OSLO CANCER CLUSTER

FROM CANCER RESEARCH TO CURE

INNHOLD

OSLO CANCER CLUSTER **– A FRONTRUNNER**

Oslo Cancer Cluster is an oncology research and industry cluster gathering about 90 members, all dedicated to developing new cancer diagnostics and medicines. We are continuously expanding our member base.

The goal is to become a leading oncology cluster in Europe, and Oslo Cancer Cluster is well on the way. Established in 2006, it received the status as a Norwegian Centre of Expertise already in 2007. In 2013, Oslo Cancer Cluster was evaluated to be a strong biotech cluster well positioned in the global oncology industry. Oslo Cancer Cluster's core expertise is immuno-oncology, clinical trials and precision cancer medicine.

Cancer is one of our great societal challenges

Each year 14 million people develop cancer worldwide. Another 8 million die from their cancers each year. A lot of them do not have to.

Our vision is to accelerate the development of new cancer treatments. We work to turn the funding and dedication that go into cancer research, into new products and treatments that change people's lives! By working together across silos, and by merging technologies, we will reduce the large number of cancer patients worldwide, and hopefully help transform cancer into a chronic disease.

Over the last 10 years, a great team at Oslo Cancer Cluster has created a strong organization with a clear national role and a strong international network. Where do we go from here?

Our goal is simple, but ambitious: to be a leading European cluster for cancer innovation. We have created a joint ecosystem in Norway, and now we are expanding to exploit the European opportunities via existing and novel partnerships.

We believe that cancer researchers, biotech entrepreneurs and life science professionals will be the rock stars of tomorrow. We think they can achieve 10 years of progress in 5 years' time. To achieve this, we can use the Nordic countries' unique resources in a global effort.

We work in three strategic areas to accelerate the development of new cancer treatments. These strategic areas are represented by a few stories from our members in this brochure. I hope this small excerpt of our activities will trigger your interest for our work.

Ketil Widerberg
General Manager
Oslo Cancer Cluster

Three strategic areas

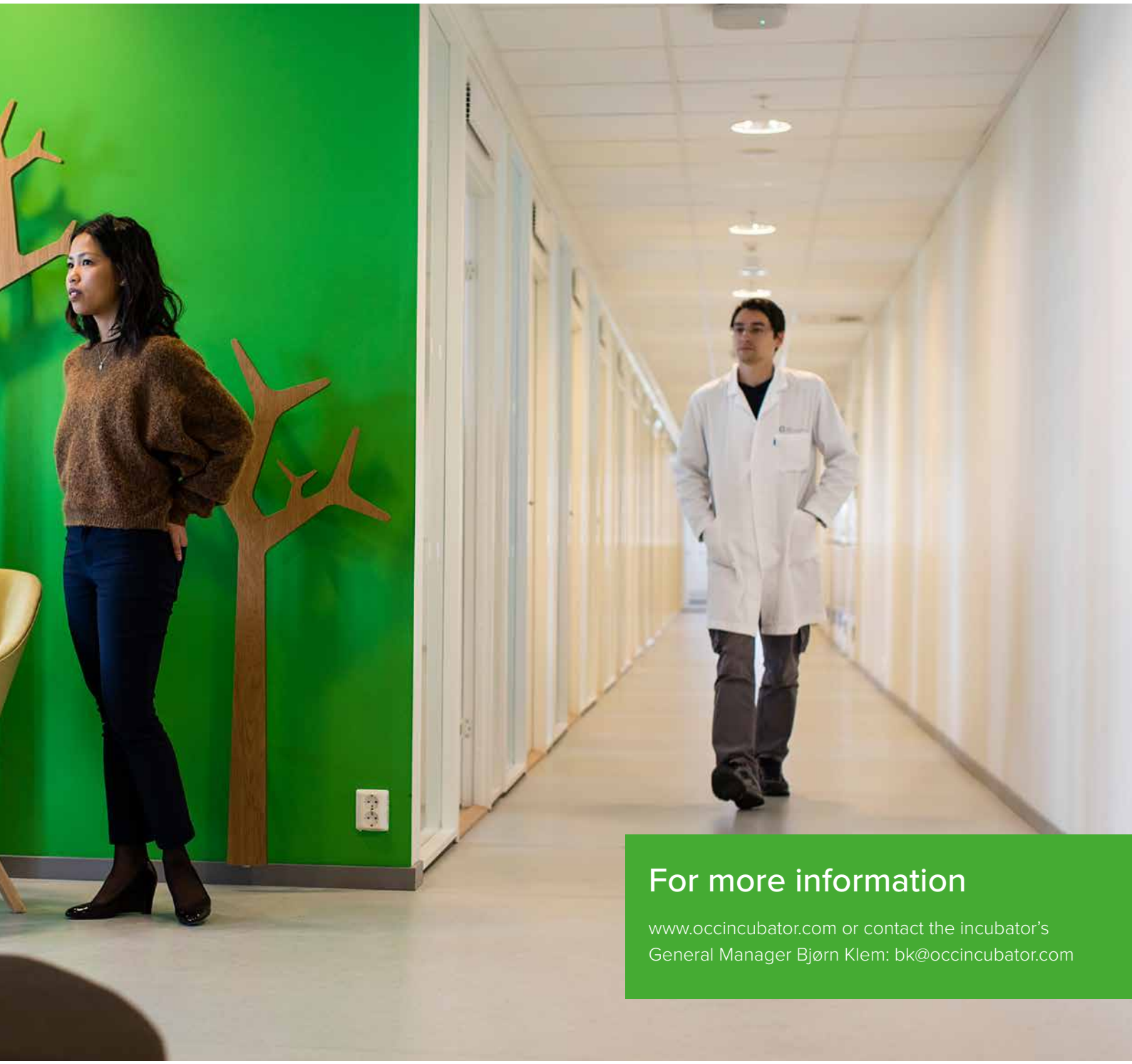
1. Cancer innovation excellence. We take ideas from research labs, and translate them into novel products and build businesses.
2. Preferred global partner. We connect to global value chains.
3. Talents of tomorrow. Develop and attract the best talents – from schools to post docs and employees in companies.

OSLO CANCER CLUSTER

OSLO CANCER CLUSTER **INCUBATOR**

To secure the continuous development in the field of cancer research, Oslo Cancer Cluster Incubator was established. The incubator provides a dynamic, creative and professional growth environment for both scientists and start-ups. Oslo Cancer Cluster Incubator AS is an integrated part of the Oslo Cancer Cluster Innovation Park, and is now housing more than 30 institutions and companies. In the incubator, promising oncology biotechs get support through covering of key development areas, access to an extensive international network and facilitation of investor contacts.

In the 5000 square meter incubator, the contributors have access to lab services, meeting room facilities and mingling areas. All to support the tenants to commercialize successfully.



For more information

www.occincubator.com or contact the incubator's General Manager Bjørn Klem: bk@occincubator.com

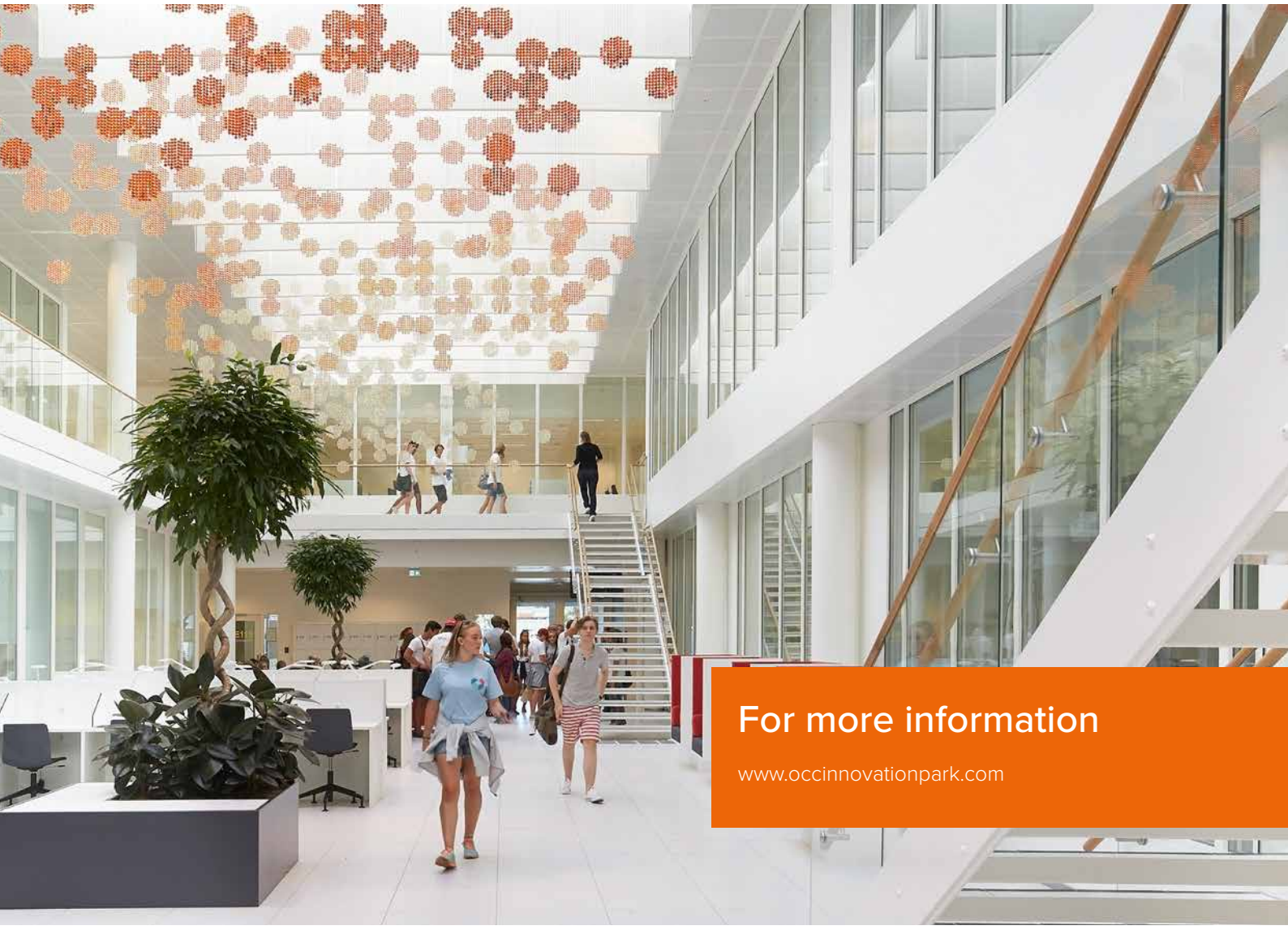
OSLO CANCER CLUSTER
INCUBATOR

OSLO CANCER CLUSTER **INNOVATION PARK**

The Oslo Cancer Cluster Incubator is part of the Oslo Cancer Cluster Innovation Park. So is Ullern Upper Secondary School, the Cancer Registry of Norway and part of Oslo University Hospital. To kick-start and inspire talents and upcoming researchers, Oslo Cancer Cluster has been collaborating with Ullern Upper Secondary School since 2009. This way the pupils get rare opportunities for insight into the area of cancer research – either through guest lectures from oncology researchers and industry leaders or by doing workplacements at the members of Oslo Cancer Cluster.

The innovation park is becoming a power centre for the development of new cancer treatments. The vision behind it is to create Europe's leading environment for education and research within oncology.

The innovation park opened in August 2015 as a unique project. It is built on private enthusiasm and a long history of experience within cancer research and treatment. That is why it is located right next to the Norwegian Radium Hospital, the Institute of Cancer Research and Oslo University Hospital. Everything is within reach, from basic research to the oncology industry.



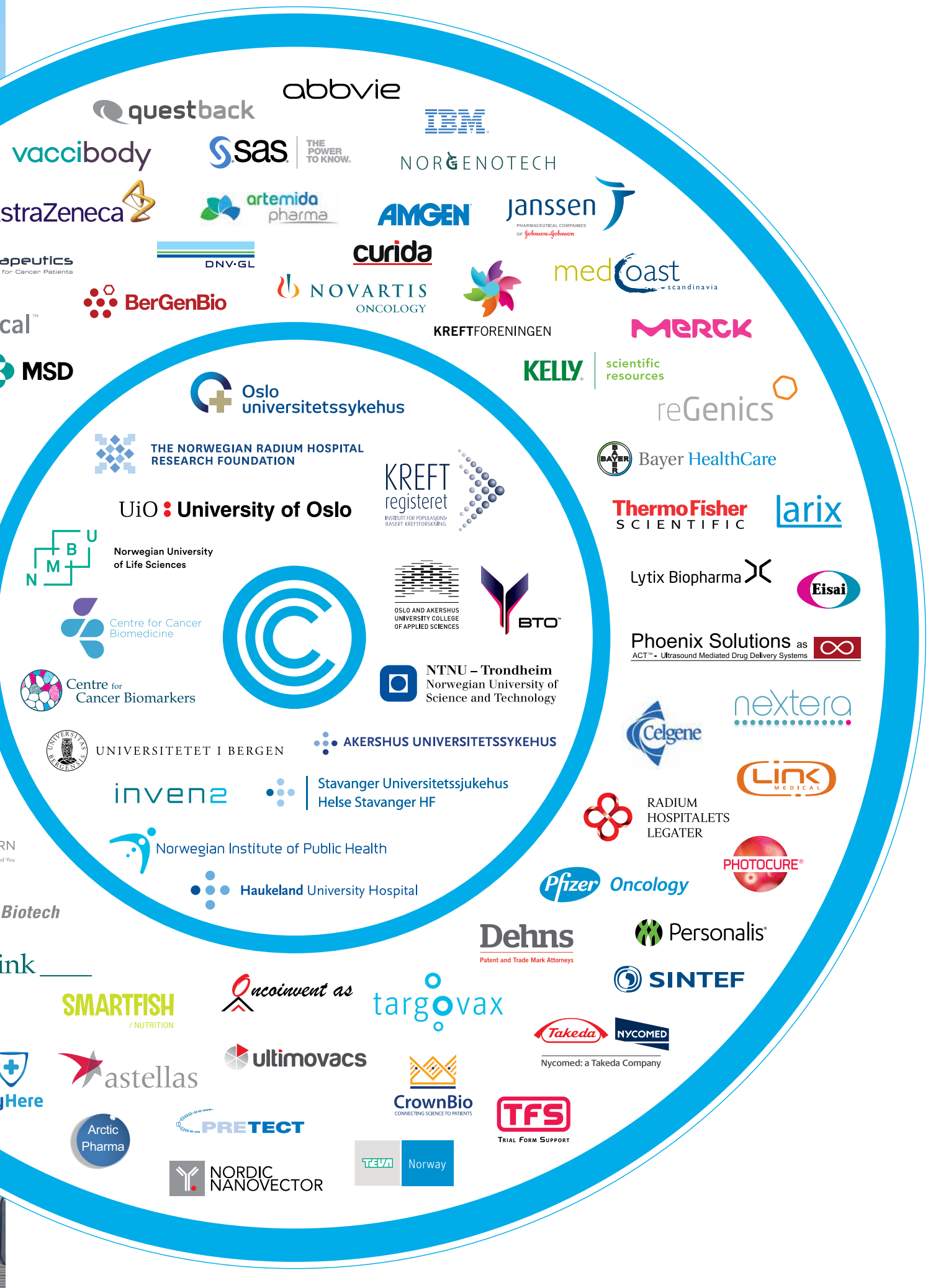
For more information

www.occinnovationpark.com

OSLO CANCER CLUSTER
INNOVATIONS PARK

OUR MEMBERS

The members of Oslo Cancer Cluster represent the entire value chain – from basal cancer research to larger biopharmaceutical companies. Our member base consists of biotechs, contract research organizations (CROs), investors and academic institutions – both universities and university hospitals.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THE NORWEGIAN RADIUM HOSPITAL RESEARCH FOUNDATION
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INSTITUTT FOR POPULASJONS-BASERT KREFTFORSKNING
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ThermoFisher SCIENTIFIC
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Innovation Excellence

How cancer research becomes a company

The Department of Cellular Therapy at the Radium Hospital, Oslo University Hospital, is great at transforming cancer research into new companies. The latest spin-out is Zelluna.

The Department of Cellular Therapy features one of Europe's largest and most modern good manufacturing practice (GMP) facilities for cellular products. Head of the department is Prof. Gunnar Kvalheim. They are also conducting translational research, and their research has been spun out as several companies, such as the newly established company Zelluna.

The immunomonitoring unit is a major part of the department, and is led by Else Marit Inderberg. This unit is situated in the Oslo Cancer Cluster Incubator, which is an integrated part of the Oslo Cancer Cluster Innovation Park. A translational research lab has been created and is associated to the immunomonitoring unit.

The cancer killer

"Our major strength is that we have all aspects within the department to take cellular research from the bed to bench and back again. We have the equipment and the specialists to do everything here", says Inderberg.

Together with Sébastien Wälchli, she is also the project leader for the translational research lab. Here, they develop cancer vaccines and work with adoptive T cell therapy. A T cell, or T lymphocyte, is a type of lymphocyte (a subtype of white blood cell) that plays a central role in cell-mediated immunity. T cells have the capacity to kill cancer cells.

In the lab, they look for a T cell receptor (TCR), which is a molecule found on the surface of T cells. They use Chimeric antigen receptors (CARs), which are engineered receptors that graft an arbitrary specificity onto a T cell. Ultimately, the researchers work with a universal cell line for cellular therapy – a universal cancer killer.

Else Marit Inderberg and Sébastien Wälchli often work in one of the cell labs in Oslo Cancer Cluster Incubator.

Photo: Christopher Olssøn/Oslo Cancer Cluster


PARAFILM

Innovation from the biobank

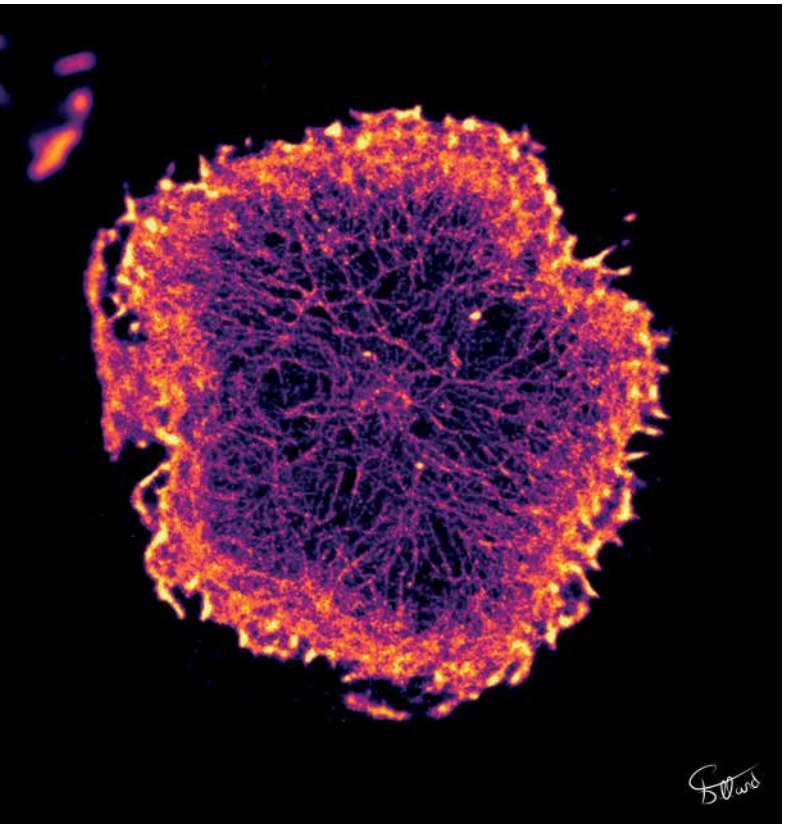
“In the translational research lab, we think innovation all the time. In our research, we actively search for solutions to unmet medical needs within cancer”, says Inderberg.

The translational research lab was built upon the work done by the section for immunotherapy established by professor emeritus Gustav Gaudernack, and most of its activity relies on the use of a database of patient samples called the biobank. This specific biobank represents an inestimable source of information about the patients’ response to immunological treatments over the years. Furthermore, the patient material can be reanalysed and therapeutic molecules isolated. This is the basis of the company Zelluna.

Industrial collaborations

The Department of Cellular Therapy is heavily involved in both academic and industrial collaborations. The latter include collaborations with several biotech companies as well as pharma companies situated in the Oslo Cancer Cluster Innovation Park, developing novel immunotherapy cancer treatments. Examples of industrial collaborations are the German company Medigene, the Norwegian biotechs Targovax, Ultimovacs, Lytix and PCI Biotech, and the bigger biopharmaceutical companies BMS, Novartis and ThermoFisher.

In addition to their industrial collaborations, the Department of Cellular Therapy also wants to commercialise their own projects.



This is a T cell, or more precisely, an actin cytoskeleton of a T lymphocyte. The picture is obtained by a special micro-scope. The cell’s size: 38*38 µm.

Photo: Pierre Dillard

The Zelluna Spin-out

“Our latest spin-out is Zelluna, which has recently been set up as a start-up. Staff has just been hired to drive the development of TCR-based therapies to clinical trials”, says Sébastien Wälchli.

The TCR-approach is based on identification of T cell receptors from patients clinically benefitting from treatment with vaccines from back in the nineties and early 2000s. The approach is to modify the patient T cells to express the same receptors before giving the cells back to the patients, ready to combat the cancer cells.

The company has been established through the efforts of the Radium Hospital Research Foundation as well as Inven2.

“This is a very interesting and unique approach. We are eagerly anticipating the development of the company”, says Inderberg.

Contact

Else Marit Inderberg (PhD), Head of Immunomonitoring
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elsmar@rr-research.no

Want to find out more about the research? www.ous-research.no/cellulartherapy

Preparing for market launch

Nordic Nanovector may soon outperform its "big brother" Algeta. The company delivered excellent results in 2016; it raised nearly half a billion NOK, the results of the clinical trials were good, and four research projects were established with international partners.

The most important thing, however, is that Betalutin®, the product Nordic Nanovector is developing as a treatment against lymphoma, is showing good clinical effect in trials. Everything is on track for submission of the application for regulatory approval in the first half-year 2019.

"Lymphoma is the tenth most common form of cancer in the world, and the market could reach more than USD 12 billion in 2018. If it is approved, Betalutin® could meet a treatment need in patients with a variant of lymphoma that is both common and difficult to treat", says Tone Kvåle, the company's Chief Financial Officer (CFO).

Broad portfolio

Betalutin® is a type of Antibody-Radionuclide-Conjugate. A radioactive isotope, lutetium-177, is conjugated to an antibody, CD37. The drug is administered to the patient by injection. The antibody causes Betalutin® to only attach itself to cancer cells, which are then exposed to targeted radiation and destroyed by the radioactivity.

"In 2016, even more patients have been treated in the clinical trial. The follow-up of the patients confirms what we have already seen, that the treatment is effective, has few side-effects and that the effect lasts longer than previously observed", says Kvåle.

Photos: Nordic Nanovector

In parallel, the company is working on expanding areas of use for Betalutin® to include treating related types of haematological cancer for which there is also an unmet treatment need. In addition, the company is in the process of testing Betalutin® in combination with the chemotherapy drug Rituximab, the first-line therapy for lymphoma.

“The results of the pre-clinical study were so promising that we will now start testing it on patients. Our theory is that Betalutin® can reinforce the effect of Rituximab”, says Kvåle.

Four research collaborations

Nordic Nanovector’s strategy is to expand its product portfolio to include other types of haematological cancer in addition to non-Hodgkin lymphoma. In line with this strategy, the company has established research collaborations with a number of recognised international partners: LegoChem, Heidelberg, Paul Sherrer Institute and Areva Med.

“They will contribute their expertise in the further development of our antibody conjugates technology for the treatment of leukaemia”, says Kvåle.

Antibody conjugates are antibodies that have been altered with different targeted molecules, depending on which antibody they are intended to detect.

Studies and market launch

In December 2016, Nordic Nanovector raised almost half a billion NOK in fresh equity. These are funds that, among other things, will be used to finance new clinical trials and prepare the commercial launch of Betalutin®.

“We are working closely in relation to opinion leaders in the USA to ensure that our treatment will be introduced in the most important market in the world, given that we are granted approval in 2019 as planned”, says CFO Tone Kvåle.

Strong international team

In 2016, Dr Lisa Rojkjaer, MD, was hired as the company’s new Chief Medical Officer (CMO), and two new board members joined from the USA.

Many contributors have helped to secure the development process along the way, including Inven2.

“Inven2 was one of our first investors, and it subscribed for a large part of the first share issues. It was important that they believed in us; it made it easier to attract other investors. That gave us an opportunity to start hiring and speed up the testing of the product”, says Kvåle.

Nordic Nanovector

Established: 2009
CEO: Luigi Costa
Private capital raised: NOK 1,522 mill.
Number of employees: 28
www.nordicnanovector.com

Jonas Lies Vei 91, 5009 Bergen, Norway
+47 559 61 159 • www.bergenbio.com

BerGenBio

BerGenBio ASA is a clinical stage biopharmaceutical company focused on developing first-in-class drugs for aggressive cancers. We have interviewed Richard Godfrey, the Company's Chief Executive Officer, to learn more about the Company's exciting pipeline.

Tell us a bit about BerGenBio.

The scientists at BerGenBio are world leaders in understanding the mechanisms that make cancer cells aggressive. By aggressive we mean cancers that evade the immune system, become resistant to cancer drugs and spread around the body to form secondary metastatic tumours. Often these cancers have a high level of a protein called AXL, and we have shown that AXL mediates a cellular escape mechanism called epithelial-mesenchymal transition or "EMT" that today is widely recognised as making cancers aggressive.

BerGenBio has developed a pipeline of first-in-class AXL inhibitors, the lead drug candidate is BGB324 and is currently in multiple phase II clinical trials.

Can you tell us more about BGB324?

BGB324 is a potent highly selective inhibitor of AXL. When BGB324 blocks the AXL signal in an aggressive cancer cell, it stops EMT and makes the cancer cell visible to the immune system, sensitive to other cancer drugs and prevents metastatic spread. Because BGB324 is highly selective it does not inhibit the function of other proteins in the body, so it is well tolerated by patients and it can be combined with other drugs without adverse effects. Furthermore, it is orally bioavailable, that means the patient simply takes BGB324 as a one-a-day pill. This is very convenient for patients and cost effective for healthcare providers.

What are the clinical trials for BGB324?

BGB324 has already demonstrated that it is well tolerated by patients and we have reported meaningful clinical benefits in patients with very difficult to treat disease. Indeed, during ongoing clinical studies in Acute Myeloid Leukaemia (AML) and Non-Small-Cell Lung cancer (NSCLC), some patients have experienced clinical benefit for more than 12 months.

Additional clinical trials with BGB324 in lung and breast cancer in combination with KEYTRUDA® will commence very soon. KEYTRUDA® is a new blockbuster immune checkpoint inhibitor drug marketed by Merck Inc. (see info box).

BGB324 enhances the efficacy of Immune Checkpoint Inhibitors

High levels of AXL correlate with increased immune suppression

Aggressive cancer cells suppress the immune cells by activating immune checkpoint receptors on the immune cells

Immune checkpoint inhibitors are a new class of drugs that increa the cancer killing effect of our immune cells

AXL inhibition with BGB324 potentiates the immune system and synergistically enhances the effect of immune checkpoint inhibitors by

✔ blocking tumour immune suppression mechanisms
✔ activating the anti-tumour immune response
✔ attracting immune cells into the tumour

BGB324 is the only selective AXL inhibitor in clinical development

The AXL receptor is expressed in most cancers and is associated with poor patient survival

Selective AXL inhibition with BGB324 offers key benefits:

✔ blocks immune escape by cancer cells
✔ prevents and reverses acquired drug resistance
✔ stops metastasis

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Preferred
Global Partner

The international work

Oslo Cancer Cluster aims to enhance the visibility of oncology innovation made in Norway by being a significant partner for international clusters, global biopharma companies and academic centres.

“Our goal is to support our members in their effort to attract international partners, investments and successful academia-industry collaborations”, says International Advisor Jutta Heix.

Heix is responsible for the cluster’s international initiatives, cluster network and partnering activities.

“Back in 2008, Oslo Cancer Cluster was not visible internationally, and few people knew about oncology innovation in Norway. We began to seek out partners and actively approach international pharma companies and other clusters offering relevant synergies”, says Heix.

Building relationships abroad

The relationships thrive on joint initiatives. These include invitations to Norway with tailored programmes, where potential collaboration partners can meet academic teams, start-ups and biotechs. Oslo Cancer Cluster has also joined forces with other hubs and clusters internationally.

One such collaboration is the International Cancer Cluster Showcase (ICCS) at the global biotechnology gathering BIO International Convention in the US. In 2017, it is arranged for the 6th time, with European and North American partners, including the Massachusetts Technology Transfer Center, The Oncopole in Québec, The Wistar Institute in Philadelphia, Medicen in Paris and BioCat in Catalonia.

“This year the ICCS will showcase 24 innovative oncology companies from nine international innovation hubs and clusters. Three of our member companies in Oslo Cancer Cluster will use the opportunity to pitch their products and ideas to a global oncology audience”, says Heix.

European and Nordic arenas

Meeting places are important in Europe too, with BIO-Europe, BIO-Europe Spring and Nordic Life Science Days at the top of the list. Oslo Cancer Cluster is the oncology partner at the Nordic Life Science Days. As a region, the Nordic countries are of international importance in the field of cancer research and innovation, especially in precision medicine, and Oslo Cancer Cluster participates in advancing Nordic collaboration.

Oslo Cancer Cluster also engages in more cancer specific European events. One example is the Association for Cancer Immunotherapy Meeting (CIMT), which is the largest European meeting in the field of cancer immuno-therapy, also known as immuno-oncology.

“Many of our members are active in the field of immuno-oncology, so for a couple of years we have organized an event called CIMT Endeavour with German partners. The aim here is to discuss and promote translational research and innovation in immuno-oncology”, says Heix.

Nordic Life Science Days is the largest Nordic partnering conference dedicated to the life science industry.

Photo: Nordic Life Science Days

Jutta Heix is Oslo Cancer Cluster’s international advisor.

Hot topics

Cancer immunotherapy has had a major impact on cancer treatment and global research and development in the cancer field. The concept took off with the approval of the first immune-checkpoint inhibitor, called Ipilimumab, in 2011. It offered a ground breaking new treatment for melanoma. In 2013, Science Magazine defined cancer immunotherapy as the breakthrough of the year. Since then, immuno-therapy has been dominating the agenda of oncology meetings.

Other hot research and development topics are precision medicine and the increased digitization of the health sector. Oslo Cancer Cluster incorporates these topics in the international work, and aims to expand the services it provides for its members. The cluster recently got funding from Innovation Norway to do this, by adding an EU-advisor to the team.

“We want to increase our members’ involvement in EU’s research and innovation programme Horizon 2020. The new EU-advisor will help our members identify relevant funding schemes, find partners and prepare the applica-tions”, says Heix.

This initiative has already started to show some results. In the spring of 2017, Oslo Cancer Cluster member OncoIm-munity AS won a prestigious Horizon 2020 SME Instrument grant, tailored for small and medium sized enterprises (SMEs). This grant targets innovative businesses with inter-national ambitions — such as the bioinformatics company OncoImmunity.

New meeting places

“Member needs are important for us, as it is for clusters in general. Our network is for the benefit of our members. A good way of leveraging the network, is by creating relevant initiatives and new meeting places – to keep things moving forward”, says Heix.

Oslo Cancer Cluster has new international initiatives coming up. One is in immuno-oncology, bringing Norwegian biotechs to the well-established research communities on the US East coast. The biotechs will get training and support, and will meet academic medical centres and biopharma companies in Boston and other cities. This initiative is supported by Innovation Norway’s Global Growth programme.

Oslo Cancer Cluster organizes international meetings, like this PERMIDES workshop in Oslo in 2017.

Another new initiative takes on academic innovation. More good ideas from academia should make it into patents, start-ups and investment opportunities for industry partners.

“Stanford University has a programme called SPARK. We are working with Norwegian partners, including The University of Oslo Life Science and The Norwegian Inflammation Network (NORIN), on implementing a Norwegian SPARK-programme. This will be part of the global SPARK-network, and we are already building a European node together with Berlin and Finland”, Jutta Heix says.

Contact

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Helping biotech companies through innovative IT solutions

The cluster-to-cluster project PERMIDES stimulates collaboration between biotech companies and IT companies. Its goal is to develop more innovative, personalized cancer treatments.

Oslo Cancer Cluster is currently involved in a big European collaboration through the cluster-to-cluster project PERMIDES.

PERMIDES aims to utilize novel IT-solutions to accelerate drug development in biotech companies. Biotechs and the healthcare sector generally lag in using IT in their everyday work.

Can get better at IT

“I know of companies who still manage their clinical trial studies using Excel. This is not a good idea. An Excel sheet may only hold a limited amount of data before it crashes and you lose everything”, says Gupta Udatha.

Udatha is the PERMIDES project leader in Norway. He divides his time between Oslo and Halden, where the NCE Smart Energy Markets-cluster is situated. This cluster is mainly involved in IT. Other clusters participating in the project are from Austria and Germany.

Ambitious goals for next year

Before PERMIDES ends in 2018, it aims to have reached some ambitious goals:

- 90 innovation projects between IT and biotechs will have received funding through a voucher system
- 120 IT companies and biotech companies will have benefited from technology transfer activities
- 75 enterprises will have participated in networking conferences at both regional and European levels
- 100 companies will have placed their profile in a semantic matchmaking portal.

Find your ideal match

The PERMIDES platform is designed to match IT-companies and biotech companies. As a supplementary service, Gupta Udatha and others involved in PERMIDES are currently busy arranging matchmaking events all over Europe. They try to find the perfect match between IT- and biotech companies interested in collaborating on projects on personalized medical treatment.

Through PERMIDES voucher funding, a biotech company can avail services for up to 60 000 Euros from an IT-company. This gives them a market advantage in digitalizing their processes.

“The health care and biopharma sectors must understand that new IT solutions are the way forward. Tasks which a company may spend weeks and months doing, may easily be done by a few smart IT-solutions, in just few clicks, says Udatha.

Project Manager Gupta Udatha from Oslo Cancer Cluster often engage with biotechs in the cluster.

Photo: Christopher Olssøn/Oslo Cancer Cluster

What PERMIDES is

Stands for Personalized Medicine Innovation through Digital Enterprise Solutions

The project is for European small and medium sized enterprises in biotech and IT

The aim is to strengthen the competitiveness and foster the innovation potential of personalized medicine as an emerging industry in Europe

PERMIDES offers workshops, funding schemes and a matchmaking portal for the participating companies

Read more on permides.eu

Pursuing new EU-programs

PERMIDES is the first EU-project Oslo Cancer Cluster is involved in, but it will not be the last. Oslo Cancer Cluster is actively seeking new EU-projects to apply for.

This year, Oslo Cancer Cluster and Oslo Medtech, another health cluster in Norway, are looking into new EU-projects to apply for together. They have received support from the Norwegian Research Council, that wants more Norwegian institutions and companies to get involved in EU-projects.

“Hopefully, we will have landed ten new EU-project applications by 2019”, says Udatha.

Contact PERMIDES in Norway

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+ 47 45 53 46 27

Clusters involved in PERMIDES

- Oslo Cancer Cluster S.A (Norway)
- NCE Smart Energy Markets, c/o Smart Innovation Østfold AS (Norway)
- Software-Cluster c/o CyberForum e.V. (Germany)
- Cluster für Individualisierte ImmunIntervention (Ci3) e.V. (Germany)
- Intelligent views GmbH (Germany)
- NETSYNO Software GmbH (Germany)
- Oncotyrol – Center for Personalized Cancer Medicine GmbH (Austria)
- IT-Cluster – Business Upper Austria, OÖ Wirtschaftsagentur GmbH (Austria)

Gupta Udatha and General Manager Ketil Widerberg from Oslo Cancer Cluster in conversation with research associate Birthe Mikkelsen Saberniak at the lab.

Photo: Christopher Olssøn/Oslo Cancer Cluster

Talents of Tomorrow

Learning about physics in radiotherapy

Join six pupils from Ullern Upper Secondary School to see how physics plays a crucial role in good cancer treatment.

A group of interested pupils pay close attention as Taran Paulsen Hellebust explains the recommended radiation dose for a patient with prostate cancer. On a big monitor, she shows how the dose administered by the radiotherapy machine should vary between organs, and what will happen if you increase the dosage or the radiation, or expand the radiation field.

The six upper secondary school pupils ask many good questions. This week, they are spending their school days at the Norwegian Radium Hospital's Department of Medical Physics, where they are on work placement.

While looking at the screen, they are talking about grey which is a unit of measurement, just like metres and decilitres, for radiation.

All six pupils are studying maths and physics plus either chemistry or biology at Ullern Upper Secondary School, which is only a stone's throw away from the hospital. Many of them are considering studying medicine, engineering or biotechnology after they graduate this spring. The pupils are Kristian Novsett Borgen, Aurora Opheim Sauar, Edvard Dybevold Hesle, Alexander Lu, Trym Overrein Lunde and Tuva Askmann Nærby.

Cooperation on radiation

The pupils get practical insight into topics they have barely touched on during physics lessons. They appreciate getting some insight into working life and seeing how a physicist works.

Hellebust explains how a team comprising a doctor, a radiation therapist and a physicist cooperate on planning a patient's radiation treatment. If, like many others, you think of physicists as elderly men with unkempt hair running around with their heads full of abstract and incomprehensible formulas, your prejudice has hereby been refuted. The physicists who supervise the pupils and work with radiotherapy on a daily basis are young and know how to entertain their pupils.

The pupils learn about radiation therapy at their work placement.


Elekta Synergy

Talents of Tomorrow

The collaboration between Oslo Cancer Cluster and Ullern Upper Secondary School started in 2009

In 2015, Ullern was integrated in the Oslo Cancer Cluster Innovation Park

Oslo Cancer Cluster has organized more than 35 work placements for 205 pupils in the subjects media and communication, health, natural sciences and social sciences

The radiotherapy room

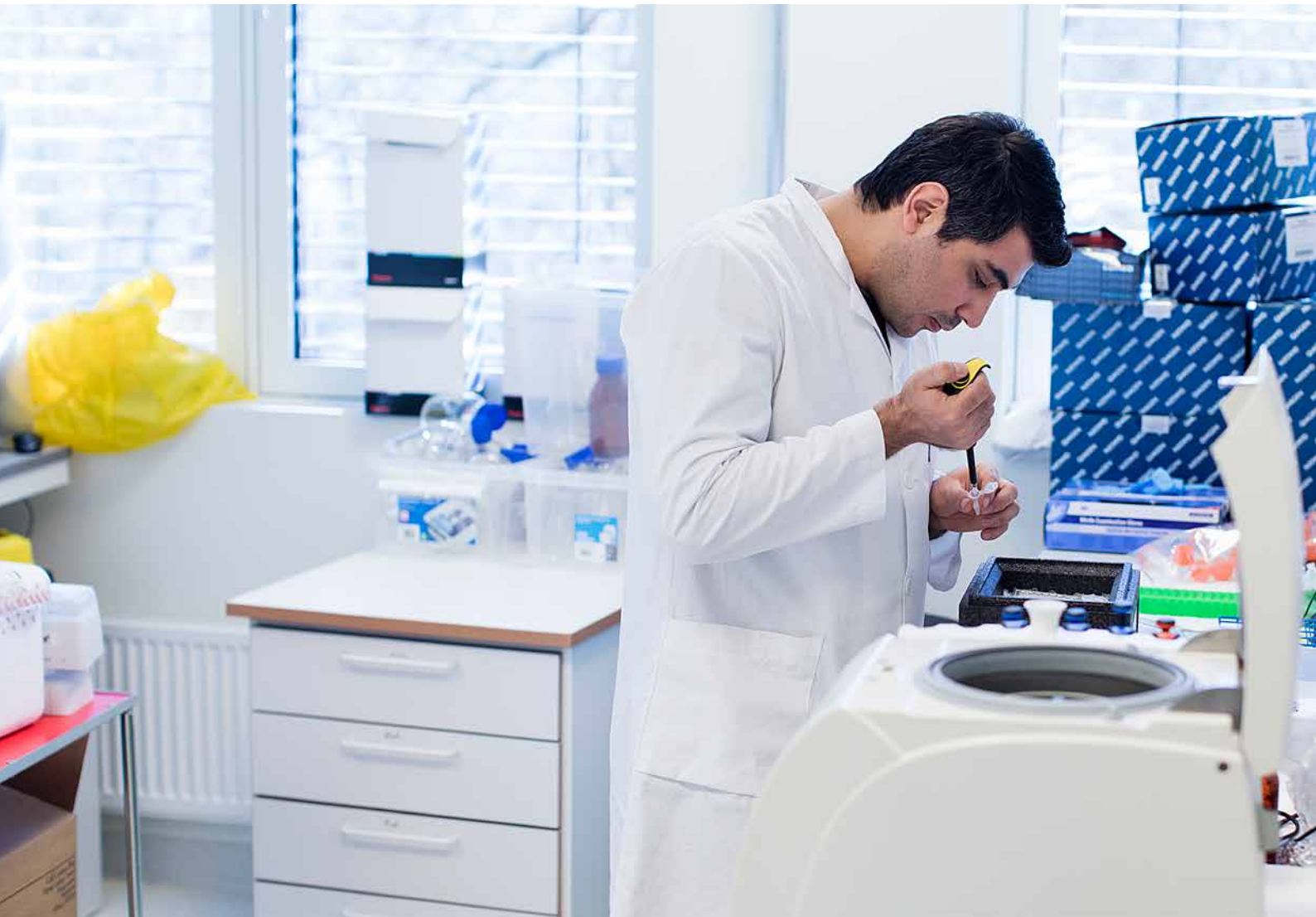
After the pupils have been given an introduction to brachytherapy, physicists Jørund Graadal Svestad and Live Furnes Øyen take them on a tour to see the radiotherapy machines in use in the radiotherapy building. Cancer patients sit in the corridors with family members and friends waiting for their turn, while Svestad explains to the students how the radiotherapy machine is used.

Inside the radiotherapy room, the Geiger counter that Svestad is carrying detects radiation.

“But it’s a very small amount of radiation, not problematic in any way”, he says.

The final stop before lunch is a room that could easily be mistaken for the set of the old Norwegian science TV series “Fysikk på roterommet”. Among other things, it contains an old radiotherapy machine and an old-fashioned ultrasound machine. The pupils have a look and fiddle around with the old machines. They get a chance to feel and see how today’s radiotherapy has developed by leaps and bounds within a relatively short space of time.

“It’s been great fun and very educational and, not least, we’ve had an opportunity to learn from the experts”, says one of the pupils.



Advancing Science to Transform Lives

Astellas Oncology is moving cancer treatment forward for patients and their loved ones. We develop novel, targeted therapies and support promising research to discover new care pathways. Through strategic collaboration with all members of the cancer community, Astellas Oncology brings leading treatments to patients who need them.

astellas | ONCOLOGY

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In the world of oncology
Combination is the key

I kreftbehandling er kombinasjonen av tiltak avgjørende for et godt resultat

- Kreft som oppdages tidlig har oftere bedre effekt av behandlingen
- Når kreftcellene analyseres før behandling, kan ofte behandlingen skreddersys til den enkelte pasient
- Kombinasjon av tidlig og målrettet behandling gir pasientene best mulig behandlingsresultat

201604-ONC-05-v.01

Merck engasjerer seg sterkt i forskning og utvikling av målrettede kreftmedisiner.
Merck jobber globalt med innovative reseptpliktige legemidler. Selskapet oppdager, utvikler og produserer biologiske og syntetiske legemidler for å hjelpe pasienter med udekkede medisinske behov. Merck har ledende merkevarer innenfor en rekke terapiområder der kreft er et av hovedsatsningsområdene. Vi er også engasjert i terapiområder som multippel sklerose, barnløshet, veksthormonmangel, hjertesykdom og diabetes. Merck investerer hvert år ca. 11 milliarder NOK i forskning og utvikling.
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