



# CCBIO Newsletter

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## DIRECTOR'S COMMENTS

### CCBIO2.0 HAS BEEN APPROVED!

We are happy to let you know that CCBIO received an excellent midway evaluation and continued funding has been secured for the second term until 2023. Congratulations to all of you in the CCBIO family including our collaborators worldwide. This is very stimulating news!

Please read this issue of the CCBIO newsletter, reflecting our many activities and excellent results in various groups. And congratulations to CCBIO investigators Gjertsen, Krakstad and Lorens for significant funding from the Norwegian Cancer Society. Take a look at our calendar for upcoming events.

Best regards, Lars A. Akslen, Director

## CANCER SOCIETY SUPPORT TO 3 CCBIO PROJECTS



The UiB and Haukeland University Hospital grant receivers. Photo: Kreftforeningen



NORWEGIAN **CANCER** SOCIETY

The Norwegian Cancer Society has recently announced their 2017-funding. The University of Bergen and Haukeland University Hospital receive 54,7 million NOK, of which 23,2 million go to CCBIO projects.

These are:

- CCBIO Principal Investigator [James Lorens](#): (Significance of AXL for) communication between cancer cells and immune cells - basic research with clinical relevance. (6 mill. NOK.)
- CCBIO Junior Associate Investigator [Camilla Krakstad](#): New therapy strategies for endometrial cancer. (9,2 mill. NOK.)
- CCBIO Principal Investigator and Co-Director [Bjørn Tore Gjertsen](#): Developing new and targeted therapy (CSF1R/FLT3) against acute leukemia. (8 mill. NOK.)

[Read more here.](#)

## CONTACT INFORMATION



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### The eight Principal Investigators:

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Anne C. Johannessen

Karl Henning Kalland

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Rolf Reed

Oddbjørn Straume



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# CCBIO PRESENCE AT THE 9TH WORLD CONGRESS OF MELANOMA



CCBIO had two representatives presenting their research at the 9th World Congress of Melanoma in Brisbane, Australia, October 18-21, 2017.

CCBIO PI [Oddbjørn Straume](#) presented a poster with the clinical trial of BGB324 in combination with either MEKINIST® (trametinib) plus TAFINLAR® (dabrafenib) or KEYTRUDA® in advanced melanoma. Straume presented the results and analysis from this dose-finding part of the study (NCT02872259). The poster was entitled: *A Phase Ib/II randomised study of BGB324 in combination with pembrolizumab or dabrafenib/trametinib in patients with advanced melanoma*.

PhD Candidate [Emilia Hugdahl](#) in [Professor Lars A. Akslen's group](#) was presenting a poster of her work on concordancy and prognostic value of TERT promoter mutations and TERT protein expression in matched primary and metastatic melanoma tumors, which was recently accepted for publication in the British Journal of Cancer.

[Read more here.](#)

## BLOODTHINNING DRUG MAY PREVENT CANCER

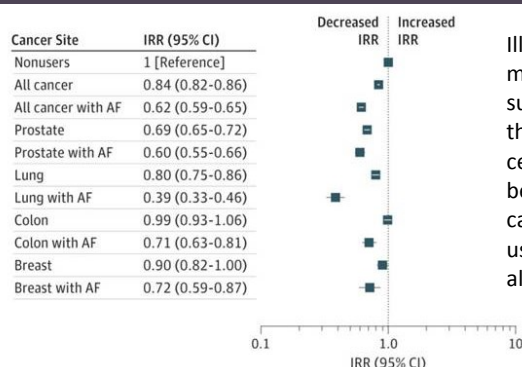


Illustration: Incidence rate ratio (IRR) is a measure of cancer risk. An IRR less than 1.0 suggests protection from cancer. All but one of the squares in the figure fall to the left of the central 1.0 line, suggesting an association between warfarin use and reduced risk of any cancer and common cancers for all warfarin users and the subgroup taking warfarin for atrial fibrillation or atrial flutter (AF).

**Is Anticoagulant Warfarin Associated with Lower Risk of Cancer Incidence?**  
The CCBIO publication shows that use of the blood thinner warfarin was associated with a lower risk of new cancers in people over 50.

The drug warfarin, also known under its Norwegian tradename Marevan, was first used in the US in the 1950s to prevent blood clotting and thus prevent stroke. The study now shows that the drug can have a very fortunate side effect: it prevents several different types of cancer.

– We looked at data from over a million Norwegians above the age of 50, and compared the occurrence of cancer among the warfarin-using and non-using patients during a 6-year period between 2006 and 2012. We found a lower incidence of cancer among those who used this blood-thinning drug, says CCBIO PhD-candidate Gry S. Haaland, first author of this article which is now published in the magazine JAMA Internal Medicine.

The reduction of cancer cases among the warfarin-users applied to cancer in general, and in addition to many specific types such as lung, breast, and prostate cancer.

[Read more here.](#)

## COMING CCBIO EVENTS

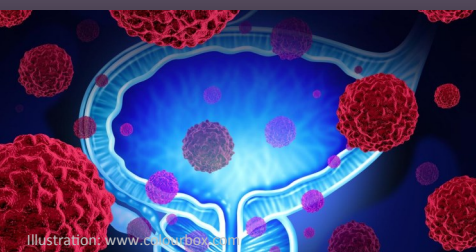
- 17.-18.11.17, [The Second Scandinavian Seminar on Translational Pathology](#), Sigtuna, Sweden. Focusing on tissue based tumor research.
- 17.11.17, CCBIO Doctoral Defense: [Gry Sandvik Haaland](#)
- 23.11.17, [CCBIO Seminar](#), speaker Satu Mustjoki
- 23.11.17, CCBIO901, [Junior Scientist Symposium](#)
- 13.12.17, [CCBIO Special Seminar](#), speaker Randy Watnick
- 13.-14.12.17, [CCBIO/INTPART course in Scientific Writing](#), Bergen. FULLY BOOKED, WAITING LIST POSSIBLE, contact [Elisabeth Wik](#).

## OTHER RECOMMENDED COMING EVENTS

- 30.11.17, [Oslo Cancer Cluster R&D Network Meeting, Prostate Cancer](#). The Biomarker Jungle. Presentations by Gabri van der Pluijm and Steve Bova. Discussions on research, developments, and opportunities in the rapidly expanding field of personalized medicine. Oslo.
- 04-06.12.17, [The Cancer Symposium 2017: Precision Medicine](#). Get up-to-date on a wide range of subjects within precision medicine and related topics. Oslo. Hosted by Oslo University Hospital.
- 05.12.17, [Seminar for female medical researchers](#). 19.00-20.30, BB-Building, Haukeland area, Bergen. In Norwegian. Seminaret retter seg primært mot kvinnelige leger som forsker og som kan tenke seg en karriere innen forskning og akademia. Påmelding innen 27.11.17.
- January 2018, [The Annual Research Presentation at the Research School in Clinical Medicine](#). University of Bergen (UiB). For UiB PhD students and postdocs. Submit abstract for oral presentation or poster within Dec. 1st.



## TAPEWORM DRUG FIGHTS PROSTATE CANCER



Professor Karl-Henning Kalland and his group recently discovered that a substance in medicine against parasites like Giardia and Tapeworms, acts like tailored medicine against prostate- and colon cancer.

“We discovered that this specific substance is blocking the signaling pathway in the cancer cells, and make them stop growing. It is not often that researchers discover a substance that targets specific molecules as precisely as this one,” says Professor Karl-Henning Kalland. [Read more here.](#)

## ORAL PATHOLOGY COLLABORATION PROJECT WITH EURASIA



UiB/CCBIO's Oral Cancer Research Group and the Experimental Pathology Research Group received in 2016 3 million NOK in funding from SIU via the Eurasia program, to a collaboration project for education and research in oral pathology between Norway, Moldova, Belarus and Armenia.

The project started off with a workshop in Bergen in 2016, and the Bergen researchers and educators have recently returned from a workshop in Moldova. Professor [Daniela Elena Costea](#) is coordinating the project, entitled ‘Collaboration for education and research in oral pathology between Norway, Moldova, Belarus and Armenia’.

The vision is that this project will create the basis for developing a specialized teaching workforce at collaborative institutions and will standardize education in oral pathology and increase the awareness on oral cancer and oral mucosal diseases in the collaborative countries.

[Read more here.](#)

## BEST ORAL PRESENTATION PRIZE AT THE ESGO TO CCBIO POSTDOC



Postdoc in the Bergen Gynecologic Cancer Research Group, Ingvild Løberg Tangen, was awarded with the best oral presentation prize at the ESGO (European Society of Gynaecological Oncology) congress for the presentation : “Expression of L1CAM in curettage or high L1CAM level in pre-operative blood samples predicts lymph node metastases and poor outcome in endometrial cancer patients”.

The congress is the official International Meeting of the ESGO, and it is held every two years, this time Nov. 4 – 7, 2017 in Vienna, Austria, with more than 3000 participants and over 1300 abstracts.

In this study, Tangen and her colleagues investigated L1CAM as a predictive marker for lymph node metastases, and its prognostic impact in curettage specimens and preoperative plasma samples.

[Read more here.](#)



## NEXT YEAR'S CCBIO ANNUAL SYMPOSIUM

Make sure to save the date for the **6th CCBIO Annual Symposium**, which takes place at Solstrand Hotel & Bad **May 23-24 2018!**

[Read more here.](#)

## LIQUID BIOPSIES SATELLITE SYMPOSIUM



Note that we will host a **Satellite Symposium on Liquid Biopsies 1:00 p.m. to 5:30 p.m. May 22nd 2018** at Solstrand Hotel, the day before and at the same place as the CCBIO Annual Symposium 2018.

Professor [Klaus Pantel](#), University Klinik Hamburg will be key speaker and CCBIO organizer of the Satellite Symposium on Liquid Biopsy and with additional international speakers. Professor Pantel is also an [international affiliated investigator](#) at CCBIO.

The **Liquid Biopsies Symposium** will include presentations on Circulating Tumor Cells (CTCs), circulating nucleic acids (DNA, miRNA) and microvesicles, with emphasis both on clinical applications and the biology of metastasis.

Updated information will be available [on this webpage.](#)

For now - save the date!



# THE SCIENCE-SOCIETY INTERFACE DISCUSSED AT FEBS MEETING IN BARCELONA



How do we achieve a real dialogue between Science and Society? What are scientists' responsibilities in this regard? These questions were discussed at a Round Table event 26.10.17 at the "FEBS3+" conference in Barcelona, gathering biochemists and life scientists from France, Portugal and Spain.

Roger Strand was part of the 3-member expert panel and gave an introduction to the concept of Responsible Research and Innovation (RRI) in an EU context but also with practical examples from the RRI work at CCBIO and within the Norwegian Centre for Digital Life. The "Norwegian experience" was also the topic at a dedicated seminar the day before at the Universitat Pompeu Fabra.

While the emphasis on RRI and similar concepts arguably is stronger in Northern Europe, Catalan universities and research centres have taken an active role for years in the development of RRI.

[Read more here.](#)

## CCBIO JUNIOR SCIENTIST SYMPOSIUM NOV. 23rd

We hope you are looking forward to the next upcoming CCBIO JR scientist symposium 23. November 2017 - CCBIO postdocs and PhD candidates should make sure not to miss it!



Participants have the opportunity to enjoy networking with fellow PhD students, post-docs and other colleagues. The tentative program should provide an appealing update on local cancer research.

First, we will hear from the director of CCBIO, **Lars A. Akslen**, initiating the 15th CCBIO JR scientist symposium. The key lecture is to be held by Stian **Knappskog**, who will present recent work on patterns of genomic evolution in metastatic breast cancer, published in Cancer Cell. Additional topics include, AML, breast- and endometrial cancer, as well as how young scientist should relate and interact with the media by **Marion Solheim**.

Please sign up **within Nov. 22nd** for free lunch and exciting presentations [here](#). You can see preliminary program [here](#).

## BETTER UNDERSTANDING OF BREAST CANCER



Marit Valla defended October 12th 2017 her PhD thesis "Molecular subtypes of breast cancer: incidence and prognosis". This was a collaboration project between CCBIO and NTNU.

The doctorate Marit Valla (2nd from the left) and the evaluation committee. Photo: Kjersti Fikse Ness.

Supervisors were Professor Anna M. Bofin, Department of Clinical and Molecular Medicine, NTNU, Researcher Signe Opdahl, also NTNU, and Professor Lars A. Akslen, CCBIO, UIB.

Marit Valla and colleagues have studied two cohorts of a population of Norwegian women born between 1886 and 1977. By linking to national registries, these women were followed for the occurrence of breast cancer in the period 1961 to 2009. Those who developed breast cancer were followed until 2013.

[Read more here.](#)



## CCBIO SNAPSHOTS



Photos: Ingvild Festervoll Melien



# BIOMARKERS IN AGGRESSIVE BREAST CANCER

Kristi Krüger defended November 8th her thesis "Markers of angiogenesis and the basal-like phenotype of breast cancer". The study has given increased knowledge of the aggressive basaloid type of breast cancer.



The doctorate Kristi Krüger (in the middle) with her supervisors and the evaluation committee.

In addition, angiogenesis-related markers show association with poor prognosis and response to anti-angiogenic treatment. Supervisors were Professor Lars A. Akslen and MD PhD Elisabeth Wik. [Read more here.](#)



## RECENT CCBIO IN THE MEDIA

- 15.11.17, EurekaAlert!, [Tapeworm drug fights prostate cancer](#), Karl-Henning Kalland.
- 14.11.17, AlphaGalileo, [Tapeworm drug fights Prostate Cancer](#), Karl-Henning Kalland .
- 09.11.17, Aftenposten, [Mye brukt hjertemedisin beskytter mot kreft](#), Gry Sandvik Haaland.
- 09.11.17, BT, [Mye brukt hjertemedisin beskytter mot kreft](#), Gry Sandvik Haaland.
- 23.10.17, The Asco Post, ["Axl Inhibitor BGB324 in Combination With Trametinib Plus Dabrafenib or Pembrolizumab in Advanced Melanoma"](#), Oddbjørn Straume.
- 18.10.17, 4-Traders, ["BerGenBio: announces strong recruitment and encouraging safety profile for AXL Inhibitor BGB324 in a melanoma study at 9th World Congress of Melanoma"](#), Oddbjørn Straume.
- 18.10.17, Newsweb Oslo Børs (Oslo Stock Exchange), ["BerGenBio announces strong recruitment and encouraging safety profile for AXL Inhibitor BGB324 in a melanoma study at 9th World Congress of Melanoma"](#), Oddbjørn Straume.
- 17.10.17, AlphaGalileo, ["More than 700 experts on biochemistry and molecular biology take part in the first edition of the FEBS3+ Congress"](#), Roger Strand.
- 12.10.17, Heggarn.no, ["BerGenBio skal holde presentasjon i Australia"](#), Oddbjørn Straume.
- 12.10.17, Newsweb Oslo Børs , ["Clinical Study with BGB324, BerGenBio's Selective First-in-Class AXL Inhibitor, to be Presented at the 9th World Congress of Melanoma"](#), Oddbjørn Straume.
- 10.10.17, Nordic Life Science News, ["Bergen – Pushing bioinformatics further"](#), Inge Jonassen.
- 02.10.17, Haugesund Avis, ["Jeg hørte om alle det gikk bra med, og trodde det skulle virke også på meg"](#), Oddbjørn Straume.

## TARGETED TREATMENT FOR UTERINE CARCINOMA



The doctorate Mari Kylesø Halle (3rd from the left) with her supervisors and the evaluation committee.

Mari Kylesø Halle defended November 10th her thesis "Molecular alterations suggesting new treatment strategies in uterine carcinomas".

Halle has investigated biomarkers that can predict which patients who will experience relapse and who will need additional treatment. She has further examined whether specific biomarkers can identify patients who may benefit from new and targeted treatment. Supervisors were Professors Camilla Krakstad and Jone Trovik. [Read more here.](#)

## COMING DOCTORAL DEFENSE



**Gry Sandvik Haaland** will **November 17th** be defending her thesis "Investigations of the cancer therapeutic and protective effects of warfarin-mediated inhibition of the receptor tyrosine kinase AXL ". Supervisors: Professor James Lorens and MD PhD Oddbjørn Straume. See [press release](#) and [news story](#).

## PUBLICATIONS



You can find the CCBIO publications [on this pubmed link](#). See the last 5 below.

- Hugdahl E, Kalvenes MB, Mannelqvist M, Ladstein RG, Akslen LA. [Prognostic impact and concordance of TERT promoter mutation and protein expression in matched primary and metastatic cutaneous melanoma](#). Br J Cancer. 2017 Nov 9. doi: 10.1038/bjc.2017.384. [Epub ahead of print]
- Haaland GS, Falk RS, Straume O, Lorens JB. [Association of Warfarin Use With Lower Overall Cancer Incidence Among Patients Older Than 50 Years](#). JAMA Intern Med. 2017 Nov 6. doi: 10.1001/jamainternmed.2017.5512. [Epub ahead of print]
- Davidenko N, Hamaia S, Bax DV, Malcor JD, Schuster CF, Gullberg D, Farndale RW, Best SM, Cameron RE. [Selecting the correct cellular model for assessing of the biological response of collagen-based biomaterials](#). Acta Biomater. 2017 Oct 26. pii: S1742-7061(17)30663-3. doi: 10.1016/j.actbio.2017.10.035. [Epub ahead of print]
- Fonnes T, Berg HF, Bredholt T, Edqvist PD, Sortland K, Berg A, Salvesen HB, Akslen LA, Werner HMI, Trovik J, Tangen IL, Krakstad C. [Asparaginase-like protein 1 is an independent prognostic marker in primary endometrial cancer, and is frequently lost in metastatic lesions](#). Gynecol Oncol. 2017 Oct 30. pii: S0090-8258(17)31447-6. doi: 10.1016/j.ygyno.2017.10.025. [Epub ahead of print]
- Ramnefjell M, Amelfot C, Aziz S, Helgeland L, Akslen LA. [Microvascular proliferation is associated with aggressive tumour features and reduced survival in lung adenocarcinoma](#). J Pathol Clin Res. 2017 Sep 12;3(4):249-257. doi: 10.1002/cjp2.78. eCollection 2017 Oct.



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