



Centre for  
Cancer Biomarkers



The Research Council of Norway



# CCBIO Newsletter

[www.ccbio.no](http://www.ccbio.no)

ISSUE NO 2, VOL 9, JUNE 8, 2022

## DIRECTOR'S COMMENTS

Dear all

It was great to be back at Solstrand and the 10th CCBIO Annual Symposium – finally! This was a real “get-back” moment for the CCBIO family - such good vibrations and a lot of energy. The program was inspiring for all – starting out with the amazing story of Bob Langer. Read more in this newsletter and on the website.

Congratulations to many of you for grants – in particular Emmet McCormack (EIC Pathfinder Grant) and Bjørn Tore Gjertsen (KLINBEFORSK). And to Heidrun Vethe and Katrin Kleinmanns for receiving support from the Meltzer Research Fund. Congratulations also to our new PhDs for having defended their work, and welcome to some new faces!

Two important seminars will be given the next few days, and I encourage all of you to be present. On Friday (June 10), a CCBIO Special Seminar with this year's Holberg Laureate, Sheila Jasanoff (Harvard University), and Stephen Hillgartner (Cornell University), will be given, titled Can science make sense of life? Do not miss this unique opportunity! On Monday (June 13), Torsten Nielsen (University of British Columbia) will give the CCBIO Research Seminar titled Breast Cancer Biomarker Development: Intrinsic Subtypes, Ki67 and Proteomics, as part of the monthly research seminar series at CCBIO.

The CCBIO Masterclass Program in mentoring and career development, coordinated by Yamila Cleuren, was completed for the first class by a two-day seminar a few weeks ago. During several half-day sessions, 8 candidates have been taught and trained in various topics. The sessions have been perceived as very successful by the candidates. As a final opportunity, the candidates had a very rewarding “class session” with Bob Langer during the CCBIO symposium. A second cycle is now being prepared for the coming year.

Please also read about lung cancer research at CCBIO (Agnete Engelsen) and biomarker studies in the McCormack group. Information on upcoming courses and events, and grant opportunities, can be found inside.

Best regards, Lars A. Akslen, Director

***Capturing cancer complexity  
and clinical challenges***



# Full house at long-awaited onsite CCBIO Symposium



The 10th CCBIO Annual Symposium took place at Solstrand Hotel May 10 and 11, 2022, finally as an onsite event, attracting about 200 onsite and 60 online, as the symposium was offered as a hybrid solution. The symposium was very coloured by the high spirits of the onsite participants, finally able to meet again in-person.

The symposium started off strong with a highly inspirational keynote talk by Robert S. Langer, founder of Moderna and considered the "Edison of Medicine". Langer shared his vast experience from a young scientist, through his first paper and first talk, the mentorship of Dr. Judah Folkman, the startup of his first company, overcoming skepticism and barriers and achieving great successes.



We had a broad program with scientific updates from our nordic and international colleagues, on topics such as real-time functional precision cancer medicine in acute myeloid leukemia, on pancreatic cancer, breast cancer, cancer surgery, the CAR repertoire, targetable dependencies of latent brain metastatic cells, restoring sensitivity to immune checkpoint blockade through inhibition of AXL, some of the most widely used ex vivo tumor models including patient-derived organoids and explants, tissue-engineered models, and organ-on-chip approaches, as well as the challenges of head and neck cancer.

Roger Strand chaired a panel debate on the topics of the new book *Precision Oncology and Cancer Biomarkers: Issues at Stake and Matters of Concern* from the CCBIO ELSA team, which provided a slide-free session with thought-provoking arguments and open discussion.



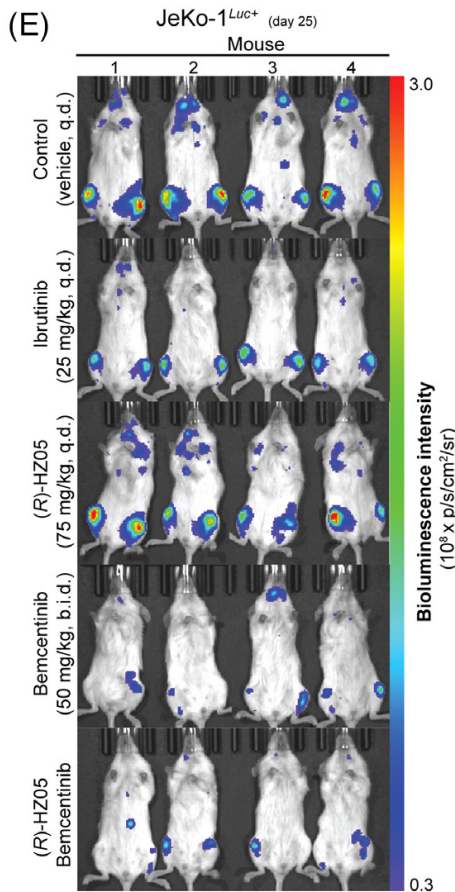
The program gave ample time for young researchers through 3-minute speed talks, a format that proved successful in last year's digital version of the symposium and now continued both live and online, and a poster session each day, with a total of 14 speed talks and 49 posters.

Read all about it [in this article](#).





# New biomarker as target for therapy



The McCormack group has recently published an article in *EJHaem* on a new biomarker – up-regulation of DHODH in lymphoma – that is also a target for therapy. Title is *Dihydroorotate dehydrogenase inhibition acts synergistically with tyrosine kinase inhibitors to induce apoptosis of mantle cell lymphoma cells*.

Mantle cell lymphoma (MCL) is a non-Hodgkin lymphoma that remains incurable with the treatment options available today. In this study, the team has identified the dihydroorotate dehydrogenase (DHODH), an essential enzyme for the de novo biosynthesis of pyrimidine-based nucleotides, to be overexpressed in MCL in comparison to healthy peripheral blood mononuclear cells (PBMC).

*In vitro* inhibition of the DHODH activity using a newly developed DHODH inhibitor, namely (R)-HZ05, can induce MCL cell death in the nanomolar range independently of the P53 status of the investigated cell lines. Moreover, the combination of (R)-HZ05 with tyrosine kinase inhibitor shows the synergistic activity on cell death.

Preclinical investigation on the efficacy of (R)-HZ05 shows that animal lifespan can be prolonged, similar to the use of ibrutinib. (R)-HZ05 used in combination with tyrosine kinase inhibitor demonstrated a superior efficacy on tumor burden reduction and survival compared to either drug used alone.

The team has demonstrated that the depletion of the pyrimidine nucleotide pool, using DHODH inhibitor, represents a new therapeutic strategy that may benefit MCL patients.

[See the article here.](#)

## The Norwegian Lung Cancer Association on a visit to CCBIO ex vivo facilities



A particularly important analysis tool for this project is the Hyperion Imaging Mass Cytometry platform that allows the researchers to study the how the cancer cell-immune cell landscape of the human cancer tissue explants are altered by the experimental therapeutic interventions. Photo by Jørn Skavland.



The cancer tissues are being cultured at the air-liquid interface to preserve cancer cells and immune cells. PhD student Camilla Ekanger and supervisor Agnete Engelsen are excited about the possibilities the novel models provide for drug functional testing ex vivo. Photo by Ning Lu.

The Norwegian Lung Cancer Association visited CCBIO laboratories at the Department of Biomedicine to explore explant models of non-small cell lung cancer are particularly useful for evaluating cancer cell- immune cell interactions upon therapeutic interventions being developed here.

The Norwegian Lung Cancer Association was shown how the cultures are being maintained, treated with novel immunotherapy combinations and later analyzed by the new imaging mass cytometry platform to evaluate how the therapy changes the cancer cell-immune cell interactions of the explant tissues.

Agnete Engelsen is the leader of this project, and together with PhD student Camilla Ekanger and master students, she has established the ALI-PDE platform for functional testing of immunotherapies in tumor explants in Bergen with the support of collaborators at Harvard Medical School and Dana Farber Cancer Institute (Boston, MA). The implementation of the project in Bergen leverages a recently established collaboration between the project manager and the thoracic oncologists Fabian Gärtner and Marianne Aanerud (FG and MA) at Haukeland University Hospital (HUS), responsible for the clinical patient recruitment and follow-up. The thoracic surgeon Pirjo Riitta Salminen (PRS) and pathologists Lars A. Akslen (LAA) and Maria Ramnefjell (MR) at HUS are responsible for securing the integrity of the surgical specimens, and the clinicopathological description of the specimens.

The news story to be published in The Norwegian Lung Cancer Association's magazine PUST is now [available online](#).

# EIC Pathfinder grant to innovative project in the McCormack group



The EIC Pathfinder program supports the exploration of bold ideas for radically new technologies. It welcomes the high-risk / high gain and interdisciplinary cutting-edge science collaborations that underpin technological breakthroughs.

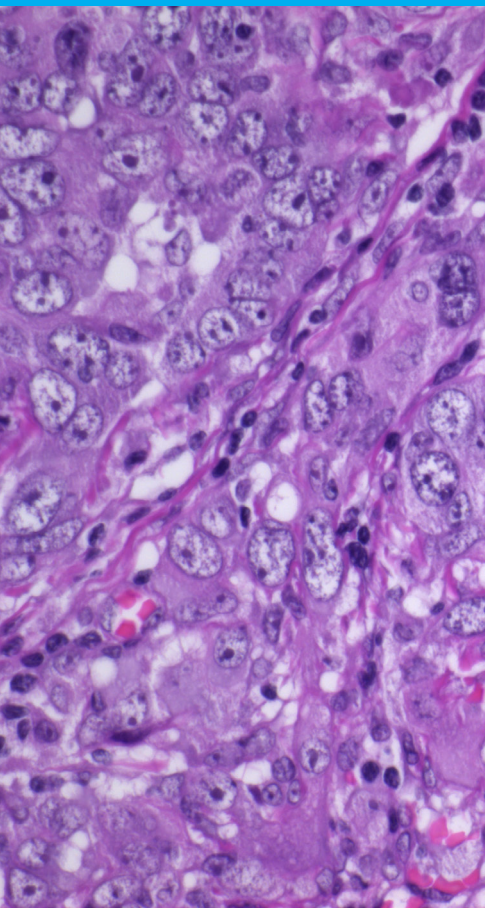
Pathfinder goes beyond what is already known. Visionary thinking can open up promising avenues towards powerful new technologies.

Emmet McCormack receives 352.000 Euros from the [EIC Pathfinder program](#) for the project *CoDaFlight* (Colouring the Dark in Fluorescence light). The radical vision of CoDaFlight is the development of a next-generation imaging platform capable of revealing in real-time new and more accurate information related to a patient's body and its diseases through an innovative time-domain fluorescence imaging (tdFLI) technology.

This novel, breakthrough technology is expected to find in first instance broad applicability during medical surgery, where it will influence intraoperative decision-making on a per patient basis. The consortium encompasses unique, complementary and multidisciplinary expertise, by bringing electronic and biomedical engineers, physicists, chemists, medical scientists and medical doctors together. In a multidisciplinary, holistic approach they allow both parallel and integrated research progression, on semiconductor image sensors, mathematical algorithms, fluorescent dyes, and biological proof of concepts under medical guidance. The objectives of CoDaFlight are to develop the technological foundations that are needed to enable real-time in vivo tdFLI in medical practice and to integrate these foundations into a complete working imaging system. CoDaFlight will demonstrate and disseminate the capabilities and potentials of this novel technology through real in vivo proof-of-concepts with the goal to facilitate technology acceptance by end-users and uptake in new markets and applications.

Partners: Vrije Universiteit Brussel, Belgium, Communauté D'Universités et d'Établissements Université de Bourgogne - Franche-Comté, Idryma Technologias Kai Erevnas EL, Universitetet i Bergen NO, Universitätsmedizin Göttingen - Georg-August-Universität DE Göttingen - Stiftung Öffentlichen Rechts.

# Funding from the KLINBEFORSK program to AML project in the Gjertsen group



Bjørn Tore Gjertsen receives NOK 19 991 000 from the regional health authorities' joint program for clinical therapy research (KLINBEFORSK) for the project *Clinical evaluation of CD37 CAR T for acute myeloid leukaemia*.

Five projects rooted in all Norwegian regional health authorities have been awarded a total of 100 million from the KLINBEFORSK program. The decision on allocation was made in a meeting between the CEOs of the regional health authorities on May 23, 2022. [Read more here](#).

The background for the project *Clinical evaluation of CD37 CAR T for acute myeloid leukaemia* is that there are more than 150 new cases of acute myeloid leukaemia (AML) each year in Norway with less than 20% survival at 5 years, mostly due to relapse of disease. Cellular immunotherapy through allogeneic hematopoietic stem cell transplantation is highly effective to avoid relapse but is limited by adverse effects.

This project will concern the first Norwegian designed and produced Chimeric Antigen Receptor (CAR) T cell therapy, employing a unique target that reduces anticipated adverse effects. The group's preclinical evidence of the CD37CAR, the cell production pipeline and extensive experience in cell therapy trials is the foundation for a phase I first-in-man dose finding study of CD37CAR of 8 patients: Patients in first complete remission, CD37+ measurable residual disease.

Congratulations to the team!



# Support from the Meltzer Research Fund



L. MELTZERS HØYSKOLEFOND

Two of the CCBIO postdocs, Heidrun Vethe and Katrin Kleinmanns, was this year awarded with grants from the Meltzer Research Fund. Congratulations!

The purpose of [the Meltzer Research Fund](#) is to promote the academic activities of the University of Bergen and to support especially gifted candidates at the University. Grants can also be awarded to applicants from other Norwegian universities and specialized university institutions (vitenskapelige høyskoler).

Katrin Kleinmanns got the funding for the genetic profiling of ovarian cancer patient-derived mouse models for evaluation of immunotherapies. She aims to perform genomic profiling and assess copy number variation of five well-established and phenotypically characterized patient-derived xenograft models (PDX), to establish a reliable platform for the validation of novel therapies in ovarian cancer.

Heidrun Vethe is very grateful for the grant which will help her analyse and interpret proteomics data for studying the interactions between breast cancer cells and other cell types of the tumor microenvironment, especially nerve fiber elements. This grant will finance user-friendly software for both PhD students and researchers.



## Organizer shift for the Junior Scientist Symposia

It's time for a generation shift in organizers for the CCBIO Junior Scientist Symposia (JUSS). Great thanks to the previous organizers!

The most recent organizers Maria Lie Lotsberg and Hanna Dillekås have now completed their agreed terms. Maria had her last day at the UiB May 31st, moving on to an exciting new job in Haugesund. Great thanks to both for perfect execution of the symposia! Earlier, the JUSS have had equally great organizing by Cornelia Schuster (2019-2021), Kenneth Finne (2018-2020), Liv Cecilie Vestheim Thomsen (2017-2019), Erling Høivik (2016-2018), Reidunn Jetne Edelmann (2018), Agnete Engelsen (2015-2017), Camilla Krakstad (2014-2015) and Elisabeth Wik (2014-2016).

From the fall term, Vladan Milosevic, Mari Halle and Cornelia Schuster will be coordinators for the CCBIO Junior Scientist Symposia.



Thank you to Maria and Hannal!  
Photo by Agnete Engelsen.

## Coming CCBIO course: CCBIO905

Next course up is CCBIO905, Methods in Cancer Biomarker Research, in September. Note that the registration deadline for CCBIO905 is **August 1**.

All CCBIO courses are open for all interested, not only students.

[CCBIO905 Methods in Cancer Biomarker Research](#), September 27-29, 2022.

This 5 ECTS course has focus on the full panel of advanced and standard methods with relevance for cancer biomarkers. The intention is a methodological course that also includes components of ethics and economy. The thematic parts include methods ranging from basic techniques on nucleotides and proteins to more advanced approaches, as well as bioinformatics and biobanking.

The course will focus on methods to study tissue samples, blood samples, urin samples, and other biologic materials, like immunohistochemistry, in situ hybridization, PCR-techniques and sequencing, Western blot and ELISA, microarray methods, proteomics, circulating tumor cells and DNA, flow cytometry, bioinformatics and biobanks. Changes in nucleic acids and proteins in different settings will be covered.

Lars A. Akslen and Agnete Engelsen have the academic responsibility and Ingeborg Winge is the course coordinator.

When: September 27-29, 2022.

Where: Online on a digital platform. Access links will be sent to those registered.

Note the several options for registration:

- With ECTS: For those who attend the complete course, incl. group assignments, and be eligible for the ECTS: Register in [Studentweb](#) (those already registered as UiB student) or [Søknadsweb](#) (for guest student status). Deadline August 1.
- No ECTS: For those who are only interested in the lectures and want to hop in and out as they please (will not get ECTS): [Use this link](#).

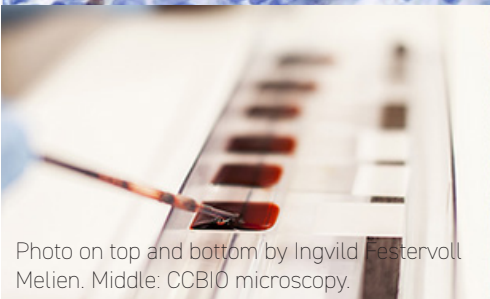
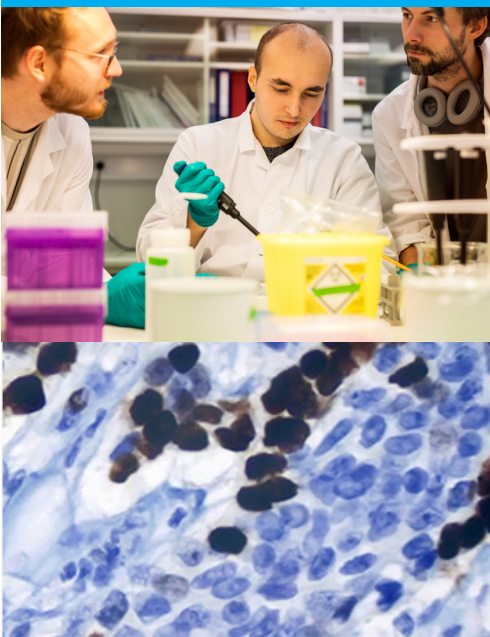


Photo on top and bottom by Ingvild Festervoll Melien. Middle: CCBIO microscopy.



# Coming CCBIO course: CCBIONEUR910

[CCBIONeur910](#) focuses on Patient and Public Involvement in Medical and Health Research, and runs this year Nov. 30 - Dec. 2.

Note that the ECTS providing registration deadline is **August 1**.

The course aims to inspire increased user participation in research trials and will present methods on how to involve user representatives. This is highly relevant to all biomedical research fields, and Patient and Public Involvement is documented to positively impact the relevance and efficacy in medical research. The main objective of the course is to develop the participants' capacity to assess and convey the value of patient and public involvement in general, as well as promoting productive user involvement in their own research projects.

Nina Jebsen (CCBIO), Kjell-Morten Myhr (Neuro-SysMed) and Tone Skår (Neuro-SysMed and VIS) are academic responsible for the course, which is a collaboration between CCBIO and Neuro-SysMed. Administrative coordinators are Pål Tore Bentsen from CCBIO and Hilde Norborg from Neuro-SysMed.

The course spans over 3 days (Nov. 30 - Dec. 2, 2022), and will combine plenary discussions and group sessions involving user representatives and patient organizations, with presentations from national and international lecturers.

The primary language will be Norwegian, in order to facilitate communication with the patient representatives. Program is not yet available, but you can see last year's program [here](#) for reference.

**When:** November 30 - December 2, 2022

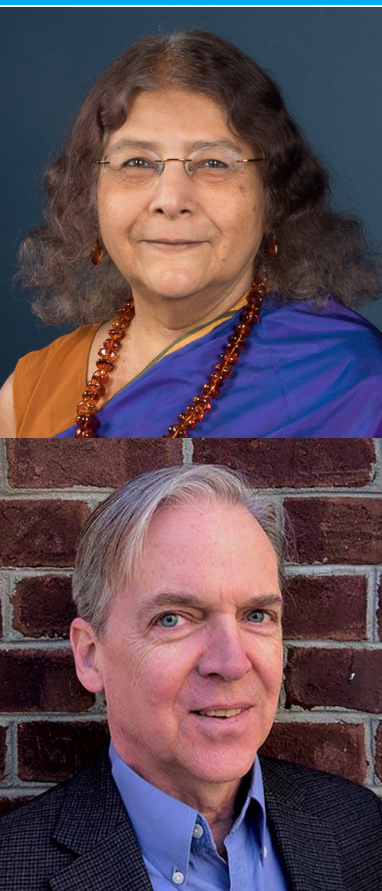
**Where:** Auditorium at campus Haukeland University Hospital.

**Note the several options for registration:**

- Please register in Studentweb if you are already enrolled at the UiB. If you are not enrolled at the UiB, you register through Søknadsweb, where you simultaneously apply for UiB guest student status (also deadline August 1).
- Available for non-ECTS participation for a limited number of patient representatives. The user organizations will receive an invite.



## Can science make sense of life?



Meet the 2022 Holberg Laureate, Sheila Jasanoff (Harvard University) in conversation with Stephen Hilgartner (Cornell University). Jasanoff and Hilgartner are internationally leading scholars in Science and Technology Studies (STS) and have done extensive research on the social dimensions and politics of biomedicine and biotechnology (among other fields).

This is the first time the Medical Faculty has the opportunity to welcome a Holberg prize winner, so use this opportunity to gain new insights on your research!

**There will be coffee/tea before the seminar and light food and beverages afterwards.**

Learn what STS is and what insights it has to offer to medical and health researchers and practitioners. And, to allude to the title of Prof. Jasanoff's latest book, what is the answer to the question "Can science make sense of life?"

If you wish to know more about Jasanoff's work, one place to start is her much-cited one-page piece in Nature in 2007, "[Technologies of Humility](#)".

For those who read Norwegian, CCBIO PI Roger Strand published an op ed piece about Jasanoff's work [in Aftenposten](#).

This event will focus on the social dimensions and politics of biomedicine and biotechnology, with the arguably two highest authorities in the field.

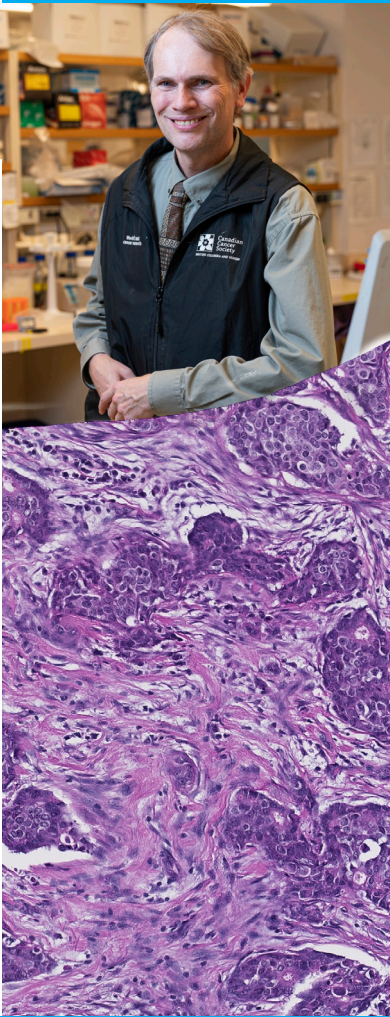
**Time and place:** Friday June 10 at 09.30-10.15 in Store Auditorium, sentralblokken.

**Chair:** Roger Strand.

No registration necessary. [Read more here](#).



# CCBIO Seminar with Torsten O. Nielsen



Join us for the last CCBIO Seminar for this term, with speaker [Torsten O. Nielsen](#), Professor of Pathology & Laboratory Medicine, Faculty of Medicine, University of British Columbia, Canada. Title: Breast Cancer Biomarker Development: Intrinsic Subtypes, Ki67 and Proteomics.

Join us also in the informal pizza get-together after the talk!

Professor Nielsen is a clinician-scientist pathologist who has chosen to dedicate his career to translating basic science of cancer into new diagnostics and new therapies. His research has to date has focused on breast cancer and sarcomas. He provides pathology input into translational cancer research, bringing his skills in genomics and biomarker development into clinical trial design and the development of diagnostics that truly improve patient care.

Prof. Nielsen will discuss how some of the world's earliest cancer transcriptomics experiments, through a series of subsequent validation and functional studies, were systemically translated into new diagnostic tools and therapeutic strategies in cancer. In particular, he will tell the story behind breast cancer intrinsic subtyping and the development of the PAM50 classifier, its conversion into a nanoString-based diagnostic, and how this since has been applied to clinical trials to develop predictive markers for breast cancer, including new data on triple negative subtyping and capecitabine benefit. As one of the leaders of the International Ki67 Working Group, Prof. Nielsen will also describe current evidence and recommendations for Ki67 assessment in breast cancer, showing new results being presented at ASCO 2022 from a prospective clinical trial using this marker to guide the need for adjuvant radiation therapy. Finally, he will present very recently-published work on applying proteomics technologies to formalin-fixed breast cancer surgical specimens and how this new technology contributes to the molecular classification of breast cancer.

**Time and place:** Monday June 13 at 13.00-14.00 in the auditorium in Armauer Hansens Hus, Haukelandsveien 28, Bergen.

**Chair:** Lars A. Akslen

No registration necessary. [Read more here.](#)

## New faces



Welcome to the following new faces in the CCBIO family!

**Denise Kummer** is a biochemistry master student from the University of Leipzig, Germany. She will be with the Costea group for 6 months and work closely with research line student Diana Siyam and postoc Harsh Dongre on the project entitled 'Role of fibroblasts in head and neck cancer metastasis' using mouse models and 3D in vitro models to understand the contribution of fibroblasts to the metastasis process in head and neck cancers.



**Imane El-Herch** is a master student in cancerology at the Institut des Sciences Pharmaceutiques et Biologiques – Faculty of Lyon. She is now doing her internship of 6 months in the Costea group as part of the [Argus European University Alliance](#). Her project is related to the CCBIO PhD project of Stian Tornaas and is focusing on 'Establishing in vitro 3D multicellular models of head and neck cancer for clinical trials in a dish'.



**Kristin Watnedal Olsen** is a new master student from Medical Technology at the Department of Chemistry, connected to the group of Bjørn Tore Gjertsen. She is working on the project "Antibody-antigen binding kinetics in multiplexed epitope-competition assays and influence of cell numbers on the accuracy of population derived statistics." She is going to perform quantitative analysis of antibody-antigen binding kinetics, and determine a lower limit number of single cells that preserve accuracy in summary statistics and biological understanding using mass cytometry. Kristin started part-time in January 2022 and will finish in June 2023. Main supervisor is Svein Are Mjøs, and co-supervisors are Stein-Erik Gullaksen and Bjørn Tore Gjertsen.

Kristin – as can be seen from the photo – was awarded with a speed talk prize at the recent CCBIO Annual Symposium at Solstrand.

# Recent doctoral defenses

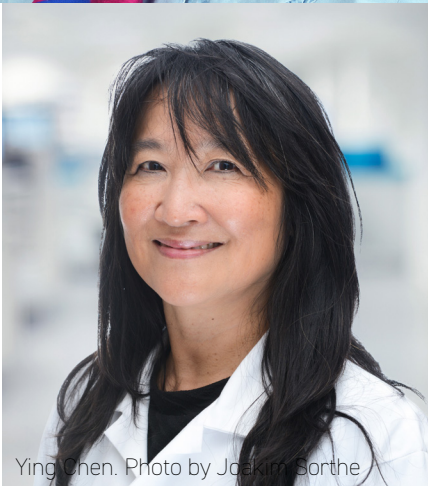


Nuha Mohammed Gaafar Mohammed defended Friday March 25, 2022 her doctoral dissertation "Prognostic biomarkers and tumour immune microenvironment characterization in oral squamous cell carcinoma" at the University of Bergen.

Nuha did her work at the Department of Clinical Science and CCBIO, with main supervisor Professor Daniela Elena Costea and co-supervisors Professor Anne Chr. Johannessen, PhD Elisabeth Sivy Nginamau and Senior Researcher Tarig Osman.

Her PhD project focused on prognostic biomarkers in oral squamous cell carcinoma patients with specific focus on the inflammatory host reaction and its correlation to survival of oral squamous cell carcinoma patients from Sudan.

See the the [press release](#) (in Norwegian).



Ying Chen defended Friday April 8, 2022 her doctoral dissertation "The tumor microenvironment in breast cancer A study of stromal elastosis, tumor immune cells, vascular invasion, and the relation to detection mode" at the University of Bergen.

Ying did her work at the Department of Clinical Medicine and CCBIO, with main supervisor Professor Lars A. Akslen and co-supervisors Associate Professor Elisabeth Wik and PhD Tor Audun Klingen.

Her PhD project focused on breast cancer stroma and aims to identify the interplay between tumor-infiltrating lymphocytes, vascular invasion and stromal elastosis.

See the the [press release](#) (in Norwegian).



Hege Fredriksen Berg defended Friday April 22, 2022 her doctoral dissertation "Organoid models and novel biomarkers for improved treatment of endometrial cancer" at the University of Bergen.

Hege did her PhD work at the Department of Clinical Science and CCBIO, with main supervisor Professor Camilla Krakstad and co-supervisor PhD Erling Høivik.

Dissertation title: "Organoid models and novel biomarkers for improved treatment of endometrial cancer"

See the [press release](#) (in Norwegian).

# Coming doctoral defense



Ridhima Das defends Thursday June 16, 2022 her doctoral dissertation "Novel Methods and Sources for Regeneration of Oral Mucosa" at the University of Bergen.

Ridhima has done her PhD work at the Department of Clinical Science and CCBIO, with main supervisor Professor Daniela Elena Costea and co-supervisors Professor Anne Christine Johannessen, Professor Mihaela-Roxana Cimpan and Researcher Salwa Suliman.

**Trial lecture:** Thursday June 16, 2022 at 09.15 in Olavssalen, the old main building, Jonas Lies vei 65. Topic: "Tissue-engineered skin: Clinical applications and challenges"

**Doctoral defense:** Thursday June 16, 2022 at 11.15 in Olavssalen, the old main building, Jonas Lies vei 65. Dissertation title: "Novel Methods and Sources for Regeneration of Oral Mucosa".

Open to the public. [Read more here](#). See also the [press release](#).



# First completed Masterclass

The CCBIO Masterclass Program in mentoring and career development, coordinated by Yamila Cleuren, is now completed for the first class. The candidates had a very rewarding final "class session" with Bob Langer during the CCBIO symposium. Congratulations to the eight participants!

The aim of the CCBIO Masterclass training program is to prepare selected up-and-coming post-PhD researchers for a successful transition to their next career step, namely establishing independent research profiles, funding portfolios and their own research groups. The first class consisted of Harsh Dongre, Agnete Engelsen, Mari Kylesø Halle, Dimitrios Kleftogiannis, Katrin Kleimanns, Carina Strell, Liv Cecilie Vestrheim Thomsen and Heidrun Vethe. Read more in the [CCBIO Annual Report](#). CCBIO aims to continue its Masterclass program with a new class starting in the fall term of 2022.



Some of the Masterclass candidates together with Bob Langer and the CCBIO Director at Solstrand. From the left: Agnete Engelsen, Heidrun Vethe, Mari Halle, Liv Cecilie Thomsen, Bob Langer, Iars A. Akslen, Katrin Kleinmanns and Harsh Dongre. Photo by Yves Aubert.

## 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 [External funding opportunities](#).

### Horizon Europe

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

- May 31st : [Horizon Europe and Beyond - a tool to navigate the EU landscape](#) (uib.no)
- June 17th: [Preparing for your next Horizon Europe proposal | Støtte til eksterntfinansierte prosjekter \(BOA\) | UiB](#)

### ERC 2023

- [Starting Grant](#): October 25th, 2022
- [Consolidator Grant](#): February 2nd, 2023
- [Advanced Grant](#): May 23rd, 2023
- [Synergy Grant](#): November 8th, 2022

### Marie Skłodowska-Curie Actions (MSCA)

- [MSCA Postdoctoral fellowships](#): September 14th, 2022
- [Doctoral Networks](#): November 15th, 2022

### Missions in Horizon Europe – [Conquering cancer](#)

- We have been requesting input to shape the upcoming calls – this is key in making sure our interests are included. With your help, we will continue our efforts.
- Next upcoming deadline is September 2022, with more in Spring 2023.

### Diku

- Erasmus+: project establishment support for the development of applications for centralized information in Erasmus+. [More information here](#).

### Helse Vest

- Yearly deadline expected on September 15th, 2022. More information soon.

- Expected categories: PhD fellowships, postdoctoral/researcher fellowships, clinical career fellowships, clinical researcher fellowships, short-term projects, and open project support.

### UiB

- Erasmus+ employee mobility: deadline August 20th, 2022. [More information here](#).
- Stays abroad for PhDs and postdocs at the Medical Faculty: next deadline October 1st. [More information here](#).

### 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.
- [Proof-of-Concept](#) – Research Commercialisation from Publicly Funded Research – Commercialisation Project 2022. Open-ended, 12-36 months, 1-5 MNOK.

### Research Advisor



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

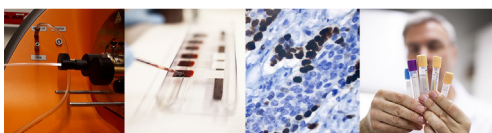
Yamila can among other discuss relevant calls with you, guide your proposal design, review your proposals for national and international funding sources, from draft to submission stage, and provide information about and advice on implementation of cross-cutting issues into your project (gender perspective,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



- June 10, CCBIO/Holbergprisen Special Seminar with Sheila Jasanoff and Stephen Hilgartner, "[Can science make sense of life?](#)"
- June 13, [CCBIO Seminar](#), speaker [Torsten O. Nielsen](#), Professor of Pathology & Laboratory Medicine, Faculty of Medicine, University of British Columbia, Canada.
- August 25, [CCBIO Special Seminar: Mapping of Early Breast Cancer](#); welcome seminar for Carina Strell (TMS Starting Grant)
- September 27-29, [CCBIO905 course, Methods in Cancer Biomarker Research](#)
- November 14-15, [SCANPATH, the Scandinavian Seminar on Translational Pathology](#), will this year be hosted by CCBIO in Bergen (Solstrand Hotel)
- Nov. 30 - Dec. 2., [CCBIONeur910 course Patient and Public Involvement in Medical and Health Research](#).

CCBIO Seminar dates for the fall term: August 25 (speaker Carina Strell). The other dates are open for speaker suggestions: September 22, October 27, November 24, December 15.

Note date for [next year's CCBIO Annual Symposium](#): May 8-10, 2023, also this time at Solstrand Hotel, outside of Bergen.

## Other coming events



### Events from collaboration partners and other relevant events.

- June 9, BBB seminar at 14.30: [Hani Goodarzi, "Revealing the regulatory code underlying pathological regulation of RNA dynamics in metastasis"](#), Aud. 4, BBB
- June 9-10, [Symposium on tumor and tissue fibrosis](#). Organizer: Donald Gullberg, at Hotel Terminus, Bergen and online.
- June 10, [Lansering av rapporten "Helsenæringens verdi"](#) (Menon Report release), NHO, onsite or online attendance.
- June 13-15, [6th conference of Digital Life Norway Research School](#), Oslo. Event by the Centre for Digital Life Norway
- June 13-16, [The BIO International Convention](#), San Diego, California
- June 14-16, [FAIR Data Management in Life Sciences](#), course by ELIXIR Norway and BioMedData. Digital attendance.
- June 14, The Innovative Health Initiative (IHI, previously Innovative Medicines Initiative, IMI) is [launching its two first calls](#) for proposal in late June. Under consideration for inclusion are two cancer-related topics within next-generation imaging and personalised oncology. Brussels or online.
- June 16, [Summer Gathering & Introduction of New Members](#) (With a special feature for Cancer Crosslinks 2022). Oslo Cancer Cluster event
- June 16, [Tverrfaglig webinar om brystkreftbehandling - onkologisk, kirurgisk, patologisk og stråleonkologisk](#), online.
- August 16, [Nøkkelen til bedre kreftbehandling er samarbeid](#), Connect, at Arendalsuka. See also [more related events at Arendalsuka](#).
- September 14-15, [The Norwegian Cancer Symposium](#), Oslo
- September 28-29, [Nordic Life Science Days](#), Malmö, Sweden (Postponed from April 20-21)
- September 28-30, [Norwegian Bioinformatics Days 2022](#), Sundvolden Hotel. Event co-organized by the Centre for Digital Life Norway
- October 20-21, [Digital Life 2022](#), Trondheim. The annual conference for the



# Publications

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

- Hodneland E, Kaliyugarasan S, Wagner-Larsen KS, Lura N, Andersen E, Bartsch H, Smit N, Halle MK, Krakstad C, Lundervold AS, Haldorsen IS. Fully Automatic Whole-Volume Tumor Segmentation in Cervical Cancer. *Cancers (Basel)*. 2022 May 11;14(10):2372. doi: 10.3390/cancers14102372. PMID: 35625977
- Berg HF, Hjelmeland ME, Lien H, Espedal H, Fonnes T, Srivastava A, Stokowy T, Strand E, Bozickovic O, Stefansson IM, Bjørge L, Trovik J, Haldorsen IS, Hoivik EA, Krakstad C. Patient-derived organoids reflect the genetic profile of endometrial tumors and predict patient prognosis. *Commun Med (Lond)*. 2021 Jul 30;1:20. doi: 10.1038/s43856-021-00019-x. eCollection 2021. PMID: 35602206 Free PMC article.
- Engelsen AST, Lotsberg ML, Abou Khouzam R, Thiery JP, Lorens JB, Chouaib S, Terry S. Dissecting the Role of AXL in Cancer Immune Escape and Resistance to Immune Checkpoint Inhibition. *Front Immunol*. 2022 Apr 27;13:869676. doi: 10.3389/fimmu.2022.869676. eCollection 2022. PMID: 35572601 Free PMC article. Review.
- Helland Å et al. (incl. Bjørge L, Gjertsen BT). Improving public cancer care by implementing precision medicine in Norway: IMPRESS-Norway. *J Transl Med*. 2022 May 14;20(1):225. doi: 10.1186/s12967-022-03432-5. PMID: 35568909 Free PMC article. Clinical Trial.
- Pianigiani G, Rocchio F, Peruzzi S, Andresen V, Bigerna B, Sorcini D, Capurro M, Gjertsen BT, Sportoletti P, Di Ianni M, Martelli MP, Brunetti L, Falini B. The absent/low expression of CD34 in NPM1-mutated AML is not related to cytoplasmic dislocation of NPM1 mutant protein. *Leukemia*. 2022 May 14. doi: 10.1038/s41375-022-01593-2. Online ahead of print. PMID: 35568767

## Recent CCBIO in the media

Recent media appearances by CCBIO PIs and group members. For all media hits, see [CCBIO's web pages](#).

- 27.05.22, Dagens Medisin, "[100 millioner kroner til klinisk forskning](#)", Bjørn Tore Gjertsen.
- 25.05.22, Helse Vest, "[100 millioner til klinisk forskning: Fire av fem prosjekt er fra Vestlandet](#)", Bjørn Tore Gjertsen.
- 13.05.22, Springer Link, "[Reply to comment on 'Demonstrating the value of cancer biomarkers at the population'](#)", Ana Luís and Kelly Seo.
- 06.05.22, Nettavisen, "[Eggstokkreft er kjent som en «silent killer»: Slik vet du om du bør reagere](#)", Line Bjørge.
- 02.05.22, HealthTalk, "[Dyrker kreftceller i miniatyrlunger](#)", Agnete Engelsen, Camilla Ekanger.
- 01.05.22, UiB News, "[Ny styreleder i AI-konsortium](#)", Inge Jonassen appointed chairman of the board in NORA - Norwegian Artificial Intelligence Research Consortium.
- 25.04.22, VG (pluss), "[Studie: Derfor øker fedme risikoen for kreft](#)", Therese Sørli.
- 30.03.22, Springer Link, "[Demonstrating the value of cancer biomarkers at the population level](#)", commentary on article from Ana Luís and Kelly Seo.
- 29.03.22, Forskning.no, "[Slik driver forskere med «etterretning» for å forstå kreft](#)", Lars A. Akslen.

## 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

### 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:*  
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