





# www.ccbio.no ISSUE NO 5, VOL 9, NOV 30, 2022.

#### DIRECTOR'S COMMENTS

Dear all

Effective from Nov 16, Line Bjørge is now the co-director of CCBIO! Line is a renowned scientist and key policy maker in the field of gynecologic oncology. She is also a dynamic group leader and mentor for younger colleagues. Welcome! At the same time, I would like to thank Bjørn Tore Gjertsen for his tireless work and efforts as co-director through several years.

Congratulations to Jim Lorens for receiving a grant from the Cancer Society, and to Oddbjørn Straume and Arne Östman for funding from Helse Vest! And congratulations to Christiane H. Gjerde who received the Kolbjørn Brambani Cancer Research Grant 2022 at the Onkologisk Forum meeting on November 17 (Oslo).

The 6th SCANPATH symposium on translational pathology was held at Solstrand on November 14-15 and organized by CCBIO. With a record high attendance and more than 100 participants, the meeting was a huge success and now represents a key platform for Scandinavian cancer research and tissue based studies with a focus on emerging technologies. The next meeting will be in Finland. Thanks to all of you who helped organize this gathering.

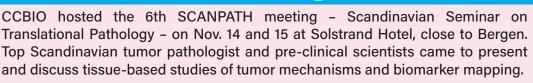
Please also read about the strong presence from CCBIO at the recent ESGO meeting in Berlin, the upcoming CCBIO seminars and courses, and the JUSS meeting on December 8. And good luck to Cecilie Askeland who will defend her PhD thesis on December 9.

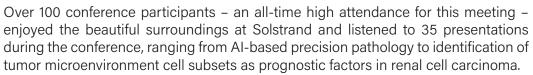
Best regards, Lars A. Akslen, Director

Capturing cancer complexity and clinical challenges

## Record attendance at this year's SCANPATH meeting









The conference included scientists with various backgrounds, facilitating great discussions and perhaps the start of new collaborations. The session Posters and Prosecco was a great success, where young scientists could share their work with the conference participants. Three posters stood out and received the poster awards, nominated by audience voting.

Arne Östman had the closing remarks and emphasized that "this meeting series, I believe, indeed has the potential to continue and to be developed in a manner which will inspire and be productive for the Scandinavian cancer research community, especially post-docs and PhD students, and the surrounding health care system and society. The set of exciting and original presentations ranged from discovery-based studies to more biomarker-oriented presentations of high quality. The potential of novel methodologies was indicated in a series of presentations. Many of these relied on the Hyperion Imaging Mass Cytometry resource, which was established in Bergen much through efforts and foresight by Lars Akslen and CCBIO," Östman concludes.

Read more here.





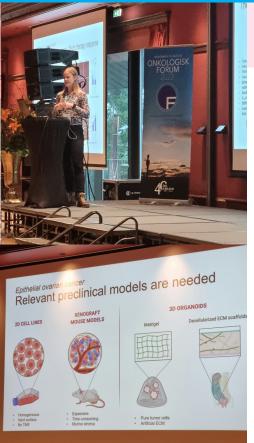
The Jim Lorens group at CCBIO and the Department of Biomedicine has received NOK 8 million in support for the project *Targeted inhibition of AXL to improve response to immunotherapy: Precision medicine by deep analysis of clinical biomarkers*.

Immunotherapy has improved the prognosis of many cancer patients. Nevertheless, there are many patients who do not achieve a lasting response. Therefore, it is important to understand the molecular mechanisms behind treatment resistance and to find markers for personalizing immunotherapy. The Lorens group has therefore carried out a clinical study on resistance to immunotherapy in melanoma, a form of cancer with a particularly high mortality rate in Norway. They will perform a deep analysis of predictive response markers in tissue samples, a crucial prerequisite for effective precision medicine. The primary goal is to define a predictive marker for immunotherapy. The hypothesis is that the AXL receptor leads to the failure of immunotherapy. Using advanced molecular analyzes of tissue samples together with modern data analysis, the group hopes to identify conditions in the tumors that may predict the patient's outcome.

The expected outcome of the project is a new predictive marker signature for immunotherapy and improved understanding of mechanisms for how AXL inhibition improves immunotherapy in patients. This is particularly important to promote precision medicine in cancer treatment, and to maximize the scientific yield of tissue samples collected in an academic clinical study with Norwegian patients.

Read about the supported projects at the Cancer Society's web pages (Norw.).

## Cancer research grant to PhD Candidate Christiane H. Gjerde



Christiane Helgestad Gjerde, PhD candidate in the Bjørge and McCormack groups, was awarded with the Kolbjørn Brambani Cancer Research Grant 2022 at the Onkologisk Forum meeting November 17.

The Kolbjørn Brambani Cancer Research Grant was awarded for the first time in 2017, and supports cancer research, often regarding cancers of children and young people. The grant is targeted towards young medical professionals during their PhD work or for continued research work after completion of their PhD.

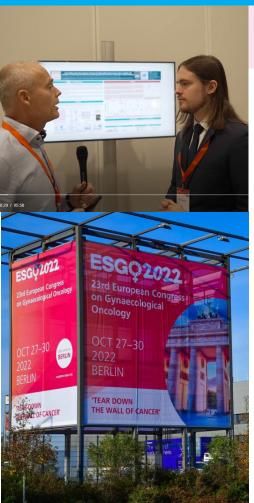
This year's grant of NOK 400 000 was split between two deserving candidates with NOK 200 000 each. Christiane is very happy and grateful to receive her part.

«This grant gives me the opportunity to extend my fellowship period," she explains. "Experimental work involving the collection of patient materials is time-consuming, and therefore I greatly appreciate this opportunity to fully complete my doctorate work," she says.

The aim of Christiane's project is to develop an organoid platform for EOC *in vitro* using peritoneal dECM scaffolds and establish this model *in vivo* in a xenograft mouse model. The group aims to establish a model that better represents the complex tumor microenvironment (TME) of EOC. The new models will have broad applicability and represent a platform to identify biomarker-enrichment strategies that permit improved patient selection when choosing therapy for HGSOC and other solid tumors.

Read more here.

## Strong Norwegian presence at ESGO 2022



The ESGO 2022 Meeting, recently hosted in Berlin October 27-30, is considered a major event in the field of gynecological cancers. CCBIO's relevant groups were present and contributed with presentations and discussions.

More than 2500 people participated at the <u>European Society of Gynaecological Oncology</u> (ESGO). The delegation from Norway was huge with attendance from Tromsø, Trondheim, Bergen, Stavanger, Kristiansand and Oslo, of these more than 15 working in Bergen.

Traditionally, ESGO has hosted a conference every second year. However this is now changing and since this year, 2022, this will be a yearly event. The meeting has an educational focus with a combination of state-of-the-art sessions, presentations av European treatment guidelines and training sessions. In addition, results from clinical trials and scientific projects are being presented. This year, the program set up by <a href="ENYGO">ENYGO</a> (European Network of Young GynaeOncologist) was included in the main programs, and many young fellow therefore had the opportunity to present to a larger audience. Young reserchers from CCBIO contributed with the posters:

- Kari S-W. Larsen: Impact of imaging- and pathology findings for stage migration and prognostication using the FIGO (2018) staging system in cervical cancer
- Christiane H. Gjerde: Establishment of peritoneal dECM scaffolds for 3D culture of ovarian cancer organoids (See <u>interview with HealthTalk</u>)
- Marta E. Hjelmeland: Targeting Androgen and Estrogen Receptor Signaling in Patient-derived Endometrial Cancer Organoids
- Luka Tandaric: Use of Mass Cytometry Analysis of Human Peripheral Blood Mononuclear Cells to Identify Cell Subsets for Monitoring Combined Immunotherapy with CD73 and PD-L1 Blockade in HGSOC Patients (See interview with HealthTalk)

Professor lain McNeish from the Imperial College London received this year's ESGO Helga Salvesen Award for the Best contribution in Translational research. Iain McNeish is invited to attend our CCBIO annual meeting in May 2023.

## **Coming CCBIO courses**

The coming spring term, CCBIO will run the courses CCBIO907, course in cancer-related vascular biology March 20-31, and CCBIO908, Scientific Writing and Communication Seminar May 22-23. Save the dates! Both these courses are part of the INTPART collaboration Bergen-Harvard Cancer Studies Phase 2: Continued Partnership for Responsible Education, Research and Innovation, with lecturers from the Harvard community.



### CCBIO907, course in cancer-related vascular biology

CCBIO907 is a 6 ECTS course covering topics such as basics of vascular biology, related therapeutic approaches, biomarkers in vascular biology - from discovery to clinical application, lymphangiogenesis and vascular biology in non-cancerous diseases. Participants attending this course will benefit from the knowledge of researchers who have been in the frontline of vascular biology research for decades, and who are experienced lecturers at Harvard Medical School, in addition to local experts.



When: March 20-31, 2023.

Program: Not yet available. See last time's program here. You might also be interested in reading an earlier news article about the course.

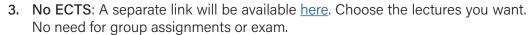
Where: Auditorium at campus Haukeland University Hospital, Bergen. In person.

**ECTS**: This is a 6 ECTS course at the University of Bergen. Academic responsible: Agnete Engelsen and Lars A. Akslen. **Option of 3 registration links:** 



With ECTS, already UiB student: register at Studentweb. Deadline is February 1, 2023. Opens December 12. Must attend all sessions + exam.

2. With ECTS, not a UiB student: register at Søknadsweb. Same deadline as above. Must attend all sessions + exam.





More information: at this website.



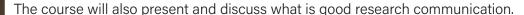
of Scientific Story Telling

#### **CCBIO908, Scientific Writing & Communication**

A new season with this popular course! The course aims to provide theoretical knowledge about various elements of scientific writing, give practical experience on text editing, and the tools to improve your scientific texts.

Learn how to:

- Organize ideas, results and messages in a scientific paper
- Improve titles and abstracts
- Present a clear problem statement
- Use punctuation, grammar and numbering in a scientific text
- Write an informative and convincing cover letter



When: May 22-23, 2023.

**Program:** Not yet available. See last time's program here.

Where: Auditorium at campus Haukeland University Hospital, Bergen. In person.

**ECTS**: This is a 2 ECTS course at the University of Bergen.

Academic responsible: Elisabeth Wik.

Option of 3 registration links:

- With ECTS, already UiB student: register at Studentweb. Deadline is February 1, 2023. Opens December 12. Must attend all sessions + exam.
- With ECTS, not a UiB student: register at Søknadsweb. Same deadline as above. Must attend all sessions + exam.
- No ECTS: A separate link will be available <a href="here">here</a>. Choose the lectures you want. No need for group assignments or exam.



More information: at this website.

## **Junior Scientist Symposium Dec. 8**



Welcome to the last CCBIO Junior Scientist Symposium for the fall term 2022! This seminar series is a perfect place to meet and interact with other young scientists. We anticipate that the discussions will be as lively and interesting as the October Symposium. Lunch is included!

We are very happy to announce that Professor Camilla Krakstad will give the keynote about her experiences with going abroad for research and give some early career advice. The program is varied and exiting, spanning from treatment strategies for AML patients, phenotypic profiling of young women with breast cancer, immune and microenvironmental responses to cell death in glioblastoma and what emotional eating and changes in dietary patterns may do to the mind.



Cornelia Schuster (left) from a previous CCBIO Junior Scientist organizer team has helped the new organizers get started. Thank you, Cornelia!

Where: Auditorium B302, Sentralblokken Haukeland University Hospital, 3rd floor.

When: December 8, 2022, 09:00-13:00

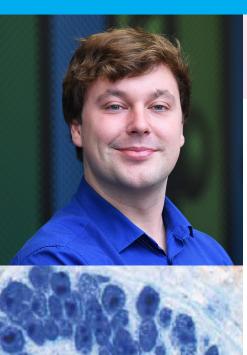
**Registration**: through this link. Please register within December 5 at 11.00 if you want to join the FREE LUNCH. If you don't need the lunch, you can register later. If you are a student: Also remember to sign up for the subject CCBIO901 in Studentweb when the system opens in mid December, if you haven't already.

Who: Open for all interested. No charge. Senior scientists are also welcome.

**Program**: See the <u>full program here</u>. Speakers are: Camilla Krakstad, Irini Ktoridou-Valen, Rasmus Humlevik, Ege Solel and Elaheh Javadi Arjmand.

**Organizers**: Mari Kyllesø Halle and Vladan Milosevic are coordinators of the junior seminars from the fall term of 2022, and are planning and chairing these meetings. Send them an e-mail if you have any questions.

## **Seminar with Tim Coorens**



The last CCBIO Seminar this term will be December 15 with speaker Tim Coorens from the Broad Institute of MIT and Harvard. He will give a talk on using somatic mutations to reconstruct the life histories of normal and cancer cells. Join us also for the informal pizza get-together in the hall following the talk!

**Speaker**: Tim Coorens, Broad Institute of MIT and Harvard

Title: Using somatic mutations to reconstruct the life histories of normal and

cancer cells

Host: Camilla Krakstad

**Where**: Auditorium 4, BB-building **When**: December 15, 2022 at 14.30-15.30

No registration necessary.

Tim's work focuses on the use of somatic mutations to reconstruct the developmental history of normal cells and cancers, including reconstructing patterns of early embryogenesis, tracing the origins of pediatric tumors, and inferring mechanisms of resistance in cancers. He completed his PhD at the Wellcome Sanger Institute, UK, under the auspices of Mike Stratton, Iñigo Martincorena and Sam Behjati. He is currently an EMBO Postdoctoral Fellow in Gaddy Getz's lab at the Broad Institute of MIT and Harvard.

In this seminar, Tim will discuss the surprising insights that his group has recently gained by using somatic mutations as natural lineage markers. Covering the timescale from early development to cancer evolution, he will present his findings on (1) patterns of embryogenesis in the human body and placenta, (2) early precursor clones to Wilms tumor, a childhood kidney cancer, and (3) a surprising case of lineage switch leukemia in response to CAR-T cell therapy.

Read the full abstract here.

## **Coming doctoral defense**



Cecilie Askeland defends Friday December 9 her doctoral dissertation "Biomarkers of aggressive breast cancer with emphasis on tumor-stroma crosstalk" at the UiB.

Supervisors: Lars A. Akslen, Elisabeth Wik and Ingunn Stefansson

Trial lecture: Friday December 9, 2022 at 10.15, topic: "Targeting the PI3K pathway in cancer"

Defense: Friday December 9, 2022 at 12.15

**Place for both events**: Auditorium 4, BB building, Jonas Lies vei 91 **Committee**: Karin Jirström, Lund; Ben Davidson, Oslo; Helge Wiig, Bergen.

The defense will be led by Associate Professor Lars Helgeland.

Read more here.

## Relevant calls for funding



Here is an overview of the upcoming deadlines for funding, relevant to our CCBIO students and researchers. For more details, please check the links below and find more at the Medical Faculty's page on <a href="External funding opportunities"><u>External funding opportunities</u></a>.

#### **Horizon Europe**

Don't know where to start? Have a look at the upcoming workshop organized by FIA:

- How to write competitive proposals for the ERC Consolidator and Advanced Grants | Støtte til eksternfinansierte prosjekter (BOA) | UiB
- ERC 2023

<u>Consolidator Grant</u>: Deadline February 2, 2023 <u>Advanced Grant</u>: Deadline May 23, 2023

- Missions in Horizon Europe Conquering cancer
   Next deadline is in Spring 2023.
- Erasmus+: Project establishment support (PESstøtte) for the development of applications under the centralized initiatives in Erasmus+. More information here.

#### **Research Council of Norway**

There will be no FRIPRO call in the February 2023 call, but we expect it to be announced before the summer 2023 with funding allocated for start in 2024.

- Deadline Nov 16, 2022: Researcher Project for Technological Convergence Related to Enabling Technologies (forskningsradet.no)
- Deadline Feb 8, 2023: Researcher Project for Scientific Renewal (Thematic Priority Call) (forskningsradet.no)
   Health: 60MNOK for project within "women's
  - Health: 60MNOK for project within "womens health" (text may change until Dec 14th)
- For a full overview: <u>Current calls for proposals</u> apply for funding (forskningsradet.no)

#### **UiB**

- Stays abroad for PhDs and postdocs at the Medical Faculty: next deadline is in March. <u>More info here.</u>
- Fond og legater: UiB is building a new database and application system. Therefore the deadline is delayed to *January 2023*. System will open Jan 2nd, and deadline will be before end of January (exact date TBC).
- **Meltzer Prize nominations:** due December 15th, 2022. Two prizes: young researcher and research dissemination. More information about the guidelines Retningslinjer for forskningsprisene | Meltzer (uib.no)

#### Individual fellowships and personal grants

 EMBO: personal fellowships and career grants, open year-round. More information here.

### Innovation grants from the Norwegian Research Council

- Qualification Research Commercialisation from Publicly Funded Research – Commercialisation Project 2022. Open-ended, 3-12 months, 200-500 000 NOK.
- <u>Proof-of-Concept</u> Research Commercialisation from Publicly Funded Research – Commercialisation Project 2022. Open-ended, 12-36 months, 1-5 MNOK.

**DAM Foundation**: Research program opens Nov 15, with a deadline Feb 15 2023.

## **Trond Mohn Foundation** – <u>Trustworthy Al</u>: Deadline January 10, 2023

- Step 1: Research projects: call for and select a limited number of research projects to be nominated to the TMS Trustworthy AI – call (maximum 18 MNOK)
- Step 2: Overarching coordination project: When the awarding projects has been decided by TMS, the UiB-Al steering group and the project Pls jointly, is invited to propose an overarching coordination project to facilitate common activities, common communication initiatives, and collaboration between the funded projects (maximum 2 MNOK)

#### **Research Advisor**

For more info and advice on grants and applications, contact our Research Advisor at CCBIO, Yamila Torres Cleuren (Yamila.cleuren@uib.no).



Yamila can among other discuss relevant calls with you, guide your proposal design, review you proposals for national and international funding sources, from draft to submission stage, and provide information about and advice on implementation of cross-cutting issues into your project (gender perspective, user involvement, innovation, RRI, etc).

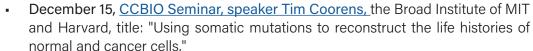
## **Coming CCBIO events**



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.



- Nov. 30 Dec. 2., CCBIONeur910 course Patient and Public Involvement in Medical and Health Research.
- December 8, CCBIO Junior Scientist Symposium
- December 9, Doctoral defense for Cecilie Askeland.





- March 20-31, 2023 for CCBIO907, course in cancer-related vascular biology, in the CCBIO/Harvard INTPART collaboration. Open for all.
- May 8-10, 2023 for next year's CCBIO Annual Symposium, also this time at Solstrand Hotel, outside of Bergen.
- May 22-23, 2023 for CCBIO908, the Scientific Writing and Communication Seminar 2023. We are repeating the success from earlier years, in the CCBIO/ Harvard INTPART collaboration. Open for all.



## Other relevant coming events

Events from collaboration partners and other relevant events.



- Did you miss the webinar: Treatment approaches for elderly/unfit patients with AML in the Nordic countries? You can still make it! The webinar can be viewed when you want on this link.
- December 1, BBB seminar with Markus Miettinen, High-fidelity biomolecular modelling, Bergen
- December 5-6, <u>Software Carpentry course in research computing skills: Shell, R for reproducible analysis, Git</u>, by the Centre for Digital Life Norway. This course will provide researchers with computational tools to address their research questions in new or more efficient and reproducible ways. The course is aimed at novices and no previous programming knowledge is required.
- December 7-8, the 7th Annual Nordic American Life Science Conference, in person in New York, video recap available post event.



## **Publications**

You can find the CCBIO publications on this pubmed link. See the most recent 5 below.

- Sofiyeva N, Krakstad C, Halle MK, O'Mara TA, Romundstad P, Hveem K, Vatten L, Lønning PE, Gansmo LB, Knappskog S. APOBEC3A/B deletion polymorphism and endometrial cancer risk. Cancer Med. 2022 Nov 16. doi: 10.1002/cam4.5448. Online ahead of print. PMID: 36394079
- Tettero JM, Al-Badri WKW, Ngai LL, Bachas C, Breems DA, van Elssen CHMJ, Fischer T, Gjertsen BT, van Gorkom GNY, Gradowska P, Greuter MJE, Griskevicius L, Juliusson G, Maertens J, Manz MG, Pabst T, Passweg J, Porkka K, Löwenberg B, Ossenkoppele GJ, Janssen JJWM, Cloos J. Concordance in measurable residual disease result after first and second induction cycle in acute myeloid leukemia: An outcome- and cost-analysis. Front Oncol. 2022 Oct 10;12:999822. doi: 10.3389/ fonc.2022.999822. eCollection 2022. PMID: 36300090
- Chakravarthy A et al (incl. Halle MK, Krakstad C, Salvesen H.) Integrated analysis of cervical squamous cell carcinoma cohorts from three continents reveals

- conserved subtypes of prognostic significance. Nat Commun. 2022 Oct 7;13(1):5818. doi: 10.1038/s41467-022-33544-x, PMID: 36207323
- Gaafar NM, Osman TA, Elsheikh M, Ahmed IA, Dongre H, Fromreide S, Suleiman AM, Johannessen AC, Nginamau ES, Costea DE. Epithelial PD-L1 expression at tumor front predicts overall survival in a cohort of oral squamous cell carcinomas from Sudan. Clin Exp Dent Res. 2022 Sep 30. doi: 10.1002/cre2.666. Online ahead of print. PMID: 36177667
- Kang J, Cairns J. "Don't Think Twice, It's All Right": Using Additional Data to Reduce Uncertainty Regarding Oncologic Drugs Provided Through Managed Access Agreements in England. Pharmacoecon Open. 2022 Sep 20. doi: 10.1007/s41669-022-00369-9. Online ahead of print. PMID: 36123583

## **Recent CCBIO in the media**

Recent media appearances by CCBIO PIs and group members. For all media hits, see CCBIO's web pages.

- 12.11.22, Khrono, "Til vanleg forskar han på brystkreft. Men onsdag kveld er det oboen som er i fokus", Manuel Carrasco.
- 04.11.22. Dagbladet, "Fikk skrekkbeskjed: Trodde det var covid", Bjørn Tore Gjertsen.
- 02.11.22, Kreftforeningen.no, "186 millioner til livsviktig forskning", Jim Lorens.
- 31.10.22, Health Talk, "Hun utvikler miniversjoner av bukhinnen for å bedre forstå hvordan eggstokkreft utvikler seg og kan behandles", Christiane Helgestad Gjerde.
- 29.10.22, Health Talk, "Fant ulik immunrespons hos pasienter med eggstokkreft som ble behandlet med to immunterapier", Luka Tandaric.
- 27.10.22, Health Talk, "ESGO 2022: PARP hemmere er det største medisinske gjennombruddet de siste 30 årene nå kommer også immunterapi", Line Bjørge.
- 24.10.22, Norske Kvinners Sanitetsforening, "3D-printer mini-svulster for å finne medisin mot vulvakreft", Rammah Mustafa Elnour, Harsh Dongre, Rezan Erman.
- 13.10.22, NRK TV, "Holbergsamtalen 2022", Roger Strand.
- 26.09.22, UiB News, "Two new Centres of Excellence to the University of Bergen", Ole Frithjof Norheim.

#### **Programs and Research Teams**

#### **Mechanisms of Tumor Micro**environment Interactions:

- Donald Gullberg Karl-Henning Kalland Emmet McCormack

#### 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 John Cairns Ole Frithjof Norheim

#### Additional resources. **Bioinformatics and Big Data**

IngeJonassen

## Strategic Advice Rolf Reed

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