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Centre for Cancer Biomarkers
Norwegian Centre of Excellence – University of Bergen

Norwegian Centre of Excellence
The Research Council of Norway

UNIVERSITAS BERGENSIS

"CAPTURING CANCER COMPLEXITY AND CLINICAL CHALLENGES"

CCBIO Newsletter

EDITOR: eli.vidhammer@uib.no

DIRECTOR'S COMMENTS

Dear all

CCBIO is off to a good start in 2020 with a lot of ongoing projects and activities. The kick-off event was the CCBIO903 course on *Cancer Research: Ethical, Economic and Social aspects*, with international attendance, and also including the Special seminar on *Cancer in the News*, with excellent and challenging presentations from Mille Stenmarck, Irmelin Nilsen, Tine Dommerud (Aftenposten), and Knut Helland, everything wisely chaired by Roger Strand.

In this first issue of the year, you will learn that the *CCBIO Annual Symposium*, as well as the Satellite Symposium on *Biomarkers in Immunotherapy*, are now approaching. Many international speakers have accepted to attend and present their work, and registration deadline is April 1st. Do not miss the opportunity to meet some of the worlds leading scientists. And take notice of the many courses organized by the CCBIO Research School the coming months. Other relevant events are included in our calendar.

Congratulations to those receiving research grants (Gjertsen, Lorens), to Line Bjørge, Maria Omsland and Nina L. Jebsen for presenting exciting research data, to Heidi Espedal for receiving the poster award at the Research School in Clinical Medicine's Research Presentation Day, as well as to Engerud, Alam, and Pilskog for having defended their PhD thesis. And watch out for Caroline Engen's defence on Friday February 14!

Welcome to Hilde Lien and Lise Martine Ingebriktsen, two of our new PhD students. We look forward to working with you. And Marion Solheim is back in business!

Best regards, Lars A. Akslen, Director

Programs and Research Teams

Mechanisms of Tumor-Microenvironment 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

Studies:
- Bjørn Tore Gjertsen
- Oddbjørn Straume
- Line Bjørge

Health Ethics, Prioritization and Economics:
- Roger Strand
- John Cairns
- Ole Frithjof Norheim

Additional resource:
Bioinformatics and Big Data
- Inge Jonassen

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All administrative officers:
link.

REGISTRATION OPEN FOR THE CCBIO ANNUAL SYMPOSIUM

The 2020 CCBIO Annual Symposium is now open for registration! The event will take place **May 12-13 2020**, and the venue is as tradition and success dictates: Solstrand Hotel & Spa at Os outside of Bergen. A beautiful hotel with history in its walls, great meals and wonderful fjord views never get old!

The 2019 symposium was a success with more than 200 participants, and we expect the 2020 symposium to be even better. To participate, please **register within April 1st**, but we strongly recommend early registration to ensure participation and lodging.

We have secured a range of international and national speakers and some of the highlights will be the talks by Robert D'Amato, Sylvia K. Plevritis, Rameen Beroukhim, Marco Davila, Silvio Gutkind, Michael Rogers, Malin Sund, Klaus Pantel, Guido Sauter, Morag Park, Antony Braithwaite and Amir Aref.

The symposium will also feature other senior and junior researchers, extended poster sessions where younger researchers can present their work, and ample time for interaction between the participants. The selection of which participants that can present their posters is done on the basis of the submitted abstracts.

To present poster, fill in the required information in the registration form. Note that a one page poster abstract in Word format needs to be submitted to Eli.Vidhammer@uib.no within deadline **April 10th.**

The heavily subsidized registration fee is 2500 NOK/approx. 260 Euro per person. Find more information on the **symposium website: www.ccbiosymposium.no**

SATELLITE SYMPOSIUM ON IMMUNOTHERAPY

The Satellite Symposium has become a fixed tradition the day before the Annual Symposium, since the first satellite event took place in 2018. The 2020 overarching topic will be **Biomarkers in Immunotherapy**. Date: **May 11th 2020**. Registration is now open!

The Satellite Symposium on immunotherapy is initiated with lunch at 12.00 before the scientific program starts at 13.00. We kindly ask you to **register within April 1st.**

The program will consist of talks focusing on the latest development in the search for new and efficient biomarkers to predict response and survival following immuno-therapy for various cancers. The presentations will cover a broad specter of topics ranging from basic biomarker identification and validation to clinical implementation. The speakers are international renowned experts in their fields, including Lewis Au, Ulf Landegren, Genevieve M. Boland, Don Gibbons, Nikesh Kotecha and Satu Mustjoki.

The heavily subsidized registration fee is NOK 500 for lunch and the meeting and a total of NOK 1500 if you also want to attend dinner and stay overnight at Solstrand.

Satellite Symposium website: www.ccbiomeetings.no

FRAMING CANCER

CCBIO recently completed its CCBIO903 course Cancer Research: Ethical, Economic and Social Aspects, including a CCBIO Special Seminar, titled "Cancer in the news". The course is quite unique on a global basis, and recruited participants with a great variety of backgrounds and of geographical locations.

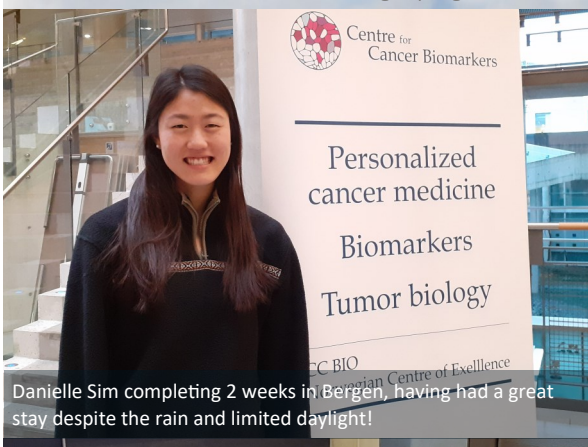
Illustration: Lightspring/Shutterstock

This 5 ECTS course is part of the CCBIO Research School, and is co-organized and taught by three members of the ELSA and Economics groups in CCBIO: Roger Strand, Anne Bremer and John Cairns. The course runs over two weeks and is a unique opportunity for PhD candidates - not only those who are part of CCBIO, but open to students internationally - to question the assumptions underlying their PhD work, discuss the robustness of their research, and anchor it in a broader social, cultural, political, economic and ethical context.

Go to our web article to read about what one of our visiting medical students from Boston, Danielle Sim, thought about the course, having come all this way to attend.

The course rounded up with a CCBIO Special Seminar on January 9th, 2020, open to all, with an expert panel who discussed in depth the issue "Cancer in the news". The panel consisted of Mille S Stenmarck, M.D. and B.A. from the University of Durham, who has written her thesis on identifying frames around the issue of priority-setting and cancer in the media, Irmelin Nilsen, Research Assistant at the Department of Information Science and Media Studies, UiB, who has written her Master thesis on the interactions between sensation journalism and techno-scientific imaginaries around cancer research, Tine Dommerud, journalist specialized in health-related issues, writing for Aftenposten, and Knut Helland, Professor at the Department of Information Science and Media Studies, UiB.

The special seminar is also covered in the web article.



Danielle Sim completing 2 weeks in Bergen, having had a great stay despite the rain and limited daylight!

The panelists discussing the issue "Cancer in the news".

CHEMO FREE THERAPY OPTION FOR PATIENS WITH RECURRENT OVARIAN CANCER

Line Bjørge explains the AVANOVA2-study in Best Practice Nordic. The study is a ramdomized phase 2 study showing that combination treatment with niraparib and bevacizumab inhibits tumor growth and postpones progression of ovarian cancer in patients with platinum-sensitive relapse. The study was published in Lancet Oncology.

The effect lasts for almost a year, a survival gain which is comparable to that obtained with traditional chemotherapy, and thus of high clinical significance. Bevacizumab and maintenance poly(ADP-ribose) polymerase (PARP) inhibitors both significantly improve efficacy versus standard therapy, primarily in terms of progression-free survival, and offer the potential for chemotherapy-free treatment. AVANOVA2 compared niraparib and bevacizumab versus niraparib alone as definitive treatment for platinum-sensitive recurrent ovarian cancer.

Use of this combination therapy regimen could delay the use of conventional chemotherapy and its associated toxicity. Further, this therapy may represent an alternative for patients who cannot be treated with platinum-containing compounds due to side effects or allergies. An extension of the platinum-free interval will also enhance the possibility of response to platinum compounds if such treatment is reintroduced.

The efficacy observed with this chemotherapy-free combination of approved agents in women with platinum-sensitive recurrent ovarian cancer warrants further evaluation. A randomized phase 3 trial investigating niraparib plus bevacizumab versus chemotherapy plus bevacizumab in platinum-sensitive recurrent ovarian cancer is planned.

Study link: Niraparib plus bevacizumab versus niraparib alone for platinum-sensitive recurrent ovarian cancer (NSGOAVANOVA2/ENGOT-ov24): a randomised phase 2 superiority trial. (ClinicalTrials.gov number: NCT02354131). Mirza MR, Åvall Lundqvist E, Birrer MJ, dePont Christensen R, Nyvang GB, Malander S, Anttila M, Werner TL, Lund B, Lindahl G, Hietanen S, Peen U, Dimoula M, Roed H, Ør Knudsen A, Staff S, Krog Vistisen A, Bjørge L, Mäenpää JU; AVANOVA investigators.

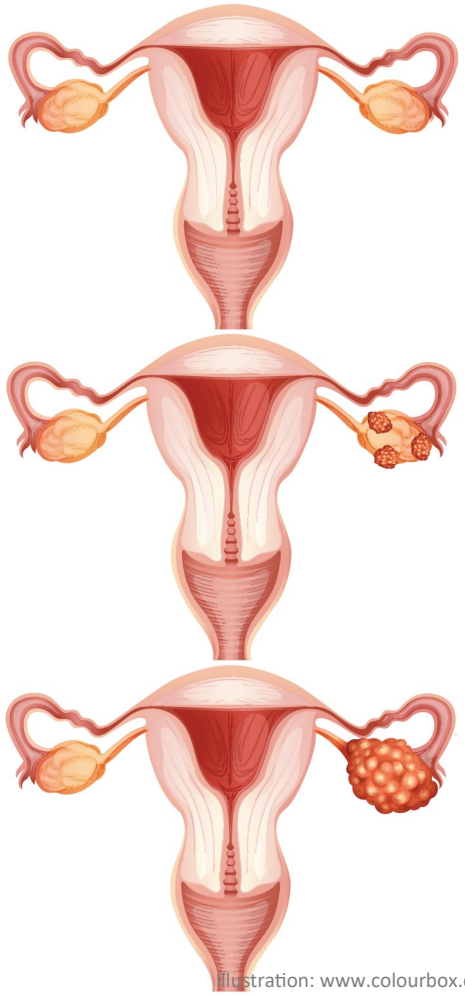


Illustration: www.colourbox.com

NORWEGIAN RESEARCH COUNCIL SUPPORT TO CCBIO REPURPOSING PROJECT

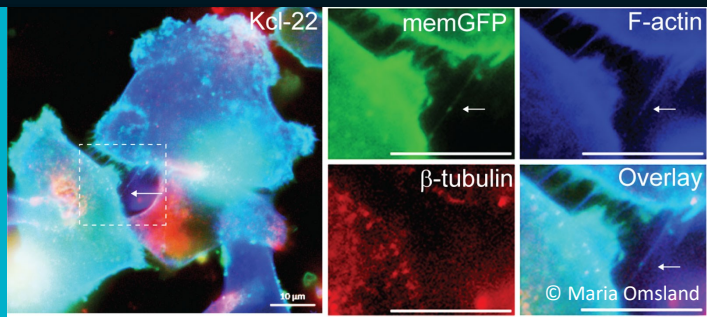
Bjørn Tore Gjertsen and his group were granted funding from the Norwegian Research Council program BEHANDLING, with NOK 12 million over 4 years, starting 2020.

Illustration: Eli v./www.colourbox.com

The funded project will test a novel combination of a an anticonvulsive therapy and a anti-malaria drug against acute myeloid leukemia in relapsed/refractory cancer. The therapy will be developed with a biomarker program focused on single cell immune and signaling profiling by mass cytometry, a technological specialty of CCBIO. The project is a close collaboration with Haukeland University Hospital, Department of Internal Medicine and the Clinical Trial Unit. Central for the project is the collaboration with CCBIO principal investigator Inge Jonassen, Professor at UiB and Chairman of the Computational Biology Unit. Advanced bioinformatics will be used to early determine responders and non-responders and examine clonal modulation of the disease.

BETTER UNDERSTANDING OF TNT FUNCTION IN CANCER

Tunneling nanotubes (TNT) is a communication device that couple two cells in a distance of several cells. Maria Omsland has discovered the first class of molecules that upregulate TNT formation. Omsland has found that tyrosine kinase inhibitors and interferon alpha trigges TNT formation in cells from acute leukemia, and has made a model that can be used to better understand TNT function in cancer.



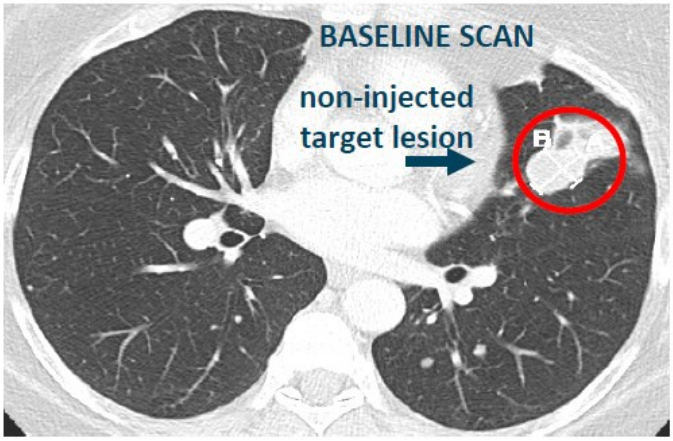
Title of the article is *Tyrosine kinase inhibitors and interferon-α increase tunneling nanotube (TNT) formation and cell adhesion in chronic myeloid leukemia (CML) cell lines*. Authors are Maria Omsland, Vibeke Andresen, Stein-Erik Gullaksen, Pilar Ayuda-Durán, Mihaela Popa, Randi Hovland, Atle Brendehaug, Jorrit Enserink, Emmet McCormack and Bjørn Tore Gjertsen.

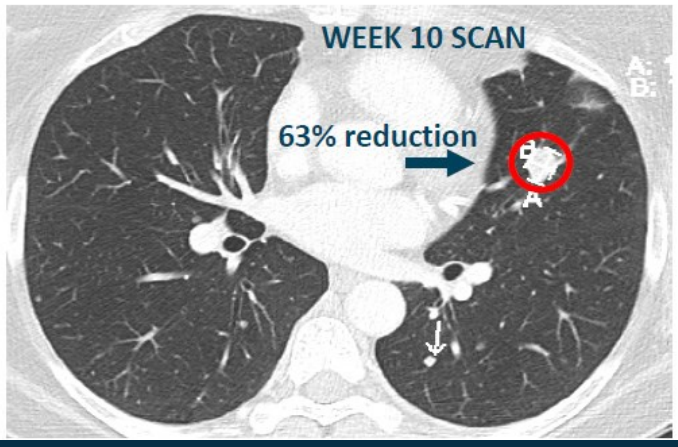
Chronic myeloid leukemia (CML) is a stem cell disease of the bone marrow where mechanisms of inter-leukemic communication and cell-to-cell interactions are proposed to be important for optimal therapy response. Tunneling nanotubes (TNTs) are novel intercellular communication structures transporting different cargos with potential implications in therapy resistance. Here, we have investigated TNTs in CML cells and following treatment with the highly effective CML therapeutics tyrosine kinase inhibitors (TKIs) and interferon-α (IFNα).

CML cells from chronic phase CML patients as well as the blast crisis phase cell lines, Kcl-22 and K562, formed few or no TNTs. Treatment with imatinib increased TNT formation in both Kcl-22 and K562 cells, while nilotinib or IFNα increased TNTs in Kcl-22 cells only where the TNT increase was associated with adherence to fibronectin-coated surfaces, altered morphology, and reduced movement involving β1integrin. *Ex vivo* treated cells from chronic phase CML patients showed limited changes in TNT formation similarly to bone marrow cells from healthy individuals. Interestingly, in vivo nilotinib treatment in a Kcl-22 subcutaneous mouse model resulted in morphological changes and TNT-like structures in the tumor-derived Kcl-22 cells. Our results demonstrate that CML cells express low levels of TNTs, but CML therapeutics increase TNT formation in designated cell models indicating TNT functionality in bone marrow derived malignancies and their micro-environment.

You can find the article in this link in full version.

LTX-315 MAKES IMMUNE SYSTEM RECOGNIZE CANCER





The Clinical Trial Unit at Haukeland University Hospital has recently been involved in a phase-1 trial investigating an oncolytic peptide (LTX-315) injected directly into advanced solid tumors (by radiologist and primary investigator Dag Jøssang). The drug induces disintegration of tumor cells and release of a range of tumor specific antigens which evoke a broad T-cell response.

Circulating activated T-cells recognize tumor specific antigens and demonstrated local immunological effects in the injected tumors, as well as in distant metastases.

As sub-investigator and postdoc in the Gjertsen group at CCBIO, Nina L. Jebsen looked deeper into a case of a desmoid tumor responding to treatment with LTX-315, for which supplementary local analyses on immunological reactions were presented in a case report (see link below).

Within CCBIO, Jebsen and co-workers have planned to analyse samples from patients included in the LTX-trial by mass cytometry, for single cell immune profiling and for tissue imaging.

See link to case report here.

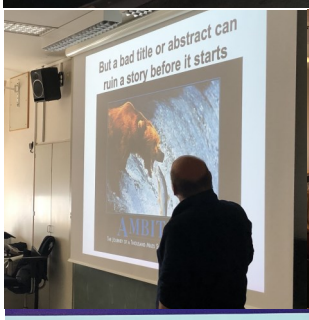
Also see link to news article in Bergensavisen.

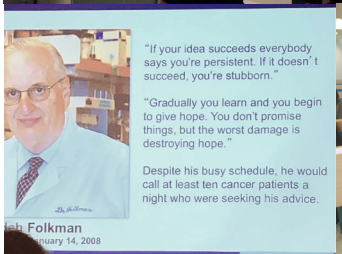
COMING ACTIVITIES IN THE CCBIO/ HARVARD INTPART PROJECT

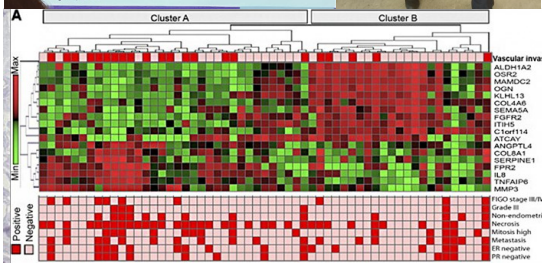
The CCBIO/Harvard INTPART collaboration is continuing, and we are happy to present new dates for some of the successes in the program:

- **Scientific Writing Seminar May 14 and 15**
- **CCBIO907 Cancer-related vascular biology course September 21 to October 2**.

These are opportunities you should not miss! In addition, we will be sending 2-3 new candidates to the Boston Summer School program.







This allows even more students, fellows and postdocs to learn from our eminent Boston colleagues. The seminar and the course are also open to senior faculty, and students and researchers outside our organization and national borders, as CCBIO wish to facilitate networking and collaboration. There are no seminar/course fees.

Scientific Writing Seminar May 14 and 15

Lecturers will also this year be Christine Møller, an experienced lecturer in medical and scientific writing and assistant editor of APMIS, and Randy Watnick, assistant professor at the Vascular Biology Program, Harvard Medical School. In addition, Media Advisor Marion Solheim will be adding a lecture on science presentation, showing how to make a presentation stick - in a good way.

Find more information here. **Register** now through this link!

CCBIO907 Cancer-related vascular biology course Sept. 21—Oct. 2

CCBIO907 is a 6 ECTS course covering topics such as basics of vascular biology, vascular biology related therapeutic approaches, biomarkers in vascular biology – from discovery to clinical application, lymphangiogenesis and vascular biology in non-cancerous diseases. Lecturers are researchers who have been in the frontline of vascular biology research for decades, and who are experienced lecturers at Harvard Medical School. You will find that what you learn, reaches far beyond the curriculum, and you get the chance of making valuable connections.

This year, you will get to meet Edward R. Smith, Joyce Bischoff and Hong Cheng in addition to Randy Watnick and Mike Rogers.

Find more information here. **Register** now through this link!

REGISTRATION AND PROGRAM FOR CCBIO906 CANCER GENOMICS


Illustration: www.colourbox.com

The CCBIO906 course got fully booked—but fear not—we have now booked a bigger room, so the registration link is reopened!
This 3 ECTS course will provide broad understanding of aspects of cancer genome biology and its investigation by next generation sequencing (NGS) technologies. Methods for analyzing DNA variation and structure and RNA expression patterns will be covered, as well as nuclear and chromatin structure, plus ethical and legal aspects and hereditary predisposition.

The course will give you the skills to:

- Formulate problems, plan and carry out NGS analyses on samples from cancer patients.
- Assess the expediency and application of different NGS methods in cancer diagnostics and research
- Know the contact points for NGS analysis and data storage and analysis in the Bergen area
- Communicate relevant literature and methods concerning cancer genomics

Ola Myklebost has the academic responsibility for this course.
Rebecca Nguyen is the administrative coordinator.

When: February 19-21, 2020
Program: is available here.
Registration: through this link.
Who: Mainly intended for PhD candidates, but open to all.
More information: is available here.

Note that if you are interested in some single lectures only, you are welcome to drop in without registration!

CCBIO904 BIOMARKERS AND TUMOR BIOLOGY IN CLINICAL PRACTICE


Illustration: colourbox.com/CCBIO

The 4 ECTS course covers broad tumor biological topics that are important for understanding how cancer occurs, the mechanisms that control tumor growth, proliferation and morbidity. The course will focus especially on tumor biological changes that may have or already have significance for personalized cancer treatment and clinical trial studies of new diagnostics and treatment. The course corresponds partly with the Medical Association's annual tumor biology course, but has a stronger focus on the significance of tumor biological knowledge for clinical trials.

The course will give you with the skills to:

- Formulate problems and suggest research of molecular biological aspects in cancer and cancer development in order to map tumor biological mechanisms.
- Critically assess the expediency and challenges of using different methods for researching molecular biological aspects of cancer.
- Select relevant literature that deals with molecular aspects important in cancer.

Oddbjørn Straume has the academic responsibility for this course.
Reidun Kristin Kopperud is the administrative coordinator.

When: April 20-22, 2020
Preliminary program: is available here.
Registration: through this link.
Who: Mainly intended for PhD candidates, but open to all.
More information: is available here.

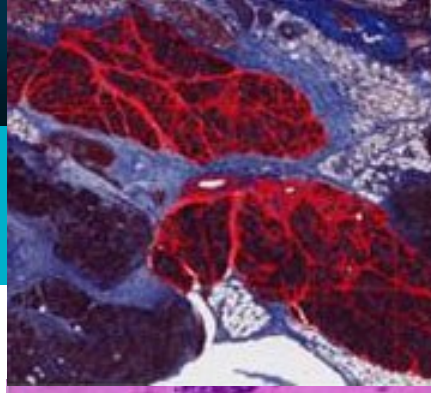
AWARD TO CCBIO POSTDOC

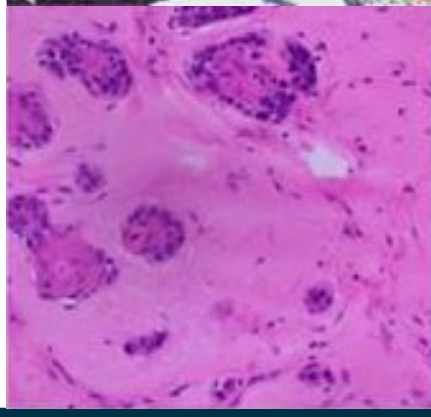
Congratulations to Postdoc Heidi Espedal in the Bergen Gynecologic Cancer group for the Postdoc Award at the Research School in Clinical Medicine's Research Presentations Day.

A happy postdoc. Photo by Kristine Fasmer.

Imaging of PDX models of endometrial cancer by PET-CT, MRI and optical imaging during disease progression enables visualization and quantification of functional tumor characteristics, which may serve as imaging biomarkers guiding targeted therapies. In Heidi's project, the group explores advanced imaging methods and analyses to depict pathogenic mechanisms that are important for tumor progression and that may represent potential targets for treatment in endometrial cancer.

SUMMER SCHOOL IN FIBROSIS RESEARCH





The MOTIF network and CCBIO PI Donald Gullberg are organizing a summer school in tissue fibrosis June 3-5, 2020. The summer school will consist of two parts, lectures with prominent speakers in the field and a practical part in the afternoons.

The lectures will be open to all interested (registration is required), and the practical part is open to PhD students in the MOTIF network and CCBIO. There will be a small registration fee of NOK 500. Registration link will soon be available, so save the date!

See program in this link.

The practical part is planned to include four separate elements:

- Demonstration of traction force microscopy (Sergey Plotnikov)
- Demonstration of the Hyperion system (CCBIO)
- Demonstration of generation of decellularized tissue matrices (Roya Navab)
- Hands on part where students learn to generate spheroids to observe cell migration in 3D collagen matrix (Gullberg lab).

Questions regarding the course can be directed to Professor Donald Gullberg.

RESEARCH DAY AT THE WOMEN'S CLINIC

Welcome to the first ever Research Day on Women's health at the Women's Clinic in Bergen, March 26th 2020! CCBIO's research groups at the Women's Clinic (Line Bjørge and Camilla Krakstad) are involved and will present their research.

March 26, The Women's Clinic, in collaboration with the UiB, will organize its first ever Research Day! Maternity assistance and women's health engage widely and they wish to show everyone what they are researching, why they do that, their results and how they apply new knowledge. You will get to meet some of the country's most talented women's health researchers, so don't miss out! Light refreshments will be served.

Where: The auditorium, 4th floor, the Women's Clinic at Haukeland University Hospital
When: Thursday March 26th at 14:00-19:00
Program and registration: The program will be available soon, but you can already now **sign up here**.

Find more information here.

COMING DOCTORAL DEFENSE

Caroline Engen. Photo by Andrea Magugliani

Caroline Benedicte Nitter Engen defends Friday **February 14th 2020** her doctoral dissertation "Exploring the boundaries of precision haemato-oncology - The case of FLT3 length mutated acute myeloid leukaemia" at the University of Bergen.

The candidate has done her work at the Department of Clinical Science and CCBIO. Main supervisor: Professor Bjørn Tore Gjertsen. Co-supervisors: Professor Emmet McCormack and Professor Øystein Bruserud. See press release.

Trial lecture: Friday February 14th 2020 at 09.15
Topic: "Stem cell transplant in treatment of non-hematological disease. Background, evidence, and future perspectives"

Doctoral defense: Friday February 14th 2020 at 11.15

Place for both: The auditorium, Armauer Hansens Hus, Haukelandsveien 28

1. opponent: Professor Gunnar Juliusson, Lund University
2. opponent: Professor Marta Bertolaso, University Campus Bio-Medico of Rome
3. member of the committee: Associate Professor Marianne Aanerud, UiB

The defense will be led by Adjunct Professor Tore Elling Ulvestad.

Open to the public.

RECENT DOCTORAL DEFENSES

From the left: Professor Jone Trovik (co-supervisor), Custos Roland Johnson, Postdoc Marie Holm Solheim (committee leader), Hilde Renate Engerud, Associate Professor Ben Davidson (2. opponent), Professor Alain Zeimet (1. opponent), Professor Camilla Krakstad (main supervisor).

Hilde Renate Engerud defended Friday February 7th 2020 her doctoral dissertation "Molecular markers to predict prognosis and guide therapy in endometrial cancer" at the University of Bergen.

Using gene expression analyzes, immunohistochemistry and ELISA, Hilde has identified three different biomarkers, each identifying patients with poor prognosis and an increased risk of relapse. She has also investigated response markers for immunotherapy, and results show that these biomarkers are frequently expressed in endometrial cancer, but the expression is different in the tumor and especially in metastases. This may have consequences for the efficacy of immune-therapy treatment. In short, the PhD work has identified biomarkers that can lead to better diagnosis and targeted treatment for women with endometrial cancer.

See press release.

Jahedul Alam. Photo by PicturePeople

Jahedul Alam defended Friday January 31st 2020 his doctoral dissertation "Novel Insights into Integrin α11 Expression and Function" at the University of Bergen.

In his PhD work, Jahedul used three different approaches to study the integrin α11β1 protein. First, he investigated the role of the intracellular part of the integrin α11β1 protein and its importance for cell signaling. Jahedul also characterized a new Cre transgenic mouse model using molecular tools. This Cre mouse model can be used to inactivate genes in connective tissue cells found in scar tissue and tumors. Finally, a recently developed antibody to human integrin α11β1 protein was characterized and used to demonstrate that integrin α11β1 is present in various subgroups of connective tissue cells in the tumor microenvironment called CAFs (cancer-associated fibroblasts), and that α11β1 is involved in the transformation of the connective tissue and the CAF cells' movement. In summary, Jahedul's thesis provides a new understanding of integrin α11β1's functions in various subclasses of connective tissue cells and its involvement in cell movement and tumor growth.

Jahedul Alam did his work at the Department of Biomedicine and CCBIO. Main supervisor: Professor Donald Gullberg. Co-supervisors: Professor Rolf K. Reed and Professor James Lorens.

See press release.

From the left: Professor Lars A. Akslen (co-supervisor), Custos Hans-Peter Marti, Associate Professor Elin Richardsen (2. opponent), Martin Pilskog, Assistant Professor Max Levin (1. opponent), Professor Hans Petter Eikesdal (committee leader), Professor Oddbjørn Straume (main supervisor) and Professor Christian Beisland (co-supervisor).

Martin Pilskog defended Thursday January 23rd 2020 his doctoral dissertation "Predictive biomarkers for response to treatment with sunitinib in renal cancer patients" at the University of Bergen.

In his PhD work, Pilskog has analyzed tissue and blood samples from patients with renal cancer metastasis that were included in a clinical study at the Cancer Department and the Urology Department at Haukeland University Hospital. Patients were treated with a drug that inhibits blood vessel formation (Sunitinib). Response analyzes were conducted and information was collected on changes in patients' self-reported health-related quality of life. In 21% of patients, the tumors were significantly smaller, and in another 47% the disease was stabilized over at least six months.

Using immunohistochemistry and ELISA technique, Martin found contexts that support the role of the immune system in treatment. Low expression of various proteins in tumor tissue (IL6Rα) showed correlation with efficacy of treatment. Similarly, the concentration of the signal substance IL6 in blood samples was lower among responding patients. However, before these proteins can be used as biomarkers in clinical work, the results need to be confirmed in larger studies.

See press release.

VACANT POSITIONS

Illustration: colourbox.com

The Bergen Gynecologic Research Group has recently announced 3 fulltime positions in their group; 2 staff engineers and 1 researcher. Employer is Helse Bergen.

Note that deadline is **February 14th**.

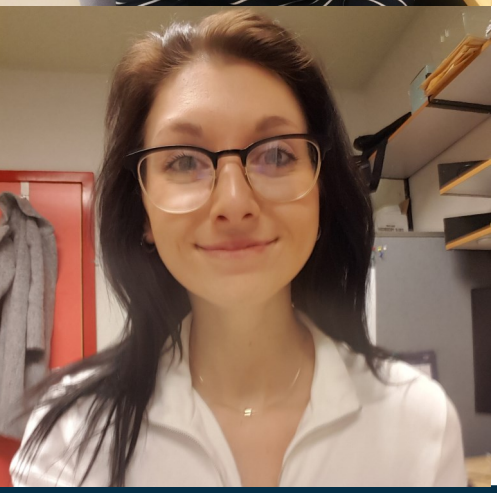
The **researcher position** is in the project "Individualized therapy based on molecular alterations in gynecologic cancer," and is a 1 year commitment. You can see the announcement here.

The **2 staff engineer positions** are in connection with the project "Clinical implementation of imaging and molecular markers for endometrial cancer." You can see the announcements here and here.

Applications to be made through the links.

Questions can be directed to camilla.krakstad@uib.no

NEW FACES



Welcome to new members of the CCBIO family!

Hilde Lien is a new PhD candidate in the Bergen Gynecologic Cancer Group.

Hilde holds an Ms in biomedicine from the University of Bergen on Helios CyTOF (suspension mass cytometry) analysis of intratumoral immune cells in obese mice. As a PhD student in the lab of Camilla Krakstad, she will be working on detecting drivers of metastasis in endometrial carcinoma and will use the Hyperion system (imaging mass cytometry) to study patient tissue.

Lise Martine Ingebriktsen is a new PhD candidate in the Akslen group, with Elisabeth Wik as main supervisor.

Lise holds an MS in Biomedicine from the University of Tromsø - The Arctic University of Norway. Her PhD project focuses on identifying biomarkers with clinical relevance, explaining some of the increased tumor aggressiveness seen in breast cancer of the young, with potential for improving individualized treatment and outcome.

We look forward to seeing the results of Hilde's and Lise's work!

OUR SPIN-DOCTOR IS BACK!

Our media advisor Marion Solheim is now back from her maternity leave. Whenever you have a publication or any other finding or matter that may or may not be interesting for the public, we kindly ask you to call Marion on her mobile.

This is important in order to map out whether your activities would be interesting as a media case. Experience dictates that it is difficult for us to discern whether something is suited for the broader audience. Hence, please contact Marion rather than conclude yourself.

Marion Solheim, Media Advisor, 991 52 821

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.

- February 19-21, CCBIO906 Cancer Genomics, Bergen.
- February 20, CCBIO Seminar, speaker Rameen Beroukhim.
- March 19, CCBIO Seminar, speaker Akin Ojesina.
- April 16, CCBIO Junior Scientist Symposium
- April 20-22, CCBIO904 Biomarkers and tumorbiology in clinical practice, Bergen.
- April 30, CCBIO Seminar, speaker tba.
- May 11, CCBIO Satellite Symposium, Solstrand. This year's topic: Biomarkers in Immunotherapy
- May 12-13, CCBIO's 8th Annual Symposium, Solstrand. CCBIO's largest annual event!
- May 14-15, Scientific Writing Seminar, Bergen
- May 28, CCBIO Seminar, speaker JianFeng Chen
- June 3-5, Summer School in Fibrosis Research 2020, Bergen
- June 11, CCBIO Seminar, speaker Biaoyang Lin
- September 21-October 2, CCBIO907 Cancer-related vascular biology, Bergen

OTHER COMING EVENTS



- E-læringskurs fra Helse Vest i brukermedvirkning i helseforskning (Norwegian only). Tilgjengelig online når man ønsker. Kurset: https://kursbygger.ihelse.net/?startcourseid=12
- February 17-19, Next-generation live-cell microscopy. Light sheet, Quantitative Phase, Structured Illumination, Tromsø, by Digital Life Norway and University of Tromsø. CCBIO PhD fellows and postdocs can apply for travel/accommodation grant.
- March 4, Data Management Planning workshop for Life Science Projects, Bergen (Digital Life Norway)
- March 4, Den nasjonale prostatakreftdagen 2020, Oslo
- March 16-17, Nordic Precision Medicine Forum 2020, Stockholm.
- March 16-20, Bioinformatic analysis of the airway microbiome: A QIIME2 workshop, Bergen. 5-day workshop focusing on applied bioinformatics in the field of microbiome data mainly for non-computer scientists using QIIME2.
- March 23-25, Bio-Europe Spring 2020, Paris.
- March 26, Research Day at the Women's Clinic, Bergen
- May 25-27, 4th annual conference of Digital Life Norway Research School, Tromsø
- May 25-27, The 8th Conference on Systems Biology of Mammalian Cells, Heidelberg, Germany
- May 28, Knowledge for Growth, European life science conference, Ghent, Belgium
- June 8-11, BIO International Convention, San Diego, California
- July 20-24, Arthur L. Irving Family Foundation Cancer Immunology Symposium, Gloucester, Massachusetts.

PUBLICATIONS

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

- Fasmer KE, Gulati A, Dybvik JA, Ytre-Hauge S, Salvesen Ø, Trovik J, **Krakstad C**, Haldorsen IS. Preoperative 18F-FDG PET/CT tumor markers outperform MRI-based markers for the prediction of lymph node metastases in primary endometrial cancer. Eur Radiol. 2020 Feb 7. doi: 10.1007/s00330-019-06622-w. [Epub ahead of print]

- Lazarian G, Friedrich C, Quinquenel A, Tran J, Ouriemmi S, Dondi E, Martin A, Mihoub I, Chiron D, Bellanger C, Fleury C, Gélébart P, **McCormack E**, Ledoux D, Thieblemont C, Marzec J, Gribben JG, Cymbalista F, Varin-Blank N, Gardano L, Baran-Marszak F. Stabilization of β-catenin upon B-cell receptor signaling promotes NF-kB target genes transcription in mantle cell lymphoma. Oncogene. 2020 Feb 7. doi: 10.1038/s41388-020-1183-x. [Epub ahead of print]

- Ossenkoppele GJ, Breems DA, Stuessi G, van Norden Y, Bargetzi M, Biemond BJ, A von dem Borne P, Chalandon Y, Cloos J, Deeren D, Fehr M, **Gjertsen B**, Graux C, Huls G, Janssen JJJW, Jaspers A, Jongen-Lavrencic M, de Jongh E, Klein SK, van der Klift M, van Marwijk Kooy M, Maertens J, Micheaux L, van der Poel MWM, van Rhenen A, Tick L, Valk P, Vekemans MC, van der Velden WJFM, de Weerdt O, Pabst T, Manz M, Löwenberg B; Dutch-Belgian Hemato-Oncology Cooperative Group (HOVON) and Swiss Group for Clinical Cancer Research (SAKK). Lenalidomide added to standard intensive treatment for older patients with AML and high-risk MDS. Leukemia. 2020 Feb 4. doi: 10.1038/s41375-020-0725-0. [Epub ahead of print]

- Lotsberg ML, Wnuk-Lipinska K, Terry S, Tan TZ, Lu N, Trachsel-Moncho L, Røsland GV, Siraji MI, Hellesøy M, Rayford A, Jacobsen K, Ditzel HJ, Vintermyr OK, Bivona TG, Minna J, Brekken RA, Baguley B, Micklem D, **Akslen LA**, Gausdal G, Simonsen A, Thiery JP, Chouaib S, **Lorens JB**, Engelsen AST. AXL targeting abrogates autophagic flux and induces immunogenic cell death in drug resistant cancer cells.

- Seo MK, **Straume O**, **Akslen LA**, Cairns J. HSP27 Expression as a Novel Predictive Biomarker for Bevacizumab: is it Cost Effective? Pharmacoecon Open. 2020 Jan 27. doi: 10.1007/s41669-019-00193-8. [Epub ahead of print]

RECENT CCBIO IN THE MEDIA

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

13.02.20, Dagens Medisin, "Etikken - og hensynet til det enkelte mennesket", Ole Frithjof Norheim.

09.02.20, Bergensavisen, "Ny, lovende medisin avslører kreftsvulster", Nina Louise Jebsen.

08.02.20, the China Post, "Cancer research: Could drugs already on the market provide a cure?", Karl-Henning Kalland.

07.02.20, Amed post, "Cancer research: Could drugs already on the market provide a cure?", Karl-Henning Kalland.

03.02.20, Deutsche Welle, "Das Medikament hilft auch gegen Krebs?", Karl-Henning Kalland.

29.12.19, BestPractice Onkologi/Hematologi, "Et kjemoterapifritt behandlingsalternativ for pasienter med tilbakefall av eggstokkreft", Line Bjørge.

10.12.19, Dagens Medisin, "Slik kan kunstig intelligens endre bildemedisinen", Ingfrid Haldorsen.

05.12.19, Dagens Medisin, "En av to behandlinger handler om kreft", Ole Frithjof Norheim.

01.10.19, Dagens Medisin, "Milepæl for norsk kreftstudie", Oddbjørn Straume.

30.09.19, tvr.by, Belarussian national TV, "Future dentists of Belarus, Norway, Moldova and Armenia to be trained in a joint program", Daniela E. Costea