



# FROM VISION TO DECISION

## NEWSLETTER

YEAR 3, NUMBER 8

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## Dear MedViz Supporter

First of all, we would like to congratulate Prof. Bjørn Tore Gjertsen and collaborative partners for achieving strategic financial support from Helse Vest to a project on personalized cancer therapy, based on “liquid biopsies”. MedViz is represented in the project by Dr. Georg Dimcevski, who will strengthen his focus on pancreas cancer within the project consortium. Since the current Newsletter is the Christmas issue we would like to draw your attention to the upcoming joint MedViz & Visual Computing Forum Christmas Seminar taking place in the MedViz Incubator on Friday 12.12. We will serve you some tasty finger food after the scientific program (see our [webpage](#) for full program). Today, you can also read an interview with Dr. Spiros Kotopoulos and a summary from our collaboration partner Department of Clinical Medicine’s Department Day at Solstrand. We hope that you also have been inspired by some of MedViz activities in 2014 and that you will enjoy nice and peaceful Christmas holidays.

## Late events

### November 12-13: K1 Department’s Day at Solstrand

Department of Clinical Medicine, K1 arranged its annual meeting for the employees at Solstrand Hotel & Bad from lunch to lunch November 12-13. From several interesting presentations on research, education, cross-institutional collaboration and workplace environment we have selected a few highlights that were particularly interesting to MedViz. Besides, we really enjoyed the great food, facilities and surroundings at Solstrand, a perfect place for mingling and informal discussions.



Both Hans-Peter Marti and Georg Dimcevski (picture) discussed strategies for cancer therapy within kidney and within pancreas, respectively. Their common approach was to apply sonoporation (targeted medical therapy by ultrasound) and they referred to collaboration between their respective research groups. Hans-Martin has established two main focus points, namely vascular calcification and malnutrition and he also runs treatment by down regulation of genes. Georg referred to a phase I study on 10 pancreas cancer patients at Forskningsposten at HUH, where they looked at tumor size and survival as success criteria after application of sonoporation. The survival data looks promising so far. The patients can proceed with their therapy as

long as the tumor does not become too big. The tumor size results are also positive so far, which implies that the patients have got as double as many treatments within a given time period as before. [Read more from K1](#)

[Department’s Day.](#)

### November 25: Presentation by Prof. Helwig Hauser at Bergen University College - HiB

**Interactive Visual Analysis – delivery**

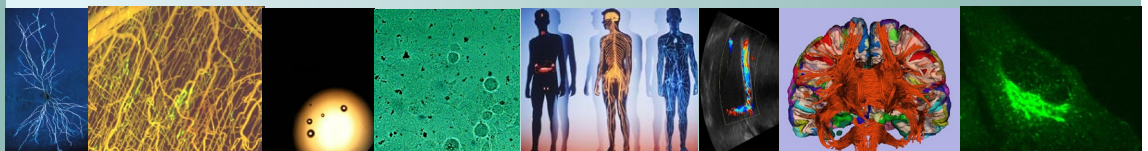
- Understanding data wrt. range  $d$ 
  - which distribution has data attribute  $d$ ?
  - how do  $d_1$  and  $d_2$  relate to each other? (multivariate analysis)
  - which  $d_i$  discriminate data features?
- Understanding data wrt. domain  $x$ 
  - where are relevant features? (feature localization)
  - which values at specific  $x$ ? (local analysis)
  - how are they related to parameters?

Professor Helwig Hauser gave an invited talk on the topic “Interactive visual analysis of rich scientific data” at the HiB Campus Kronstad. Most of the students were unfortunately busy with exams, however, several colleagues from the Department of Data and Natural Sciences and some guests contributed to the discussion, moderated by Asc. Professor PhD Alexander Lundervold. There seems to be some common interests between the two respective groups at HiB and UiB, which also is relevant to MedViz.

cmr



HELSE BERGEN  
Haukeland University Hospital



## November 25: Presentation by Prof. Odd Helge Gilja at Radisson Blu Royal Hotel Bryggen



FNH



HCC

Professor Odd Helge Gilja gave a pedagogical presentation at the GE Healthcare meeting about the new contrast agent Sonazoid, which is applied during ultrasound scanning of tumors in digestive organs. The enhancement of FNH (Focal Nodular Hyperplasia) and HCC (Hepatocellular Carcinoma) in a few seconds during scanning of patients, can be compared and memorized as similar to how fireworks and flash of lightning appears in the sky, respectively, Gilja demonstrated.

### Interview: Spiros Kotopoulos



Background: Spiros was born in Athens in Greece and grew up in the nearby village of Delphi. -My parents got divorced and I thus spent hours and hours on buses commuting between the two together with my one year older sister. She now lives in London with her three kids. I grew up with these boring bus trips but I also learned a lot about how I wanted my life to be. I followed an International Bachelorate study in Greece because I wanted to go study abroad. The educational system is more corrupt and substantially slower in Greece. Therefore many go abroad for studying. Since my mother is from UK, it was a logical step to go there. Originally I planned for studies in Southampton, but ended up at University of Hull at the North East coast of England, in the Yorkshire district. I completed my IMechE accredited Bachelor in three years. I was aiming for a PhD study and I visited all the Professors at the University to find out which direction I should go for. When visiting with a friend, Professor Michiel Postema engaged both of us as PhD students. My friend ended up with studies on waves whereas I continued with microbubbles under Postema's supervision. [Read more from the interview.](#)

## Upcoming events

**9. December:** Deadline for submission to EMIM 2015 – [European Molecular Imaging Meeting in Tübingen, Germany, 18-20 March.](#)

**10. December:** PhD defence by Erik Hanson. Title: “Image processing methods for 4D magnetic resonance acquisitions from brain and kidney”. Supervisors: Prof. Alexander Malyshev, Dept. of Mathematics, UiB and Prof. Arvid Lundervold, Dept. of Biomedicine, UiB. This open event takes place at 13:00 in Auditorium 307 (“pi”), Carl L. Godskes Hus, Johannes Bruns gate 12. (in the vicinity of the library).

**12. December:** MedViz Christmas Seminar together with Visual Computing Forum, Dept. of Informatics. The seminar takes place in the MedViz Incubator, Møllendalsbakken 7, 5th floor. Two international speakers; Dr. Bernhard Kainz from London and Prof. Ivan Viola from Vienna and one local speaker from Department of Radiology, HUH: Professor Torfinn Taxt. Tasty food and beverages will be served after the scientific presentations. Welcome to this free meeting! Remember 12.12 from 12:00.

**13. January 2015:** Deadline for [Marie Curie Actions](#), funding for exchange and networking.

**12. March 2015:** Deadline for European Research Council (ERC) [Consolidator Grants](#), which are designed to support excellent Principal Investigators.

**15.-16. June 2015:** MedViz Conference, Bergen. This event will be organized together with the PET Center at HUH and the MIC research group at Department of Biomedicine, UiB. The main focus will be innovation within medical imaging and visualization.

**14.-15. September 2015:** VCBM Workshop in Chester, UK, where The Pioneer in “computational medicine” Prof. Denis Noble will be the keynote speaker. All MedViz colleagues are encouraged to submit papers and join the workshop.

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