Centre for Cancer Biomarkers

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CCBIO Newsletter

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DIRECTOR'S COMMENTS

Dear all,

Summer has left us, and we are clearly in working mode. In this issue of the CCBIO Newsletter, you can read about people and projects. We welcome Tracy-Ann Read to Bergen and the CCBIO family. With her combination of cancer biology and neuroscience, we have great expectations that she will strengthen our efforts in cancer neuroscience. Tracy-Ann has now initiated her work on breast cancer behaviour.

Congratulations to Anna Gorbunova for winning the BICC Poster Award along with a £200 prize sponsored by the CRUK Scotland Institute, to Karen Rosnes Gissum and co-authors for presenting their work on 'hope and hopelessness in the face of ovarian cancer', to Strell and her team for publishing a paper on ductal carcinoma in situ in JNCI, to Gjertsen and his group for presenting the first-in-human study of novel microRNA therapy for AML in Leukemia, and to Dongre and co-workers for the nanodiamond innovation project now published in Small.

There is a range of upcoming important meetings, including the 15th CCBIO Annual Symposium – with a keynote by Douglas Hanahan – and the 2nd EurOvaCan Symposium, both in Bergen at Solstrand Hotel. Also, you can soon register for the 10th ScanPath Symposium on Translational Pathology – established by CCBIO in 2016. This year's anniversary meeting will be held in Helsinki. In January 2027, CCBIO will welcome Nordic pathologists to the 3rd Nordic Symposium on Breast Pathology, on January 26-27, following two very successful meetings in 2023 (Copenhagen) and 2025 (Stockholm).

Please also take notice of upcoming courses organized by the CCBIO Research School for Cancer Studies, along with other meetings, events, and media stories.

Of note: you can send us suggestions and stories for the next issue of the newsletter!

Best regards, Lars A. Akslen, Director

Capturing cancer complexity and clinical challenges

Welcome to Tracy-Ann Read

Internationally recognized cancer biologist and neuroscientist Tracy-Ann Read is now in place in Bergen to join CCBIO, strengthening the center's growing research initiative in cancer neuroscience.

Read returns to the University of Bergen, where she completed her academic training, after more than two decades in the US, most recently as Associate Professor at Augusta University. With expertise spanning cancer biology, neuroscience, and experimental modeling, she will contribute to CCBIO's research on how tumors interact with the nervous system and how these interactions may influence cancer progression and metastasis.

At CCBIO, Read will work closely with CCBIO Director Lars A. Akslen and colleagues to further develop cancer neuroscience as a research area. A key focus will be understanding the role of nerves and neural signaling in the tumor microenvironment, with the long-term aim of identifying new biomarkers and potential therapeutic targets.

Her recruitment is supported by NOK 9 million from the Research Council of Norway and is closely linked to Akslen's FRIPRO project on neural involvement in breast cancer.

Welcome to Bergen and CCBIO, Tracy-Ann!

Read more about Tracy-Ann Read and CCBIO's cancer neuroscience initiative.

Save the dates for the 15th CCBIO Annual Symposium and the 2nd EurOvaCan Symposium

Photo by Thor Brødreskift.

Photo by Neda Hekmati.

Photo by Cecilie Fredvik Torkildsen.

Mark your calendars for four days of science and networking at Solstrand in May 2027! CCBIO's 15th Annual Symposium will take place at Solstrand Hotel & Bad, May 11–12, 2027. The meeting will be preceded by the 2nd EurOvaCan Symposium on May 9–10.

The CCBIO Annual Symposium is a key meeting place for the CCBIO community, welcoming researchers, clinicians, students, and international collaborators for two days of cancer research, scientific exchange, and networking. The program will feature invited international speakers, presentations from CCBIO researchers, poster sessions, and plenty of opportunities for discussions and new connections.

You can read about the 2026 CCBIO Annual Symposium here.

Ahead of the Annual Symposium, CCBIO will continue the tradition of hosting a focused scientific Pre-Symposium. Following the successful launch of the European Ovarian Cancer Translational Research Symposium (EurOvaCan) in 2026, the 2nd EurOvaCan Symposium will take place May 9–10, strengthening collaboration and translational research in ovarian cancer.

You can read abut the first EurOvaCan Symposium here.

Registrations will open later, so until then, save the dates, May 9–12, 2026!

The 3rd Nordic Breast Pathology Symposium comes to Bergen

CCBIO is the local host for another big event in 2027 at Solstrand: *The 3rd Nordic Breast Pathology Symposium (NBPS)*, January 26–27. After two very successful meetings, in Copenhagen and Stockholm, the symposium now moves to Norway and Bergen.

The **3rd Nordic Breast Pathology Symposium** will bring together pathologists, clinicians and researchers from across the Nordic countries to explore current developments in breast cancer pathology and diagnostics, with a strong focus on translational research and the growing role of biomarkers in precision oncology.

Through keynote lectures, many oral presentations and short industry talks, the symposium will provide an arena for exchanging new information on emerging diagnostic and biomarker approaches, and strengthening the dialogue between pathology, cancer biology and clinical practice.

When: 26–27 January, 2027

Where: Solstrand Hotel & Bad, Os, outside of Bergen, Norway

Registration: through this NBPS 2027 registration link

More information: Details are updated on this NBPS 2027 webpage

The 10th ScanPath Meeting


Photos: Hotel Majvik, Kirkkonummi.

While you are at it of saving dates, we can also recommend *the 10th Scandinavian Symposium on Translational Pathology (ScanPath)* taking place November 2–3, 2026 at the Majvik Congress Centre in Kirkkonummi, Finland.

The meeting is hosted by the Institute for Molecular Medicine Finland (FIMM), University of Helsinki, and the ScanPath society.

ScanPath has close ties to CCBIO: the initiative was established in Bergen in 2016 by CCBIO Director Lars A. Akslen and CCBIO collaborator Arne Östman, with the aim of building a Scandinavian network for pathologists and pre-clinical researchers engaged in tissue-based cancer research. Since then, ScanPath has developed into an established Nordic meeting place for exploring new approaches to tumor biology, biomarker research and advanced tissue profiling.

For the CCBIO community, ScanPath remains an important arena for scientific exchange and collaboration at the intersection of pathology, cancer biology, biomarkers and emerging technologies for spatial analysis of human tissues.

So save the date and join the ScanPath community in Finland to celebrate its 10th meeting!

When: 2–3 November, 2026

Where: Hotel Majvik, Kirkkonummi (Helsinki), Finland

More info and registration: ScanPath details will be updated on this webpage

Posterprize to Anna Gorbunova in Glasgow

CCBIO postdoc Anna Gorbunova has received the BICC Poster Award, along with a £200 prize sponsored by the CRUK Scotland Institute.

Gorbunova, a member of Carina Strell's research group, presented her work on PD1-PDL2 interactions in lung cancer at the Beatson International Cancer Conference (BICC), held in Glasgow, Scotland, 22–25 June 2026. The conference focused on cancer immunology and immunotherapy, highlighting new insights into how immune cells contribute to cancer progression and how this knowledge can be translated into new therapeutic approaches.

The conference was organized by the CRUK Scotland Institute (formerly the CRUK Beatson Institute), which is core-funded by Cancer Research UK.

Gorbunova received the award for her poster, "Spatially resolved PD1–PD-L2 checkpoint signaling identifies a distinct prognostic axis in non-small cell lung cancer."

Congratulations to Anna on this well-deserved recognition!

Hope and hopelessness in the face of ovarian cancer

Photo by colourbox.com

What does it mean to maintain hope when treatment options are limited? A new CCBIO study explores gynecologists' experiences of caring for women with ovarian cancer.

In the new study "Hope and hopelessness in the face of ovarian cancer: perspectives from gynecologists" in *Frontiers in Oncology*, CCBIO researcher and first author Karen Rosnes Gissum and co-authors Caroline B. N. Engen, Sigrun Drageset, Ane Gerda Zahl Eriksson, Ingvild Vistad, Roger Strand and Line Bjørge dive into this question through in-depth interviews with nine gynecologists at Norwegian hospitals.

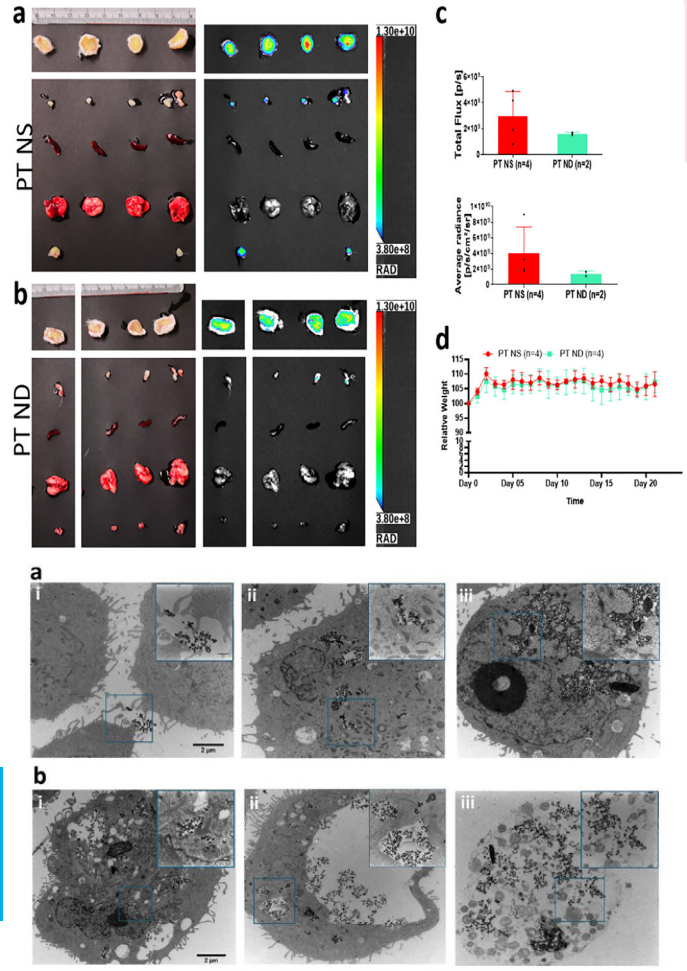
The study highlights a striking tension: gynecologists see maintaining hope as an important part of their role, while also experiencing feelings of helplessness, time pressure and constraints within the healthcare system that can make it difficult to address patients' broader needs.

The findings also raise important questions about holistic cancer care. While physicians must focus on diagnosis and treatment, the study suggests that both patients and clinicians may benefit from more room for dialogue about the lived experience of serious illness – including personal and existential concerns that go beyond the disease itself.

The study is part of Gissum's PhD research on ovarian cancer care and patient–provider relationships. She conducted all interviews and played a central role in the study's design, analysis, funding acquisition, and writing.

Photo by Katrine Sunde

Can nanodiamonds help fight cancer?



A new study led by CCBIO researcher Harsh Dongre explores an innovative approach to cancer treatment, using nanodiamonds to target tumor cells and light to activate treatment precisely where it is needed.

Together with colleagues at CCBIO (Himalaya Parajuli, Lorena Larios, Line Bjørge and Dana Costea) and national and international collaborators, Dongre has developed a new treatment platform combining nanodiamonds, targeted tumor recognition and light activation to attack head and neck cancer cells with high precision.

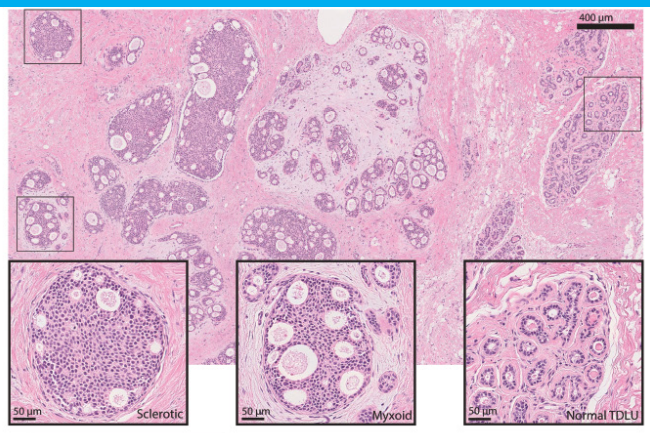
The nanodiamond particles are coated with a peptide designed to recognize cancer cells carrying the EGFR receptor and a light-sensitive compound that releases cancer-killing carbon monoxide when exposed to blue light. This means that the therapeutic effect can be activated at a specific location and time.

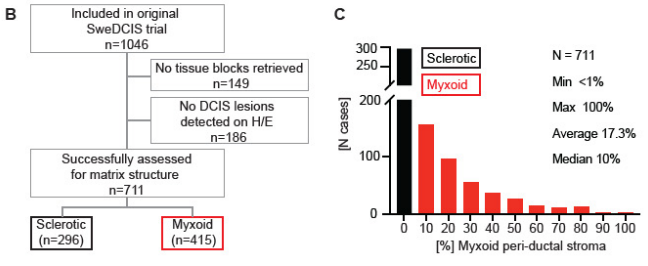
In laboratory studies, the approach selectively killed head and neck cancer cells while largely sparing healthy and pre-malignant cells. It also reduced tumor growth and lymph node metastasis and showed good biocompatibility.

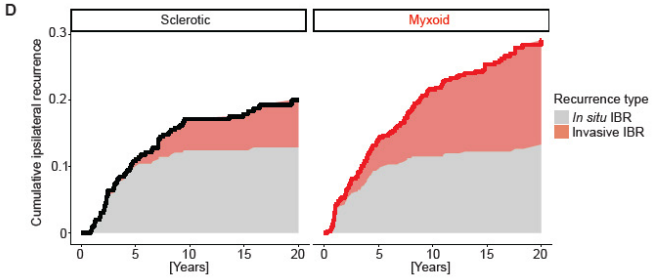
By combining targeted delivery with light-triggered activation, the study points towards new possibilities for more precise cancer treatment with fewer effects on healthy tissue. The findings also highlight the potential of nanodiamonds as delivery vehicles for next-generation cancer therapies.

Read the full article in Small: Multifunctional Nanodiamond Conjugate With aTumor-Specific EGFR-Targeting Peptide and PhotoactivatedCO Release for Improved Therapeutic Efficacy in Head andNeck Cancers.

Stromal changes may help identify DCIS at higher risk of invasive breast cancer







A new study with CCBIO researcher Carina Strell as senior author suggests that changes in the tissue surrounding breast lesions may help identify patients with ductal carcinoma in situ (DCIS) who are at increased risk of developing invasive breast cancer.

DCIS is a non-invasive breast lesion, but it remains difficult to predict which cases are likely to progress or recur as invasive disease. This uncertainty contributes to the major clinical challenge of overtreatment.

The researchers analyzed tissue samples from 711 patients with DCIS enrolled in the randomized SweDCIS trial. They found that periductal myxoid stroma, which is a distinct change in the connective tissue surrounding affected breast ducts, was associated with a higher risk of invasive recurrence. At 20 years, the cumulative incidence of invasive recurrence was 15.7% among patients whose lesions had at least 10% myxoid stroma, compared with 7.1% among those with less than 10%.

The findings suggest that assessing stromal morphology in routine histological tissue sections could provide a simple marker of the invasive potential of DCIS, potentially contributing to more precise risk assessment and treatment decisions.

The study, "Periductal myxoid stroma identifies ductal carcinoma in situ at risk of invasive recurrence," is an accepted manuscript in *JNCI: Journal of the National Cancer Institute*. Aglaia Schiza, Viktoria Thurfjell, Fredrik Wärnberg and Carina Strell Contributed equally as first or last authors respectively.

First-in-human study of novel microRNA therapy for AML

A new study involving CCBIO researchers Irini Ktoridou-Valen, Sturla Magnus Grøndal, and Bjørn Tore Gjertsen reports results from the first-in-human trial of CR-001 (5-FU-miR-15a), a novel microRNA-based therapy for acute myeloid leukemia (AML).

Therapeutic resistance is a major challenge in AML and contributes to both refractory disease and relapse, creating a need for new treatment strategies. MicroRNAs are important regulators of gene activity and have been linked to cancer progression and treatment resistance. CR-001 is based on the tumor-suppressive microRNA miR-15a and is designed to target several pathways involved in AML resistance and relapse.

The Phase I multicenter study included 11 patients, mostly with heavily pretreated relapsed or refractory AML. CR-001 was well tolerated, with no dose-limiting toxicities observed. Among 10 patients evaluable for preliminary efficacy, six achieved stable disease, while single-cell protein profiling provided additional evidence of biological activity in some patients.

The findings support further investigation of CR-001, including its potential as a maintenance therapy for AML.

The study, "Phase I, open-label, multi-center dose-finding and expansion study to investigate the safety, tolerability, and preliminary efficacy of CR-001 (5-FU-miR-15a) in patients with acute myeloid leukemia," is published in *Leukemia*.

CCBIO Research School activities this fall

Are you are a student – then make sure you are acquainted with the CCBIO Research School activities this fall! Ask your supervisor and previous students about the courses. This fall, we have the seminar series CCBIO902, the Junior Scientist Symposia CCBIO901, and the courses CCBIO905 and CCBIONEUR912. See the next pages.

Check the event list on CCBIO's web calendar regularly for updates, and the Research School pages. Did you miss the fall semester deadline for courses in MittUiB/Studentweb, September 1? Check your options with the course coordinators or the Research School leader Erling A. Hoivik.

Coming CCBIO Seminar, September 24

Join us for the next CCBIO seminar, September 24, with Lidia Maria Rebolho Batista Arantes, Associate Researcher at the Molecular Oncology Research Center, Barretos Cancer Hospital, Brazil.

When: September 24, 2026, at 14:30-15:30
Where: Auditorium 4, BB building, HUH, Bergen
Speaker: Lidia Maria Rebolho Batista Arantes
Title: *From Tumor Biology to Precision Oncology: Deciphering Cancer in the Brazilian Context*
Abstract: Abstract for the Sept. 24 is available here.
Chair: Carina Strell

CCBIO905 - Methods in Cancer Biomarker Research

This course focuses on the full panel of standard and advanced methods with relevance for cancer biomarker research. The intention is to provide an understanding of the various methodologies and their application in basic and translational cancer research. The course further covers relevant topics like optimal sample collection and biobanking.

The course will focus on methods to study biomarkers in tissue samples, blood samples, circulating tumor cells and DNA, and other biologic materials. Methodologies like PCR techniques, microarray, next-generation sequencing, bioinformatics and artificial intelligence, immunohistochemistry, in situ hybridization, protein ligation assays, Western blot and ELISA, tissue microdissection and proteomics, flow cytometry, flow and imaging mass cytometry, and biobanking will be presented. Changes in nucleic acids and proteins in different settings will be discussed, as will the clinical applications.

Time: September 22-24, 2026
Place: Auditorium at campus Haukeland University Hospital, Bergen.
ECTS: 5 ECTS for UiB students
Registration: UiB students register via MittUiB/ Studentweb.
Also open to non-ECTS participation via this link.
Webpage: See more information on CCBIO905 here.
Responsible: Lars A. Akslen and Heidrun Vethe have the academic responsibility. Tessa Lohr is the coordinator (Tessa.Lohr@uib.no).

CCBIONEUR912 - Health Innovation

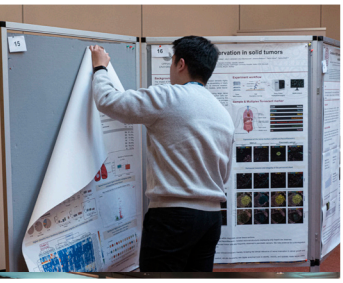
Explore how cutting-edge research can be transformed into real-world impact. This course in Health Innovation introduces key concepts in innovation and entrepreneurship and provides hands-on experience with developing and pitching innovation ideas and solutions of value for healthcare and society.

The course is designed to inspire participants to explore and realize the innovation potential of their own research. The program includes contributions from experienced medical entrepreneurs and international partners.

October 12–13 will consist of a two-day, hands-on workshop led by Federico Lozano (CEO of Pracademy, Stanford MBA), focused on strengthening innovation capacity in research teams. Day one explores the foundations of effective collaboration, including psychological safety, motivation, team dynamics, and creative confidence in interdisciplinary settings. Day two introduces Design Thinking and structured innovation methods, guiding participants through ideation, rapid prototyping, and early-stage testing using their own real-world challenges. The workshop combines evidence-informed perspectives with practical tools to help teams address complex challenges and accelerate innovation.

Time: October 12–13 and November 9–10, 2026.
Place: Auditorium at campus Haukeland University Hospital, Bergen.
ECTS: 4 ECTS for UiB students
Registration: Through MittUiB/Studentweb
Webpage: See more information on CCBIONEUR912 here.
Responsible: Academic responsible are Erling A. Hoivik and Carina Strell from CCBIO, and Yamila T. Cleuren and Agnete Engelsen from Neuro-SysMed. CCBIO coordinator is Renate Seierstad (renate.seierstad@uib.no).

Coming CCBIO events



Make sure to save the dates in your calendar, and register when applicable. You can see all planned CCBIO events in the CCBIO web calendar.

- September 22-24, the course CCBIO905 – Methods in Cancer Biomarker Research, Bergen
- September 24, CCBIO Seminar, speaker: Lidia Maria Rebolho Batista Arantes. Time: 14:30–15:30
- October 12–13 and November 9–10, the course CCBIONEUR912 – Health Innovation, Bergen
- October 15, CCBIO Junior Scientist Symposium, Bergen
- October 29, CCBIO Seminar, speaker tba. Time: 14:30–15:30
- November 26, CCBIO Seminar, speaker: Olivier De Wever. Time: 14:30–15:30
- December 1, CCBIO Junior Scientist Symposium, Bergen
- December 10, CCBIO Seminar, speaker tba. Time: 14:30–15:30
- January 26–27, 2027, the 3rd Nordic Breast Pathology Symposium, Solstrand, Bergen

Other relevant coming events

Illustration: colourbox.com

Events from collaboration partners and other relevant events.

- BBB Seminars fall term 2026, keep an eye on this webpage
- September 10–11, the Molecular Analysis for Precision Oncology Congress 2026, London
- September 14–15, 3rd European Cancer and Oncology Congress, London
- September 21–23, Cancer R&D World Conference 2026, Miami
- September 22–24, EACR Liquid Biopsies 2026, Lyon
- September 24–26, World Cancer Congress 2026, Hong Kong
- October 6–8, EACR Cancer Metabolism, Bilbao
- October 14, Cell Therapy Innovation Symposium 2026. and Ecosystem Meeting; Oslo Cancer Cluster, Oslo
- October 23–27, the ESMO Congress, Madrid
- November 2–3, the 10th ScanPath Meeting, Finland
- November 3–5, EACR. Chromosomes in Crisis: From Chromosomal Instability to Catastrophes in Cancer Genomes, Berlin
- November 9–11, BIO-Europe 2026, Cologne
- November 19–20, Onkologisk Forum 2026, Trondheim
- December 1–2, EACR, Systems-level engineering of T-cell specificity, online
- January 14, Cancer Crosslinks 2027, "Bridging innovations to improve clinical outcomes for cancer patients", Oslo Cancer Cluster, Oslo

Publications

You can find the CCBIO publications on this pubmed link. See the most recent below.

- **Rosnes Gissum K, Engen C, Drageset S, Zahl Eriksson AG, Vistad I, Strand R, Bjørge L.** Hope and hopelessness in the face of ovarian cancer: perspectives from gynecologists. *Front Oncol*. 2026 Aug 12;16:1931795. doi: 10.3389/fonc.2026.1931795. eCollection 2026. PMID: 42656476
- **Knappskog K, Kleinhapl J, Gladkauskas T, Fromreide S, Daltveit DS, Lowry JE, Knappskog PM, Onarheim H, Guttormsen AB, Costea DE, El Ayadi A, Song J, Wolf SE, Almeland SK.** Severe Burn Injury Alters Expression of Adrenergic Receptor Transcripts in a Rodent Model. *Eur Burn J*. 2026 Aug 21;7(3):45. doi: 10.3390/ebj7030045. PMID: 42647224.
- **Moen CA, Mohn KG, Marks A, Falkenthal TEH, Juliebø-Jones P, Aarstad HJ, Moe SE, Beisland C, Costea DE, Ognedal E, Bratland E, Vetti HH, Berget E.** Multifocal HPV16-positive squamous cell carcinomas in CTLA-4 haploinsufficiency: expanding the spectrum of virus-associated malignancies. *Immunol Res*. 2026 Aug 25;74(1):95. doi: 10.1007/s12026-026-09830-x. PMID: 42640348.
- **Schiza A, Thurfjell V, Holmberg E, Bremer T, Micke P, Karlsson P, Wärnberg F, Strell C.** Periductal myxoid stroma identifies ductal carcinoma in situ at risk of invasive recurrence. *J Natl Cancer Inst*. 2026 Aug 24:djag293. doi: 10.1093/jnci/djag293. Online ahead of print. PMID: 42635524.
- **Kotsos D, Hazenberg C, Pabst T, Gradowska P, Manz MG, Maertens J, Graux C, Vekemans MC, Gjertsen BT, Lehmann S, Van Elssen CHMJ, Valk PJM, Vellenga E, Ossenkoppele G, Löwenberg B, Raaijmakers MHGP, Huls G, Versluis J.** Autologous stem cell transplantation versus consolidation chemotherapy as postremission treatment in newly diagnosed favorable- and intermediate-risk patients with AML: A comparative analysis of HOVON-SAKK-Nordic trials. *Hemasphere*. 2026 Aug 21;10(8):e70462. doi: 10.1002/hem3.70462. eCollection 2026 Aug. PMID: 42631085.
- **Nwadozi E, Strell C, Nordling S, Lindberg A, Backman M, Cosmen PD, Marwitz S, Goldmann T, Isaksson J, Botling J, Brunnström H, Lindskog C, Micke P, Claesson-Welsh L.** Vascular leakage in non-small cell lung cancer is associated with immune evasion and poor response to immunotherapy. *Cancer Lett*. 2026 Jul 22;658:218728. doi: 10.1016/j.canlet.2026.218728. Online ahead of print. PMID: 42486347.

Recent CCBIO in the media

Recent media appearances by CCBIO PIs and group members. Date, medium, headline, and CCBIO person interviewed or referred to. For all media hits, see the media list on CCBIO's web pages.

- 16.08.26, KK: "Carine får kreftceller fra et annet menneske sprøytet inn i kroppen." Bjørn Tore Gjertsen.
- 08.07.26, FinanzNachricten.de: "Mendus AB: Mendus reports complete enrollment of the first stage of the VITAL-CML trial." Bjørn Tore Gjertsen. Also in MarketScreener.
- 01.07.26, HealthTalk: "Omstridt anbudsendring kan gi mindre bruk av subkutan immunterapi." Oddbjørn Straume.
- 15.06.26, HealthTalk: "Møt eksperten: «Kan vi forutsi respons ved KML allerede etter 1 uke?» med Stein-Erik Gullaksen." Stein-Erik Gullaksen.
- 15.06.26, HealthTalk: "Møt eksperten: «Kartlegging av CSF1R-signalering ved AML» med Oriol Castells." Oriol Castells.
- 01.06.26, MSD Oncocast: "Kreftsykepleierens rolle i kreftomsorgen." Minh Thu Le.
- 01.06.26, Helse Vest: "Forskning som bidrar til bedre pasientbehandling." Bjørn Tore Gjertsen.
- 28.05.26, Tidsskriftet: "Hvordan kan norske kreftpasienter få økt tilgang til kliniske studier?" Line Bjørge.
- 27.05.26, Haugesunds Avis: "Carine (41) trodde hun manglet vitaminer. Så kom den livsendrende telefonen." Bjørn Tore Gjertsen.
- 15.05.26, Dagens Medisin: "Forskningstopp tror disse metodene kan endre kreftfeltet." Lars A. Akslen.

Programs and Research Teams

Mechanisms of Tumor Micro-environment Interactions:
- Donald Gullberg
- Karl-Henning Kalland
- Emmet Mc Cormack

Exploration and Validation of Cancer Biomarkers:
- Lars A. Akslen
- Jim Lorens
- Camilla Krakstad
- Daniela Costea
- Elisabeth Wik
- Carina Strell
- Agnete Engelsen

Clinical Applications and Trial Studies:
- Bjørn Tore Gjertsen
- Oddbjørn Straume
- Line Bjørge

Health Ethics, Prioritization and Economics:
- Roger Strand

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