



CCBIO Newsletter

CAPTURING CANCER COMPLEXITY AND CLINICAL CHALLENGES

Editor: Eli Vidhammer eli.vidhammer@uib.no

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DIRECTOR'S COMMENTS

Dear all

Excellence is about top ranking science published in the best journals, but it is also about excellence in education and communication. Together, such components will create and promote a community and culture of the best scientists. This fall, the CCBIO Research School for Cancer Studies has been very active. With Associate Professor Elisabeth Wik as its new leader, several activities have been held, such as CCBIO905 (Methods), CCBIO907 (Long Course in Vascular Biology) and two special seminars, on *excellence in science* and *mentoring and career development*. These events (except CCBIO905) have been made possible through the INTPART project, and we have been very lucky to team up with members from the Vascular Biology Program at Boston Children's Hospital and Harvard Medical School, as you can read in the story below. The third and last week of the long course will be held February 18-22, 2019.

CCBIO has made a few changes for the second term. In addition to what you can read on page 3, the PIs and the associate PIs have been organized in four teams or research programs: basic studies, biomarker exploration and validation, clinical studies and implementation, and societal studies.

We hope that many of you have signed up for the CCBIO Junior Scientist Symposium in just a few days, this time as a lunch-to-lunch event, and organized by Liv Cecilie Thompsen, Erling Høivik and Kenneth Finne. Thanks to those of you involved in all other events as well. Enjoy the newsletter and the many stories on the CCBIO website.

Best regards, Lars A. Akslen, Director

HARVARD INSPIRATION



As the first two weeks of the CCBIO/Harvard Long Course on Cancer-Related Vascular Biology are completed, the attending students report to be greatly inspired by the Harvard scholars who are teaching most classes. This course reflects the INTPART collaboration between CCBIO and the Vascular Biology Program at Boston Children's Hospital and Harvard Medical School. [Read full report here.](#)

CONTACT INFORMATION



www.ccbio.no

Centre Director:

Prof. Dr.Med Lars A. Akslen
+ 47 55 97 31 82 lars.akslen@uib.no

Administrative Leader:

Geir Olav Løken
+ 47 55 58 54 36 geir.loken@uib.no

The Principal Investigators:

Lars A. Akslen (Director)
Bjørn Tore Gjertsen (Co-Director)
Donald Gullberg
Karl Henning Kalland
James Lorens
Oddbjørn Straume
Roger Strand
Emmet McCormack



Established by the Research Council of Norway

THE ROAD TO EXCELLENCE



19th September 2018, CCBIO hosted a Special Seminar on the issue of scientific excellence. Speakers Bruce Zetter (Harvard Medical School/Boston Children's Hospital), Merle Jacob (Lund University) as well as Lars A. Akslen (CCBIO) and Roger Strand (SVT/CCBIO) discussed different ways to conceptualise and achieve excellence, leaving the audience both inspired and a little thought-provoked.

CCBIO is a Norwegian Centre of Excellence. But what do we understand by excellence? In this special seminar, the ambition was to go deeper into the issue of quality and excellence in science. Apart from scholars from the medical fields, the issue also attracted participants from the other UiB faculties, showing the general relevance of the topic. Many if not most researchers experience external pressure for excellence in addition to their own internal motivation for high performance – but how may excellence be achieved?

[Read more about the seminar here.](#)

HOW TO TAKE MENTORING SERIOUSLY IN A CONTEXT OF 'FAST' RESEARCH?



October 3rd 2018, CCBIO hosted a special seminar titled "The Importance of Mentoring for Career Development", where panellists Marsha A. Moses (Harvard Medical School/Boston Children's Hospital), Roopali Roy (Harvard Medical School/Boston Children's Hospital), Roland Jonsson (Faculty of Medicine/UiB) and Anne Blanchard (SVT/CCBIO) discussed mentoring in different forms and settings, and provided useful advice and food for thought for both mentors and mentees.

Is mentoring just a matter of respecting national legislation? Who should be involved in mentoring? How can we encourage mentoring practices in a more systematic way, particularly in a context of 'fast' research and short-term contracts?

The panellists provided varied and complementary perspectives on mentoring, stemming from their different cultural and disciplinary background, as well as their different experiences as 'mentors' and 'mentees'.

[Read more here.](#)

COMING CCBIO EVENTS

- November 19-20, CCBIO Junior Scientist Symposium, [Lunch to lunch meeting at Panorama Hotel, Sotra.](#)
- November 29, 13.00-14.30, CCBIO Seminar, [Frédéric Amant](#)
- December 13th, CCBIO Seminar, Cedric Zeltz

CCBIO Seminar dates spring 2019:

- 31.01.19 Speaker tba
- 21.02.19 Speaker tba
- 28.03.19 Speaker tba
- 25.04.19 Speaker tba
- 23.05.19 Speaker tba
- 06.06.19 Speaker Joanna Phillips, UCSF

Other set spring event dates:

- February 18-22, [course week 3 of CCBIO907 Cancer-Related Vascular Biology](#)
- May 15-16 2019, [Scientific Writing course](#)
- June 3-7 2019, [BMED 904 Extracellular Matrix course](#)

Save the date for the 2019 CCBIO Annual Meeting:

- [Satellite Symposium](#) on the issue **Deep Tissue Profiling** which will take place 1:00 p.m. to 5:30 p.m. May 12th 2019 at Solstrand Hotel, the day before and at the same place as the CCBIO Annual Symposium 2019.
- The [7th CCBIO Annual Symposium](#) will take place at Solstrand Hotel May 13-14 2019.



CBU AND CCBIO LEAD EUROPEAN CONSORTIUM ON PERSONALISED MEDICINE



Professor Inge Jonassen was recently awarded a research grant through the ERA (European Research Area) programme “Research projects on personalised medicine – smart combination of pre-clinical and clinical research with data and ICT solutions”.

The project is a result of an ongoing collaboration between Professor Jonassen and Professor Bjørn Tore Gjertsen at CCBIO. The consortium includes Helse Bergen, by its research director and Professor Bjørn Tore Gjertsen, Professor Jan Jacob Shuringa at the University Medical Center in Groningen, the Netherlands, Professor Ursula Klingmüller at the German Cancer Research Centre (DKFZ) in Heidelberg, and several other groups in Germany, the Netherlands and Canada. The project will develop targeted treatment for leukaemia in cases where the disease originates from stem cells normally determined to generate erythrocytes. The team will apply systems biology models for specific signaling pathways, along with single cell data from cytometry experiments (CytoF), proteomics and transcriptomics, as well as machine learning techniques. [Read more here.](#)

NEWS FROM THE RECENT CCBIO PI-SEMINAR

Every semester, CCBIOs Principle Investigators (PIs) meet for a full day seminar to discuss CCBIO's strategy. This semester seminar was held as a lunch to lunch seminar at Solstrand.



The PIs, amongst other matters, discussed the research strategy for the remainder of CCBIO's CoE funding period which runs until 30. June 2023. The basis for the discussions was the recommendations given by the Midway Evaluation Panel and CCBIO's Scientific Advisory Board. Both reports were very favourable, and also gave recommendations in terms of increased focus on bioinformatics, ground breaking technology as well as a solidification of CCBIO's research focus.

Some changes in the PI group have taken place throughout 2018:

- **Emmet McCormack** and **Roger Strand** are now full CCBIO PIs. Strand now heads CCBIO's 4th program, Health Ethics, Prioritization, and Economics.
- **Line Bjørge**, **Dana Costea**, **Camilla Krakstad** and **Elisabeth Wik** are now associate investigators. This implies more involvement and opportunity.
- **Rolf Reed** has stepped down as PI, but will continue as strategic advisor.
- **Tine Johannessen** has stepped down as PI and leader of CCBIO's Research School for Cancer Studies (RSCS). We thank her for her efforts since 2013!
- **Elisabeth Wik** has accepted to be the new CCBIO RSCS leader.

Throughout the coming year, CCBIO will formulate its realigned research focus into projects for up to 14 recruitment positions (postdocs and PhDs). Several of these projects will utilize the newly purchased Helios Imaging System and other advanced technologies for Deep Tissue Profiling. The PIs also planned for the satellite symposium focused on Deep Tissue Profiling on May 12th 2019, the day before CCBIO's Annual Symposium May 13th-14th. We look forward to welcoming you to both events!

OTHER RECOMMENDED COMING EVENTS

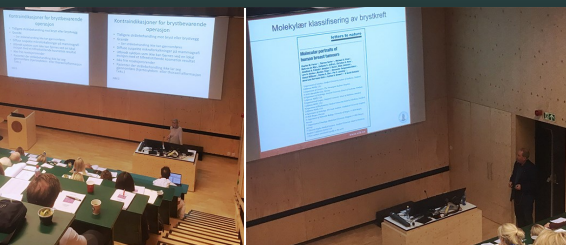
- November 21, [Prostate Cancer's Precision Promise](#), OCC, Oslo. Advances in the promise of precision cancer medicine that will be able to pair interdisciplinary data to provide better and more efficient treatment for cancer. This symposium is complemented by a networking session focusing on Horizon 2020 Funding Opportunities for both academia and industry in the field of cancer and personalized medicine.
- November 26, [Innspillsmøte om norsk helseindustri](#). (Norwegian.) Innovasjon Norge, Forskningsrådet, Norway Health Tech, Legemiddelindustriforeningen (LMI) og Oslo Cancer Cluster inviterer til møte for å få innspill om norsk helseindustri som ledende innovatør, næringsaktør og eksportør, fra OCC medlemmer (inkl. CCBIO) og andre som jobber innenfor kreftområdet. Oslo.
- November 28-29, [3rd Annual Nordic-American Life Science Conference](#), New York.
- December 7, [UiB and Norw. Research Council meeting on cOAlition S, Making Open Access a reality by 2020](#). How can this be implemented, and what are the consequences? Bergen.
- December 11-12, [Modelling living systems – From foundational problems to applications](#). Organizers and tutors: Roger Strand and Rune Kleppe. Guest lecturer: Dominique Chu, University of Kent, NTNU, Trondheim.



Cancer Crosslinks January 17, 2019

- January 17, [Cancer Crosslinks 2019](#), “Next Wave Precision Oncology – Connecting the Dots for Improved Patient Care”, OCC, Oslo. Leading international and Norwegian experts presenting the latest developments in I-O and precision oncology. Keynote speakers include Naiyer Rizvi, Aaron Goodman, Lars Bullinger and James Peach.

CCBIO CONTRIBUTION TO NORWEGIAN MEDICAL ASSOCIATION COURSE



On October 17-18, 2018, CCBIO's director chaired a two-day Norwegian Medical Association course in Bergen on the topic of Breast Pathology.

A team of specialists in pathology, oncology and surgery taught the course; Lars A. Akslen, Sameer Bhargava, Marianne Birgitte Brekke, Tor Audun Klinge, Jon Lømo, Elin Synnøve Mortensen, Tone Katrine Neraas and Turid Aas. The course provided an introduction on problems regarding diagnostics of benign and premalignant changes in addition to malignant tumors in mamma. Epidemiological, radiological, surgical and oncological aspects of diseases in breast were covered. In addition molecular classification and prognostic and predictive factors of breast cancer were discussed. Almost sixty well-prepared medical doctors in training attended the course, and took actively part in discussions. They explored the possibility, challenges and limitations in diagnosing and classifying breast cancer in the clinical context, in addition to improving their network.

[Read more about the course here](#) (in Norwegian only).

LUNCH TO LUNCH JUNIOR SCIENTIST SYMPOSIUM



CCBIO Junior Scientist Symposium
Invitation to: **LUNCH 2 SEMINAR @ SOTRA**
19-20. November 2018
Registration deadline: November 14th
Activities: Inspirational lectures, Key speakers, Presentations, Workshops, Networking, Social activities
www.ccbio.no

We have the pleasure of inviting all interested PhD- and PD fellows and other interested junior researchers to a very special CCBIO Junior Scientist Symposium in beautiful surroundings at Panorama Hotel & Resort at Sotra outside of Bergen, a lunch-to-lunch symposium November 19-20.

For those registered for [CCBIO901](#), attending this symposium will count as two regular symposia. Registration deadline is now passed, but if you have not registered, you may still [contact the organizers](#) and check availability if you are interested in participating.

- ⇒ Delicious food, stunning scenery and great company
- ⇒ Excellent academic and scientific program
- ⇒ Inspirational lectures by both experienced scientists and young investigators
- ⇒ Workshop in improving presentation skills
- ⇒ Scientific presentations from CCBIO junior scientists
- ⇒ Transportation to and from

Read all about it [on the website](#).

The modest participation fee for this symposium (500 NOK per person in double room, 1000 NOK in single, ask your group leader for support) includes lunch both days, dinner, hotel stay and breakfast, and organized bus transportation.



CCBIO SNAPSHOTS

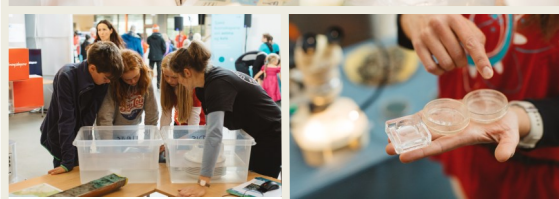
From the CCBIO Junior Scientist Symposium in September 2018. Photos by Agnete Engelsen/Liv Cecilie Thomsen/Reidunn Edelmann.



Inspirational lecture by Bruce Baguley.



From the Research Fair, September 2018. Photos: Øyvind Ganesh Eknes.



MED904 EXTRACELLULAR MATRIX COURSE

Biomedical Research Course:
Matrix Biology
Cell Biology and Physiology of the Extracellular Matrix



June 3-7, 2019
3 ECTS

Arranged by Bergen Biomedical Research School (BBRS) and Centre for
Cancer Biomarkers (CCBIO), University of Bergen, Norway
No course fee

Photo: Pugazendhi Murugan Erusappan

Save the date for the Biomedical Research Course: Matrix Biology, June 3-7 2019. BMED904 is a 5 day course, running every 2 years, with lectures from local researchers and a number of internationally well-known researchers within the field of matrix biology as well as practical laboratory training.

The course will cover various aspects of extracellular matrix (ECM) biology. A recurring theme will be the roles of the various ECM molecules and their functions in health and disease.

Course name: BMED904 Biomedical Research Course: Matrix biology. Cell Biology and Physiology of the Extracellular Matrix.

Date: June 3-7, 2019

Place: Campus Haukeland Univ. Hospital, auditorium to be announced.

Arranged by: Bergen Biomedical Research School (BBRS) and CCBIO.

Program: [See preliminary scientific program here.](#)

Who: All lectures are open to interested students, staff and visitors.

Preliminary speaker list:

- **Joanna Phillips**, University of California, San Francisco, USA
- **Jan-Olof Winberg**, The Arctic University of Norway, Norway
- **John Couchman**, University of Copenhagen, Denmark
- **Catherine Merry**, University of Nottingham, UK
- **Kalle Sipilä**, King's College London, UK
- **Madeleine Durbeej**, Lund University, Sweden
- **Ning Lu**, University of Bergen, Norway
- **Donald Gullberg**, University of Bergen, Norway
- **Marion Kusche-Gullberg**, University of Bergen, Norway
- **Frits Alan Thorsen**, University of Bergen, Norway

[Read more here.](#)

NEW SCIENTIFIC WRITING SEMINAR



We are repeating the success from December 2017, a two-day seminar in Scientific Writing in the CCBIO/Harvard INTPART collaboration. Save the date May 15 to 16 2019!

Teachers will also this time be:

- **Christine Møller**, an experienced lecturer in medical and scientific writing and assistant editor of APMIS (Acta Pathologica Microbiologica et Immunologica Scandinavica)
- **Randy Watnick**, associate professor at the Vascular Biology Program, Harvard School of Medicine

Elisabeth Wik is course coordinator. Find [more information here.](#)

SUPPORT FOR FUNDING APPLICATIONS

Yves Aubert recently joined CCBIO as senior advisor for research and innovation (50% position). Yves has a successful track-record of securing industrial innovation grants, and he will be happy to support the CCBIO members in all their grant application needs.

You can meet him at CCBIO's administration office on Mondays, Tuesdays, and Wednesday mornings.

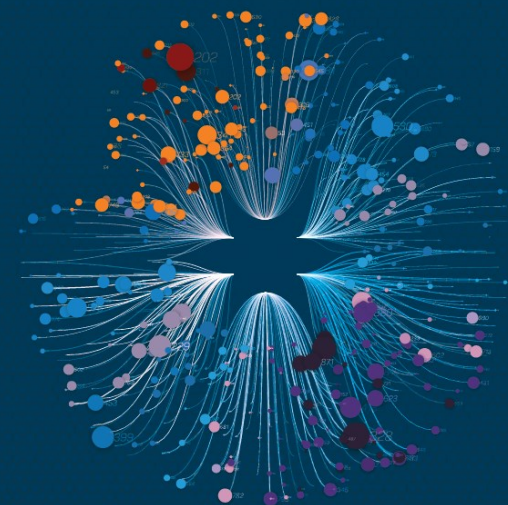


Yves Aubert.
Photo: Jørgen Barth.

DID YOU GET THE CCBIO ANNUAL REPORT?



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



ANNUAL REPORT 2017

In May, we published our latest annual report, the 2017 report. This explains in full all CCBIO activities during 2017, future plans, and includes new CCBIO opinions on current issues in research.

If you haven't read it yet, it can be downloaded as pdf [on this link](#) (allow a minute or two to download). If you prefer the paper version, and it is actually a 120 page book, you can visit our offices at Haukeland University Hospital, Main building (Sentralblokk) 2nd floor, or [contact us](#).

CREATIVE LEARNING AT THE RESEARCH FAIR



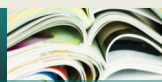
The annual public research event by the scientific and research community in Bergen, the Research Fair ('Forskningstorget'), took this year place September 21st and 22nd.

The [Bergen Gynecologic Research Group](#) took responsibility for the CCBIO stand this year, and attracted great interest both from adults and the actual target audience, kids and youth.

There was a distinct scent at the stand, as the aspiring scientists were given the opportunity to isolate DNA from garlic. The group had crushed plenty of garlic and was all set with stirring sticks, soap solution and isopropanol. Lab coats, gloves and safety goggles were available for the children, who could bring the DNA they isolated home in small Eppendorf tubes. This was a great hit amongst the young researchers. The audience could also palpate tumors in playmice, find tumors using PET-CT on both mice and patients, as well as look at cancer cells through a microscope and illustrate a diagnostic mindset.

[Read more here.](#)

PUBLICATIONS



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

- Reikvam H, Skavland J, Gullaksen SE, Hovland R, Gedde-Dahl T, Bruserud Ø, Gjertsen BT. [Chronic Myeloid Leukemia Relapsing 25 Years after Allogenic Stem Cell Transplantation](#). Case Rep Hematol. 2018 Sep 23;2018:2045985. doi: 10.1155/2018/2045985. eCollection 2018.
- Kirkeleit J, Riise T, Bjørge T, Christiani DC, Bråtveit M, Baccarelli A, Mattioli S, Hol-lund BE, **Gjertsen BT**. [Maternal exposure to gasoline and exhaust increases the risk of childhood leukaemia in offspring - a prospective study in the Norwegian Mother and Child Cohort Study](#). Br J Cancer. 2018 Oct;119(8):1028-1035. doi: 10.1038/s41416-018-0295-3. Epub 2018 Oct 15.
- Curry FE, Taxt T, Rygh CB, Pavlin T, Bjørnstad R, Døskeland SO, **Reed RK**. [Epac1^{-/-} mice have elevated baseline permeability and do not respond to histamine as measured with DCE-MRI with contrast agents of different molecular weights](#). Acta Physiol (Oxf). 2018 Oct 9:e13199. doi: 10.1111/apha.13199. [Epub ahead of print]
- Guerreiro EM, Vestad B, Steffensen LA, Aass HCD, Saeed M, Øvstebø R, **Costea DE**, Galtung HK, Sjøland TM. [Efficient extracellular vesicle isolation by combining cell media modifications, ultrafiltration, and size-exclusion chromatography](#). PLoS One. 2018 Sep 27;13(9):e0204276. doi: 10.1371/journal.pone.0204276. eCollection 2018.
- Arteaga-Marrero N, Mainou-Gomez JF, Brekke Rygh C, Lutay N, Roehrich D, **Reed RK**, Olsen DR. [Radiation treatment monitoring with DCE-US in CWR22 prostate tumor xenografts](#). Acta Radiol. 2018 Sep 19:284185118798167. doi: 10.1177/0284185118798167. [Epub ahead of print]

BOOK "FRÅTSE-FRIDA" OR "KRISTINE KREFTCELLE"



Note that CCBIO still offers schools and others a unique way of learning about cancer cells through actor and CCBIO PhD graduate Henriette Christie Ertsås, now funded through the Research Council of Norway (PROFORSK program). [Read more here.](#)



RECENT CCBIO IN THE MEDIA

21.10.18, Dagens Medisin, "[Bør endre behandlingspraksis for rundt 100 norske kvinner](#)", Line Bjørge.

Digi.no, "[Er i gang med å la maskinene ta over for legene: - Nå jobber vi med de digitale modellene, sier norsk forsker](#)", Bjørn Tore Gjertsen.

20.10.18, Dagens Medisin, "[Skyhøye forventninger til behandling av eggstokkreft](#)", Line Bjørge.

24.08.18, På Høyden, "[Astrid \(31\) blir ikke frisk av kreften, men lever godt med det](#)", Lars A. Akslen

23.08.18, UiB Aktuelt, "[Kreftens sporhund](#)", Lars A. Akslen

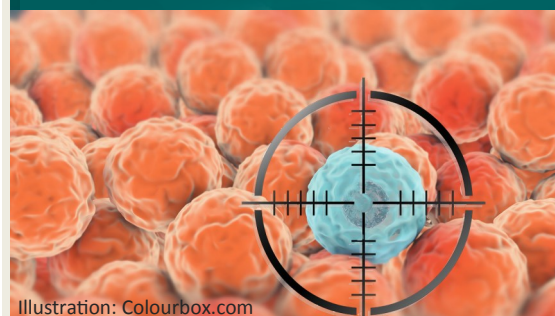


Illustration: Colourbox.com



University of Bergen, Centre for Cancer Biomarkers CCBIO, Department of Clinical Medicine, Jonas Lies vei 87, 5021 Bergen. Tel. + 47 55 58 54 36 www.ccbio.no

