



FROM VISION TO DECISION

NEWSLETTER

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Leadership Team:

Program Manager

Ragnar Nortvedt
Tel 55970529 / 92829508

ragnar.nortvedt@helse-bergen.no

Scientific Director

Odd Helge Gilja
odd.gilja@helse-bergen.no

Arvid Lundervold
arvid.lundervold@biomed.uib.no

Helwig Hauser

helwig.hauser@uib.no

Antonella Munthe-Kaas

antonella.zanna@uib.no

Renate Grüner

renate.gruner@ift.uib.no

Dag Magne Ulvang

dagu@cmr.no

Ingfrid Haldorsen

ingfrid.haldorsen@helse-bergen.no

General Secretary

Elin Myhrvold Riple

Tel: 55972954

elin.riple@med.uib.no

Project Leaders:

Roald F. Havre

Torfinn Taxt

Bjørn Tore Gjertsen

Knut Matre

Paul L. Muren

Arvid Lundervold

Jarle Rørvik

Ingfrid Haldorsen

Eli Renate Grüner

Martin Biermann

Ivan Viola

Trygve Hausken

Mai Tone Lønnebakken

Web:

<http://medviz.uib.no>

Postal address:

MedViz

Att. Ragnar Nortvedt

Haukeland University

Hospital,

Møllendalsbakken 7,

5021 Bergen, Norway

Dear MedViz Supporter

The current issue is ready for your summer holidays. You will find summaries from both the CCBIO and the MedViz annual conferences, and a report from Professor Kenneth Krohn's visit in May but first we present an interview with researcher Dag Magne Ulvang from Christian Michelsen Research.

Interview with Researcher Dag Magne Ulvang



Researcher Dag Magne Ulvang

Dag Magne was born in Bergen and grew up at Varden in Fyllingsdalen. After finishing his studies at Fyllingsdalen highschool, he did his military service duty at "Befallsskolen for Marinen" in Horten for one year, followed by one year at the frigate KNM Bergen. "I already then was interested in electronics and started my education in communication and electronics, in parallel with my work with maintenance of communication equipment on board the ship. We were sailing with the NATO forces", he tells. Dag Magne continued studying electronics at Bergen University College and graduated in 1995. Then he went on with studies at NTNU and became "Sivilingeniør" (Master in Engineering) in data technology in 1998. After his studies he started directly at Christian Michelsen Research (CMR) as research assistant and later he became researcher at CMR. Read the interview [here](#).

Visit by Professor Kenneth Krohn from University of Washington

Head of Radiochemistry at the Center for Nuclear medicine / PET at HUS, Dr. Tom Christian Holm Adamsen had the pleasure of welcoming Prof. Kenneth Krohn from the University of Washington (Seattle, USA) on May 5th at Haukeland University Hospital. Prof. Krohn has been a pioneer in nuclear medicine and has worked for over 35 years with clinical molecular imaging, especially focusing on imaging response to therapy.



The title of his talk was «Use of PET to select patient cohorts for experimental therapy», with clear reference to personalized medicine, and how to use appropriate imaging probes to select the right patients to the right drugs. He also showed that PET-imaging can be important in measuring dose response, and serve as a rapid method to adjust e.g. chemotherapeutic doses.

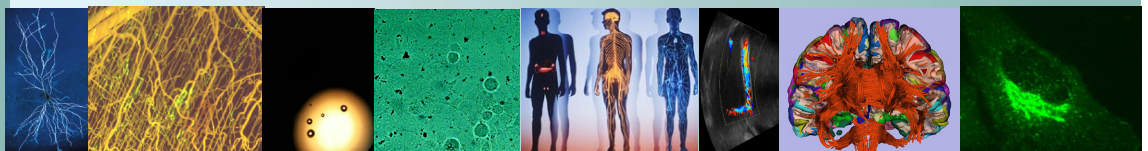
Assoc. Prof. Tom Chr. Holm Adamsen and Prof. Kenneth Krohn at Fløien.

One of Prof. Krohn's main research interests has been the role of hypoxia with regard to clinical outcomes. His talk covered a broad range of applications with [18F]FMISO, and how this imaging agent can be applied to areas like survival prediction, IMRT dose boosts and reoxygenation.

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HELSE BERGEN
Haukeland University Hospital



The topic of tumor viability, and the comparison of [18F]FDG, [11C]thymidine and the thymidine analog [18F]FLT was discussed, especially the limitations of the former. The idea that «killed» cancer cells might still need energy (hence glucose), and a more specific proliferation probe would serve better to account for the real viable remaining tumor cells. The importance of quantitative data analysis became apparent when discussing the use of [11C]thymidine which degrades/metabolizes rapidly in vivo. The concluding message was that therapy response, selecting patients for experimental therapy and clinical drug trials will increasingly demand more molecular imaging protocols, and is essential for making sense of targeted therapy and personalized medicine. The presentation is available [here](#).

CCBIO's 3rd annual Symposium at Solstrand May 19-20 2015

Almost 200 participants joined the CCBIO's 3rd annual Symposium with cancer research as main focus. One of the highlights was the presentation by Professor Bjørn Tore Gjertsen, presenting biomarkers in individualized cancer trials. He defined several different types of biomarkers:

- **Diagnostic biomarkers** distinguish between patients with a particular disease and those who do not have the disease
- **Prognostic biomarkers** provide information on the likely course of disease in an untreated individual
- **Predictive biomarkers** are linked to treatment, as they provide a forecast of the potential for a patient to respond in some identified manner to one or more specific treatments
- **Response biomarkers** are dynamic assessments that show a biological response which has occurred in a patient after having received a therapeutic intervention
 - o Safety biomarkers
 - o Pharmacodynamic biomarkers
 - o Efficacy-response biomarkers or surrogate endpoints

From a MedViz imaging point of view we would also like to add: **Imaging Biomarkers**, which might be applied in several of the above defined categories and in both preclinical and clinical cancer studies. CCBIO and MedViz have planned for a commonly arranged conference in 2017 and we foresee that there will be a stronger focus on imaging biomarkers in this upcoming event.

The 9th MedViz Conference 2015 at Bikuben June 15-16

The 9th MedViz conference in Medical Imaging and Visualization, organized in close cooperation with The Molecular Imaging Centre (MIC) at Department of Biomedicine, UiB and Department of Radiology/PET-Centre at Haukeland University Hospital, gathered 159 participants in the new Bikuben Course and Conference facilities at HUH campus. This year's MedViz Conference had a particular focus on innovation in imaging and visualization. In retrospect, we are therefore very enthusiastic about the industry participation and exhibition of the following eight industry partners this year: Bruker Baltic OÜ, GE Healthcare, Inter-Medical AS, NordicNeuroLab AS, Phillips Healthcare, Siemens, VisualSonics and Wiik Pharma. These exhibitors and MedIm, the Norwegian Research School in Imaging funded the conference and thus contributed to make it successful. We are also grateful to the international faculty from USA, The Netherlands, Germany, Czech Republik, Finland, Sweden and Denmark for coming to Bergen to share their expertise with us. Furthermore, without the contribution from the national speakers, from our local organizing committee and from the team at Bikuben, this conference would not be possible. The conference got a fresh start by Bjarte Aasmul playing "Nystemten" ("Anthem of Bergen") on electric guitar before CEO at Haukeland University Hospital Stener Kvinnsland formally opened the conference. The social program included a dinner with valuable informal talks around the tables at Bellevue Restaurant with folk- and jazz music performed by Cozyart. The major highlights were of course the 35 oral presentations in the scientific program which covered technology and advanced visualization, PET and tracer development, biological and preclinical imaging, as well as clinical imaging sessions covering abdominal-, pelvic- and neuroimaging. The speed poster session consisted of two minutes poster presentations in plenum by 12 PhD students and postdocs, followed by poster discussions in the poster area. You can download the abstract book [here](#). The conference ended by awarding the best free oral



presentation by postdoc Spiros Kotopoulos (HUH), the best poster and speed poster presentation by PhD student Erik Smistad (NTNU), and the best images from the Medviz photo and illustration competition by Irene Heggstad (The Common Electron Microscopy Lab), Paolo Angelelli (Dep. of Informatics, UiB), Erlend Hodneland (CMR and MedViz) and Sergej Stoppel (Dep. of Informatics, UiB). See the pictures at our web page. **Congratulations! We would also like to thank all the participants for their interest and their contributions to make it a memorable MedViz Conference!**

An unfortunate, unpredictable but still funny happening in Session IV was when, right in the middle of invited speaker Professor Emmet McCormack's (to the right) presentation, all the lights suddenly went on, the computer turned off and the backstage curtains opened exactly at 17:00. Can you imagine?

Upcoming events and deadlines

August 13-14, 2015. Bridging Nordic Imaging – Enabling discoveries from atoms to anatomy. Conference in Turku, Finland: www.bioimaging.fi/nordic-imaging

September 4, 2015. MedViz Seminar in MedViz Incubator, Møllendalsbakken 7, 5th floor.

September 14-15, 2015. 5th Eurographics Workshop for Visual Computing for Biology and Medicine 2015. Chester, UK. Deadline Poster submission: August 7, 2015. <http://www.vcbm.org/>

November 16-17, 2015. The 7th National PhD Conference in Medical Imaging. Scandic Fornebu, Oslo. Registration deadline: September 7, 2015. www.medicalimaging.no

**Ragnar Nortvedt
Program Manager**