Oxford Nanopore Technologies, enhancing its analytical service offerings.
- The Flow Cytometry Core Facility hosted the 11th Norwegian Flow meeting in Tromsø.
- The Genomics Core Facility is a pioneer in Europe. It has installed the first Element AVITI24 system, expanding its cutting-edge sequencing and single-cell multi-omics offerings.
- The genomics facility excels at delivering top-quality services, having achieved Certified Service Provider status for 10x Genomics, NanoString, and TWIST technologies.
- The new Preclinical Proton Therapy facilities were taken over in 2024, with full operational functionality expected by 2025.

Tord Hompland (unit leader) and Tiril Hillestad (Engineer)

PROTON THERAPY is an advanced and highly precise form of radiotherapy that offers the potential for a less toxic and more effective cancer treatment. The Department of Core Facilities at ICR hosts the core facility for Preclinical Proton Therapy.

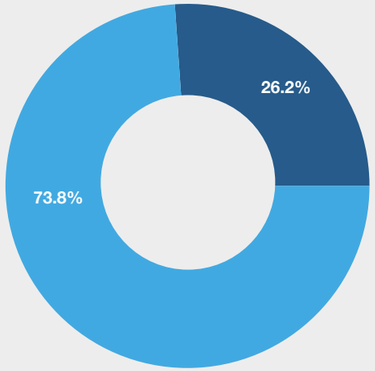
New Preclinical Proton Therapy Facility

- The core facility, which features a dedicated animal facility and cell laboratory, is equipped to investigate the efficacy of proton therapy in preclinical models. It is scheduled to open in Autumn 2025.
- Norsk Hydro and Hartmann Fond funded a state-of-the-art treatment planning system and a compact animal MRI scanner.
- The Norwegian Research Council recently supported a pre-project on the national proton therapy research infrastructure, which was coordinated by ICR.
- Several preclinical research projects have recently been funded to conduct experiments at the facility.

The Funding

In 2024, Institute researchers received more than 450 million NOK in incoming new grants (40 different grants) starting 2025. This includes:

- A new 13.6-mEUR, 28-partner EU Cancer Mission project on heritable cancer, PREDI-LYNCH, to be coordinated by Mev Dominguez-Valentin in ICR Dept of Tumor Biology
- A 50-mNOK grant to ATMP-Norway as a new research infrastructure to support pre-GMP, GMP and quality control across several nodes (PIs Kalle Malmberg and Anna Pasetto) funded by the Research Council of Norway
- A new 18-mNOK, 6-partner EP PerMed grant, CLL-Outcome, coordinated by Sigrid Skånland
- New grants from the Norwegian Cancer Society, the Research Council of Norway, the Regional Health Authority for South-Eastern Norway, the national Norwegian Clinical Trials Programme, grants (as partner) from EU Horizon Europe, EU4Health, MSC Actions and other EU programmes as well as private funding.

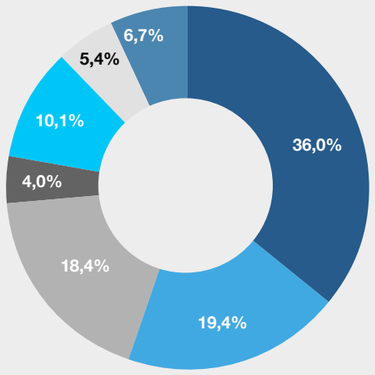


Funding in 2024

Percent

Actual Institute expenditure for 2024
by internal and external funding sources
(total 427,5 MNOK = approx. 36,7 M€)

- Internal funding
- External funding

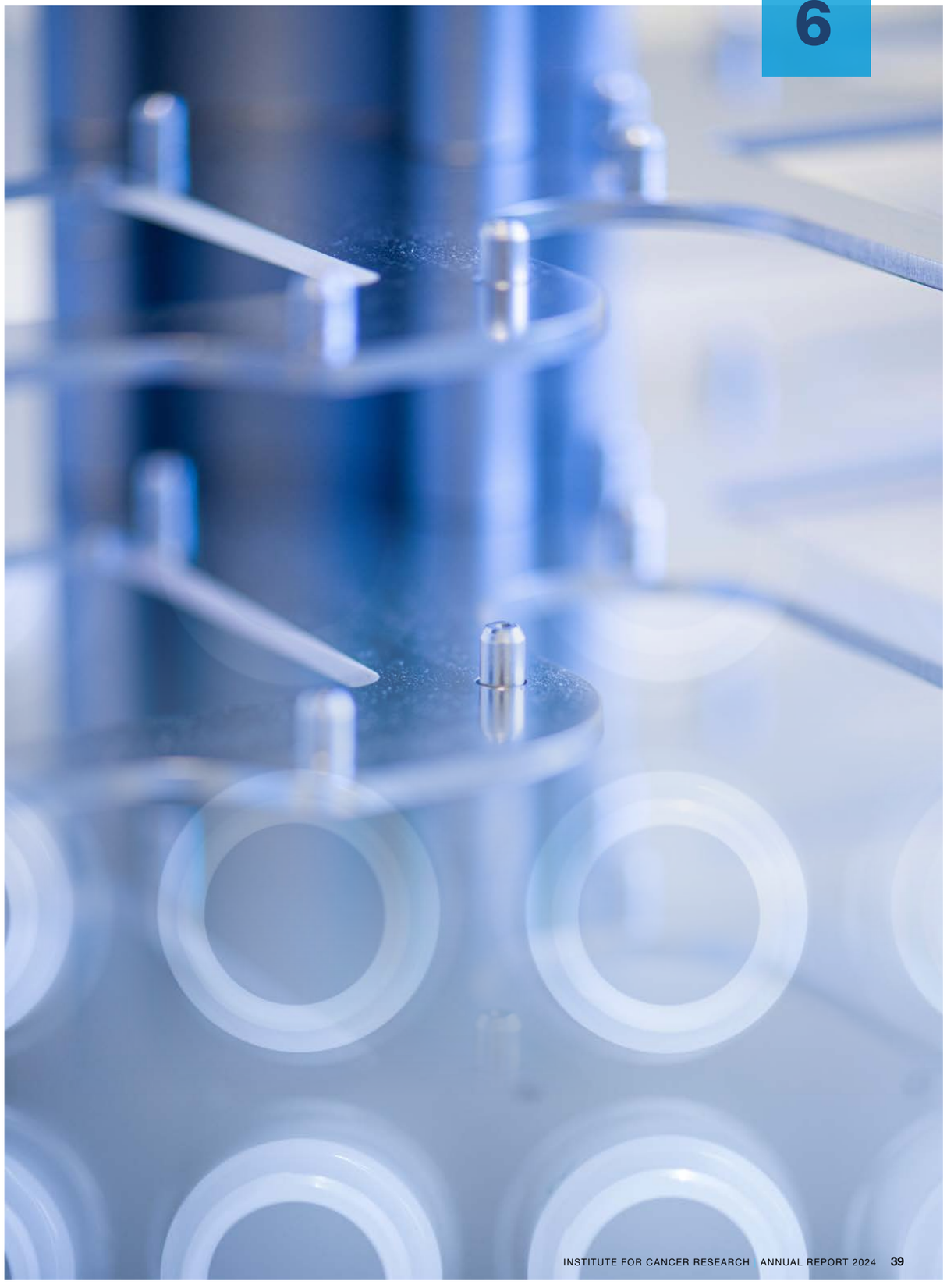


External funding by source

Percent

Sources of external competitive funding for 2024, based
on actual expenditure (total 315,5 MNOK= approx. 27,1 M€)

- South-Eastern Norway Regional Health Authority
- The Research Council of Norway
- The Norwegian Cancer Society
- University of Oslo
- EU
- Other international sources
- Other private sources



The Centres

Bjørnar Gilje from Stavanger University Hospital presented MATRIX at Onkologisk Forum 2024 in Bergen.

MATRIX – Norwegian Centre for Clinical Cancer Research

MATRIX
NORWEGIAN CENTRE FOR CLINICAL CANCER RESEARCH

Director Åslaug Helland, Co-Director Stein Kaasa
Hosted by OUH, Division of Cancer Medicine.

- MATRIX develops next-generation precision diagnostics and treatment as well as new, digital cancer care tools that secure treatment and follow-up tailored to the individual patient.
- In April, MATRIX co-organized a national 3-day course on patient and public involvement in medical and health research in Bergen for 85 researchers and user representatives.
- Novartis was the first pharma company to enter an agreement with MATRIX securing study drugs for 72 patients in the MATRIX-RARE clinical trial (*Precision medicine in hard-to-treat cancers - Repurposing drugs in earlier lines of treatment*). The trial will open Q1 2025.
- MATRIX currently supports 10 clinical trials, and since the opening of the centre, more than 280 patients have received study treatment or diagnostics through MATRIX-supported studies.
- In December, MATRIX together with Kjetil Taskén, winner of the UiO innovation prize 2023, welcomed 90 participants to a full day symposium on public service innovation in the Norwegian Academy of Science and Letters.

Centre for Clinical Treatment Research

Centre for Cancer Cell Reprogramming (CanCell)

REPROGRAMMING CANCER
OMPROGRAMMERING AV KREFT

Headed by Director Harald Stenmark, Co-Director Anne Simonsen.
Hosted by Institute of Clinical Medicine, UiO

CanCell is a Norwegian Centre of Excellence initiated in 2018. It has four groups from Department of Molecular Cell Biology (Stenmark, Simonsen, Rusten and Enserink), one group from Department of Tumour Biology (Wesche) and one group from Institute of Basic Medical Sciences (Eskeland). The aim of the centre is to identify the vulnerabilities of cancer cells and to target these for reprogramming cancer cells into harmless cells.

- Demonstration that cancer cells can transmit their invasive properties to neighbouring cells by transfer of a matrix metalloprotease (Wenzel et al., *Nature Communications*).
- New tool for measuring cancer cell migration (Holme et al., *Scientific Reports*).
- Identification of a novel autophagic mechanism that degrades hypersignalling endosomes, simaphagy (Migliano et al., *Autophagy*).
- Demonstration that ex vivo analyses of drug sensitivity can determine response and risks for individual patients with acute lymphatic leukemia (Andersen, Brodersen et al., *Cell Reports Methods*).

The Centres

“PRIMA will develop the next generation of precision immunotherapy”

Precision Immunotherapy Alliance (PRIMA)

Headed by Director K.J. Malmberg, Co-Director J. Olweus.
Hosted by Institute of Clinical Medicine, UiO

- Compiled a pan-cancer single-cell transcriptional reference map describing NK cell states present in normal tissue and tumors. Nature Immunology 2024.
- Developed and reviewed novel approaches to improve persistence of allogeneic T and NK cell therapy products. Cell Stem Cell and Nature Reviews Immunology 2024.
- Spasevska/Myklebust group oral presentation at ECI 2024, and Giannakopoulou/Olweus group awarded best publication prize (Nature Cancer) among all K.G. Jebsen Centers.
- Assembled a database with more than 100,000 HLA-bound peptides detected by mass spectrometry.
- Developed a new antibody technology that secures favorable pharmacokinetic properties as well as enhanced killing. Nature Communications 2024.

ATMP Norway and the ACT Center

Headed by Anna Pasetto.
Hosted by Section for Cell Therapy, Dept. of Oncology, OUH,
Co-hosted by the ICR

- Currently support 11 projects at pre-GMP (7) and GMP stage (4)
- Delivered multiplex engineered hypo-immune pancreatic islet cells for treatment of Type 1 Diabetes.
- Delivered a GMP-certified master feeder cell bank and irradiated clinical batches for expansion of adaptive NK cells

“Bringing best in class cell therapy to Norwegian patients”

K.G. Jebsen Centre for B-cell Malignancies

Headed by Ludvig A. Munthe and June H. Myklebust.
Hosted by Institute for Clinical Medicine, UiO.

- Developed new clinical guidelines for immunotherapy (Lancet Oncol), and contributed to international trials testing new drug combinations and chemotherapy dose de-escalation (N Engl J Med, Lancet, J Clin Oncol).
- Strong focus on ex-vivo drug sensitivity testing and precision cancer medicine: Developed protocols (Cell Death Discov), participated in drug development (Science) and enrolled first patients in IMPRESS-Norway cohort for multiple myeloma.
- Multi-omics analysis of lymphoma biopsies identified early genetic events, and CREBBP KAT domain mutation associated with better outcome (Blood Cancer J).

“From basic research and preclinical studies to precision medicine for B-cell malignancies”

The Centres

STRATEGIC RESEARCH AREA FOR
OSLO UNIVERSITY HOSPITAL

Strategic Research Area in Cell and Gene Therapy (StratCell)

**Headed by K. J. Malmberg.
A. Pasetto and J-A. Kyte.**

- Facilitated GMP tech-transfer of CAR T cell engineering protocols based on viral transfer and mRNA.
- Supported the launch of tailored GMP-training modules at the ACT center
- Secured 50MNOK funding from RCN-INFRA call to establish ATMP Norway, a multi-nodal infrastructure to support pre-GMP, GMP and quality control

“Fast-tracking clinical implementation of new innovative strategies for gene-editing of cytotoxic lymphocytes”

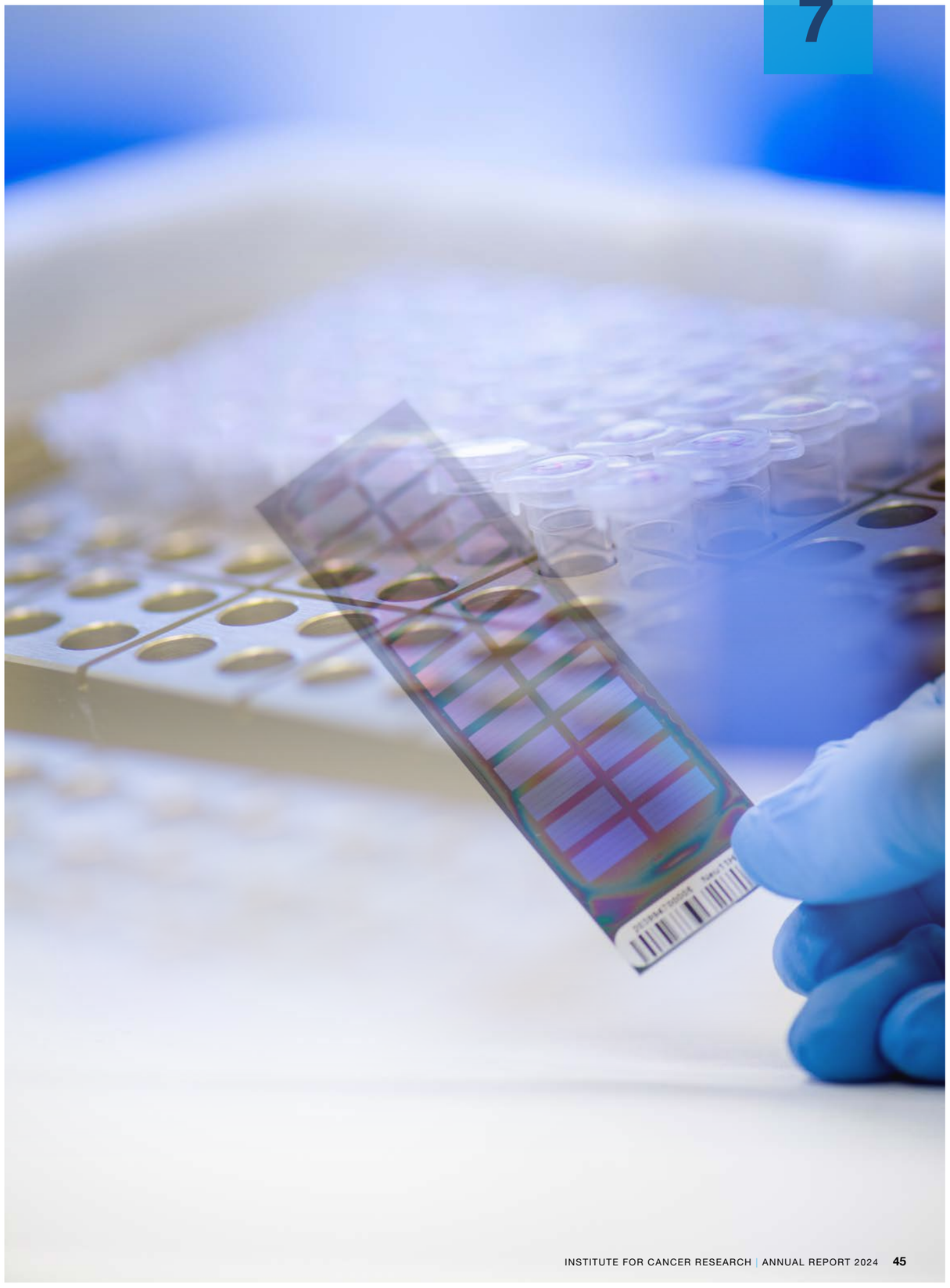
STRATEGIC RESEARCH AREA FOR
OSLO UNIVERSITY HOSPITAL

TEAM-ACT: Tumor Evolution in Advanced Models to Accelerate precision Cancer Therapy

Headed by Ragnhild A. Lothe and Anita Sveen

- Transcriptomics of multiregional samples of colorectal cancers identify molecular classes that are less vulnerable to tumor heterogeneity (Langerud et al., Nat Comm 2024).
- Observational phase of a functional precision oncology study of colorectal cancer was completed, including pharmacogenomic and morphological analyses of a living biobank of patient-derived organoids from >300 liver metastases and >150 patients (Kryeziu et al., submitted). A clinical intervention study is ongoing.
- Mutations associated with poor survival benefit from liver transplantation of metastatic colorectal were identified and proposed as new markers for patient selection (Moosavi et al., submitted).

”New treatment strategies of colorectal cancer”



The Clinic

The ICR as a gravity point in Oslo University Hospital Comprehensive Cancer Centre

With its OECI-accredited Comprehensive Cancer Centre, Oslo University Hospital is increasingly recognised as a leading cancer centre in Europe. The Institute for Cancer Research (ICR) is a key component of the CCC. It serves as a competence hub with world-leading research groups and environments important in populating prioritised development areas in our CCC, such as the national precision cancer medicine initiative, our cell-gene therapy program, and the pre-clinical proton therapy unit. The CCC structure and integration of research and care are essential for the quality of cancer care, and according to the Europe Beating Cancer plan and the objectives of the EUnetCCC Joint Action, where our hospital makes a considerable effort, access to a CCC or CCC network should be offered to all cancer patients in Europe by 2030.

The Institute is near clinical cancer departments and diagnostic laboratories at the Radium Hospital campus, with Oslo Cancer Cluster and the Cancer Registry of Norway as neighbours. This proximity has been vital for our strong track record in translation and innovation developed over the past 70 years of operation of the ICR. With the opening of the new clinical buildings in 2024 and the proton centre at the Radium Hospital in March 2025, this unique concept will be strengthened and further developed.

More patients in clinical trials is an expressed aim for the CCC. I am pleased with the many investigator-initiated clinical trials developed in close collaboration between researchers at ICR and clinical research groups at all locations of Oslo University Hospital. New methodologies for patient stratification and other biomarker analyses developed at the ICR in close collaboration with diagnosticians and high-quality translational research connected to trials facilitate cutting-edge clinical research. Furthermore, the Institute has been able to reach out to most clinical research groups working on different cancer diagnoses, and today, we cover all the common and many rare cancers together.

The extensive international collaboration involving researchers at ICR is also an essential asset for the CCC. In the integrated organisation of cancer-related activities, the ICR continues to be a gravity point in developing Oslo University Hospital as a leading cancer centre in Europe and meeting the ambitions and opportunities given by the focus of the EU Cancer Mission and Europe's Beating Cancer Plan. I congratulate the ICR on its 70th anniversary in 2024; I am proud to have the Institute as an integrated part of OUS and the OUS-CCC.

Sigbjørn Smeland
Head of Division of Cancer Medicine
Chair, OUS CCC Board

Translation and Innovation at the ICR

At the ICR, we are committed to advancing innovation and translational research while fostering collaboration, coordination, and cohesion across hospital units, including clinical departments, pathology, radiology, and radiation biology.

Our Translational Research and Innovation Committee (TRIC), which comprises the heads of each division, meets monthly to review ongoing innovations and translational research projects. The aim is to maintain a strategic focus on these activities, ensuring constructive discussions and providing critical project feedback. Additionally, TRIC identifies bottlenecks and mobilizes the necessary competencies within our organization to address challenges effectively.
ICR leads the way in generating the highest number of DOFIs and patent applications across OUH and UiO, according to Inven2, our technology transfer office. Inven2 actively engages with our institute by holding regular meetings with divisions focusing on establishing collaboration with new project leaders and senior researchers. Each year, TRIC reviews approximately 20 translation and innovation projects.

Our translational and innovation activities are supported through collaborations with the UiO Growth House, the UiO/OUH SPARK program, Inven2, and the RadForsk Investment Fund. These efforts are further bolstered by funding from HSE and RCN innovation grants and partnerships with investors and industry leaders.

Through these initiatives, ICR continues to drive impactful research and innovation, advancing patient care and scientific discovery.

Clinical intervention trials where Institute researchers play a prominent part

- ALICE: Atezolizumab Combined With Immunogenic Chemotherapy in Patients With Metastatic Triplenegative Breast Cancer
  ClinicalTrials.gov: #NCT03164993
  PI: Jon Amund Kyte
  Partner labs: Jon Amund Kyte, Hege Russnes

- ASAC - Aspirin as secondary prevention in colorectal cancer liver metastasis (www.asac.no)
  ClinicalTrials.gov; #NCT03326791
  PIs: Sheraz Yaqub and Kjetil Taskén

- BladMetrix - Urine-based surveillance study of bladder cancer recurrence
  PI: Guro E. Lind.
  Clinical manager: Rolf Wahlqvist

- BM7-PE - A Phase I/II Study with BM7PE Immunotoxin in Colorectal Cancer Patients
  ClinicalTrials.gov: #NCT 04550897
  PI: Geir Olav Hjortland
  Partner: Kjersti Flatmark

- ComIT - Combinatory ImmunoTherapy-1
  ClinicalTrials.gov: #NCT03644823
  PI: Åslaug Helland
  Partner lab.: Åslaug Helland

- COM-IT-2 Immunotherapy combined with extensive radiotherapy for the treatment of stage IV non-small cell lung cancer
  EudraCT: #2021-003266
  PI: Vilde Haakensen
  Partners: Tarje Halvorsen, Bjørn Henning Grønberg, Kirill Neumann, Sigve Andersen

- DART – Durvalumab after chemo-radiotherapy for NSCLC (multinational phase II trial)
  ClinicalTrials.gov: #NCT04392505
  PI: Åslaug Helland
  Partner lab.: Åslaug Helland

- EVIDENT – Ex vivo drug sensitivity testing in metastatic colorectal cancer.
  ClinicalTrials.gov: #NCT05725200
  PI: Tormod K. Guren
  Partner lab.: Ragnhild A. Lothe

- ImPRESS-losartan - Imaging perfusion restrictions from extracellular solid stress.
  EudraCT: #2018-003229-27
  PI: Petter Brandal
  Partner labs: Kyrre Eeg Emblem, Åslaug Helland/Vilde D Haakensen

- IMPRESS-Norway – Improving public cancer care by implementing precision medicine in Norway
  ClinicalTrial.gov: #NCT04817956;
  https://impressnorway.no/en
  Institute participants:
  National PI: Åslaug Helland
  Trial Management Committee: Hege Russnes, Kjetil Taskén, Jon Amund Kyte; Trial Steering Committee: Eivind Hovig, Leonardo Meza-Zepeda, Ragnhild Lothe plus TMC members; Coordinator: Kajsa Johansson

- LD-VenEx - Phase II "feasibility" study of azacitidine in combination with low dose venetoclax in patients with acute myeloid leukemia
  EudraCT: #2020-005461-14
  PI: The Nordic AML Group
  Partner lab: Jorrit Enserink

- METIMMOX-2: Metastatic pMMR/MSS Colorectal Cancer - Shaping Anti-Tumor Immunity by Oxaliplatin
  ClinicalTrial.gov: #NCT05504252
  PI: Anne Hansen Ree
  Partner lab: Kjersti Flatmark

- METOXY-LACC - Altered Tumor Oxygenation by Metformin, a Potential Step in Overcoming Radiotherapy Resistance in Locally Advanced Cervical Cancer (LACC)
  ClinicalTrials.gov: #NCT04275713
  PI: Kjersti Bruheim
  Partner lab: Heidi Lyng

- MITRIC - Microbiota Transplant to Cancer Patients Who Have Failed Immunotherapy Using Faeces From Clinical Responders
  ClinicalTrials.gov: #NCT05286294
  PI: Jon Amund Kyte
  Lab partner: Jon Amund Kyte

- NAPEER - NeoAdjuvant PErsonalized therapy in Estrogen Receptor positive (+) breast cancer
  EudraCT: #2021-005850-27
  PI: Olav Engebråten
  Partner lab: Mads H. Haugen / Gunhild M. Mælandsmo

- NIPEC-OXA; Normothermic Intraperitoneal Chemotherapy - Long Term in Peritoneal Metastases from Colorectal Cancer
  ClinicalTrials.gov: #NCT05056389
  PI: Mariusz Goscinski
  Partner lab: Kjersti Flatmark

- NIPU – Nivolumab and ipilimumab +/- UV1 vaccine in second line treatment of mesotheliomas
  ClinicalTrials.gov: #NCT04300244
  PI: Åslaug Helland
  Partner lab.: Vilde Haakensen

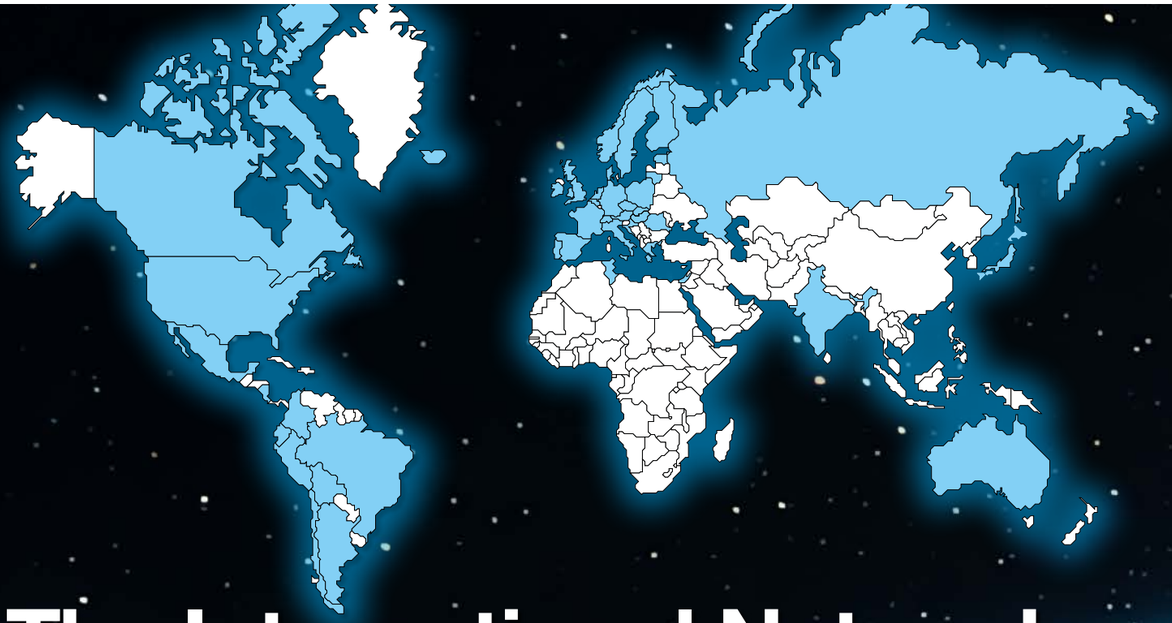
- NorPACT-1/2 - Neo-adjuvant chemotherapy for pancreatic cancer
  ClinicalTrials.gov: #NCT02919787
  PI: Knut Jørgen Labori
  Partner lab: Elin Kure

- PERELI – PEmigatinib and REtifanlimab in advanced dedifferentiated LIposarcoma
  CTIS: #2022-501993-21-00
  PI: Kjetil Boye
  Partner lab.: Jørgen Wesche

- Perioperative Propranolol in Robotic Assisted Laparoscopic Prostatectomy (PeP-RALP) - A Pilot Study
  EudraCT: #2022-001184-28
  PI: Shivanthe Sivanesan
  Partner lab: Kristin A. Taskén/Gunhild M. Mælandsmo

- RADPAINT-3 - RAdiotherapy with FDG-PET guided Dose-PAINTing for primary head and neck cancer-3
  NCT06297902 ,
  PI: Einar Dale,
  Partner lab: Lyng, Malinen

- Sequential neoadjuvant ifosfamide and doxorubicin in localized high-grade soft tissue sarcoma of extremities and trunk wall
  ClinicalTrials.gov: #NCT04776525
  PI: Kjetil Boye
  Partner lab.: Jørgen Wesche



The International Network

ICR members report collaborations with researchers at **243** institutions in **43** countries world-wide.

ARGENTINA
- Hospital Italiano de Buenos Aires, Buenos Aires
- Hospital Privado Universiatrio de Córdoba, Cordoba

AUSTRALIA
- Kinghorn Cancer Centre, Sydney
- Monash University, Melbourne
- University of Melbourne, Parkville, Victoria

AUSTRIA
- Institute of Pathophysiology Biocenter, Innsbruck Medical University, Innsbruck
- Medical University of Vienna, Vienna

BELGIUM
- Catholic University of Brussels, Brussels
- Ghent University, Ghent
- Katholieke University Leuven, Leuven
- Universiteit Hasselt, Genk
- UZ Leuven, Leuven

BOLIVIA
- Instituto de Servicios de Laboratorio de Diagnóstico e Investigación en Salud (SELADIS), La Paz

BRAZIL
- AC Camargo Hospital, Sao Paulo
- Hospital Sirio Libanes, Sao Paulo
- Hospital Universitário Oswaldo Cruz
- Universidade de Pernambuco, Recife
- Universidade Federal de Bahia, Bahia

CANADA
- McGill University, Montreal
- Princess Margaret Hospital, Toronto
- University of Ottawa, Ottawa

CHILE
- Clínica Universidad de los Andes, Santiago
- Hospital Regional de Antofagasta, Antofagasta

COLOMBIA
- University of Tolima, Tolima

COSTA RICA
- Hospital Dr. Rafael Ángel Calderón Guardia, San José

CROATIA
- Centre of Oncology, Split
- Klinicki Bolnicki Centar Sestre Milosrdnice, Zagreb
- University of Zagreb, Zagreb

CZECH REPUBLIC
- Charles University, Prague
- Institute of Experimental Biology, Masaryk University, Brno
- Masaryk Memorial Cancer Institute, Brno
- National Institute of Public Health, Prague

DENMARK
- Aalborg University Hospital, Aalborg
- Aarhus University Hospital, Aarhus
- Copenhagen University Hospital, Copenhagen
- Herlev Hospital, Copenhagen
- Hvidovre Hospital, Copenhagen
- University of Copenhagen, Copenhagen
- University of Southern Denmark, Odense

ECUADOR
- Hospital de Especialidades Eugenio Espejo, Quito

ESTONIA
- Hematology and Oncology Clinic, Tartu

FINLAND
- Finnish Institute of Molecular Medicine, Nordic EMBL partnership, Helsinki
- Helsinki University Hospital, Helsinki
- Pharmatest Services Ltd, Turku
- Tampere University of Technology, Tampere
- The Southern Finland Regional Cancer Center
- University of Helsinki, Helsinki
- University of Jyväskylä, Jyväskylä
- Zora Oy, Espoo

FRANCE
- Aix-Marseille Université, Marseille
- APHP - Sorbonne Université, Paris
- Centre Léon Bérard, Lyon
- Centre National de Génotypage, Paris
- EurOPDX - European Consortium on Patient-derived Xenografts, Paris
- Hôpital Saint Antoine -APHP, Paris
- Institut Gustave Roussy, Paris
- Institut National de la Sante et de la Recherche Medicale, Paris
- Institute Curie, Paris
- Institute of Systems and Synthetic Biology Genopole, UEVE, CNRS, Évry
- International Agency for Research on Cancer (IARC), Lyon
- Large Heavy Ion National Accelerator (CEA, CIMAP, GANIL), Caen
- Unicancer, Paris
- Université de Lorraine, Nancy
- Université Lyon, Villeurbanne
- Université Paris-Sûd, Orsay

GERMANY
- EMBL, Heidelberg
- Heidelberg University Hospital, Heidelberg
- Jacobs University, Bremen
- Johannes Gutenberg University in Mainz, Mainz
- Technische Universität Dresden, Dresden
- University Hospital Düsseldorf, Düsseldorf
- Universität München, Munich
- University of Bayreuth, Bayreuth
- University of Bochum, Bochum
- University of Bonn, Bonn
- University of Cologne, Cologne
- University of Freiburg, Freiburg
- University of Heidelberg, Heidelberg
- University of Leipzig, Leipzig
- University of Mainz, Mainz
- University of Marburg, Marburg
- University of Stuttgart, Stuttgart
- University Witten-Herdecke, Herdecke

GREECE
- National and Kapodistrian University of Athens, Athens
- National Centre for Scientific Research "Demokritos", Athens
- University of Ioannina, Ioannina

HUNGARY
- National Institute of Oncology, Budapest
- Semmelweis University, Budapest
- University of Szeged, Szeged

ICELAND
- University of Iceland, Biomedical Center, Reykjavik

INDIA
- Indian institute of Technology, Hyderabad
- Institute of Human Genetics, FRIGE House, Ahmeda-bad
- Savitribai Phule Pune University, Pune

IRELAND
- National Institute for Bioprocessing Research and Training (NIBRT), Dublin
- St Vincent's University Hospital, Dublin
- Trinity College, Dublin

ISRAEL
- Hadassah medical center, Jerusalem
- Rabin Medical Center
- Rambam Health Care Campus, Haifa
- Soroka University Medical Center , Beer Sheva
- Technion - Israel Institute of Technology, Haifa
- Tel-Aviv University, Tel-Aviv
- The Genetic Institute, Kaplan Medical Center, Rehovot
- Weizmann Institute, Rehovot

ITALY
- Azienda Ospedaliera Universitaria Senese, Siena
- Circolo Hospital in Varese, Varese
- European Institute of Oncology, Milan
- Fondazione Policlinico Universitario A. Gemelli IRCCS, Roma
- IFOM, Milan
- International School for Advanced Studies, Trieste
- IRCCS Humanitas Research Hospital, University of Parma, Parma
- IRCCS San Raffaele Scientific Institute, Vita-Salute San Raffaele University, Milan
- Istituto Nationale di Tumori, Milano
- The Rizzoli Institute, Bologna
- University of Bologna, Bologna
- University of Milan Bicocca, A.O. San Gerardo, Clinic of Obstetrics and Gynecology, Monza (MB)
- University of Padova, Padova
- University of Parma, Parma
- University of Salento, Lecce

JAPAN
- Tokyo Metropolitan Cancer and Infectious Diseases Center, Tokyo

LATVIA
- Rigas Stradina Universitate, Riga

LITHUANIA
- National Cancer Institute, Vilnius

MEXICO
- Instituto Nacional de Cancerologia, Mexico DC

NORWAY
- Cancer Registry of Norway, Oslo
- Haukeland University Hospital, Bergen
- Norwegian University of Life Sciences, Ås.
- Norwegian University of Science and Technology, Trondheim
- Stavanger University Hospital, Stavanger
- Trondheim University Hospital-St. Olavs Hospital, Trondheim
- University Hospital of Northern Norway, Tromsø
- University of Bergen, Bergen
- University of Oslo, Oslo

PERU
- Hospital Nacional Edgardo Rebagliati Martins, EsSalud, Lima
- Instituto Nacional de Enfermedades Neoplasicas, Lima
- Universidad Nacional Mayor de San Marcos, Lima
- Universidad Peruana de Ciencias Aplicadas, Lima
- Universdad Ricardo Palma, Lima
- Universidad Tecnológica del Perú, Lima

POLAND
- Faculty of Biotechnology, University of Wroclaw, Wroclaw
- International Hereditary Cancer Center, Szczecin
- Jagiellonian University, Kraków
- Maria Sklodowska-Curie National Research Institute of Oncology, Warsaw
- University of Gdansk, Gdansk

PORTUGAL
- Institute of Molecular Pathology and Immunology, University of Porto
- Instituto de Investigação e Inovação em Saúde da Universidade do Porto, Porto
- Portuguese Oncology Institute, Porto
- University of Aveiro, Aveiro

ROMANIA
- Center for Innovation in Medicine, Bucharest
- Horia Hulubei National Institute for Physics and Nuclear Engineering
- Bucharest - Magurele

RUSSIA
- Institute of Cytology and Genetics, Novosibirsk

SINGAPORE
- Cancer Science Institute of Singapore, Singapore

SPAIN
- Biocruces Bizkaia Health Research Institute, Barakaldo
- CABIMER, University of Sevilla, Sevilla
- Centre for Biological Studies, Madrid
- Fundacion Instituto Valenciano de Oncologica (FIVO), Valencia
- ICGC, Technical validation group and Ivo Gut, Barcelona
- Institut Català d'Oncologia-IDIBELL, L'Hospitalet de Llobregat, Barcelona
- Universidad de Granada, Granada
- University of Barcelona, Barcelona
- University of Santiago de Compostela, Compostela
- University of Lleida, Lleida
- University of Valencia, Valencia
- Universitat Politècnica de València, Valencia
- Vall d'Hebron Institute of Oncology, Barcelona

SWEDEN
- Karolinska Institutet, Stockholm
- Lund University, Lund
- Stockholm School of Economics, Stockholm
- Stockholm University
- Swedish Institute for Health Economics, Lund
- The Sahlgrenska Academy at the University of Gothenburg, Gothenburg
- Uppsala University Hospital, Uppsala

SWITZERLAND
- Medical Genetics, Institute for Medical Genetics and Pathology, University Hospital Basel, Basel
- UDG Alliance, Geneva
- University Hospital Zurich, Zurich

THE NETHERLANDS
- Erasmus University Medical Center, Rotterdam
- Leiden University Medical Centre, Leiden
- Netherlands Cancer Institute (NKI), Amsterdam
- Radboud University Nijmegen, Nijmegen
- The Netherlands Proteomics Centre, Utrecht
- University Medical Center, Groningen
- Utrecht University, Utrecht
- VU Medical Center, Amsterdam

TUNISIA
- Tunis El Manar University, Tunis
- University of Tunis, Tunis

UNITED KINGDOM
- Cambridge Cancer Institute, Cambridge
- Cancer Research UK, London
- Cardiff University, Cardiff
- Hampshire Hospitals/Southampton University, Southampton
- Institute of Cancer and Genomic Sciences, University of Birmingham, Birmingham
- London Research Institute,The Francis Crick Institute, London
- Lynch Syndrome & Family Cancer Clinic, St Mark's Hospital, London
- Newcastle University, Newcastle upon Tyne
- Queen's University Belfast
- Royal National Orthopaedic Hospital, Stanmore, Middlesex
- The Beatson Institute for Cancer Research, Glasgow
- The European Bioinformatics Institute (EMBL-EBI), Hinxton
- University College London Medical School, UCL, London
- University of Cambridge, Cambridge
- The University of Edinburgh, Edinburgh
- University of Liverpool, Liverpool
- University of Manchester, Manchester
- University of Oxford, Oxford
- University of Southampton, Southampton
- University of Warwick, Coventry
- Wellcome Sanger Institute, Hinxton

USA
- Buck Institute for Research on Aging, Novato, California
- Dana Farber Cancer Institute, Boston, Massachusetts
- Dartmouth College, Hanover, New Hampshire
- Duke University Medical Center, Durham, North Carolina
- Fred Hutchinson Cancer Research Center, Seattle, Washington
- Georgetown University, Washington DC
- Harvard University, Boston, Massachusetts
- Johns Hopkins Medicine, Baltimore, Maryland
- Knight Cancer Institute, Oregon Health Sciences University
- Lawrence Berkeley National Laboratory, Berkeley, California
- Lineberger Comprehensive Cancer Center, Chapel Hill, North Carolina
- Masonic Cancer Center and University of Minnesota, Minneapolis
- Massachusetts General Hospital, Boston, Massachusetts
- MD Anderson Comprehensive Cancer Center, Houston, Texas
- MedKoo Biosciences, Morrisville, North Carolina
- Memorial Sloan Kettering Cancer Center, New York
- Moffitt Cancer Center, Tampa Florida
- National Institutes of Health (NIH), Bethesda, Maryland
- Oregon State University, Corvallis, Oregon
- Princeton University, New Jersey
- Rutgers Cancer Institute of New Jersey
- Stanford University, California
- The Mount Sinai Hospital, New York
- The University of Kansas Hospital, Kansas
- Tisch Cancer Institute, New York
- UCSF, Helen Diller Family Cancer Centre, San Francisco, California
- University of Albany, New York
- University of California, Berkeley, California
- University of Chicago, Illinois
- University of Colorado, Denver, Colorado
- University of Illinois, Champaign, Illinois
- University of Vermont, Burlington
- University of Washington, Seattle, Washington
- University of Wisconsin Carbone Cancer Center, Wisconsin
- Washington University, St Louis, Missouri
- Weill Medical College of Cornell University, New York
- Yale School of Medicine, New Haven

The Next Generation

Some of the new recruits bringing in new competence in 2024

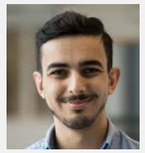
Giovanna Perinetti Casoni
Postdoctor
Casoni is Italian and has a PhD in Immunology from Karolinska Institutet in 2023, where she was working on effector functions of cytotoxic lymphocytes. Her postdoc project concerns molecular mechanisms regulating the functional maturation of NK cells from induced pluripotent stem cells (iPSCs). She is a member of Malmberg research group, Natural Killer Cell Biology and Cell Therapy.

Inga Juvkam Solgård
Postdoctor
Inga holds an MSc in cellular memory mechanisms in skeletal muscle from the Department of Biosciences at the University of Oslo (UiO). She obtained her PhD from the Institute of Oral Biology, UiO, where she studied normal tissue effects induced by proton and X-irradiation in the head and neck region of mice. She has broad experience in laboratory studies, including in vitro and in vivo work, as well as expertise in designing experiments involving ionizing radiation. She is a member of Malinen's group at the Department of Radiation Biology, where she continues to study normal tissue effects from proton irradiation while also expanding her research to tumor models.

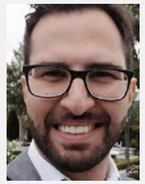
Katy McCarron
Postdoctor
Katy obtained her PhD in molecular cell biology at University of Liverpool, UK, on a project concerning endolysosomal stress in the development of Parkinson´s disease. She has experience in a wide range of cell and molecular biology methods, including advanced light microscopy and flow cytometry. She is a member of in Maja Radulovic´s project group in Harald Stenmark´s group. In Maja´s project group she will be working on projects related to lysosome repair and its importance in cancer biology.

Ann Christin Garvert
Postdoctor
Anna Christina Garvert recently completed her PhD at the University of Oslo in the lab of Koen Vervaeke, where she focused on applying machine learning techniques to analyze and understand neural data. In the spring of 2024, she joined the Department of Cancer Genetics as a Postdoctoral researcher in Åslaug Helland's group. Her current research centers on developing an AI tool to identify and characterise oligometastatic non-small cell lung cancer (NSCLC) patients by segmenting metastases from CT and MRI scans. She aims to stratify oligometastatic patients from those with more extensive metastatic disease and analyze treatment strategies and outcomes, ultimately improving care for this subgroup.

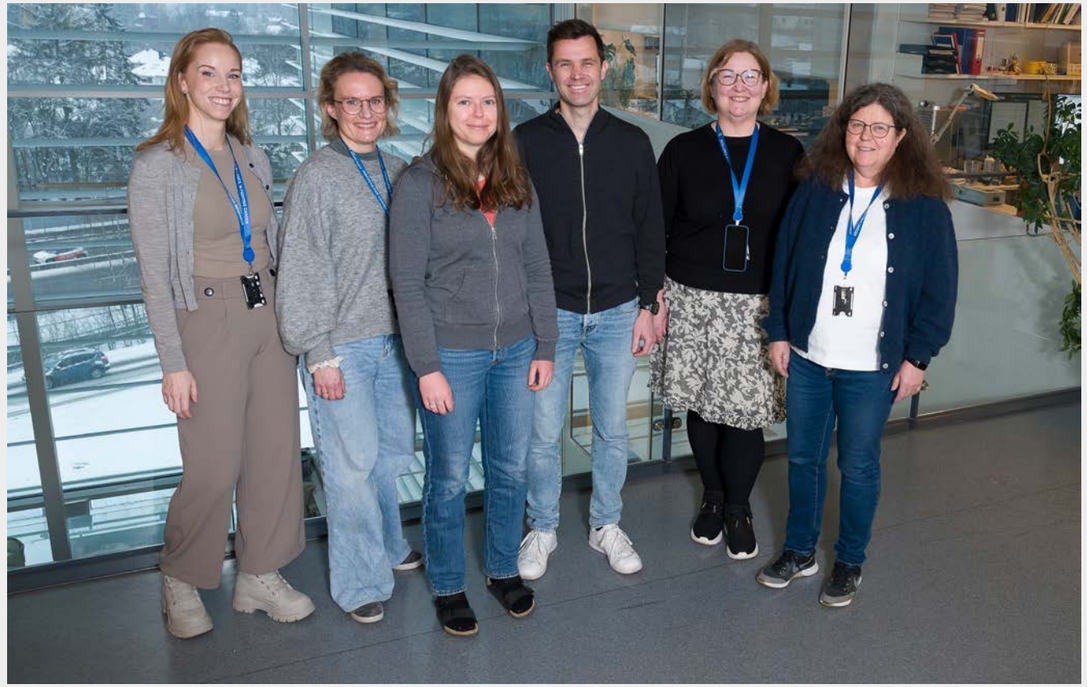
Marie K. Gillstrøm
MSc. Special Engineer
Marie works at the Genomics Core Facility and has been involved in establishing new single-cell and spatial services at the facility. As a technology expert in these areas, she has developed expertise in various advanced workflows and collaborates closely with users to optimise their experiments.



Luis Nunes
Postdoctor
Luis Nunes has competence in colorectal cancer genomics (Nunes et al., Nature 2024) and was recruited to the Lothe lab. in 2024. Nunes was trained in the labs of Bengt Glimelius and Tobias Sjøblom and defended his PhD at Uppsala University, Sweden, in 2023. He is pursuing his research interests with multi-omics data integration in the context of tumor heterogeneity and metastasis development in colorectal cancer. He belongs to the Lothe group, Department of Molecular Oncology.



Andrea Terrasi
Postdoctor
Andrea has recently defended his PhD at Ludwig Maximilian University of Munich, where he identified and characterised the role of FOXJ1 in pancreatic cancer. He possesses extensive experience in cancer biology and bioinformatics, analysing various cancer types. He will investigate intra- and inter-tumour heterogeneity in Gastrointestinal Stromal Tumours using specialised transcriptomics and single-cell analyses to uncover the molecular determinants that drive GIST progression. He is a member of the Meza-Zepeda Translational Genomics Project Group within the Department of Tumour Biology.



Idun Dale Rein, Karin Teien Lande, Evy Marie Thorkildsen, Thomas Fleischer, Karen-Marie Heintz and Merete Thune Wiiger.
(Absent: Ane Sofie Viset Fremstedal, Catherine Sem Wegner, Gry Aarum Geitvik, Ina Katrine Nitschke Pettersen)

Competency Development Program for Engineers at the ICR

The ICR focuses on career development to improve the staff's professional growth and development across all categories, ensuring they have access to all resources and opportunities necessary for success in their respective fields.

In the category of Engineers, ICR has approximately 100 staff members essential for the institute's smooth operation, research activities, and knowledge production. In 2023, the ICR Career Development Committee conducted a comprehensive needs assessment and as evident by the gap analysis that followed, there was no structured approach to offer career and competence development for this group.
To ensure competence development for Engineers, the ICR has developed a competency plan.
The work started in mid-2023 with a working group of engineers, unit leaders with engineering backgrounds and representatives for the employee unions. The engineer group at ICR is diverse, with backgrounds spanning from BSc to PhD and the focus varying from lab management to scientific expertise. In addition, the OUH does not offer scientific courses to the group. Therefore, the working group looked at alternatives to ensure competence development but still maintaining diversity in the group.

At the core of the competency plan is the annual employee appraisal interview. The working group have suggested a list of activities, and the employee and leader can choose two activities each year.
The aim is to give a higher focus on competency development during the appraisal interview in this group and to ensure that all engineers have access to development throughout their careers.

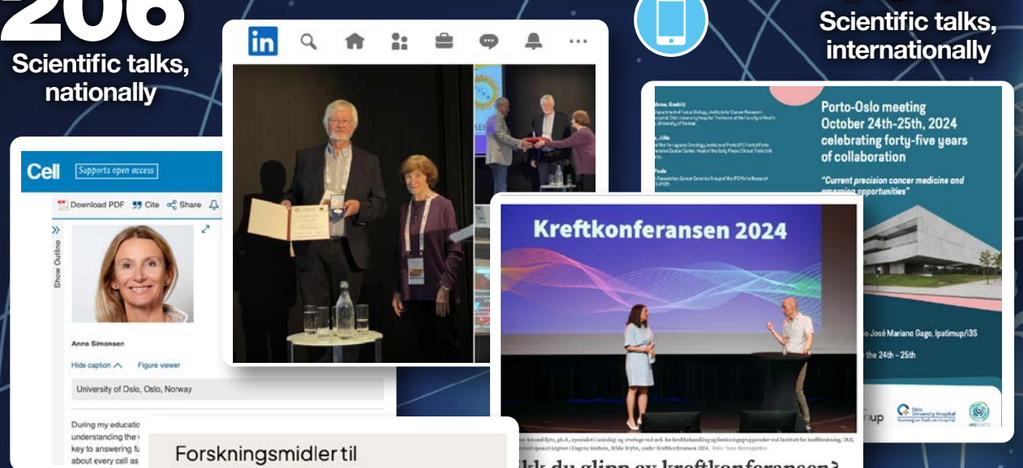
The Communication is Key

Communication in cancer research facilitates knowledge exchange among researchers and clinicians and promotes the connection between the research community and the wider public. In 2024, our researchers from ICR published 200 peer-reviewed papers, organised some 45 national and international meetings, participated in many more and communicated about our research through almost 500 talks, interviews, newspaper contributions, and more than 500 social media posts. This demonstrates the commitment of ICR to advancing cancer diagnosis, treatment, and public outreach.

557
Original Social Media Postings#

206
Scientific talks, nationally

197
Scientific talks, internationally



45
Scientific & popular meetings

78
National media*

*: *talks, interviews, newspaper correspondence, viewpoints and debate articles on popular science and research policy*

#: *original postings about science in social media (Twitter, LinkedIn etc)*

Publications

Publications (articles) published in 2024 from OUS - Institute for Cancer Research

Adnan Awad S, Dufva O, Klievink J, Karjalainen E, Ianevski A, Pietarinen P, Kim D, Potdar S, Wolf M, Lotfi K, **Aittokallio T**, Wennerberg K, Porkka K, Mustjoki S (2024)
Integrated drug profiling and CRISPR screening identify BCR::ABL1-independent vulnerabilities in chronic myeloid leukemia
Cell Rep Med, 5 (5), 101521

Aittokallio T, Fang EF (2024)
Editorial overview-Artificial intelligence methodologies in structural biology: Bridging the gap to medical applications
Curr Opin Struct Biol, 87, 102862

Akdeniz BC, Frei O, Hagen E, Filiz TT, Karthikeyan S, Pasman J, Jangmo A, Bergstedt J, Shorter JR, Zetterberg R, Meijsen J, Sønderby IE, Buil A, Tesli M, Lu Y, Sullivan P, Andreassen OA, **Hovig E** (2024)
COSGAP: COntainerized Statistical Genetics Analysis Pipelines
Bioinform Adv, 4 (1), vbae067

Akdeniz BC, Frei O, Shadrin A, Vetrov D, Kropotov D, **Hovig E**, Andreassen OA, Dale AM (2024)
Finemap-MiXeR: A variational Bayesian approach for genetic finemapping
PLoS Genet, 20 (8), e1011372

Akdeniz BC, Morris AH, **Møller P**, Andreassen O, **Hovig E**, **Dominguez-Valentin M** (2024)
Evaluation of a combined model of Polygenic Risk Score and mismatch repair genes in the association of colorectal cancer for Norwegian cohort
Tumori, 3008916241303648 (in press)

Akshay A, Katoch M, Shekarchizadeh N, Abedi M, **Sharma A**, Burkhard FC, Adam RM, Monastyrskaya K, Gheinani AH (2024)
Machine Learning Made Easy (MLme): a comprehensive toolkit for machine learning-driven data analysis
Gigascience, 13

Andresen NK, **Røssevold AH**, Borgen E, Schirmer CB, Gilje B, Garred Ø, Lømo J, Stensland M, Nordgård O, Falk RS, Mathiesen RR, **Russnes HG**, **Kyte JA**, Naume B (2024)
Circulating tumor cells in metastatic breast cancer patients treated with immune checkpoint inhibitors - a biomarker analysis of the ALICE and ICON trials
Mol Oncol (in press)

Andresen NK, **Røssevold AH**, Quaghebeur C, Gilje B, Boge B, Gombos A, Falk RS, Mathiesen RR, Julsrud L, Garred Ø, **Russnes HG**, **Lereim RR**, **Chauhan SK**, **Lingjærde OC**, **Dunn C**, Naume B, **Kyte JA** (2024)
Ipilimumab and nivolumab combined with anthracycline-based chemotherapy in metastatic hormone receptor-positive breast cancer: a randomized phase 2b trial
J Immunother Cancer, 12 (1)

Angulo JC, Larrinaga G, Lecumberri D, Iturregui AM, Solano-Iturri JD, Lawrie CH, Armesto M, Dorado JF, **Nunes-Xavier CE**, Pulido R, Manini C, López JI (2024)
Predicting Survival of Metastatic Clear Cell Renal Cell Cancer Treated with VEGFR-TKI-Based Sequential Therapy
Cancers (Basel), 16 (16)

Ankill J, **Zhao Z**, Tekpli X, **Kure EH**, Kristensen VN, Mathelier A, **Fleischer T** (2024)
Integrative pan-cancer analysis reveals a common architecture of dysregulated transcriptional networks characterized by loss of enhancer methylation
PLoS Comput Biol, 20 (11), e1012565

Arner EN, Alzhanova D, Westcott JM, Hinz S, Tiron CE, Blø M, Mai A, Virtakoivu R, Phinney N, **Nord S**, Aguilera KY, Rizvi A, Toombs JE, Reese TC, Fey V, Micklem D, Gausdal G, Ivaska J, Lorens JB, Brekken RA (2024)
AXL-TBK1 driven AKT3 activation promotes metastasis
Sci Signal, 17 (867), eado6057

Ask EH, **Tschan-Plessl A**, **Hoel HJ**, Kolstad A, Holte H, **Malmberg KJ** (2024)
MetaGate: Interactive analysis of high-dimensional cytometry data with metadata integration
Patterns (N Y), 5 (7), 100989

Bai B, **Wise JF**, **Vodák D**, **Nakken S**, **Sharma A**, **Blaker YN**, Brodtkorb M, **Hilden V**, Trøen G, Ren W, **Lorenz S**, Lawrence MS, **Myklebost O**, Kimby E, Pan-Hammarström Q, **Steen CB**, **Meza-Zepeda LA**, Beiske K, **Smeland EB**, **Hovig E**, **Lingjærde OC**, Holte H, **Myklebust JH** (2024)
Multi-omics profiling of longitudinal samples reveals early genomic changes in follicular lymphoma
Blood Cancer J, 14 (1), 147

Behsen AD, Holien T, Micci F, Rye M, Rasmussen JM, Andersen K, Hess ES, Børset M, Keats J, **Våtsveen TK**, Misund K (2024)
Cell surface marker heterogeneity in human myeloma cell lines for modeling of disease and therapy
Sci Rep, 14 (1), 28805

Ben Diouf O, Gilbert A, Bernay B, **Syljuåsen RG**, Tudor M, Temelie M, Savu DI, Soumboundou M, Sall C, Chevalier F (2024)
Phospho-Proteomics Analysis of Early Response to X-Ray Irradi-

ation Reveals Molecular Mechanism Potentially Related to U251 Cell Radioresistance
Proteomes, 13 (1)

Bischof K, Cremaschi A, Eroukhmanoff L, Landskron J, Flage-Larsen LL, Gade A, Bjørge L, **Urbanucci A**, **Taskén K** (2024)
Patient-derived acellular ascites fluid affects drug responses in ovarian cancer cell lines through the activation of key signalling pathways
Mol Oncol, 19 (1), 81-98

Bischof K, Holth A, Bassarova A, Davidson B (2024)
Expression of PRAME in high-grade serous carcinoma is associated with higher residual disease volume and Occludin expression
Pathol Res Pract, 266, 155787 (in press)

Bjørgo E, **Fagereng GL**, **Russnes HG**, Smeland S, **Taskén K**, **Helland Å** (2024)
Acta Oncologica Nordic Precision Cancer Medicine Symposium 2023 - merging clinical research and standard healthcare
Acta Oncol, 63, 487-490

Bogaard M, **Strømme JM**, **Kidd SG**, **Johannessen B**, **Bakken AC**, **Lothe RA**, **Axcrona K**, **Skotheim RI**, **Axcrona U** (2024)
GRIN3A: A biomarker associated with a cribriform pattern and poor prognosis in prostate cancer
Neoplasia, 55, 101023

Brativnyk A, **Ankill J**, **Helland Å**, **Fleischer T** (2024)
Multi-omics analysis reveals epigenetically regulated processes and patient classification in lung adenocarcinoma
Int J Cancer, 155 (2), 282-297

Brugger M, Lauri A, **Zhen Y**, Gramegna LL, Zott B, Sekulić N, Fasano G, Kopajtich R, Cordeddu V, Radio FC, Mancini C, Pizzi S, Paradisi G, Zanni G, Vasco G, Carrozzo R, Palombo F, Tonon C, Lodi R, La Morgia C, Arelin M, Blechschmidt C, Finck T, **Sørensen V**, Kreiser K et al. (2024)
Bi-allelic variants in SNF8 cause a disease spectrum ranging from severe developmental and epileptic encephalopathy to syndromic optic atrophy
Am J Hum Genet, 111 (3), 594-613

Braadland PR, Farnes I, **Kure EH**, Yaqub S, McCann A, Ueland PM, Labori KJ, Hov JR (2024)
Indole 3-acetate and response to therapy in borderline resectable or locally advanced pancreatic cancer
Front Oncol, 14, 1488749

Bucher-Johannessen C, Senthakumaran T, **Avershina E**, Birkeland E, Hoff G, Bemanian V, Tunsjø H, **Rounge TB** (2024)
Species-level verification of *Phascolarctobacterium* association with colorectal cancer
mSystems, 9 (10), e0073424

Bulanova D, Akimov Y, Senkowski W, Oikkonen J, Gall-Mas L, Timonen S, Elmadani M, Hynninen J, Hautaniemi S, **Aittokallio T**, Wennerberg K (2024)
A synthetic lethal dependency on casein kinase 2 in response to replication-perturbing therapeutics in RB1-deficient cancer cells
Sci Adv, 10 (21), eadj1564

Casey NP, Kleinmanns K, Forcados C, Gelebart PF, Joaquina S, Lode M, Benard E, Kaveh F, **Caulier B**, Helgestad Gjerde C, García de Jalón E, Warren DJ, Lindemann K, Rokkones E, Davidson B, Myhre MR, Kvalheim G, Bjørge L, McCormack E, Inderberg EM, Wälchli S (2024)
Efficient CAR T cell targeting of the CA125 extracellular repeat domain of MUC16
J Immunother Cancer, 12 (4)

Caulier B, Joaquina S, Gelebart P, Dowling TH, Kaveh F, Thomas M, Tandaric L, Wernhoff P, **Katyayini NU**, Wogsland C, Gjerstad ME, **Fløisand Y**, Kvalheim G, Marr C, Kobold S, **Enserink JM**, Gjertsen BT, McCormack E, Inderberg EM, Wälchli S (2024)
CD37 is a safe chimeric antigen receptor target to treat acute myeloid leukemia
Cell Rep Med, 5 (6), 101572

Cavanaugh D, **Urbanucci A**, Mohamed NE, Tewari AK, Figueiro M, Kyprianou N (2024)
Link between circadian rhythm and benign prostatic hyperplasia (BPH)/lower urinary tract symptoms (LUTS)
Prostate, 84 (5), 417-425

Chauhan SK, **Dunn C**, **Andresen NK**, **Røssevold AH**, Skorstad G, **Sike A**, Gilje B, Raj SX, **Huse K**, Naume B, **Kyte JA** (2024)
Peripheral immune cells in metastatic breast cancer patients display a systemic immunosuppressed signature consistent with chronic inflammation
NPJ Breast Cancer, 10 (1), 30

Chen L, Wang X, Xie N, Zhang Z, Xu X, Xue M, Yang Y, Liu L, Su L, **Bjaanæs M**, Karlsson A, Planck M, Staaf J, **Helland Å**, Esteller M, Christiani DC, Chen F, Zhang R (2024)
A two-phase epigenome-wide four-way gene-smoking interaction study of overall survival for early-stage non-small cell lung cancer
Mol Oncol, 19 (1), 173-187

Corrales J, Ramos-Alonso L, González-Sabín J, Ríos-Lombardía N, Trevijano-Contador N, Engen Berg H, Sved Skottvoll F, Moris F, Zaragoza O, Chymkowitch P, Garcia I, **Enserink JM** (2024)
Characterization of a selective, iron-chelating antifungal compound that disrupts fungal metabolism and synergizes with fluconazole
Microbiol Spectr, 12 (2), e0259423

Cun HT, Bernard L, **Lande KT**, Lawson BC, Nesbakken AJ, Davidson B, Lindemann K, Fellman B, **Sørlie T**, Soliman PT, Eriksson AGZ (2024)
Comprehensive molecular characterization of early stage grade 3 endometrioid endometrial adenocarcinoma
Gynecol Oncol, 189, 138-145

Dagenborg VJ, Brudvik KW, **Lund-Andersen C**, **Torgunrud A**, Lund-Iversen M, **Flatmark K**, Larsen SG, Yaqub S (2024)
Cytoreductive Surgery With Hyperthermic Intraperitoneal Chemotherapy and Liver Resection is a Treatment Option for Patients With Peritoneal and Liver Metastases From Colorectal Cancer
Ann Surg, 280 (5), 745-752

Davidson B, Holth A, Hummel C, **Flatmark K**, **Torgunrud A** (2024)
Different Frequency and Clinical Role for MTAP Loss in Pleural and Peritoneal Mesothelioma
Appl Immunohistochem Mol Morphol, 32(6):280-284

Davidson B, Holth A, Lindemann K, Zahl Eriksson AG, **Nilsen TA**, **Torgunrud A** (2024)
Molecular characteristics of tubo-ovarian carcinosarcoma at different anatomic locations
Virchows Arch, 485 (6), 1053-1061

Davidson B, **Teien Lande K**, **Nebdal D**, Nesbakken AJ, Holth A, Lindemann K, Zahl Eriksson AG, **Sørlie T** (2024)
Endometrial carcinomas with ambiguous histology often harbor TP53 mutations
Virchows Arch (in press)

Demir MF, Lin YH, Costa Cruz PH, Tajima M, Honjo T, **Müller E** (2024)
Blocking S100A9-signaling is detrimental to the initiation of anti-tumor immunity
Front Immunol, 15, 1479502

Duran J, Salinas JE, Wheaton RP, Poolsup S, Allers L, Rosas-Lemus M, Chen L, Cheng Q, Pu J, Salemi M, Phinney B, Ivanov P, **Lystad AH**, Bhaskar K, Rajaiya J, Perkins DJ, Jia J (2024)
Calcium signaling from damaged lysosomes induces cytoprotective stress granules
EMBO J, 43 (24), 6410-6443

Dyrbekk APH, Warsame AA, Suhrke P, Ludahl MO, Zecic N, Moe JO, Lund-Iversen M, **Brustugun OT** (2024)
Evaluation of NTRK expression and fusions in a large cohort of early-stage lung cancer
Clin Exp Med, 24 (1), 10

Edsjö A, **Russnes HG**, Lehtiö J, Tamborero D, **Hovig E**, Stenzinger A, Rosenquist R, PCM4EU consortium (2024)
High-throughput molecular assays for inclusion in personalised oncology trials - State-of-the-art and beyond
J Intern Med, 295 (6), 785-803

Egeland EV, **Seip K**, **Skourti E**, **Øy GF**, **Pettersen SJ**, **Pandya AD**, **Dahle MA**, **Haugen MH**, **Kristian A**, **Nakken S**, **Engebraaten O**, **Mælandsmo GM**, **Prasmickaite L** (2024)
The SRC-family serves as a therapeutic target in triple negative breast cancer with acquired resistance to chemotherapy
Br J Cancer, 131 (10), 1656-1667

Ellegaard MR, Ebenesersdóttir SS, Moore KHS, Petersén A, Vågene ÅJ, Bieker VC, Denham SD, Cavalleri GL, Gilbert E, Werge T, Hansen TF, Kockum I, Alfredsson L, Olsson T, **Hovig E**, Gilbert MTP, Stefánsson K, Stenøien HK, Helgason A, Martin MD (2024)
Corroborating written history with ancient DNA: The case of the Well-man described in an Old Norse *saga*
iScience, 27 (11), 111076

Emaldi M, Alamillo-Maeso P, Rey-Iborra E, Mosteiro L, Lecumberri D, Pulido R, López JI, **Nunes-Xavier CE** (2024)
A functional role for glycosylated B7-H5/VISTA immune checkpoint protein in metastatic clear cell renal cell carcinoma
iScience, 27 (9), 110587

Emaldi M, Rey-Iborra E, Marín Á, Mosteiro L, Lecumberri D, **Øyjord T**, **Roncier N**, **Mælandsmo GM**, Angulo JC, Errarte P, Larrinaga G, Pulido R, López JI, **Nunes-Xavier CE** (2024)
Impact of B7-H3 expression on metastasis, immune exhaustion and JAK/STAT and PI3K/AKT pathways in clear cell renal cell carcinoma
Oncoimmunology, 13 (1), 2419686

Esperon P, Neffa F, Pavicic W, Spirandelli F, Alvarez K, Mullins MJ, Rossi BM, Góngora E Silva RF, Vaccaro C, Lopéz-Köstner F, Rugeles J, Valle AD, **Dominguez-Valentin M** (2024)
A comprehensive characterization of the spectrum of MUTYH germline pathogenic variants in Latin America
Fam Cancer, 23 (4), 507-513

Fackler MJ, Pleas M, Li Y, Soni A, Xing D, Cope L, Ali S, Van Le Q, Van Nguyen C, Pham HT, Duong LM, Vanden Berg E, Wadee R, Michelow P, Chen WC, Joffe M, **Fjeldbo CS**, **Lyng H**, Sukumar S (2024)
Discovery and technical validation of high-performance methylated DNA markers for the detection of cervical lesions at risk of malignant progression in low- and middle-income countries
Clin Epigenetics, 16 (1), 56

Fagereng GL, Morvik AM, Reinvik Ulimoen S, Ringerud AM, Dahlen Syversen I, Sagdahl E (2024)
The impact of level of documentation on the accessibility and affordability of new drugs in Norway
Front Pharmacol, 15, 1338541

Fageräng B, Cyranka L, Schjalm C, McAdam KE, Larsen CS, **Heinzelbecker J**, Gedde-Dahl T, Würzner R, Espevik T, Tjønnfjord GE, Garred P, Barratt-Due A, Tvedt THA, Mollnes TE (2024)
The function of the complement system remains fully intact throughout the course of allogeneic stem cell transplantation
Front Immunol, 15, 1422370

Farooqi SJ, **Zhao Z**, **Öjlert ÅK**, **Thunold S**, Juul HV, **Bjaanæs MM, Horndalsveen H**, **Nymoen HMG**, **Helland Å**, **Haakensen VD** (2024)
Serum cytokines as a biomarker for immune checkpoint inhibitor toxicity in patients with pleural mesothelioma
Front Immunol, 15, 1480183

Fei L, Zhang K, Hautaniemi

S, **Sahu B** (2024)
Protocol to identify defined reprogramming factor expression using a factor-indexing single-nuclei multiome sequencing approach
STAR Protoc, 5 (3), 103148

Fein JA, Shouval R, Krieger E, Spellman SR, Wang T, Baldauf H, Fleischhauer K, Kröger N, Horowitz M, Maiers M, Miller JS, Mohty M, Nagler A, Weisdorf D, **Malmberg KJ**, Toor AA, Schetelig J, Romee R, Koreth J (2024)
Systematic evaluation of donor-KIR/recipient-HLA interactions in HLA-matched hematopoietic cell transplantation for AML
Blood Adv, 8 (3), 581-590

Fernandez Salamanca M, **Hompland T**, Deręgowska-Cylke M, Van der Poel H, Bekers E, Guimaraes MAS, **Lyng H**, Van der Heide UA, Schoots IG, Van Houdt PJ (2024)
A DWI-based hypoxia model shows robustness in an external prostatectomy cohort
Front Oncol, 14, 1433197

Filippi AR, Bar J, Chouaid C, Christoph DC, Field JK, Fietkau R, Garassino MC, Garrido P, **Haakensen VD**, Kao S, Markman B, McDonald F, Mornex F, Moskovitz M, Peters S, Sibille A, Siva S, van den Heuvel M, Vercauter P, Anand S, Chander P, Licour M, de Lima AR, Qiao Y, Girard N (2024)
Real-world outcomes with durvalumab after chemoradiotherapy in patients with unresectable stage III NSCLC: interim analysis of overall survival from PACIFIC-R
ESMO Open, 9 (6), 103464

Fisher OM, Brown C, Esquivel J, Larsen SG, Liauw W, Alzahrani NA, Morris DL, Kepenekian V, Sourrouille I, Dumont F, Tuech JJ, Ceribelli C, Doussot B, Sgarbura O, Alhosni M, Quenet F, Glehen O, Cashin PH, **Flatmark K** *et al.*
Hyperthermic intraperitoneal chemotherapy in colorectal cancer
Multicenter Study BJS Open, 8(3)

Fleischer T, **Haugen MH**, **Ankill J**, **Silwal-Pandit L**, **Børresen-Dale AL**, Hedenfalk I, Hatschek T, Tost J, **Engebraaten O**, Kristensen VN (2024)
An integrated omics approach highlights how epigenetic events can explain and predict response to neoadjuvant chemotherapy and bevacizumab in breast cancer
Mol Oncol, 18 (8), 2042-2059

Foote JB, Mattox TE, Keeton AB, Chen X, Smith FT, Berry K, Holmes TW, Wang J, Huang CH, Ward A, Mitra AK, Ramirez-Alcantara V, Hardy C, **Fleten KG**, **Flatmark K**, Yoon KJ, Sarvesh S, Nagaraju GP, Bandi DSR, Maxuitenko YY, Valiyaveettil J, Carstens JL, Buchsbaum DJ, Yang J, Zhou G et al. (2024)
A Pan-RAS Inhibitor with a Unique Mechanism of Action Blocks Tumor Growth and Induces Antitumor Immunity in Gastrointestinal Cancer
Cancer Res (in press)

Fuentes-Martín R, **Ayuda-Durán P**, **Hanes R**, Gallego-Yerga L, **Wolterinck L**, **Enserink JM**, Álvarez R, Peláez R (2024)
Promising anti-proliferative indolic benzenesulfonamides alter mechanisms with sulfonamide nitrogen substituents
Eur J Med Chem, 275, 116617

Førde D, Kilvær T, Pedersen MI, Blix ES, Urbarova I, Paulsen EE, **Rakaee M**, Busund LR, Donnem T, Andersen S (2024)
High density of TCF1+ stem-like tumor-infiltrating lymphocytes is associated with favorable disease-specific survival in NSCLC
Front Immunol, 15, 1504220

Ghiasvand R, Green AC, Veierød MB, **Robsahm TE** (2024)
Incidence and Factors Associated With Second Primary Invasive Melanoma in Norway
JAMA Dermatol, 160 (4), 402-408

Gillessen S, Turco F, Davis ID, Efstathiou JA, Fizazi K, James ND, Shore N, Small E, Smith M, Sweeney CJ, Tombal B, Zilli T, Agarwal N, Antonarakis ES, Aparicio A, Armstrong AJ, Bastos DA, Attard G, **Axcrona K**, Ayadi M, Beltran H, Bjartell A, Blanchard P, Bourlon MT, Briganti A et al. (2024)
Management of Patients with Advanced Prostate Cancer. Report from the 2024 Advanced Prostate Cancer Consensus Conference (APCCC)
Eur Urol, 87 (2), 157-216

Gorodetska I, Offermann A, Püschel J, Lukiyanchuk V, Gaete D, Kurzyukova A, Freytag V, Haider MT, **Fjeldbo CS**, Di Gaetano S, Schwarz FM, Patil S, Borkowetz A, Erb HHH, Baniahmad A, Mircetic J, **Lyng H**, Löck S, Linge A, Lange T, Knopf F, Wielockx B, Krause M, Perner S, Dubrovska A (2024)
ALDH1A1 drives prostate cancer metastases and radioresistance by interplay with AR- and RAR-dependent transcription
Theranostics, 14 (2), 714-737

Gregersen I, Kong XY, Kooijman S, **Foyn H**, Grannes H, Olsen MB, **Lone AM**, Yang K, Quiles-Jiménez A, Tran M, Øgaard J, Segers FM, Rashidi A, Sagen EL, Lauritzen KH, Pronk ACM, de Boer JF, Holven KB, Melum E, Aukrust P, **Taskén K**, Holm S, Rensen PCN, Dahl TB, Halvorsen B (2024)
T cells with increased responsiveness cause obesity in mice without diet intervention
iScience, 27 (4), 109471

Grindedal EM, Zucknick M, Stormorken A, Rønne E, Tandstad NM, Isaacs WB, **Axcrona K**, Mæhle L (2024)
Outcomes of 10 years of PSA screening for prostate cancer in Norwegian men with Lynch syndrome
Prostate, 84 (10), 945-953

Guldvik IJ, **Ramberg H**, Kristensen G, Røder A, Mills IG, Lilleby W, **Taskén KA** (2024)
Systemic interrogation of immune-oncology-related proteins in patients with locally advanced prostate cancer undergoing androgen deprivation and intensity-modulated radiotherapy
World J Urol, 42 (1), 95

Gullhaug A, **Haakensen VD**, De Ruysscher D, Simone CB, Hotca-Cho AE, Chhabra AM, Hellebust TP, Paulsen EE, Dimopoulos MP, Johansen S (2024)
Lung cancer reirradiation: Exploring modifications to utilization, treatment modalities and factors associated with outcomes
J Med Imaging Radiat Sci, 55 (2), 221-231

Hamfjord J, Guren TK, Glimelius B, Sorbye H, Pfeiffer P, Dajani O, **Lingjærde OC**, Tveit KM, Spindler KG, Pallisgaard N, **Kure EH** (2024)
Exploring Early Kinetic Profiles of CEA, ctDNA and cfDNA in Patients With RAS-/BRAF-Mutated Metastatic Colorectal Cancer
Clin Colorectal Cancer (in press)

Hamid MHBA, Cespedes PF, Jin C, Chen JL, Gileadi U, Antoun E, Liang Z, Gao F, Teague R, Manoharan N, Maldonado-Perez D, Khalid-Alham N, Cerundolo L, Ciaoca R, Hester SS, Pinto-Fernández A, Draganov SD, Vendrell I, Liu G, Yao X, **Kvalvaag A**, Dominey-Foy DCC, Nanayakkara C, Kanellakis N, Chen YL et al. (2024)
Unconventional human CD61 pairing with CD103 promotes TCR signaling and antigen-specific T cell cytotoxicity
Nat Immunol, 25 (5), 834-846

Hammer Q, Perica K, Mbofung RM, van Ooijen H, **Martin KE**, Momayyezi P, Varady E, Pan Y, Jelcic M, Groff B, Abujarour R, **Krokeide SZ**, Lee T, Williams A, Goodridge JP, Valamehr B, Önfelt B, Sadelain M, **Malmberg KJ** (2024)
Genetic ablation of adhesion ligands mitigates rejection of allogeneic cellular immunotherapies
Cell Stem Cell, 31 (9), 1376-1386. e8

Heinrich MC, Jones RL, George S, Gelderblom H, Schöffski P, von Mehren M, Zalcberg JR, Kang YK, Razak AA, Trent J, Attia S, Le Cesne A, Siontis BL, Goldstein D, **Boye K**, Sanchez C, Steeghs N, Rutkowski P, Druta M, Serrano C, Somaiah N, Chi P, Reichmann W, Sprott K, Achour H et al. (2024)
Ripretinib versus sunitinib in gastrointestinal stromal tumor: ctDNA biomarker analysis of the phase 3 INTRIGUE trial
Nat Med, 30 (2), 498-506

Hektoen HH, Tsuruda KM, Fjellbirkeland L, Nilssen Y, Brustugun OT, Andreassen BK (2024)
Real-world evidence for pembrolizumab in non-small cell lung cancer: a nationwide cohort study
Br J Cancer, 132 (1), 93-102

Helland Å, Myklebust TÅ, Conte S, Frederiksen LE, Aarøe J, Enerly E (2024)
EGFR-mutation testing, treatment patterns and clinical outcomes in patients with stage IB-IIIA non-small cell lung cancer in Norway-a nationwide cohort study.
Cancer Treat Res Commun, 38:100785.

Helland Å, Steinskog ESS, Blix ES, Flobak Å, Brabrand S, Puco K, Niehusmann P, Meltzer S, Oppedal IA, Haug Å, Torkildsen CF, Randen U, Gilje B, Lønning PE, Gjertsen BT, Hovland R, **Russnes HG**, Fagereng GL, Smeland S, **Taskén K** (2024)
[Raising the quality of cancer treatment]
Tidsskr Nor Laegeforen, 144 (1)

Hermansen JU, **Yin Y**, **Rein ID**, **Skånland SS** (2024)
Immunophenotyping with (phospho)protein profiling and fluorescent cell barcoding for single-cell signaling analysis and biomarker discovery
NPJ Precis Oncol, 8 (1), 107

Hugosson J, Godtman RA, Wallstrom J, **Axcrona U**, Bergh A, Egevad L, Geterud K, Khatami A, Socratous A, Spyratou V, Svensson L, Stranne J, Månsson M, Hellstrom M (2024)
Results after Four Years of Screening for Prostate Cancer with PSA and MRI
N Engl J Med, 391 (12), 1083-1095

Huynh TM, Falk RS, Hellebust TP, Dale E, Astrup GL, Hjermstad MJ, **Malinen E**, Bjordal K, Kiserud CE, Herlofson BB, Nome R, Amdal CD (2024)
Chronic fatigue in long-term survivors of head and neck cancer treated with radiotherapy
Radiother Oncol, 195, 110231

Haakensen VD, **Öjlert ÅK**, **Thunold S**, **Farooqi S**, Nowak AK, Chin WL, Grundberg O, Szejniuk WM, Cedres S, Sørensen JB, **Dalen TS**, Lund-Iversen M, Bjaanæs M, **Helland Å** (2024)
UV1 telomerase vaccine with ipilimumab and nivolumab as second line treatment for pleural mesothelioma - A phase II randomised trial
Eur J Cancer, 202, 113973

Ianevski A, Kushnir A, Nader K, Miihkinen M, Xhaard H, **Aittokallio T**, Tanoli Z (2024)
RepurposeDrugs: an interactive web-portal and predictive platform for repurposing mono- and combination therapies
Brief Bioinform, 25 (4)

Ianevski A, Nader K, Driva K, Senkowski W, Bulanova D, Moyano-Galceran L, Ruokoranta T, Kuusanmäki H, Ikonen N, Sergeev P, Vähä-Koskela M, Giri AK, Vähärautio A, Kontro M, Porkka K, Pitkänen E, Heckman CA, Wennerberg K, **Aittokallio T** (2024)
Single-cell transcriptomes identify patient-tailored therapies for selective co-inhibition of cancer clones
Nat Commun, 15 (1), 8579

Imbery JF, Wiik C, **Heinzelbecker J**, Jebsen JK, Dobbing MK, Bottini N, Stanford SM, Munthe LA, Tjønnfjord GE, Tveita A, Szodoray P, Nakken B (2024)
CD38 regulates chronic lymphocytic leukemia proliferation via CD45 phosphatase activity
Mol Ther Oncol, 32 (3), 200841

Istvan P, Birkeland E, **Avershina E**, Kværner AS, Bemanian V, Pardini B, Tarallo S, de Vos

WM, Rognes T, Berstad P, **Rounge TB** (2024)
Exploring the gut DNA virome in fecal immunochemical test stool samples reveals associations with lifestyle in a large population-based study
Nat Commun, 15 (1), 1791

Ivarsdottir EV, Gudmundsson J, Tragante V, Sveinbjornsson G, Kristmundsdottir S, Stacey SN, Halldorsson GH, Magnusson MI, Oddsson A, Walters GB, Sigurdsson A, Saevarsdottir S, Beyter D, Thorleifsson G, Halldorsson BV, Melsted P, Stefansson H, Jonsdottir I, Sørensen E, Pedersen OB, Erikstrup C, Bøgsted M, Pøhl M, Røder A, Stroomberg HV, Gögenur I, Hillingsø J, Bojesen SE, Lassen U, Høgdall E, Ullum H, Brunak S, SOstrowski SR, DBDS Genomic Consortium, Sonderby IE, Frei O, Djurovic S, Havdahl A, **Moller P**, **Dominguez-Valentin M**, Haavik J, Andreassen OA, **Hovig E**, et al. (2024)
Gene-based burden tests of rare germline variants identify six cancer susceptibility genes
Nat Genet, 56 (11), 2422-2433

Jin Y, **Dunn C**, **Persiconi I**, **Sike A**, Skorstad G, **Beck C**, **Kyte JA** (2024)
Comparative Evaluation of STEAP1 Targeting Chimeric Antigen Receptors with Different Costimulatory Domains and Spacers
Int J Mol Sci, 25 (1)

Jin Y, **Dunn C**, **Persiconi I**, **Sike A**, Skorstad G, **Beck C**, **Kyte JA** (2024)
Correction: Jin et al. Comparative Evaluation of STEAP1 Targeting Chimeric Antigen Receptors with Different Costimulatory Domains and Spacers. *Int. J. Mol. Sci.* 2024, *25*, 586
Int J Mol Sci, 25 (18)

Juvkam IS, Zlygosteva O, Sitarz M, Sørensen BS, Aass HCD, Edin NJ, Galtung HK, Søland TM, **Malinen E** (2024)
Proton- compared to X-irradiation leads to more acinar atrophy and greater hyposalivation accompanied by a differential cytokine response
Sci Rep, 14 (1), 22311

Kandathil SA, Akhondi A, Kadletz-Wanke L, Heiduschka G, **Engedal N**, Brkic FF (2024)
The dual role of autophagy in HPV-positive head and neck squamous cell carcinoma: a systematic review
J Cancer Res Clin Oncol, 150 (2), 56

Karttunen K, Patel D, **Sahu B** (2024)
Transposable elements as drivers of dedifferentiation: Connections between enhancers in embryonic stem cells, placenta, and cancer
Bioessays, 46 (10), e2400059

Katona BW, Lubinski J, Pal T, Huzarski T, Foulkes WD, **Moller P**, Eisen A, Randall Armel S, Neuhausen SL, Raj R, Aeilts A, Singer CF, Bordeleau L, Karlan B, Olopade O, Tung N, Zakalik D, Kotsopoulos J, Fruscio R, Eng C, Sun P, Narod SA, Hereditary Breast Cancer Clinical Study Group (2024)
The incidence of pancreatic cancer in women with a BRCA1 or BRCA2 mutation
Cancer, 131 (1), e35666

Kempkes RWM, Nikolaou C, Nabhan M, **Saidu NEB** (2024)
IUIS 2023: yEFIS workshop on career development and code-switching
Eur J Immunol, 54 (7), e2451155

Kennelly SS, Hovland V, Matthews IL, **Reinholt FP**, Skjerven H, Heimdal K, Crowley S (2024)
Tracheobronchomalacia is common in children with primary ciliary dyskinesia-A case note review
Pediatr Pulmonol, 59 (12), 3560-3568

Kiviaho A, Eerola SK, Kallio HML, Andersen MK, Hoikka M, Tiihonen AM, Salonen I, Spotbeen X, Giesen A, Parker CTA, Taavitsainen S, Hantula O, Marttinen M, Hermelo I, Ismail M, Midtbust E, Wess M, Devlies W, Sharma A, Krossa S, Häkkinen T, Afyounian E, Vandereyken K, Kint S, Kesseli J, Tolonen KJT, Tammela TLJ, Viset T, Størkersen Ø, Giskeødegård GF, Rye MB, Murtola T, Erickson A, Latonen L, Bova GS, Mills IG, Joniau S, Swinnen JV, Voet T, Mirtti T, Attard G, Claessens F, Visakorpi T, Rautajoki KJ, Tessem MB, **Urbanucci A** et al. (2024)
Single cell and spatial transcriptomics highlight the interaction of club-like cells with immunosuppressive myeloid cells in prostate cancer
Nat Commun, 15 (1), 9949

Klavina A, Ceseiko R, Campa M, Jermolenko GF, Eglitis K, **Llorente A**, Linē A (2024)
The Effect of High-Intensity Interval Training on Quality of Life and Incidence of Chemotherapy Side Effects in Women With Breast Cancer
Integr Cancer Ther, 23, 15347354241297385

Korsnes MS, **Ramberg H**, **Taskén KA**, Korsnes R (2024)
Video tracking of single cells to identify clustering behavior
Frontiers in Imaging, 3, 1-12

Kotsopoulos J, Gronwald J, Huzarski T, **Møller P**, Pal T, McCuaig JM, Singer CF, Karlan BY, Aeilts A, Eng C, Eisen A, Bordeleau L, Foulkes WD, Tung N, Couch FJ, Fruscio R, Neuhausen SL, Zakalik D, Cybulski C, Metcalfe K, Olopade OI, Sun P, Lubinski J, Narod SA, Hereditary Breast Cancer Clinical Study Group (2024)
Bilateral Oophorectomy and All-Cause Mortality in Women With BRCA1 and BRCA2 Sequence Variations
JAMA Oncol, 10 (4), 484-492

Kotsopoulos J, Lubinski J, Huzarski T, Bychkovsky BL, **Moller P**, Kim RH, Tung N, Eisen A, Foulkes W, Singer CF, Aeilts A, Neuhausen SL, Bordeleau L, Karlan B, Fruscio R, Eng C, Olopade O, Zakalik D, Couch F, Y Cajal TR, Sun P, Gronwald J, Narod SA (2024)
Incidence of endometrial cancer in BRCA mutation carriers
Gynecol Oncol, 189, 148-155

Kurganovs NJ, **Engedal N** (2024)
To eat or not to eat: a critical review on the role of autophagy in prostate carcinogenesis and prostate cancer therapeutics
Front Pharmacol, 15, 1419806

Kvalvaag A, Dustin ML (2024)
Clathrin controls bidirectional communication between T cells and antigen presenting cells
Bioessays, 46 (4), e2300230

Lamsal A, Andersen SB, Johansson I, **Desgarnier MD**, Wolowczyk C, **Engedal N**, **Vietri M**, Bjørkøy G, Giambelluca MS, Pettersen K (2024)
Elucidating the power of arginine restriction: taming type I interferon response in breast cancer via selective autophagy
Cell Commun Signal, 22 (1), 481

Langerud J, **Eilertsen IA**, **Moosavi SH**, **Klokkerud SMK**, Reims HM, **Backe IF**, **Hektoen M**, Sjo OH, **Jeanmougin M**, Tejpar S, Nesbakken A, **Lothe RA**, **Sveen A** (2024)
Multiregional transcriptomics identifies congruent consensus subtypes with prognostic value beyond tumor heterogeneity of colorectal cancer
Nat Commun, 15 (1), 4342

Laurel SR, Gupta K, Nguyen J, Chandekar A, Le J, **Berg K**, Hirschberg H (2024)
Enhancing the Efficacy of Radiation Therapy by Photochemical Internalization of Fibrin-Hydrogel-Delivered Bleomycin
Cancers (Basel), 16 (23)

Lê Quý K, Chernigovskaya M, **Stensland M**, **Singh S**, Leem J, Revale S, Yadin DA, Nice FL, Povall C, Minns DH, Galson JD, **Nyman TA**, Snapkow I, Greiff V (2024)
Benchmarking and integrating human B-cell receptor genomic and antibody proteomic profiling
NPJ Syst Biol Appl, 10 (1), 73

Lereim RR, **Dunn C**, Aamdal E, **Chauhan SK**, Straume O, Guren TK, **Kyte JA** (2024)
Plasma protein dynamics during ipilimumab treatment in metastatic melanoma: associations with tumor response, adverse events and survival
Oncoimmunology, 14 (1), 2440967

Lindland K, Malenge MM, Li RG, Wouters R, Bønsdorff TB, **Juzeniene A**, Dragovic SM (2024)
Antigen targeting and anti-tumor activity of a novel anti-CD146 ^{212}Pb internalizing alpha-radioimmunoconjugate against malignant peritoneal mesothelioma
Sci Rep, 14 (1), 25941

Llorente A, Brokāne A, Mlynska A, Puurand M, **Sagini K**, Folkmane S, Hjorth M, **Martin-Gracia B**, **Romero S**, Skorinkina D, Čampa M, Cešeiko R, Romanchikova N, Kļaviņa A, Käämbre T, Linē A (2024)
From sweat to hope: The role of exercise-induced extracellular vesicles in cancer prevention and treatment
J Extracell Vesicles, 13 (8), e12500

Longva AS, **Berg K**, **Weyergang A** (2024)
Corrigendum: Light-enhanced VEGF$_{121}$/rGel induce immunogenic cell death and increase the antitumor activity of αCTLA4 treatment
Front Immunol, 14, 1359973

Lubinski J, Kotsopoulos J, **Moller P**, Pal T, Eisen A, Peck L, Karlan BY, Aeilts A, Eng C, Bordeleau L, Foulkes WD, Tung N, Couch FJ, Fruscio R, Ramon Y Cajal T, Singer CF, Neuhausen SL, Zakalik D, Cybulski C, Gronwald J, Huzarski T, Stempa K, Dungan J, Cullinane C, Olopade OI et al. (2024)
MRI Surveillance and Breast Cancer Mortality in Women With BRCA1 and BRCA2 Sequence Variations
JAMA Oncol, 10 (4), 493-499

Lukovic J, Pintilie M, Han K, Fyles AW, Bruce JP, Quevedo R, Pugh TJ, **Fjeldbo CS**, **Lyng H**, Milosevic MF (2024)
An Immune Gene Expression Risk Score for Distant Metastases after Radiotherapy for Cervical Cancer
Clin Cancer Res, 30 (6), 1200-1207

Lund-Andersen C, **Torgunrud A**, Kanduri C, Dagenborg VJ, **Frøysnes IS**, Larsen MM, Davidson B, Larsen SG, **Flatmark K** (2024)
Novel drug resistance mechanisms and drug targets in BRAF-mutated peritoneal metastasis from colorectal cancer
J Transl Med, 22 (1), 646

Mahon P, Chatzitheofilou I, Dekker A, Fernández X, Hall G, **Helland A**, Traverso A, Van Marcke C, Vehreschild J, Ciliberto G, Tonon G (2024)
A federated learning system for precision oncology in Europe: DigiONE
Nat Med, 30 (2), 334-337

Majid U, **Bergsland CH**, **Sveen A**, **Bruun J**, **Eilertsen IA**, Bækkevold ES, **Nesbakken A**, Yaqub S, Jahnsen FL, **Lothe RA** (2024)
The prognostic effect of tumor-associated macrophages in stage I-III colorectal cancer depends on T cell infiltration
Cell Oncol (Dordr), 47 (4), 1267-1276

Marsilla J, Weiss J, Ye XY, Welch M, Milosevic M, **Lyng H**, Hompland T, Bruheim K, Tadic T, Haibe-Kains B, Han K (2024)
A T2-weighted MRI-based radiomic signature for disease-free survival in locally advanced cervical cancer following chemoradiation: An international, multicentre study
Radiother Oncol, 199, 110463

Martin KE, Hammer Q, Perica K, Sadelain M, **Malmberg KJ** (2024)
Engineering immune-evasive allogeneic cellular immunotherapies
Nat Rev Immunol, 24 (9), 680-693

Mattavelli D, Wichmann G, Smussi D, Paderno A, Plana MS, Mesia RN, Compagnoni M, Medda A, Chiocca S, Calza S, Zhan Y, Rognoni C, Tarricone R, Stucchi E, Lorini L, Gurizzan C, Khelik K, **Hovig E**, Dietz A, Piazza

C, Bossi P (2024)
Is precision medicine the solution to improve organ preservation in laryngeal/hypopharyngeal cancer? A position paper by the Preserve Research Group
Front Oncol, 14, 1433333

McCabe M, Boya P, Chen RH, Chu CT, Colombo MI, Delgui L, Eskelinen EL, Hamasaki M, Hansen M, He C, Jäättelä M, Kimchi A, Kraft C, Kundu M, Melendez A, Pattingre S, Proikas-Cezanne T, Sebti S, Simon AK, Simonsen A, Tooze SA, Vaccaro MI, Wang X, White E, Zhao Y, Cuervo AM (2024)
Women in Autophagy: an initiative to promote gender parity in science.
Nat Cell Biol., 26(12):2009-2012

Meriranta L, Sorri S, **Huse K**, Liu X, **Spasevska I**, Zafar S, Chowdhury I, Dufva O, Sahlberg E, Tandarić L, Karjalainen-Lindsberg ML, Hyytiäinen M, Varjosalo M, **Myklebust JH**, Leppä S (2024)
Disruption of KLHL6 Fuels Oncogenic Antigen Receptor Signaling in B-Cell Lymphoma
Blood Cancer Discov, 5 (5), 331-352

Miceli R, Eriksson H, Lo Russo G, Alfieri S, Moksnes Bjaanæs M, Pietrantonio F, De Cecco L, Prelaj A, Proto C, Franzén J, McDonnell D, Berenguer Pina JJ, Beninato T, Mazzeo L, Giannatempo P, Verzoni E, Crown J, **Helland Å**, Eustace A (2024)
Gender Difference in sidE eFfects of ImmuNotherapy: a possible clue to optimize cancEr tReatment (G-DEFINER): study protocol of an observational prospective multicenter study
Acta Oncol, 63, 213-219

Mirnezami AH, Drami I, Glyn T, Sutton PA, Tiernan J, Behrenbruch C, Guerra G, Waters PS, Woodward N, Applin S, Charles SJ, Rose SA, Denys A, Pape E, van Ramshorst GH, Baker D, Bignall E, Blair I, Davis P, Edwards T, Jackson K, Leendertse PG, Love-Mott E, MacKenzie L, Martens F, Meredith D, Nettleton SE, Trotman MP, van Hecke JJM, Weemaes AMJ, Abecasis N, Angenete E, Aziz O, Bacalbasa N, Barton D, Baseckas G, Beggs A, Brown K, Buchwald P, Burling D, Burns E, Caycedo-Marulanda A, Chang GJ, Coyne PE, Croner RS, Daniels IR, Denost QD, Drozdov E, Eglinton T, Espín-Basany E, Evans MD, Flatmark K, et al. (2024)
The empty pelvis syndrome: a core data set from the PelvEx collaborative
Br J Surg, 111(3):znae042.

Montoya S, Bourcier J, Noviski M, Lu H, Thompson MC, Chirino A, Jahn J, Sondhi AK, Gajewski S, Tan YSM, Yung S, **Urban A**, Wang E, Han C, Mi X, Kim WJ, Sievers Q, Auger P, Bousquet H, Brathaban N, Bravo B, Gessner M, Guiducci C, Iuliano JN, Kane T et al. (2024)
Kinase-impaired BTK mutations are susceptible to clinical-stage BTK and IKZF1/3 degrader NX-2127
Science, 383 (6682), eadi5798

Moragas N, Fernandez-Nogueira P, Recalde-Percaz L, Inman JL, López-Plana A, **Bergholtz H**, Noguera-Castells A, Del Burgo PJ, Chen X, **Sorlie T**, Gascón P, Bragado P, Bissell M, Carbó N, Fuster G (2024)
The SEMA3F-NRP1/NRP2 axis is a key factor in the acquisition of invasive traits in in situ breast ductal carcinoma
Breast Cancer Res, 26 (1), 122

Møller P, Haupt S, Ahadova A, Kloor M, Sampson JR, Sunde L, Seppälä T, Burn J, Bernstein I, Capella G, Evans DG, Lindblom A, Winship I, Macrae F, Katz L, Laish I, Vainer E, Monahan K, Half E, Horisberger K, da Silva LA, Heuveline V, Therkildsen C, Lautrup C, Klarskov LL et al. (2024)
Incidences of colorectal adenomas and cancers under colonoscopy surveillance suggest an accelerated "Big Bang" pathway to CRC in three of the four Lynch syndromes
Hered Cancer Clin Pract, 22 (1), 6

Møller P, **Hovig E** (2024)
Genetic testing for prevention and treatment of cancer
Tidsskr Nor Laegeforen, 144 (13)

Møller P, Seppälä TT, **Dominguez-Valentin M**, Sampson J (2024)
Commentary on *Estimating cancer risk in carriers of Lynch syndrome variants in UK Biobank*
J Med Genet (in press)

Nader K, Tasci M, Ianevski A, Erickson A, Verschuren EW, **Aittokallio T**, Miihkinen M (2024)
ScType enables fast and accurate cell type identification from spatial transcriptomics data
Bioinformatics, 40 (7)

Narod SA, Gronwald J, Karlan B, **Moller P**, Huzarski T, Tung N, Aeilts A, Eisen A, Armel SR, Singer CF, Foulkes WD, Neuhausen SL, Olopade O, Pal T, Fruscio R, Metcalfe K, Raj R, Jacobson M, Sun P, Lubinski J, Kotsopoulos J (2024)
Incidence of peritoneal cancer after oophorectomy among BRCA1 and BRCA2 mutation carriers
J Natl Cancer Inst, 116 (11), 1753-1760

Netskar H, Pfefferle A, Goodridge JP, Sohlberg E, Dufva O, Teichmann SA, Brownlie D, Michaëlsson J, Marquardt N, Clancy T, Horowitz A, **Malmberg KJ** (2024)
Pan-cancer profiling of tumor-infiltrating natural killer cells through transcriptional reference mapping
Nat Immunol, 25 (8), 1445-1459

Niehusmann P, Leske H, **Nygaard V**, **Russnes HG**, Zhao S, Latysheva A, Straume Wiig U, Stankuniene B, Ulvmoen A (2024)
Desmoplastic non-infantile ganglioglioma mimicking diffuse leptomeningeal glioneuronal tumor: precision diagnostics and therapeutic implications
Acta Oncol, 63, 392-394

Nikolski M, **Hovig E**, Al-Shahrour F, Blomberg N, Scollen S, Valencia A, Saunders G (2024)
Roadmap for a European cancer data management and precision medicine infrastructure
Nat Cancer, 5 (3), 367-372

Nilssen Y, Brustugun OT, Fjellbirkeland L, Grønberg BH, Haram PM, Helbekkmo N, **Helland Å**, Wahl SGF, Aanerud M, Solberg S. (2024)
Small Cell Lung Cancer in Norway: Patterns of Care by Health Region and Survival Trends.
Clin Lung Cancer, 25(5):e221-e228. e3

Nilssen Y, Brustugun OT, Fjellbirkeland L, **Helland Å,** Møller B, Wahl SGF, Solberg S (2024)
Distribution and characteristics of malignant tumours by lung lobe.BMC Pulm Med, 24(1):106.

Nunes-Xavier CE (2024)
Editorial: Co-inhibitory immune checkpoint proteins as biomarkers and therapeutic targets in cancer
Transl Oncol, 47, 102005

Nunes L, Li F, Wu M, Luo T, Hammarström K, Torell E, Ljuslinder I, Mezheyeuski A, Edqvist PH, Löfgren-Burström A, Zingmark C, Edin S, Larsson C, Mathot L, Osterman E, Osterlund E, Ljungström V, Neves I, Yacoub N, Guðnadóttir U, Birgisson H, Enblad M, Ponten F, Palmqvist R, Xu X et al. (2024)
Prognostic genome and transcriptome signatures in colorectal cancers
Nature, 633 (8028), 137-146

Nunes L, **Stenersen JM**, **Kryeziu K**, Sjöblom T, Glimelius B, **Lothe RA**, **Sveen A** (2024)
Co-occurring mutations identify prognostic subgroups of microsatellite stable colorectal cancer
Mol Cancer, 23 (1), 264

Nymoen HM, **Alver TN**, **Horndalsveen H**, Eide HA, Bjaanæs MM, **Brustugun OT**, Grønberg BH, **Haakensen VD**, **Helland Å** (2024)
Thoracic radiation in combination with erlotinib-results from a phase 2 randomized trial
Front Oncol, 14, 1412716

Nähse V, **Stenmark H**, **Schink KO** (2024)
Omegasomes control formation, expansion, and closure of autophagosomes
Bioessays, 46 (6), e2400038

Ohnstad HO, Blix ES, Akslen LA, Gilje B, Raj SX, Skjerven H, Borgen E, Janssen EAM, Mortensen E, Brekke MB, Falk RS, Schlichting E, Boge B, Songe-Møller S, Olsson P, Heie A, Mannsåker B, Vestlid MA, Kursetgjerde T, Gravdehaug B, Suhrke P, Sanchez E, Bublevic J, Røe OD, **Geitvik GA** et al. (2024)
Impact of Prosigna test on adjuvant treatment decision in lymph node-negative early breast cancer-a prospective national multicentre study (EMIT-1)
ESMO Open, 9 (6), 103475

Otterlei Fjørtoft M, **Huse K**, **Rye IH** (2024)
The Tumor Immune Microenvironment in Breast Cancer Progression
Acta Oncol, 63, 359-367

Palacios D, **Majhi RK**, **Szabo EK**, **Clement D**, **Lachota M**, **Netskar H**, Penna L, **Krokeide SZ**, **Vincenti M**, **Kveberg L**, **Malmberg KJ** (2024)
The G Protein-Coupled Receptor GPR56 Is an Inhibitory Checkpoint for NK Cell Migration
J Immunol, 213 (9), 1349-1357

Pankiv S, **Dahl AK**, Aas A, **Andersen RL**, **Brech A**, Holland P, **Singh S**, Bindesbøll C, **Simonsen A** (2024)
BEACH domain proteins function as cargo-sorting adaptors in secretory and endocytic pathways
J Cell Biol, 223 (12)

Pfefferle A, **Phuyal S**, **Netskar H**, **Malmberg KJ** (2024)
Egr2 to the rescue: nanoparticles revitalize natural killer cells in the fight against cancer
EMBO J, 43 (13), 2527-2529

Philips EA, Liu J, **Kvalvaag A**, Mørch AM, Tocheva AS, Ng C, Liang H, Ahearn IM, Pan R, Luo CC, Leithner A, Qin Z, Zhou Y, Garcia-España A, Mor A, Littman DR, Dustin ML, Wang J, Kong XP (2024)
Transmembrane domain-driven PD-1 dimers mediate T cell inhibition
Sci Immunol, 9 (93), eade6256

Pinto R, **Vedeld HM**, **Lind GE**, **Jeanmougin M** (2024)
Unraveling epigenetic heterogeneity across gastrointestinal adenocarcinomas through a standardized analytical framework
Mol Oncol (18)

Puco K, **Fagereng GL**, Brabrand S, Niehusmann P, Støre Blix E, Samdal Steinskog ES, Haug Å, Fredvik Torkildsen C, Oppedal IA, Meltzer S, Flobak Å, **Johansson KAM**, Bjørge L, Hjortland GO, Dalhaug A, Lund JÅ, Gilje B, Grønlie Cameron M, Hovland R, Falk RS, Smeland S, **Gierckskey Russnes HE**, **Taskén K**, **Helland Å**, InPreD Consortium et al. (2024)
IMPRESS-Norway: improving public cancer care by implementing precision medicine in Norway; inclusion rates and preliminary results
Acta Oncol, 63, 379-384

Pulido R, López JI, **Nunes-Xavier CE** (2024)
B7-H3: a robust target for immunotherapy in prostate cancer
Trends Cancer, 10 (7), 584-587

Pölöske D, Sorger H, Schönbichler A, de Araujo ED, Neubauer HA, Orlova A, Timonen SH, Abdallah DI, Ianevski A, Kuusanmäki H, Surbek M, Heyes E, Eder T, Wagner C, Suske T, Metzelder ML, Bergmann M, Dahlhoff M, Grebien F, Fleck R, Pirker C, Berger W, Hadzijusufovic E, Sperr WR, Kenner L, Valent P, **Aittokallio T et al.** (2024)
Dual specific STAT3/5 degraders effectively block acute myeloid leukemia and natural killer/T cell lymphoma
Hemasphere, 8 (12), e70001

Radulovic M, **Stenmark H** (2024)
Lysophagy prevents neurotoxic aggregate transmission
Proc Natl Acad Sci U S A, 121 (3), e2321181121

Rakaee M, Tafavvoghi M, Ricciuti B, Alessi JV, Cortellini A, Citarella F, Nibid L, Perrone G, Adib E, Fulgenzi CAM, Murilo Hidalgo Filho C, Di Federico A, Jabar F, Hashemi S, Houda I, Richardsen E, Rasmussen Busund LT, Donnem

T, Bahce I, Pinato DJ, **Helland Å**, Sholl LM, Awad MM, Kwiatkowski DJ (2024)
Deep Learning Model for Predicting Immunotherapy Response in Advanced Non-Small Cell Lung Cancer
JAMA Oncol (in press)

Ranji P, Jonasson E, Andersson L, Filges S, Luna Santamaría M, Vannas C, Dolatabadi S, Gustafsson A, **Myklebost O**, Håkansson J, Fagman H, Landberg G, Åman P, Ståhlberg A (2024)
Deciphering the role of FUS::DDIT3 expression and tumor microenvironment in myxoid liposarcoma development
J Transl Med, 22 (1), 389

Rauluseviciute I, Riudavets-Puig R, Blanc-Mathieu R, Castro-Mondragon JA, Ferenc K, Kumar V, Lemma RB, Lucas J, Chèneby J, Baranasic D, Khan A, Fornes O, Gundersen S, Johansen M, **Hovig E**, Lenhard B, Sandelin A, Wasserman WW, Parcy F, Mathelier A (2024)
JASPAR 2024: 20th anniversary of the open-access database of transcription factor binding profiles
Nucleic Acids Res, 52 (D1), D174-D182

Rebuffet L, Melsen JE, Escalière B, Basurto-Lozada D, Bhandoola A, Björkström NK, Bryceson YT, Castriconi R, Cichocki F, Colonna M, Davis DM, Diefenbach A, Ding Y, Haniffa M, Horowitz A, Lanier LL, **Malmberg KJ**, Miller JS, Moretta L, Narni-Mancinelli E, O'Neill LAJ, Romagnani C, Ryan DG, Sivori S, Sun D et al. (2024)
High-dimensional single-cell analysis of human natural killer cell heterogeneity
Nat Immunol, 25 (8), 1474-1488

Ree AH, **Høye E**, Esbensen Y, Beitnes AR, Negård A, Bernklev L, Tetlie LK, Fretland ÅA, Hamre HM, Kersten C, Hofsli E, Guren MG, Sorbye H, Nilsen HL, **Flatmark K**, Meltzer S (2024)
Complete response of metastatic microsatellite-stable *BRAF* V600E colorectal cancer to first-line oxaliplatin-based chemotherapy and immune checkpoint blockade
Oncoimmunology, 13 (1), 2372886

Ree AH, Šaltytė Benth J, Hamre HM, Kersten C, Hofsli E, Guren MG, Sorbye H, Johansen C, Negård A, Bjørnetrø T, Nilsen HL, Berg JP, **Flatmark K**, Meltzer S (2024)
First-line oxaliplatin-based chemotherapy and nivolumab for metastatic microsatellite-stable colorectal cancer-the randomised METIMMOX trial
Br J Cancer, 130 (12), 1921-1928

Reppe S, Gundersen S, Sandve GK, Wang Y, Andreassen OA, Medina-Gomez C, Rivadeneira F, Utheim TP, **Hovig E**, Gautvik KM (2024)
Identification of Transcripts with Shared Roles in the Pathogenesis of Postmenopausal Osteoporosis and Cardiovascular Disease
Int J Mol Sci, 25 (10)

Ringborg U, von Braun J, Celis J, Baumann M, Berns A, Eggermont A, Heard E, Heitor M, Chandy M, Chen CJ, Costa A, De Lorenzo F, De Robertis EM, Dubee FC, Ernberg I, Gabriel M, **Helland Å**, Henrique R, Jönsson B, Kallioniemi O, Korbel J, Krause M, Lowy DR, Michielin O, Nagy P et al. (2024)
Strategies to decrease inequalities in cancer therapeutics, care and prevention: Proceedings on a conference organized by the Pontifical Academy of Sciences and the European Academy of Cancer Sciences, Vatican City, February 23-24, 2023
Mol Oncol, 18 (2), 245-279

Rosselle L, Leray T, Joaquina S, **Caulier B**, McCormack E, Gelebart P, Wälchli S, Inderberg EM (2024)
Protocol for production of tonic CAR T cells with dasatinib
STAR Protoc, 6 (1), 103529 (in press)

Rykkelid AM, Sinha PM, Folefac CA, Horsman MR, Sørensen BS, Søland TM, Schreurs OJF, **Malinen E**, Edin NFJ (2024)
Combination of proton- or X-irradiation with anti-PDL1 immunotherapy in two murine oral cancers
Sci Rep, 14 (1), 11569

Rykkelid AM, Sinha PM, Folefac CA, Horsman MR, Sørensen BS, Søland TM, Schreurs OJF, **Malinen E**, Edin NFJ (2024)
Author Correction: Combination of proton- or X-irradiation with anti-PDL1 immunotherapy in two murine oral cancers
Sci Rep, 14 (1), 15311

Rødland GE, Temelie M, **Eek Mariampillai A**, **Hauge S**, Gilbert A, Chevalier F, Savu DI, **Syljuåsen RG** (2024)
Potential Benefits of Combining Proton or Carbon Ion Therapy with DNA Damage Repair Inhibitors
Cells, 13 (12)

Rødland GE, Temelie M, **Eek Mariampillai A**, Serban AM, Edin NFJ, **Malinen E**, **Lindbergsengen L**, Gilbert A, Chevalier F, Savu DI, **Syljuåsen RG** (2024)
Interferon signaling is enhanced by ATR inhibition in glioblastoma cells irradiated with X-rays, protons or carbon ions
Radiother Oncol, 203, 110669

Sandvig K, **Iversen TG**, **Skotland T** (2024)
Entry of nanoparticles into cells and tissues: status and challenges
Beilstein J Nanotechnol, 15, 1017-1029

Schiffer PH, Natsidis P, Leite DJ, Robertson HE, Lapraz F, Marlétaz F, Fromm B, Baudry L, Simpson F, **Høye E**, Zakrzewski AC, Kapli P, Hoff KJ, Müller S, Marbouty M, Marlow H, Copley RR, Koszul R, Sarkies P, Telford MJ (2024)
Insights into early animal evolution from the genome of the xenacoelomorph worm *Xenoturbella bocki*
Elife, 13

Schulman A, Rousu J, **Aittokallio T**, Tanoli Z (2024)
Attention-based approach to predict drug-target interactions across seven target superfamilies
Bioinformatics, 40 (8)

Selbo PK, Korbelik M (2024)
Topical collection on photodynamic therapy-enhanced antitumour immunity
Photochem Photobiol Sci, 23 (2), 213-214

Shahrouzi P, Forouz F, Mathelier A, **Kristensen VN**, Duijf PHG (2024)
Copy number alterations: a catastrophic orchestration of the breast cancer genome
Trends Mol Med, 30 (8), 750-764

Sioud M, **Juzeniene A**, Sæbøe-Larssen S (2024)
Exploring the Impact of mRNA Modifications on Translation Efficiency and Immune Tolerance to Self-Antigens
Vaccines (Basel), 12 (6)

Skingen VE, **Salberg UB**, **Hompland T**, **Fjeldbo CS**, **Helgeland H**, **Frikstad KM**, Ragnum HB, Vlatkovic L, Hole KH, Seierstad T, **Lyng H** (2024)
Spatial analysis of microRNA regulation at defined tumor hypoxia levels reveals biological traits of aggressive prostate cancer
J Pathol, 264 (3), 270-283

Skipar K, **Hompland T**, Lund KV, Lindemann K, Hellebust TP, Bruheim K, **Lyng H** (2024)
MRI-guided dynamic risk assessment in cervical cancer based on tumor hypoxia at diagnosis and volume response at brachytherapy
Radiother Oncol, 195, 110263

Skotheim RI, **Bogaard M**, **Carm KT**, **Axcrona U**, **Axcrona K** (2024)
Prostate cancer: Molecular aspects, consequences, and opportunities of the multifocal nature
Biochim Biophys Acta Rev Cancer, 1879 (2), 189080

Skotland T, Ekroos K, McDonald J, Ahrends R, Liebisch G, **Sandvig K** (2024)
Pitfalls in lipid mass spectrometry of mammalian samples - a brief guide for biologists
Nat Rev Mol Cell Biol, 25 (10), 759-760

Skånland SS, Okkenhaug K, Davids MS (2024)
PI3K Inhibitors in Hematology: When One Door Closes…
Clin Cancer Res, 30 (17), 3667-3675

Soarez J, Vaccaro CA, **Dominguez-Valentin M**, Pavicic WH (2024)
Editorial: Advances in genetics and molecular diagnosis in colorectal, stomach, and pancreatic cancer vol II
Front Oncol, 14, 1448183

Spildrejorde M, Leithaug M, Samara A, **Aass HCD**, **Sharma A**, Acharya G, Nordeng H, Gervin K, Lyle R (2024)
Citalopram exposure of hESCs during neuronal differentiation identifies dysregulated genes involved in neurodevelopment and depression
Front Cell Dev Biol, 12, 1428538

Strunz B, Momayyezi P, Bilev E, Muvva JR, Chen P, Bister J, Schaffer M, Akber M, Cornillet M, Karolinska KI/K COVID-19 Study Group, Horowitz A, **Malmberg KJ**, Rooyackers O, Aleman S, Ljunggren HG, Björkström NK, Strålin K, Hammer Q (2024)
The HLA-B -21 M/T dimorphism associates with disease severity in COVID-19
Genes Immun (in press)

Stålberg SM, **Silwal-Pandit L**, Bastani NE, **Nebdal DJH**, **Lingjærde OC**, Skålhegg BS, **Kure EH** (2024)
Preoperative profiles of plasma amino acids and derivatives distinguish periampullary cancer and benign disease
BMC Cancer, 24 (1), 555

Suske T, Sorger H, Manhart G, Ruge F, Prutsch N, Zimmerman MW, Eder T, Abdallah DI, Maurer B, Wagner C, Schönefeldt S, Spirk K, Pichler A, Pemovska T, Schweicker C, Pölöske D, Hubanic E, Jungherz D, Müller TA, Aung MMK, Orlova A, Pham HTT, Zimmel K, Krausgruber T, Müller BCM, Dahlhoff M, Boersma A, Rülicke T, Fleck R, de Araujo ED, Gunning PT, **Aittokallio T** et al. (2024)
Hyperactive STAT5 hijacks T cell receptor signaling and drives immature T cell acute lymphoblastic leukemia
J Clin Invest, 134 (8)

Sveen A, **Johannessen B**, **Klokkerud SM**, **Kraggerud SM**, **Meza-Zepeda LA**, **Bjørnslett M**, **Bischof K**, Myklebost O, **Taskén K**, **Skotheim RI**, Dørum A, Davidson B, **Lothe RA** (2024)
Evolutionary mode and timing of dissemination of high-grade serous carcinomas
JCI Insight, 9 (3)

Sætersmoen M, Kotchetkov IS, **Torralba-Raga L**, Mansilla-Soto J, Sohlberg E, **Krokeide SZ**, Hammer Q, Sadelain M, **Malmberg KJ** (2024)
Targeting HLA-E-overexpressing cancers with a NKG2A/C switch receptor
Med, 100521 (in press)

Tafavvoghi M, Sildnes A, **Rakaee M**, Shvetsov N, Bongo LA, Busund LR, Møllersen K (2024)
Deep learning-based classification of breast cancer molecular subtypes from H&E whole-slide images
J Pathol Inform, 16, 100410

Tanoli Z, Schulman A, **Aittokallio T** (2024)
Validation guidelines for drug-target prediction methods
Expert Opin Drug Discov, 20 (1), 31-45

Taskén K, F Haj Mohammad S, **Fagereng GL**, Sørum Falk R, **Helland Å**, Barjesteh van Waalwijk van Doorn-Khosrovani S, Steen Carlsson K, Ryll B, Jalkanen K, Edsjö A, **Russnes HG**, Lassen U, Hallersjö Hult E, Lugowska I, Blay JY, Verlingue L, Abel E, Lowery MA, Krebs MG, Staal Rohrberg K, Ojamaa K, Oliveira J, Verheul HMW, Voest EE, Gelderblom H et al. (2024)
PCM4EU and PRIME-ROSE: Col-

laboration for implementation of precision cancer medicine in Europe
Acta Oncol, 63, 385-391

Theriot JA, **Simonsen A**, Tolić I, Leonetti MD, Mayor S, Bassereau P, Paluch EK, Han J, Covert MW, Mizushima N, Reck-Peterson S, Strasser A, Cheeseman I (2024)
Cell biology is…
Cell, 187 (2), 219-224

Thunold S, Hernes E, **Farooqi S**, **Öjlert ÅK**, Francis RJ, Nowak AK, Szejniuk WM, Nielsen SS, Cedres S, Perdigo MS, Sørensen JB, Meltzer C, Mikalsen LTG, **Helland Å**, **Malinen E**, **Haakensen VD** (2024)
Outcome prediction based on [18F]FDG PET/CT in patients with pleural mesothelioma treated with ipilimumab and nivolumab +/- UV1 telomerase vaccine
Eur J Nucl Med Mol Imaging, 52 (2), 693-707

Tomasova K, Seborova K, Kroupa M, Horak J, Kavec M, Vodickova L, Rob L, Hruda M, Mrhalova M, Bartakova A, Bouda J, **Fleischer T**, Kristensen VN, Vodicka P, Vaclavikova R (2024)
Telomere length as a predictor of therapy response and survival in patients diagnosed with ovarian carcinoma
Heliyon, 10 (13), e33525

Torices L, **Nunes-Xavier CE**, Mingo J, Luna S, Erramuzpe A, Cortés JM, Pulido R (2024)
Induction of Translational Readthrough on Protein Tyrosine Phosphatases Targeted by Premature Termination Codon Mutations in Human Disease
Methods Mol Biol, 2743, 1-19

Torices L, **Nunes-Xavier CE**, Pulido R (2024)
Potentiation by Protein Synthesis Inducers of Translational Readthrough of Pathogenic Premature Termination Codons in PTEN Isoforms
Cancers (Basel), 16 (16)

Thorgersen EB, Solbakken AM, Strøm TK, Goscinski M, Spasojevic M, Larsen SG, **Flatmark K** (2024)
Short-term results after robot-assisted surgery for primary rectal cancers requiring beyond total mesorectal excision in multiple compartments
Scand J Surg, 113(1):3-12

Totland MZ, **Knudsen LM**, **Rasmussen NL**, Omori Y, **Sørensen V**, **Elster VCW**, **Stenersen JM**, **Larsen M**, **Jensen CL**, **Zickfeldt Lade AA**, **Bruusgaard E**, **Basing S**, **Kryeziu K**, **Brech A**, Aasen T, **Lothe RA**, **Leithe E** (2024)
The E3 ubiquitin ligase ITCH negatively regulates intercellular communication via gap junctions by targeting connexin43 for lysosomal degradation
Cell Mol Life Sci, 81 (1), 171

Ullern A, Holm K, **Røssevold AH**, **Andresen NK**, Bang C, **Lingjærde OC**, Naume B, Hov JR, **Kyte JA** (2024)
Gut microbiota diversity is prognostic and associated with benefit from chemo-immunotherapy in metastatic triple-negative breast cancer
Mol Oncol (in press)

Valsalakumari R, **Pandya AD**, **Prasmickaite L**, **Kvalvaag A**, **Myrann AG**, Åslund AKO, Kjos MS, Fontecha-Cuenca C, Haroon HB, Ribeiro ARS, Horejs-Hoeck J, Moghimi SM, Mørch Ý, **Skotland T**, **Sandvig K**, **Mælandsmo GM**, **Iversen TG** (2024)
Preclinical Efficacy of Cabazitaxel Loaded Poly(2-alkyl cyanoacrylate) Nanoparticle Variants
Int J Nanomedicine, 19, 3009-3029

van de Haar J, Roepman P, Andre F, Balmaña J, Castro E, Chakravarty D, Curigliano G, Czarnecka AM, Dienstmann R, Horak P, Italiano A, Marchiò C, Monkhorst K, Pritchard CC, Reardon B, **Russnes HEG**, Sirohi B, Sosinsky A, Spanic T, Turnbull C, Van Allen E, Westphalen CB, Tamborero D, Mateo J (2024)
ESMO Recommendations on clinical reporting of genomic test results for solid cancers
Ann Oncol, 35 (11), 954-967

van der Werf-'t Lam AS, Rodriguez-Girondo M, Villasmil M, Tops CM, van Hest L, Gille HJP, Duijkers FAM, Wagner A, Eikenboom E, Letteboer TGW, de Jong MM, Bajwa-Ten Broeke SW, Bleeker F, Gomez Garcia EB, **Dominguez-Valentin M**, **Møller P**, Suerink M, Nielsen M (2024)
Delineating genotype and parent-of-origin effect on the phenotype in MSH6-associated Lynch syndrome
Genes Chromosomes Cancer, 63 (5), e23237

Vedeld HM, **Pharo H**, Sørbø AK, **Brandt-Winge S**, **Five MB**, **Jeanmougin M**, Guldberg P, Wahlqvist R, **Lind GE** (2024)
Distinct longitudinal patterns of urine tumor DNA in patients undergoing surveillance for bladder cancer
Mol Oncol, 18 (11), 2684-2695

Vo DN, Yuan O, **Kanaya M**, Telliam-Dushime G, Li H, Kotova O, Caglar E, Honnens de Lichtenberg K, Rahman SH, Soneji S, Scheding S, Bryder D, **Malmberg KJ**, Sitnicka E (2024)
A temporal developmental map separates human NK cells from noncytotoxic ILCs through clonal and single-cell analysis
Blood Adv, 8 (11), 2933-2951

von Jan J, Timonen S, Braun T, Jiang Q, Ianevski A, Peng Y, McConnell K, Sindaco P, Müller TA, Pützer S, Klepzig H, Jungherz D, Dechow A, Wahnschaffe L, Giri AK, Kankainen M, Kuusanmäki H, Neubauer HA, Moriggl R, Mazzeo P, Schmidt N, Koch R, Hallek M, Chebel A, Armisen D, Genestier L, Bachy E, Mishra A, Schrader A, **Aittokallio T** et al. (2024)
Optimizing drug combinations for T-PLL: restoring DNA damage and P53-mediated apoptotic responses
Blood, 144 (15), 1595-1610

Wang HL, Siow R, Schmauck-Medina T, Zhang J, Sandset PM, Filshie C, Lund Ø, Partridge L, Bergersen LH, Juel Rasmussen L, Palikaras K, Sotiropoulos I, Storm-Mathisen J, Rubinsztein DC, Spillantini MG, De Zeeuw CI, Watne LO, Vyhnalek M, Veverova K, Liang KX, Tavernarakis N, Bohr VA, Yokote K, Saarela J, Nilsen H , Gonos ES, Scheibye-Knudsen M, Chen G, Kato H, Selbæk G, Fladby T, Nilsson P, **Simonsen A** et al. (2024)
Meeting Summary of The NYO3 5th NO-Age/AD Meeting and the 1st Norway-UK Joint Meeting on Aging and Dementia: Recent Progress on the Mechanisms and Interventional Strategies
J Gerontol A Biol Sci Med Sci, 79 (4)

Weiss L, Schluck M, Classens R, de Jonge PKJD, van der Waart A, Nguyen KG, Nguyen TT, Zaharoff DA, **Malmberg KJ**, Dolstra H, Figdor CG, Sohlberg E, Hammink R (2024)
Interleukin-12 decorated nanosized semiflexible Immunofilaments enable directed targeting and augmented IFNγ responses of natural killer cells
Acta Biomater, 191, 386-397

Welsh JA, Goberdhan DCI, O'Driscoll L, Buzas EI, Blenkiron C, Bussolati B, Cai H, Di Vizio D, Driedonks TAP, Erdbrügger U, Falcon-Perez JM, Fu QL, Hill AF, Lenassi M, Lim SK, Mahoney MG, Mohanty S, Möller A, Nieuwland R, Ochiya T, Sahoo S, Torrecilhas AC, Zheng L, Zijlstra A, Abuelreich S et al. (2024)
Minimal information for studies of extracellular vesicles (MISEV2023): From basic to advanced approaches
J Extracell Vesicles, 13 (2), e12404

Wenzel EM, **Pedersen NM**, **Elfmark LA**, **Wang L**, **Kjos I**, Stang E, **Malerød L**, **Brech A**, **Stenmark H**, **Raiborg C** (2024)
Intercellular transfer of cancer cell invasiveness via endosome-mediated protease shedding
Nat Commun, 15 (1), 1277

West CT, M A West, I Drami, A Denys, T Glyn, P A Sutton, J Tiernan, C Behrenbruch, G Guerra, P S Waters, N Woodward, S Applin, S J Charles, S A Rose, E Pape, G H van Ramshorst, A H Mirnezami, Agj Aalbers, N Abdul Aziz, N Abecasis, M Abraham-Nordling, T Akiyoshi, R Alahmadi, W Alberda, M Albert, M Andric, M Angeles, E Angenete, A Antoniou, J Armitage, R Auer, K K Austin, E Aytac, O Aziz, N Bacalbasa, R P Baker, M Bali, S Baransi, G Baseckas, B Bebington, M Bedford, B K Bednarski, G L Beets, P L Berg, C Bergzoll, J Beynon, S Biondo, K Boyle, L Bordeianou, E Brecelj, A B Bremers, K Brown, M Brunner, P Buchwald, A Bui, A Burgess, Jwa Burger, D Burling, E Burns, N Campain, S Carvalhal, L Castro, A Caycedo-Marulanda, W Ceelen, Kkl Chan, G J Chang, M H Chew, A K Chok, P Chong, H K Christensen, H Clouston, D Collins, A J Colquhoun, J Constantinides, A Corr, M Coscia, M Cosimelli, C Cotsoglou, P E Coyne, R S Croner, L Damjanovic, I R Daniels, M Davies, R J Davies, C P Delaney, Jhw de Wilt, Q D Denost, C Deutsch, D Dietz, S Domingo, E J Dozois, Drozdov E, Duff M, Egger E, Eglinton t, Enrique-Navascues jm, Espín-Basany e, Evans MD, Eyjólfsdóttir B, Fahy M, Fearnhead NS, Fichtner-Feigl S, **Flatmark K**, et al.
(2024) Beating the empty pelvis syndrome: the PelvEx Collaborative core outcome set study protocol
BMJ Open, 14(2):e076538

Willemsen M, Bulgarelli J, **Chauhan SK**, **Lereim RR**, Angeli D, Grisendi G, Krebbers G, Davidson I, **Kyte JA**, Guidoboni M, Luiten RM, Bakker WJ (2024)
Changes in AXL and/or MITF melanoma subpopulations in patients receiving immunotherapy
Immunooncol Technol, 24, 101009

Wu C, Gunnarsson EB, Myklebust EM, Köhn-Luque A, **Tadele DS**, **Enserink JM**, Frigessi A, Foo J, Leder K (2024)
Using birth-death processes to infer tumor subpopulation structure from live-cell imaging drug screening data
PLoS Comput Biol, 20 (3), e1011888

Zhao Z, **Zobolas J**, Zucknick M, **Aittokallio T** (2024)
Tutorial on survival modeling with applications to omics data
Bioinformatics, 40 (3)

Zhen Y, **Stenmark H** (2024)
A dual-purpose fusion complex in autophagy
Cell Res, 34 (3), 183-184

Zhen Y, **Stenmark H** (2024)
Exosome regulation by Rubicon in ageing
Nat Cell Biol, 26 (9), 1380-1381

Zhou Y, Ray PS, Zhu J, Stein F, Rettel M, Sekaran T, Sahadevan S, Perez-Perri JI, Roth EK, **Myklebost O**, **Meza-Zepeda LA**, von Deimling A, Fu C, Brosig AN, Boye K, Nathrath M, Blattmann C, Lehner B, Hentze MW, Kulozik AE (2024)
Systematic analysis of RNA-binding proteins identifies targetable therapeutic vulnerabilities in osteosarcoma
Nat Commun, 15 (1), 2810

Publications (articles) published in 2025 from OUS - Institute for Cancer Research

Arseni L, Sigismondo G, Yazdanparast H, **Hermansen JU**, Mack N, Ohl S, Kalter V, Iskar M, Kalxdorf M, Friedel D, Rettel M, Paul Y, Ringshausen I, Eldering E, Dubois J, Kater AP, Zapatka M, Roessner PM, Tausch E, Stilgenbauer S, Dietrich S, Savitski MM, **Skånland SS**, Krijgsveld J, Lichter P et al. (2025)
Longitudinal omics data and preclinical treatment suggest the proteasome inhibitor carfilzomib as therapy for ibrutinib-resistant CLL
Nat Commun, 16 (1), 1041

Casali PG, Antoine-Poirel H, Berrocoso S, Blay JY, Dubois T, Ferrari A, Fullaondo A, **Hovig E** et al.
Health networking on cancer in the European Union: a 'green paper' by the EU Joint Action on Networks of Expertise (JANE)
ESMO Open, 10(2):104126.

Champagne J, **Nielsen MM**, Feng X, Montenegro Navarro J, Pa-

taskar A, Voogd R, Giebel L, Nagel R, Berenst N, Fumagalli A, Kochavi A, Lovecchio D, Valcanover L, Malka Y, **Yang W**, **Laos M**, **Li Y**, Proost N, van de Ven M, van Tellingen O, Bleijerveld OB, Haanen JBAG, **Olweus J**, Agami R (2025)
Adoptive T cell therapy targeting an inducible and broadly shared product of aberrant mRNA translation
Immunity, 58 (1), 247-262.e9

Clarke AW, Høye E, Hembrom AA, Paynter VM, Vinther J, Wyrożemski Ł, Biryukova I, Formaggioni A, Ovchinnikov V, Herlyn H, Pierce A, Wu C, Aslanzadeh M, Cheneby J, Martinez P, Friedländer MR, **Hovig E**, Hackenberg M, Umu SU, Johansen M, Peterson KJ, Fromm B (2025)
MirGeneDB 3.0: improved taxonomic sampling, uniform nomenclature of novel conserved microRNA families and updated covariance models
Nucleic Acid
Res, 53 (D1), D116-D128

Clarke RB, **Sørlie T** (2025)
A Guide to Breast Cancer Research: An Introduction
Adv Exp Med Biol, 1464, 1-5

García-Díaz N, Solli E, Hajjar E, Cornillot-Clément S, Landskron J, Ahmad R, Wei Q, **Taskén K** (2025)
MAPK and STAT3 inhibitors modulate FOXP3 expression and regulatory T cell function. Eur J. Immunol., 55(2):e202451225

Høye E, Kanduri C, **Torgunrud A**, **Lorenz S**, Edwin B, Larsen SG, Fretland ÅA, **Dagenborg VJ**, **Flatmark K**, **Lund-Andersen C** (2025)
Enrichment of Cancer-Associated Fibroblasts, Macrophages, and Up-Regulated TNF-α Signaling in the Tumor Microenvironment of CMS4 Colorectal Peritoneal Metastasis
Cancer Med, 14 (1), e70521

Kelly MP, Nikolaev VO, Gobejishvili L, Lugnier C, Hesslinger C, Nickolaus P, Kass DA, Pereira De Vasconcelos W, Fischmeister R, Brocke S, Epstein PM, Piazza G, Keeton AB, Zhou G, Abdel-Halim M, Abadi AH, Baillie GS, Giembycz M, Bolger G, Snyder G, **Taskén, K**, **Saidu NEB** et al (2025)
Cyclic nucleotide phosphodiesterases as drug targets.
Invited review Pharmacol. Rev., e 100042

Kolapalli SP, Beese CJ, Reid SE, Brynjólfsdóttir SH, Jørgensen MH, **Jain A**, Cuenco J, Lewinska M, Abdul-Al A, López AR, Jäättelä M, Sakamoto K, Andersen JB, Maeda K, **Rusten TE**, Lund AH, Frankel LB (2025)
Pellino 3 E3 ligase promotes starvation-induced autophagy to prevent hepatic steatosis
Sci Adv, 11 (3), eadr2450

Lergenmuller S, Rueegg CS, **Ghiasvand R**, Veierød MB (2025)
Sunscreen Use and Cutaneous Squamous Cell Carcinoma Risk: A Review of the Evidence
Acta Derm Venereol, 105, adv42550

Møller P, Ahadova A, Kloor M, Seppälä TT, Burn J, Haupt S, Macrae F, **Dominguez-Valentin M**, Möslein G, Lindblom A, Sunde L, Winship I, Capella G, Monahan K, Buchanan DD, Evans DG, **Hovig E**, Sampson JR (2025)
Colorectal carcinogenesis in the Lynch syndromes and familial adenomatous polyposis: trigger events and downstream consequences
Hered Cancer Clin Pract, 23 (1), 3

Posadas-Cantera S, Mitsuiki N, Emmerich F, Patiño V, Lorenz HM, Neth O, Dybedal I, **Taskén K**, Schäffer AA, Grimbacher B, Gámez-Díaz L (2025)
The effect of HLA genotype on disease onset and severity in CTLA-4 insufficiency
Front Immunol, 15, 1447995

Puurand M, **Llorente A**, Linē A, Kaambre T (2025)
Exercise-induced extracellular vesicles in reprogramming energy metabolism in cancer
Front Oncol, 14, 1480074

Tunset ME, Haslene-Hox H, Larsen JB, Kondziella D, Nygård M, Pedersen SA, Vaaler A, **Llorente A** (2025)
Clinical studies of blood-borne Extracellular vesicles in psychiatry: A systematic review
J Psychiatr Res, 182, 373-390 (in press)

Wang R, Gunesli GN, **Skingen VE**, **Valen KF**, **Lyng H**, Young LS, Rajpoot N (2025)
Deep learning for predicting prognostic consensus molecular subtypes in cervical cancer from histology images
NPJ Precis Oncol, 9 (1), 11

Wei Q, Foyn H, Landskron J, Wang S, **Rye IH**, **Skånland S**, **Russnes HEG**, Klaveness J, Ahmad R, **Taskén K** (2025)
Identification of a group of 9-amino-acridines that selectively down-regulate regulatory T cell functions through FoxP3.
iScience, 28, 111931