



SCHOOL OF ENGINEERING SCIENCES IN CHEMISTRY, BIOTECHNOLOGY AND HEALTH

# CBH News

Nr 7, April 2019

2019-04-14

**L**ast week, the CBH School handed in all materials for the quality dialogue. Those participating in the quality dialogue, which takes place in May, are the Dean of Faculty, the Vice President for Research, the Vice President for Education, the Head of School, FFA, the Head of Administration, GA, FA, a student representative and the quality coordinator. In the annual continual follow-up, which takes place in connection to the quality dialogue, the following materials from the schools are included:

- School report with faculty development and competence provision planning
- School report with aggregated analysis of education on first and second cycle level
- School report with aggregated analysis of education on research level
- The school's preliminary plan for the conduct of regular review of education on all levels
- School report with aggregated analysis of research (including publication strategies)

We will publish these reports on the intranet for those of you who want to take part of them.

I can just mention some matters raised in the reports, for instance strengthened basic funding for the school's faculty and an increased volume of first and second cycle education, easier/faster processes for employment of staff, improved gender balance within different categories of staff, strengthened financing for doctoral students (e.g. externally employed doctoral students).

[The CBH School JML/work environment group](#) works with initiating initiatives on equality, diversity and equal treatment. Such an initiative is a seminar on May 22 for managers with staff liability at CBH.

The seminar is part of the theme Leader development with a gender perspective. The aim of the training is to increase the awareness of how gender studies can be put into practice, through tangible leader tools in the exercise of leadership.

I hope we all shall meet at CBH's staff meetings next week. A lighter lunch will be served in connection with the meeting from 11.30 outside the room.

**Wednesday 2019-04-24, 12:00-13:00**, AlbaNova, Svedbergsalen

**Thursday 2019-04-25, 12:00-13:00**, Teknikringen 56, K1

**Friday 2019-04-26, 12:00-13:00**, Flemingsberg, the lunch room, floor 7



Happy Easter!



Mikael Lindström  
Head of School

Do you have news tips?

Send it to CBH News!

All news tips for CBH News should be sent to

[cbh-nytt@cbh.kth.se](mailto:cbh-nytt@cbh.kth.se)

All contributions must be in by 12.00 on Monday the same week as CBH News is published in order to be admitted. See the current deadline at the last page.



# Welcome to CBH's summer party!

When: May 28, 2019

Where: Alfvénsalen (F1), Lindstedtsvägen 22

## Program:

16.00-17.30 Presentations by doctoral students from all departments at CBH.

17.30-18.00 Welcome drink in the courtyard outside of F1

18.00- 22.00 Light buffet and mingle in marquee

[Register here!](#)

# External environmental audit at CBH

In April, the annual external environmental audit is carried out at all schools, the University Administration and KTH.

The aim of the audit is to paint a picture of how the environmental management system is integrated in the activities and how the work towards achieving KTH's sustainable development objectives is proceeding. This year, in the afternoon of April 8, it was time for CBH.

This year's focus area was: The management's involvement and leadership, the implementation of procedures for the integration of sustainable development within education and research and last but not least collaboration.

Thank you to all of you who represented CBH in the various sessions. I participated during the whole day, and I think we did well in giving a coherent and unitary image of CBH's work. And many good examples were noted by the auditor.

Of course, there may be improvement possibilities, both such as those I think we ourselves identified and also such that the auditor might come to suggest.

In connection with the environmental audit, [a new intranet page](#) was launched, where all information about environment and sustainable development is now gathered.



Marie Larson  
Administrativ chef

## Soon time for health check!

**Next week, employees at CBH will start receiving e-mails with an invitations to a health examination at the occupational health service Avonova.**

A minor health examination is offered to employees schoolwise in different years. This year, the turn has come to the CBH School.

All employees will receive an invitation during the year. First out are the administration, Biomedical Engineering and Health Systems, Chemistry and Chemical Engineering.

All who turn 50, 55, 60 or 64 years during the year are also offered a somewhat more comprehensive health examination.

In the initial phase, the age-related health examination now goes out to all of those who have their birthdays between January and April, others will receive the offer later.

# Education



Foto: EIT Health.

## EIT summer schools that are part of a course

**This year, KTH will be involved in two EIT funded summer schools, Healthcare UPgraded – role of Artificial Intelligence in Healthcare, and Artificial Intelligence for Reinventing European Healthcare.**

University students from medical, engineering and business (economics, marketing) faculties are the primary target audience of this summer school. However, practicing healthcare professionals can be ambassadors of innovative technologies.

For PhD and Master students, these summer schools are part of the newly established course CM2002 Artificiell Intelligens inom Medicinteknik och hälsosystem 7,5 hp, Artificial Intelligence within Biomedical Engineering and Health Systems and participating students will receive 7,5 credits.

Registration can be done via the central [EIT portal](#)

**Deadline is Sunday 23:59 CET, 21th April, 2019**

**More information about the summer schools:**

[Healthcare UPgraded – role of Artificial Intelligence in Healthcare](#)

[Short description and list of partners](#)

[Artificial Intelligence for Reinventing European Healthcare](#)



## CBH professor receives Anselme Payen Award

**The 2019 Anselme Payen Award winner is Dr Ann-Christine Albertsson, Professor emeritus at the division of Polymer Technology.**

The prize is awarded every year by the American Chemical Society: Cellulose and Renewable Materials (CELL) Division: “to honor and encourage outstanding professional contributions to the science and chemical technology of cellulose and its allied products.”

Ann-Christine Albertsson earned her doctorate degree in 1977. She has since published more than 380 peer-reviewed publications in various international scientific journals, with more than 16 000 citations. Dr Albertsson is also the founding editor-in-chief of the journal [Biomacromolecules](#).

The award jury writes: “Her scientific contributions have provided us with a new paradigm in the design of degradable and renewable polymeric materials, where the macroscopic performance is translated to all levels of order. The width and scope of her achievements have contributed not only to the field of biopolymers but to the greater community of polymer science.”

Ann-Christine Albertsson will receive her prize, a medal in bronze and 3000 dollars, at the American Chemical Society’s conference in Philadelphia March 2020.

## Per-Olof Syrén awarded for unique approach

**Per-Olof Syrén (SciLifeLab/KTH) is awarded The Gunnar Sundblad Research Foundation's Skills Development Prize of 2019, to highlight his unique approach of producing bio based polymers.**

The new field of research Per-Olof Syrén has introduced is called polymer retrobiosynthesis. This approach builds on synthetic biology, chemical retrosynthesis and polymer chemistry to enable efficient upgrading of renewable building blocks into advanced bio-based materials. The method has the potential to replace many of today's fossil based processes and products with more environmentally friendly alternatives. This research is now awarded a competence development prize at a sum of 500 000 SEK that aims to promote future innovations that could benefit Swedish forest industries. The prize will be given to Per-Olof Syrén by His Majesty King Carl XVI Gustaf of Sweden on April 10.

"I will use the prize sum of 500 000 kronor on competence development, network building and research stays within Swedish forest industry and leading academic and industrial environments in Germany and USA. My goal is to establish polymer retrobiosynthesis as a new and transboundary research field within material science and biotechnology in Sweden", says Per-Olof Syrén.

The research group's first paper using the approach was recently published in the young researcher's special issue of ChemBioChem, an issue promoting emerging future research leaders within chemical biology.



"In this paper we demonstrate for the first time that polymer retrobiosynthesis can be applied to find possible forest-based replacements for caprolactone and its polyesters, which are platform chemicals that come from oil. Designing artificial biochemical pathways that can valorize renewable and underexplored molecules into added-value bio-based polymers is an exciting possibility to make better use of Nature's building blocks. This is an important research area as currently only one percent of all 300 megaton per year synthetic man-made materials come from renewable resources ", says Per-Olof Syrén.

# Research

## Alavi–Mandell Award to postdoc from Protein Science

**Sarah Lindbo, a postdoctoral researcher at the division Protein Technology, has received the Alavi–Mandell Award for an article that was part of her doctoral thesis.**

Sarah Lindbo, who defended her thesis in 2018, is awarded the prize for her publication entitled “Radionuclide tumor targeting using ADAPT scaffold proteins: aspects of label positioning and residualizing properties of the label”.

Alavi-Mandell Award is The award is given to individuals who were the first author of a paper published in the JNM, were trainees at the time the published work was carried out and made a major contribution to the completion of the work.

The award is accompanied by a monetary reward of \$150, which is provided by the established fund.

The aim is to encourage young physicians and scientists to pursue a career in academic and research in nuclear medicine.

## IVA's 100 year anniversary is celebrated with jubilee conference

**This year IVA (The Royal Swedish Academy of Engineering Sciences) has its 100th birthday.**

**Among other things, this is celebrated with the jubilee conference 'Material is evolution - Materials, society, industry and sustainability' on May 14 at 10:00-18:00.**

Among the participants are world-leading researchers such as Robert Langer (MIT), Brad Chmelka (UC Santa Barbara) and Virgil Percec (Univ. Pennsylvania), as well as a number of researchers from Swedish universities. The conference is open to all.

[More information an registration](#)

# Research

## Take the opportunity to present your research during the Nobel Week

### Soon, the application period for till Stockholm International Youth Science Seminar opens.

KTH has the opportunity of sending one young researcher between 18 and 25 who will have the chance of presenting their own research project and participating in various events and festivities during the Nobel Week in December:  
<https://ungaforskare.se/siyss/>

**On April 23 at 12:15-13:00,** there will be a seminar in Sydöstra Galleriet at the KTH Library with the winners of 2017 and 2018, who will speak about their experiences and answer questions from students who are interested in

applying this year.

The application period opens in the end of April/beginning of May and information will be available at KTH Library's webpage.

[KTHB](#)

[Facebook](#)

## Symposium about the future of the planet at Stockholm University

**On May 9 and 10, the symposium Planet Earth; A Scientific Journey takes place in Aula Magna at Stockholm University. Several world-renowned speakers will attend this free event.**

The symposium deals with planet Earth from different perspectives, from the origin of life and evolution, to the planet's current inhabitants and biodiversity, and how science can enhance and sustain our world.

The event is arranged by The Molecular Frontiers Foundation together with The Royal Swedish Academy of Sciences.

[Program and registration](#)

## Don't forget to encode your extensions before Easter Holiday

**In order to give students, our fellow workers and the public the very best service, please encode your extensions when you're not able to take your calls.**

[\*\*More information on KTH's intranet\*\*](#)

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## KTH ranked near top in impact on sustainability

**KTH ranks as one of the world's 10 leading universities in scores based on the UN's global sustainability goals. Within two of the goals KTH ranks second and third, respectively.**

[\*\*Read more on kth.se\*\*](#)

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## Newsmakers at KTH

**Which people have received an award for their research or an interesting assignment? Which successful student projects currently in progress at KTH are worthy of extra attention?**

[\*\*Under Newsmakers at KTH, you will find a selection of short items of KTH news\*\*](#)

# Dissertations

## Design of Cellulose-based Materials by Supramolecular Assemblies

Tobias Benselfelt, Fibre and Polymer Technology

Fr 2019-05-10, 14:00, F3



### **What is your thesis about?**

My thesis is about how supramolecular interactions can be used to design cellulose-based materials that are stretchable, shapeable, and water-resilient, yet biodegradable.

### **Does it have any connection to KTH's sustainability work and the global sustainable development goals?**

My thesis is strongly connected to the UN goals for sustainable cities and communities, responsible production and consumption, and life below water.

### **How can your results be used in the future?**

My results can aid us in replacing common plastics with renewable and biodegradable alternatives, or be used to develop new materials for advanced applications.

The next issue of CBH News will come out in week 18. The deadline for making contributions is on April 29 at 12.00.