

# SDC

The university partnership  
Denmark – China



# Annual Report 2018

Sino-Danish Center for Education and Research

A report from the Danish partners



## List of Abbreviations

SDC	Sino-Danish Center for Education and Research
CAS	Chinese Academy of Sciences
UCAS	University of Chinese Academy of Sciences

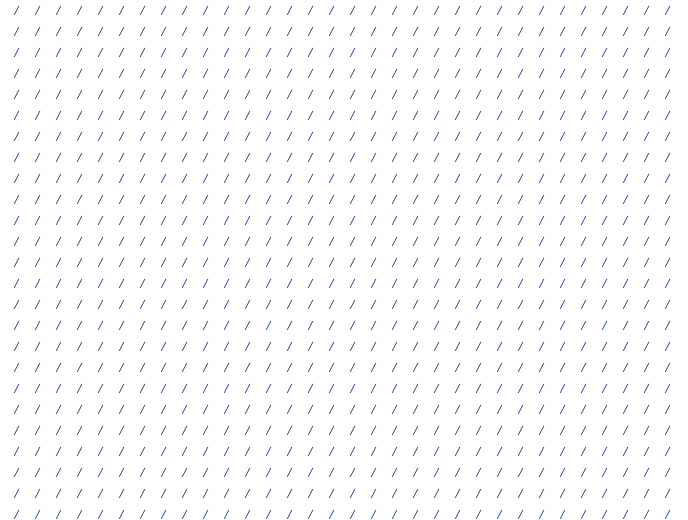
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# The Director's Report

2018 was another eventful year at SDC in Beijing, one of the highlights being the occupancy of The House of the Danish Industry Foundation in late June. After years of waiting, SDC is finally in its new home, and although there are still many issues to address before everything in the building will run smoothly, we already notice students, teachers and administrative staff benefit from the move. The SDC building is a beautiful and significant landmark on UCAS' Yanqihu Campus, and with such great facilities we are now ready to take SDC to the next level!



In June, we also celebrated a group of young, talented graduates who were ready to take the next step in their lives and pursue their first job in the private sector or a career in academia. SDC graduates are in high demand. A graduate employment survey conducted by SDC in late 2018 reveals high demand for SDC graduates with 93 per cent employed one year after graduation. Of these, 98 per cent have found full-time jobs. The numbers indicate that the close collaboration between SDC and private companies, public organisations yields tangible results, and we are working hard to extend our network to include even more partners.

The eight Danish universities have very strong research partners in the Chinese Academy of Sciences, which once again ranked number 1 among global science institutions in the 2018 Nature Index, and in the University of Chinese Academy of Sciences, which topped the 2018 Nature Index Rising Stars list. In 2018, the collaboration between Danish and Chinese researchers resulted in 121 joint scientific publications.

Today, SDC spans six research themes and offers seven Master's degree programmes in Beijing. In this annual report, you can read about SDC's activities and learn how dedicated scientists and teachers work together to find the best solutions to tomorrow's problems, meet the societal challenges of both countries and train talented young people.

This SDC Annual Report 2018 is the report of the Danish SDC office and it thus presents the accomplishments in 2018 focussing predominantly on the contribution to SDC from the Danish side.

Happy reading!

Morten Laugesen  
Executive Director of SDC









# 2018 Graduate

At the end of 2018, SDC carried out its first ever graduate employment survey. It was carried out among all students across programmes that graduated before the summer of 2017.

The survey was distributed to 370 graduates and 143 responded, resulting in a response rate of 38.6 per cent. 75 Chinese, 62 Danish and 6 international graduates completed the survey.

# 93%

found work within the first year of their graduation.



# Employment Survey



94%

would recommend their  
Master's programme to others.

97%

of graduates believe they  
acquired the ability to cooperate  
with people that have a different  
background from their own.



# Highlights



## January

The year started with a visit by China's Vice Premier Liu Yandong, a clear recognition of the joint Danish-Chinese efforts. The Vice Premier participated in a guided tour at SDC lead by Danish Executive Director, Morten Laugesen, and met with Danish and Chinese students.

## February

SDC was included when the President of UCAS Ding Zhongli hosted a visit from a delegation from Kobe University, Japan. The visit focussed on academic exchange.

## April

Danish and Chinese researchers attended a workshop at SDC on particle, astroparticle and astrophysics to look into the opportunities for a research collaboration within the area.

## May

The worldwide organisation Startup Grind held the first ever university chapter event in China at SDC. An Innovation Management student organised the event, and it attracted an audience of more than 200 people. Startup Grind connects people with expertise in entrepreneurship and technology in cities all over the world.



## June

Graduates from the 2015 and 2016 cohorts were celebrated at the annual graduation ceremony. Attendants included the Danish Ambassador to China, A. Carsten Damsgaard, and the President of the University of Chinese Academy of Sciences, Li Shushen. It was the fifth time SDC graduates were celebrated at a formal ceremony.



# 2018

## June

All teaching activities and the administration moved into the House of the Danish Industry Foundation. The relocation is a great foundation for the further development of SDC.



## October

### Sixth Meeting of the Joint Managerial Committee

The committee is the supreme decision making body of SDC and responsible for SDC's long-term development. It has five members from China and five members from Denmark.

### UCAS' 40 Years Anniversary

The members of the Joint Managerial Committee joined UCAS' 40th anniversary celebrations, and the Chairman of the Danish board of SDC, Philip John Binning was invited to give a formal speech, as the only speaker from abroad. Furthermore, the Danish director of SDC took part in a workshop focusing on the scope for future collaboration between Chinese universities and the rest of the world.

### Neuroscience and Neuroimaging Symposium

Researchers and students within neuroscience and neuroimaging convened for its annual symposium. The event is an annual gathering of Master's degree students, PhD students and professionals affiliated with the programme in Neuroscience and Neuroimaging. The symposium is a great opportunity to get insight into what fellow students and researchers are working on.



## November

Innovation Centre Denmark, the University of Chinese Academy of Science and SDC hosted the Corporate Innovation Days at SDC. This year's Corporate Innovation Days were devoted to exploring how Chinese and international companies take advantage of co-creation, user-centricity and digitisation in China. Innovation managers from Danish, international and Chinese companies, researchers and students attended the event.

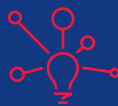
# Research / Education

Within the framework of SDC there are six research themes. Each theme has one or two affiliated Master's degree programmes.

## Research themes

## Master's degree programmes

### Social Sciences



Innovation Management



Public Management and Social Development

### Water and Environment



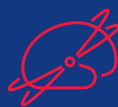
Water and Environment

### Nanoscience

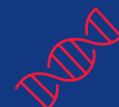


Nanoscience and Technology

### Life Sciences



Neuroscience and Neuroimaging



Life Science Engineering and Informatics

### Sustainable Energy



Chemical and Biochemical Engineering

### Food and Health



International Food Quality and Health

The International Food Quality and Health programme has been approved and will be launched in 2020.







## Principal Coordinator's Report

As our research collaboration consolidates, 2018 saw more people involved and relations between Danish and Chinese researchers develop, resulting in an increase in joint publications and special issues coming out of SDC research projects. We now have researchers from seven Danish universities involved in research and teaching.

*'We now have researchers from seven Danish universities involved in research and teaching.'*

During 2018, researchers from SDC Social Sciences organised a range of workshops on timely topics such as: Catch-up Cycles and Green Energy, Middleclass on the Move, Innovation Conceptualizations, Artificial Intelligence and Machine Learning and The Intercultural Classroom. These workshops were well attended by both sides, across research projects, and by partnerships from UCAS as well as Tsinghua University, the Chinese Academy of Social Sciences, Fudan University, Zhejiang University, Renmin University and Peking University, among others.

In August, the SDC Social Sciences group participated in the annual international CICALICS conference, which focusses on innovation in China.

In November, SDC hosted the Corporate Innovation Days with presentations by invited scholars and

companies. This was a great opportunity for researchers and business people to learn from each other and establish relations. The students on the two affiliated Master's degree programmes were invited to attend the Innovation Days, allowing them to become acquainted with international innovation developments.



Stine Haakonsson  
Principal Coordinator

In 2018, we had a focus on helping PhD students to succeed by, for instance, including them in existing research projects and relations, making them more integrated in the Chinese host institutions.

Two SDC PhD courses were offered in Beijing, and a project proposal writing workshop to help our Chinese PhD students get enrolled at the Danish universities was launched.

And finally, a new PhD school in Public Management at UCAS has been established, creating a pathway for Public Management and Social Development students to pursue PhD degrees through UCAS.



## 2018 CICALICS

In August, the Innovation Management group engaged with the annual international CICALICS conference, which focuses on innovation in China.

CICALICS was organised by SDC Social Sciences, Tsinghua University and the 2018 host, Zhejiang University.

In 2019 CICALICS will be hosted by SDC Social Sciences in the SDC building at the Yanqihu Campus.





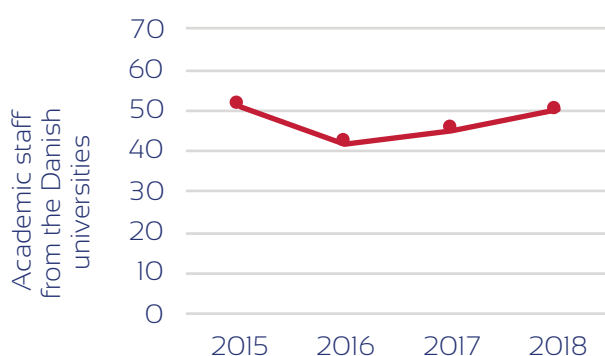
## Corporate Innovation Days

In November, SDC collaborated with the Innovation Centre Denmark to host a two-day set of activities at SDC devoted to exploring how Chinese and international companies take advantage of co-creation, user-centricity and digitalization in China.

The event consisted of open academic lectures by university professors and presentations by company managers followed by panel discussions with the audience, which included SDC Master's students.

*'Without a good reality check from practitioners, academia is in danger of becoming naive or even irrelevant. On the other hand, practice without theory may become blind and misguided. The Corporate Innovation Days event is the first in a series of similar events that will help us to engage with our industrial partners, to showcase the latest research and to capture the most current innovation practice trends', says Dmitrij Slepnirov, Head of Educational Programme in Innovation Management and co-host of the event.*

### Academic staff who have been in China to conduct research or teach on SDC Master's degree programmes



**12** peer reviewed articles were published in 2018 by faculty in the Social Sciences theme.



## Head of Educational Programme's Report

In September 2018, with the new cohort of 29 Master's degree students the programme moved into its seventh year.

In the spirit of innovation and preserving the elements that proved to work well in the past, the programme continued experimenting and exploring new initiatives throughout 2018. The curriculum of the Master's degree programme saw the

Gaobeidian and RAIDiCAL in Shanghai, leading to company visits, guest lectures and research collaboration with the companies. Looking ahead, having more companies like these in our network will help to profile SDC as a well-connected institution in China.

In the spring, all of the Chinese students from the

*'... having more companies like these in our network will help to profile SDC as a well-connected institution in China.'*

introduction of a new course on Product Design and Development. The new course aims at equipping the students with not only the latest innovation theories, but also hands-on tools for turning ideas into innovative solutions to marketplace needs, wants and desires.

In order to ensure the practical relevance of the Master's degree programme and enhance the employability of the graduates, we continued to place special emphasis on problem-based learning and engagement with industrial partners.

Several new company collaborations in different parts of China were added, including Innoway and Daimler in Beijing, Orient Sundar Group in

2016 cohort were in Denmark to spend face-to-face time with their Danish supervisor while they worked on their Master's degree thesis as well as participated in research activities, company visits and seminars. We see it as an essential part of qualifying for the double degree that they experience the Danish university environment.

In November, in collaboration with Innovation Centre Denmark, we hosted Corporate Innovation Days at SDC. It was a great opportunity for students to learn and talk to companies resulting in internships and possible collaborations. In the future, the programme is committed to organising similar events.



Dmitrij Slepnirov  
Head of Educational  
Programme



**sinodanishcenter** Yesterday, Innovation Management student, Patrick Mayne, was the organiser of the first ever @startup grind event at a university in China at the Yanqihu campus. The guest speaker, Richard Robinson, who is an adjunct professor at Peking University, shared his two decades of experience of working with startups in China in front of an audience of 250 curious SDC and UCAS students.

#sinodanishcenter #studyingchina

SDC Instagram post from the official @sinodanishcenter Instagram profile on 29 May 2018.

# Interning at China's Largest Window Manufacturer

Innovation Management Student Philipp Linstedt learned to do business in China, when he spent his internship semester with China's largest window manufacturer.

When Philipp Linstedt had to decide where he wanted to do his third-semester internship, he chose Windoor City, 100 kilometres southwest of Beijing, to

see if he could handle working as the only westerner in a traditional Chinese company.

*'I had the opportunity to intern at a large international company in Beijing, but after having gotten used to living in Beijing, I really wanted to get out of my comfort zone again', says Philipp.*

Being the first foreigner to intern at the company, Philipp helped define his work assignments and what he wanted to learn. Over the course of his time there, he produced information materials about the company, built their LinkedIn page, communicated with external associates, took part in high-level business meetings and assisted in arranging a conference for more than 60,000 people from the building materials industries.

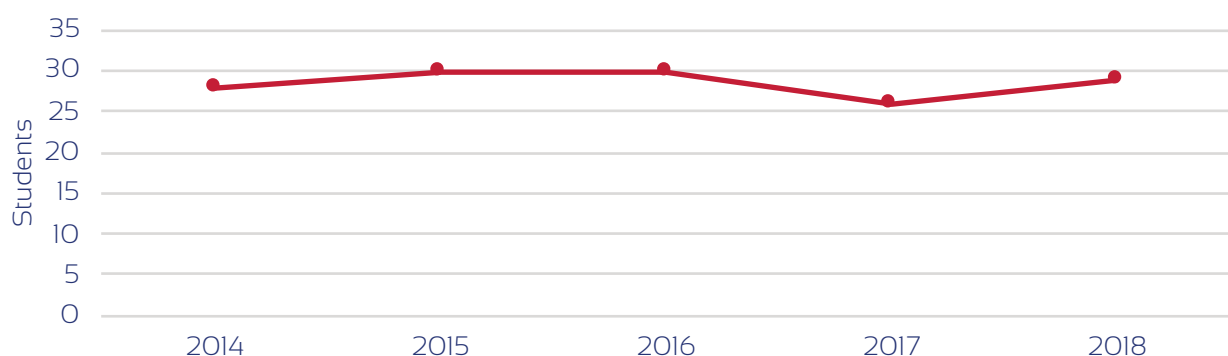
*'Every now and then business partners and prospective clients came from other companies, and because I was the only western guy I was invited to take part in the meetings with our CEO, COO and the foreign company's top management. Now I know more about how to do negotiations and account management across Western and Chinese culture', Philipp explains.*

Philipp graduated in the summer of 2018 and has since co-founded the start-up company CRAFTBOXX.



## Intake of Master's Degree Students Innovation Management

The programme has 30 seats.







## Head of Educational Programme's Report

The Public Management and Social Development programme explores the challenges of securing quality of life for citizens, social mobility, social cohesion, and economic competitiveness in China and Europe. The focus on Europe and China reflects the increasing significance of the relationship between them and invites students to become part of forging the future of that relationship.

*'2018 was an outstanding year in the development of the programme.'*

The programme explores the processes that condition how the public and private sectors interact to produce or retard social development and innovation and how this interaction is best managed to optimise welfare, governance and market outcomes.

In 2018, we introduced a new course, Business and Global Governance, which aims to provide students with an understanding of and the ability to operate in environments that are increasingly conditioned by international processes.

To enhance the learning experience, we launched an afternoon seminar taught by PhD students, allowing for less formal discussions on course content and bringing students and researchers closer together. In 2018, we also provided students with opportunities to undertake concrete and varied methods training, including quantitative and qualitative components to reflect both Danish and Chinese traditions.

Our Danish and international students seized opportunities to intern at a range of organisations, including the Royal Danish Embassy in Beijing, Danske Bank, Novo Nordisk and UNIDO. Such internships provide significant hands-on learning experiences.

Also, for the first time, two



Duncan Wigan  
Head of Educational  
Programme (HEP)

Chinese students undertook full internships in Denmark, one at NordicFlexHouse and the other at the Confederation of Danish Industry.

2018 was an outstanding year in the development of the programme. One indicator of this is an increase in the level of academic qualifications and relevant experience among the intake to the programme. Notably, our new Danish and international applicants came on board with the highest grade point average yet.

We know that our alumni are meeting the promise of the programme and the SDC with graduates working in significant roles at various intersections between Europe and China. One example is that in 2018, for the second time, a Public Management and Social Development graduate became General Manager at the Danish Chamber of Commerce in China.



sinodanishcenter • Follow

**Sinodanishcenter** Hi! Welcome to my not-so-hostile takeover of Sino-Danish Center's (SDC) Instagram! I will be here the entire week! My name is Lasse Hangaard, I am 22 years old and moved to China from Aalborg. I study Public Management and Social Development. My motivation for studying here is the academic, cultural as well as the fun experiences. I will try to show the everyday life in China for a SDC-student, but I will also outline the specific advantages for being a student at Public Management and Social Development. I hope you will enjoy my posts, and my perspective on China! [#sinodanishcenter](#) [#daneinchina](#)

SDC Instagram post from 10 September 2018. Students regularly share their experiences on the SDC profile.



## Interning at the embassy in Beijing

Helle Meinertz, Deputy Head of Mission, Ambassador at the Royal Danish Embassy in Beijing, has seen several SDC students take on internships at the embassy in recent years and she has experienced a match that is highly rewarding for both sides.

experience and tools they can use in the future. They take on a range of tasks and are able to help strengthen relations with local Chinese authorities, analyse opportunities for businesses, prepare delegation visits from Denmark and much more while they are at the embassy.

*'I see interns grow enormously, both professionally and personally...'*

### A Dual Perspective

The embassy usually has a handful of interns including SDC students, and they are all very important to different parts of the operation, Helle Meinertz explains.

*'We experience interns that are independent, responsible, energetic and able to contribute with high-quality work. I think this is linked to the fact that they are the type of people who have decided to come here to study and experience living in China. Interns from SDC stand out, because they already have a year's worth of China experience when they join us. They have a dual perspective on matters and therefore understand how to act in a Danish-Chinese context, which is very valuable when operating in a multicultural workplace',* says Helle Meinertz.

### Mutually beneficial

The interns are a resource, she explains, but a lot of energy is also invested in giving them workplace

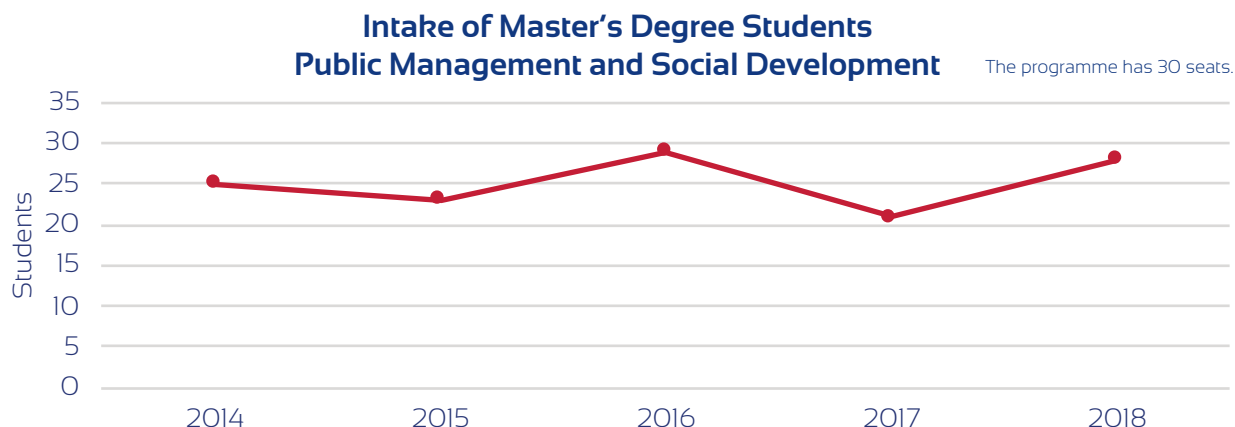
*'I see interns grow enormously, both professionally and personally, and when they leave us, they have a wide-ranging skillset that allows them to take on a variety of jobs. The internships have been a huge success and we will continue to take in interns in the future',* Helle Meinertz says.

Two of the students that graduated from Public Management and Social Development in 2018 did their internship at the Royal Danish Embassy in Beijing.



**Helle Meinertz**

Deputy Head of Mission, Ambassador at the Royal Danish Embassy in Beijing





## Principal Coordinator's Report

The Water and Environment research theme has matured further over the course of 2018. The research conducted within this framework is delivering significant results published in high-impact journals.

Within the theme we work with a catchment approach, meaning that we work with water and environment in urban areas, open country, lakes and fresh water systems. The research is integrated, as

*'In 2018, Danish researchers cooperated with more than 30 institutes all over China.'*

shown by the broad involvement of researchers in Denmark and China. This idea of doing integrated research is also visible through the close connection to the teaching on the affiliated Master's degree programme.

The Water and Environment research theme has been operative since the establishment of SDC, and has resulted in many productive relations between Danish and Chinese researchers and institutes. In 2018, Danish researchers cooperated with more than 30 institutes all over China within the framework of the SDC Water and Environment research theme.

New research was initiated between the Department of Agroecology at Aarhus University

and the Chinese Academy of Sciences Center for Agricultural Resources Research on increasing the water and nutrient use efficiency in crops. It involves in-depth analyses based on drone imagery using reflective and thermal sensor technologies for monitoring crop water and nutritional status. The work is led by Professor Mathias N. Andersen and Professor Hu Chunsheng and conducted



Peter Engelund Holm  
Principal Coordinator

by SDC PhD Student Vita Antoniuk and SDC Postdoc Kiril Manevski.

In 2018, an SDC-affiliated project team from the University of Copenhagen initiated work sponsored by the China Europe Water Platform (CEWP), which aims for joint research by Chinese and European researchers and institutions. Focus is on the sponge city concept, which balances green and grey infrastructure, water environmental aspects and urban planning. In 2018 SDC PhD Student Mark Randall published new research in the area of parameterisation of a sponge city hydrologic model using remote sensing.

## 2018 PhD Graduates

### Marie Louise Bornø

PhD Student Marie Louise Bornø from Department of Plant and Environmental Sciences, University of Copenhagen, successfully defended her PhD thesis titled Biochar Effects on Phosphorus (P) Dynamics in Soil and Plant Uptake of P and other Nutrients. Marie Louise did the PhD in cooperation with the CAS Institute of Soil Science.

### Muhammad Adil Rashid

PhD Student Muhammad Adil Rashid from Department of Agroecology, Aarhus University, successfully defended his PhD thesis titled Productivity and Physiology of Wheat Under Climate Change and Limited Water resources. Muhammad did the PhD in cooperation with Center for Agricultural Resources Research at the CAS Institute of Genetics and Developmental Biology.

### Mariú Abritta Moro

PhD Student Mariú Abritta Moro from Department of Environmental Engineering, Technical University of Denmark, successfully defended her PhD thesis titled An Evolutionary Approach to Water Innovation: Comparing the Water Innovation Systems in China and Europe. Mariú did the PhD in cooperation with CAS Research Center for Eco-Environmental Sciences.

## Maintaining Good Relations is Key

PhD Student Ditte Arp Jensen has experienced first-hand how strong professional relationships have given her excellent opportunities to carry out extensive fieldwork from Zhejiang Province in the south to Heilongjiang Province in the north of China.

*'I have had access to essential data sets and assistance from very capable collaborators in China, because my Danish and Chinese supervisors already had a strong connection', Ditte Arp Jensen says.*

Ditte's Danish supervisor is Professor Jens-Christian Svenning, Director of the Center for Biodiversity Dynamics in a Changing World (BIOCHANGE), Department of Bioscience, Aarhus University, who also teaches on the Master's degree programme in Water and Environment. Her Chinese supervisor is Professor Ma Keping, Institute of Botany, Chinese Academy of Sciences.

Access to data is integral to Ditte's PhD project, which aims to identify the conditions required for the threatened species of yew trees to grow, with

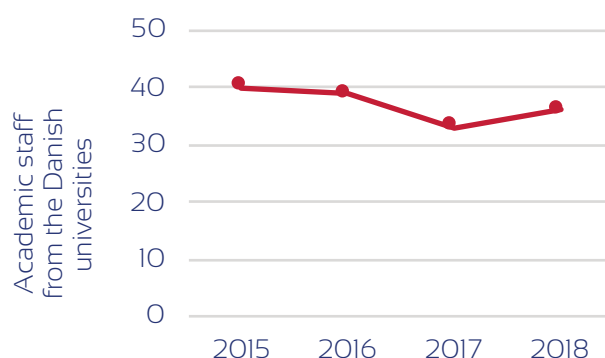
the potential purpose of reforestation.

*'It makes a lot of sense to do this particular project in China because of the country's strong commitment to reforestation. Given China's massive size and its diversity in climate, getting access to data that covers all of China was key,* says Ditte Arp Jensen.



In October, Ditte was able to use the relations she had established with researchers in Harbin when she helped SDC Master's Student Mette Grøn start up fieldwork, gathering data on the yew population in the Muling Nature Reserve near the North Korean border.

### Academic staff who have been in China to conduct research or teach on SDC Master's degree programme



**52** peer reviewed articles were published in 2018 by faculty in the Water and Environment theme.



## Head of Educational Programme's Report

Freshwater resources are under pressure due to overuse, pollution and climate change. The Master's degree programme in Water and Environment focusses on the growing need for innovative and sustainable solutions and better water management systems on a global scale.

Working with these challenges in China, which is so diverse, and where the government and industry invest heavily in research, gives Master's degree students a unique opportunity to understand these complex and large-scale issues.

the water quality is influenced by human activities, i.e. crop cultivation, aquaculture and discharge of sewage from households.

As in previous years, the six-day excursion to Shijiazhuang and Lake Taihu in June provided students with a great opportunity to apply theory from the classrooms in the real world, collecting and analysing samples. This intense trip also serves the



Fulai Liu  
Head of Educational  
Programme

*'...the six-day excursion to Shijiazhuang and Lake Taihu in June provided students with a great opportunity to apply theory from the classrooms in the real world...'*

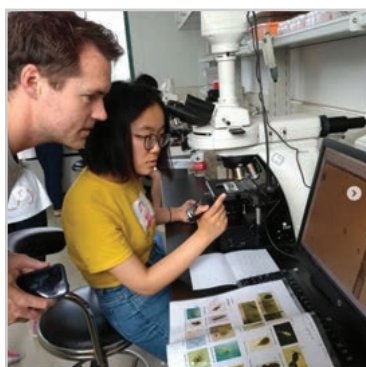
purpose of bringing Danish and Chinese students together for group

During the autumn of 2018, we began to take advantage of the possibilities that come with moving from Beijing City to the Yanqi Lake, where we can explore natural bio-hydrological systems for teaching, which brings great potential for the Water and Environment programme.

As part of the introduction week we included a field excursion along the Yanqi River, ending up at the Yanqi Lake. The aim was to show the students how surface waters in the stream and lake interact with the surrounding natural ecosystems, and how

assignments and socialising, strengthening their cultural understanding and ability to collaborate.

Our Chinese students from the 2016 cohort all spent around two months in Denmark during 2018, giving them the opportunity to work closely together with their Danish thesis supervisors as well as experience from working in a Danish research environment. The cultural learnings they take home with them are also very important and an aspect of the programme that we continue to prioritise.



**sinodanishcenter** Today we have been collecting samples from the last site, which is just a 5 minute boat ride outside the research center. Here are some pictures of what we found today. Lasse, Ping, Sining and Shuxu are taking a closer look at some of the fish we caught, while my group was using the head of the zoobenthos we collected to determine the species. Wenhui and Emil are looking at zooplankton in the microscope, which is shown on the computer screen  
#laketaihu #wasterester #fieldtrip #studyabroad #waterandenvironment #ecology #fish #labwork #botsmina #zoobenthos #sinodanishcenter

SDC Instagram post from 6 June 2018. The photo was taken by Master's degree student Mette Grøn, who took over the profile during the field trip to Shijiazhuang and Lake Taihu.



# Tanja Got Straight into Sustainable Food Production after Graduation

Within two months of graduation, Tanja Krogh Sørensen changed her status from student to laboratory technician at the Danish facility of land-based salmon producer Atlantic Sapphire.



Through her education she acquired all of the competences she needs to be able to do her job, she explains. Tanja learned about water quality, microorganisms and how to purify water. That is knowledge she uses every day when she moves around the production site and tests the water quality to make sure that it is optimal for salmon production.

*'You get so many competences from studying Water and Environment, because you learn a little about a lot of things and once you have learned a little it is easy to expand on that knowledge', explains Tanja.*

Tanja graduated in the summer of 2018.

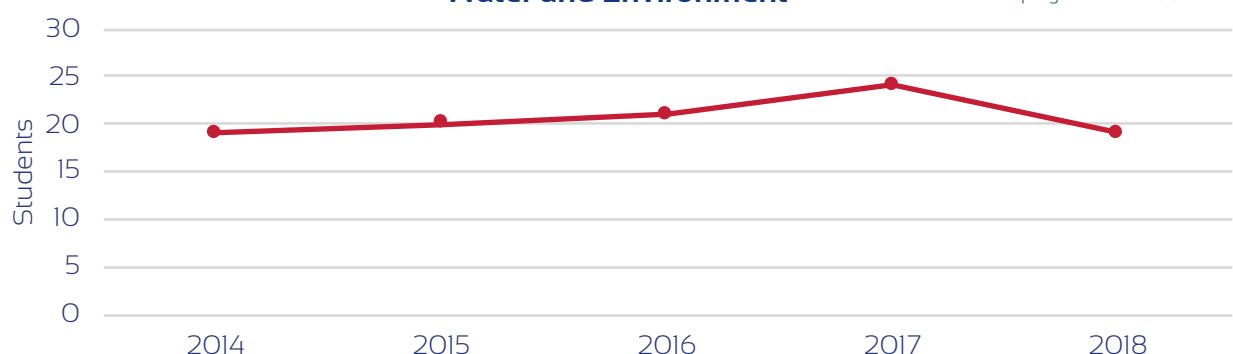
Throughout her Master's degree programme in Water and Environment, Tanja explored her passion for sustainability whenever she had the opportunity and she spent the entire second year working on her thesis within sustainable food production in China and Denmark.

*'I am interested in sustainability, because we have to think green if we want to continue to have the goods we have today in the future, and if we are to avoid using up all of the natural resources. That is the reason why I think it is exciting to work here. Because we produce sustainable foodstuffs', Tanja says.*



**Intake of Master's Degree Students  
Water and Environment**

The programme has 30 seats.





## Principal Coordinator's Report

Nanoscience is one of the driving forces of new technologies in the 21st century, and the field has boundless potential applications and the ability to revolutionise key areas in modern society such as energy, environment, IT, medicine, and food.

Danish universities were among the first in the world to establish interdisciplinary nanoscience centres,

Chemistry, both of which fall under the Chinese Academy of Sciences.

The research theme is built on the basis of positions of strength and common interests within five subthemes:

functional nanomaterials, self-assembly of molecular



Morten Foss  
Principal Coordinator

*'The PhD students play an integral part in the research activities and collaboration'*

and Danish research environments are considered among the world elite, while also being characterised by their close collaboration with the industry. Also, China has become a frontrunner in nanoscience research due to ambitious research targets and large investments. Four of the top 10 institutions for high-quality nanotechnology output are located in China, according to the 2018 Nature Index.

The SDC Nanoscience theme builds on close relations between Danish research environments including Centres of Excellence, and Chinese research groups at the National Centre for Nanoscience and Technology and the Institute of

nanostructures, nanoenergy materials, nanomedicine, nanoelectronics and -photonics.

In 2018, four new SDC-co-financed PhD projects were initiated. Two of the projects focus on nanomedicine. For both of these projects the results will lead to a better understanding of the interaction between cells and artificial materials and thus may impact the field of regenerative medicine.

The third PhD project is within nanoenergy materials and the fourth is in the field of nanoelectronics.

The PhD students play an integral part in research activities and collaboration in general, as they spend extensive periods of time with their host institution, giving them the opportunity to gain work experience from a Chinese research environment as well as build networks they can benefit from in their future careers.

**In November, Senior Researcher Morten Foss from iNANO, Aarhus University was appointed Principal Coordinator for SDC's Nanoscience theme. He replaced Professor Flemming Besenbacher from Aarhus University.**

## 2018 PhD Graduates

### Dai Yitao

PhD Student Dai Yitao from Interdisciplinary Nanoscience Center (iNANO), Aarhus University, successfully defended his PhD thesis titled Mechanistic Exploration and Rational Design in Heterogeneous Photocatalysis. Yitao completed the PhD in cooperation with the CAS Shanxi Institute of Coal Chemistry.

### Veronica Liv Andersen

PhD Student Veronica Liv Andersen from Interdisciplinary Nanoscience Center (iNANO), Aarhus University, successfully defended her PhD thesis titled Self-assembled nanoscaffolds for personalized medicine. Veronica completed the PhD in cooperation with the CAS Shanghai Institute of Applied Physics.

## Successful PhD Students are the Best Ambassadors



Henrik Birkedal and Chen Yaqing meet every Monday to discuss the progress of the project.

A personal meeting was pivotal for Henrik Birkedal, when he decided to invite former SDC Master's degree student Chen Yaqing to join his research group at Aarhus University.

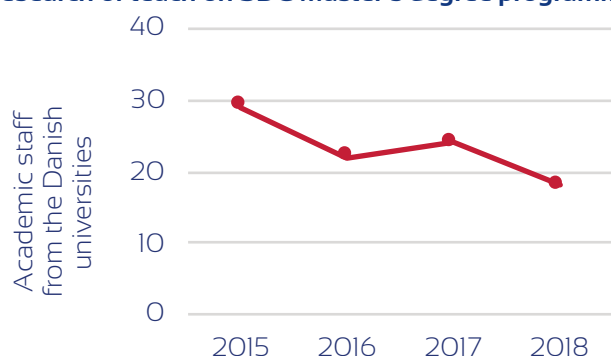
While visiting Denmark as part of the Nanoscience and Technology programme, Chen Yaqing seized the opportunity to meet with Associate Professor Henrik Birkedal and discuss how his research group at iNANO approaches making new biological and bioinspired materials.

*'We talked for a long time and I could tell Chen Yaqing was very talented and interested, so we decided to try to find a way to have her join the group as a PhD student. The fact that we had a personal meeting was key in that decision',* Henrik Birkedal explains.

Subsequently, they applied to the Chinese Scholarship Council. Chen Yaqing received funding for a full PhD scholarship in Denmark and took up the position in August 2018. Henrik Birkedal wants to support Chen Yaqing's development and help her become a successful scientist, but he sees more benefits to taking someone like her in.

*'Foreign PhD students who come to Denmark and have a positive experience are the best ambassadors you could want, because they will typically take up management positions within research, education or administration in their home countries. Much of the cooperation that is established is done through personal relations, which is why having someone like Yaqing here is priceless',* says Henrik Birkedal.

### Academic staff who have been in China to conduct research or teach on SDC Master's degree programmes



**23** peer reviewed articles were published in 2018 by faculty in the Nanoscience theme.





## Head of Educational Programme's Report

Nanoscience is one of the driving forces behind the development of new knowledge and technologies within energy, environment, health, electronics and much more, and it plays an increasingly important role in everyday life and in combatting some of the world's problems.

*'...bionanoscience, nanotechnologies and pollution and nanoelectronics were popular Master's thesis topics.'*

Denmark has a strong tradition for nanoscience research, and over the past decades China has invested heavily in research and facilities, resulting in China becoming a global powerhouse within the field.

The focus of the SDC Master's programme in Nanoscience and Technology is how to manipulate nanostructures and material structures and how to develop new functionalities and areas of application, giving students a broad understanding of fundamental theories and the ability to handle concepts and methods used in the field of nanoscience and nanotechnology.

In 2018, our collaboration with CAS Institute of Biophysics grew stronger through an increase in supervisions of Danish Master's and PhD students by Chinese researchers. Among other fields, the institute is exceptionally skilled at cryo-TEM, a field

which yielded a Nobel Prize in chemistry in 2017. In April, the entire 2017 cohort was in Denmark for a month. They participated in a three-day workshop in Copenhagen followed by visits to several nano research facilities in Denmark. For the



Per Hedegård  
Head of Educational  
Programme

remaining part of the stay the students worked closely with their Danish thesis supervisors. This year, bionanoscience, nanotechnologies and pollution and nanoelectronics were especially popular Master's thesis topics.

In order to increase awareness of the Master's degree programme at SDC and support student recruitment on the Danish side, we took on a new approach in 2018. In October, 19 Danish third-year bachelor students from Nanoscience, Physics and Chemistry at the University of Copenhagen and Aarhus University joined a week-long study trip to SDC in Beijing to give them an intense opportunity to experience life as a student at SDC first-hand. The trip was a success and we expect an increase in the intake of Danish students in years to come.



sinodanishcenter • Follow

**sinodanishcenter** Hi, my name is Kanglei Pang I'm from the MSc in Nanoscience and Technology at SDC, I came to Denmark with the rest of my class from SDC to start a one-month study tour on April 6th. I'm 25 years old and this is my first trip outside of China. For the next week I will show you a bit of what I'm doing during my stay in Denmark. I would like to say that Denmark is a fairy tale kingdom and the scenery here is very beautiful. It is like living in a fairy tale world. Last weekend, our Nano class went to Nyhavn and visited Copenhagen by boat. It was a very cool experience.

#sinodanishcenter #copenhagen #nanoclassindenmark #kanalrundfart

SDC Instagram post from 16 April 2018. The photo was taken by Master's degree student Pang Kanglei, who took over the SDC profile during the Chinese students' stay in Denmark.

# Trip to China Convinces Elisabeth to Study Nanoscience and Technology at SDC in Beijing

*'I heard about SDC during my bachelor's programme, but I do not think I would have applied, if I had not been there and seen it with my own eyes', says Elisabeth Filippa Ferdinand Knipschildt, a third-year Nanoscience student at University of Copenhagen.*

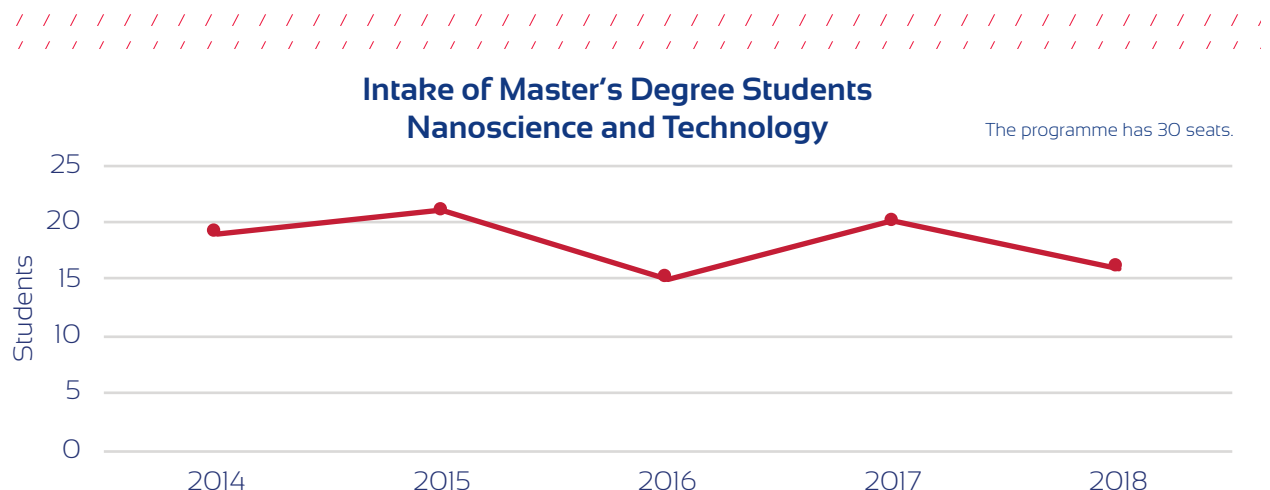
In October, 22-year old Elisabeth and 18 other bachelor students visited SDC in Beijing. Now she wants to take her Master's degree in Nanoscience and Technology in China. During the week-long trip, the group visited the Nanoscience Center in Beijing, so they could experience the lab environments.

However, most of their time was spent at the Yanqihu Campus where SDC is located. While on campus, Elisabeth took part in lectures and presentations, but having the opportunity to socialise with the Danish and Chinese students and quiz them about life as SDC students was most important to her.

*'Meeting the current students was awesome for me. They seemed to feel at home there and I got the feeling that a lot of stuff was going on', Elisabeth says.*



While in China, Elisabeth and her travel companions got the opportunity to visit The Great Wall of China.







## Principal Coordinator's Report

Denmark and China form a solid partnership within SDC's Life Sciences research theme, and in these years we see a significant number of researchers partnering up across the two countries. Neuroscience is a traditional stronghold in Danish research, and over the last decade China has recruited leading foreign and Chinese researchers for state-of-the-art research institutes and facilities

institutes in China. In the spring, a delegation of researchers headed by the innovation attaché at Innovation Centre Denmark in Shanghai paid the HUST-Suzhou Institute for Brainmatics a visit to learn more about their facilities for mapping brain structures and connections using a highly sophisticated automated technology.

*'... we see a significant number of researchers partnering up across the two countries'*

in China. In Denmark there is a strong research tradition within a number of omics disciplines, and the activities within the field are linked in a national network that includes universities and major Danish biotech and pharma companies, some of which have important activities in China.

The two subthemes Neuroscience and Cognition, and Omics now reap the fruits of years of scientific collaboration, for instance when it comes to co-published scientific publications. Several Danish researchers have solid collaborations with Chinese researchers at the Institute of Biophysics, the Institute of Genetics and Developmental Biology, the Institute of Psychology, the Beijing Institute of Genomics as well as the Shanghai Advanced Research Institute.

Through 2018, we have explored new research

The visit also aimed at raising awareness of SDC within the industrial technology research centre. A delegation of neuroscience researchers also visited the Beijing Institute of Technology, which works with robotic prosthetics.

For the first time, in 2018 an SDC Master's graduate obtained an SDC PhD degree. As a PhD student Jan Ole Pedersen has worked closely together with scientists from the Danish Research Center for Magnetic Resonance at the Copenhagen University Hospital, Hvidovre and the Technical University of Denmark and the CAS Institute of Biophysics, who are currently building a high-field human MR scanner close to SDC north of Beijing. Jan Ole Pedersen is from the first cohort of SDC Master's students and now holds a position as MR Clinical Scientist at Philips.



Kim Ryun Drasbek  
Principal Coordinator

## Kick-Starting the Academic Network

In October, the sixth annual SDC Neuroscience and Neuroimaging Symposium took place at SDC. At the symposium, all the second-year students presented their Master's thesis projects to senior research associates. For many students, the symposium is a foundation on which they build future academic networks. The symposium was extended with a PhD Opening Speech session for PhD students.



## 2018 PhD Graduate

### Jan Ole Pedersen

PhD Student Jan Ole Pedersen from Center for Magnetic Resonance, Technical University of Denmark, successfully defended his PhD thesis titled Encoding of non-MR Signals in Magnetic Resonance Imaging. Jan Ole did the PhD in cooperation with the CAS Institute of Biophysics, Beijing.

## Strengthening the Ties Between Research Environments

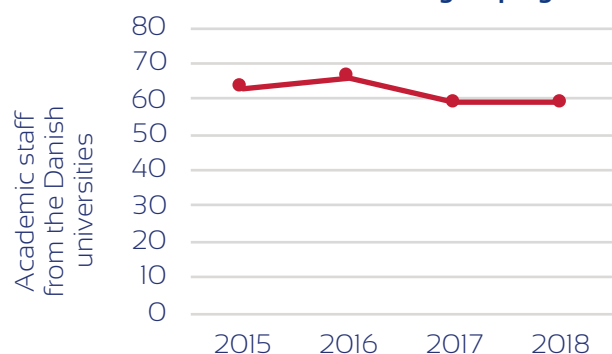
In August, a group of five researchers from CAS institutes, including the Chinese Head of Educational Programme, Professor Xue Rong, visited their Danish partners. The visit aimed to strengthen their already existing connections with Danish research environments and to extend their network.

During their stay, the Chinese researchers gave presentations to Danish research colleagues within the field of neuroscience at Aarhus University, Technical University of Denmark and University of Copenhagen.



In July, Associate Professor Kim Ryun Drasbek from Aarhus University was appointed Principal Coordinator for the Life Sciences research theme. He replaced Professor Peter Roepstorff from the University of Southern Denmark.

### Academic staff who have been in China to conduct research or teach on SDC Master's degree programmes



**16** peer reviewed articles were published in 2018 by faculty in the Life Sciences theme.





## Head of Educational Programme's Report

The Master's degree programme in Neuroscience and Neuroimaging entered its seventh year, when a class of 21 students joined the neuro family in September 2018.

The unique combination of advanced imaging techniques and broad knowledge of basic and clinical neuroscience continues to attract students who are also eager to use their skills at the Chinese research institutes.

programme included a discussion on how to integrate different educational IT tools. Surveys and polls are just some of the tools used to involve the students directly in the teaching. Also, this year the principal coordinator for Water and Environment was invited to talk about their best practices and how they work within the SDC framework focussing on inter-programme collaborations. There is a great



Kim Ryun Drasbek  
Head of Educational  
Programme

*'There is a great potential in collaboration across the study programmes and research areas within SDC'*

Second-year students in the Master's degree programme completed their theses at the Institute of Biophysics, the Institute of Psychology, the Institute of Genetics and Developmental Biology and the Shanghai Advanced Research Institute, among others. The time they spend at the CAS institutes is rewarding, as they become part of academic networks of people at similar career levels, which may develop into valuable global networks in the long run.

potential in collaboration across the Master's degree programmes and research areas within SDC.

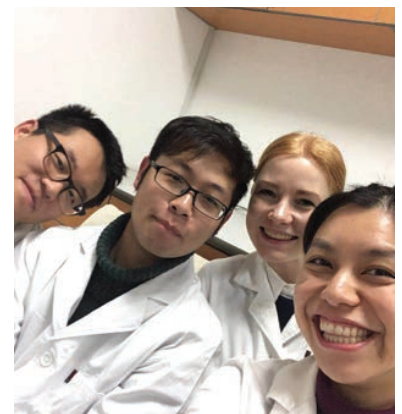
During the year, Chinese students from the 2016 cohort completed a two-month stay in Denmark, giving them an opportunity to spend face-to-face time with their Danish supervisor, become familiar with Danish laboratories and get introduced to neuroscience and neuroimaging communities across Denmark. All initiatives that support the cross-cultural element of the SDC Master's degree programme.

The annual meeting for Danish teachers, supervisors and PhD students involved in the Master's degree



*'I chose to move to Shanghai to do my Master's thesis after I had established contact with a Chinese supervisor and got the opportunity to do an interesting project. I became part of an international research group at the Shanghai Advanced Research Institute, CAS, where I did my Master's thesis, testing potential drugs for Alzheimer's and depression. It has been hard work, but also the best experience ever', says Mie Kristine Just Pedersen.*

Mie graduated in 2018 and is now pursuing a PhD.



## 'We Hit the Jackpot When Signe Came Here to Do her PhD'

Signe Kirk Fruekilde brought her Master's degree in Neuroscience and Neuroimaging and experience from the CAS Institute of Neuroscience in Shanghai to Aarhus University (AU), when she started her PhD titled 'The effect of chemogenetics, optogenetics, and inflammation on capillary transit time heterogeneity in mice'.

Co-supervisor on the project Postdoc Eugenio Gutierrez has been employed at the Center of Functionally Integrative Neuroscience at AU for eight years, and the supervision turned out to add value to both his and Signe's work, despite their different experiences and skills. Overall his research focus is on brain hemodynamics for which he uses optical imaging. Within optical imaging, it is recommended to perform experiments on awake animals, but before Signe started they had never worked with these techniques. Signe had gained experience during the year she worked on her Master's thesis.

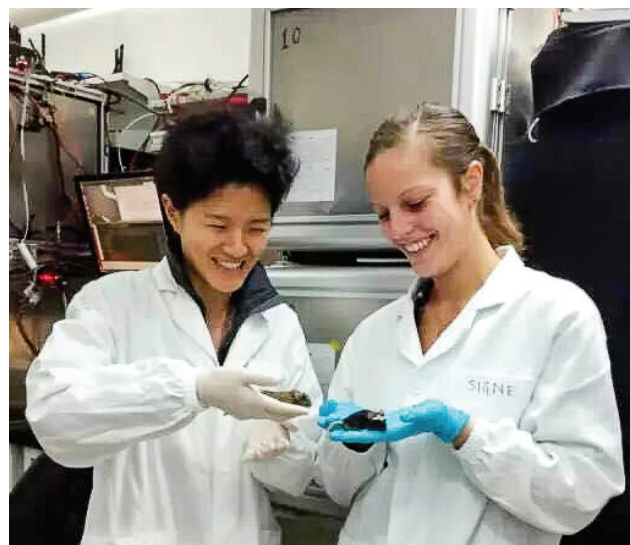
*'We hit the jackpot when Signe came here to do her PhD. It was crucial that she came at the time she did, as I was about to start using optical imaging techniques with awake animals. Signe ended up being a key figure in the training of the animals', Eugenio says.*

The surgery they perform comprises implanting a small glass window in the skull of mice. Afterwards they examine the animal under the microscope and scan it to see the effects when the brain or another part of its body is stimulated. It calls for microsurgical

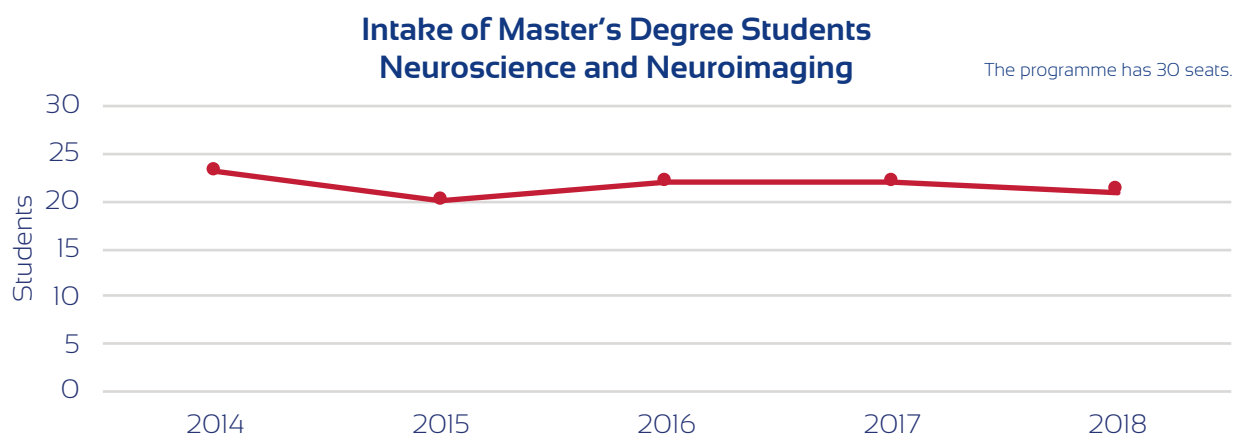
experience, intensive training and expertise in handling the animals, and this is exactly what Signe brought back from her laboratory stay in China.

*'It is a rather new technique, and it requires a permit from the Animal Experiments Inspectorate to perform the procedure, but through knowledge sharing both Signe and I are now able to use the technique', says Eugenio who has taught Signe how to use optical imaging techniques while she has taught him how to handle and train the animals.*

In October, Signe attended the annual Neuroscience and Neuroimaging Symposium in China to present her array of techniques for investigating cerebral capillary blood flow.



**Signe Kirk Fruekilde and postdoc Chun Yu in the lab at the Institute of Neuroscience in Shanghai.**







## Head of Educational Programme's Report

The combination of molecular biology and bioinformatics is becoming increasingly important for biochemical and biotechnological research and production, for example in the pharmaceutical and food industries. Research and development within this area leads to an overall increase in the industrial output and an improvement in the biomedical outcomes.

*'...the competences and equipment at the Chinese institutes are unmatched.'*

Through the Master's degree programme in Life Science Engineering and Informatics students acquire the skills to generate, integrate, analyse and model large biological data in order to find results that are not obtainable through traditional reductionist methods within the field of biochemistry or molecular biology.

Over the last two decades, the Chinese government has invested massively in advanced research environments, facilities and equipment, and the country is home to some of the most accomplished scientists in the world. In some fields, for instance genomics, the competences and equipment at the Chinese institutes are unmatched.

In 2018, discussions with teachers from the programme, present and past students, possible industrial partners and SDC staff have been initiated, and we have identified a number of short- and medium-term action points to focus on in the next

two years. One of the short-term action points, already implemented, includes a more active recruitment strategy. For this approach, we draw on the experiences of other SDC programmes, like Neuroscience and Neuroimaging.

Another action point is to extend the existing



Paolo Marcatili  
Head of Educational  
Programme

collaboration and facilitate an even stronger connection between Danish and Chinese researchers. New Danish

teachers will broaden and strengthen their relations to Chinese colleagues with similar research lines by giving lectures at relevant CAS institutes such as the Institute of Biophysics and Beijing Institute of Genomics.

In the long run, we have initiated discussions with biotechnological and pharmaceutical industries in order to create stronger connections through internships and collaborative Master's theses.

**In September 2018, responsibility for the Danish side of the Master's programme in Life Science Engineering and Informatics was transferred from the University of Southern Denmark to Technical University of Denmark. Following the transfer, Associate Professor Paolo Marcatili from Technical University of Denmark took up the position as Head of Educational Programme. He took over the role from Finn Kirpekar from the University of Southern Denmark. In 2018, the programme also adopted its new name (previously Omics).**



*'What attracted me to the programme was the profile and the competences I could acquire, and of course getting the opportunity to study in China was an extraordinary adventure. The programme takes biochemistry, molecular biology and bioinformatics to the next level and combines the different disciplines. We learned how to work with big data sets using data from genomics, metabolomics and lipidomics, and we acquired the skills to process these data sets', Anne Eriksen Agger says.*

Anne did her Master's thesis in cooperation with CAS Institute of Biophysics in Beijing and graduated in 2018. Now she is doing a PhD at the University of Oslo.

## Learning Advanced Techniques

Janusa, Tamanna and Jenani found extraordinary academic opportunities in unfamiliar settings, when they seized the opportunity to conduct their thesis work through SDC in China.

Biomedicine Master's students at the University of Southern Denmark Janusa Rasalingam, Tamanna Mohammadi and Jenani Jeyakumar immediately seized the opportunity to swap Odense for Beijing, when their supervisor, Associate Professor Finn Kirpekar, who teaches at SDC, reached out to his colleague Professor Yang Yungui at Beijing Institute

of Genomics and found thesis projects for them working with RNA modifications.

*'We learned some techniques within our field that we could not have learned in Denmark, because they are very expensive. In China, our supervisor told us that training and results was more important than the cost of reagents, so we took advantage of the opportunity and are now experienced in using some super cool techniques that are not too common in Denmark', says Tamanna.*

In the lab the three Danish students used techniques such as RNA sequencing and manipulation of gene expression, and the Chinese hosts were extremely encouraging and helpful, Tamanna explains. However, getting used to China was challenging.

*'It was a rough start in China. We had to decide where to live, the Chinese work week was very long, our projects and plans could change suddenly, but after a while we found a work-life balance that lived up to our own and the Chinese way of doing things. I am very proud of our ability to adapt to those circumstances and we have definitely become more confident and independent from our experiences', says Janusa.*

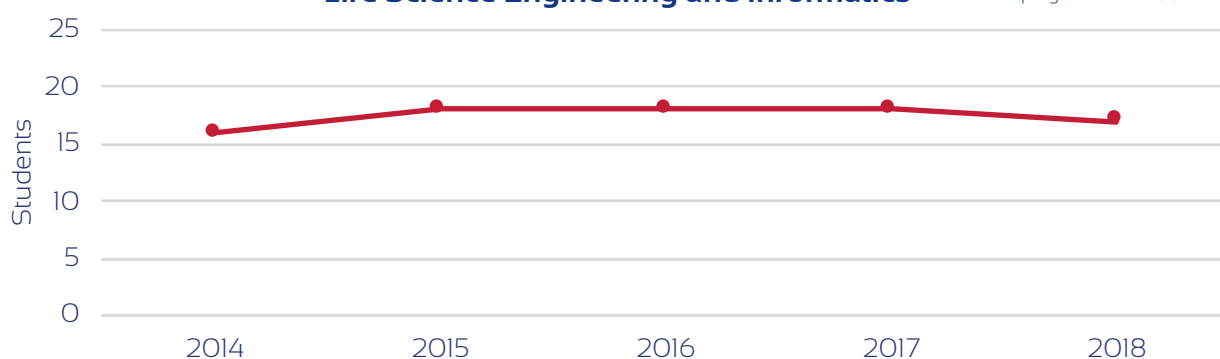
All three students returned to Denmark at the end of January 2019 and have handed in their theses after having spent a year in China.



From the left: Jenani, Tamanna and Janusa.

### Intake of Master's Degree Students Life Science Engineering and Informatics

The programme has 30 seats.







## Principal Coordinator's Report

The year has revolved around the development of a new research strategy for the Sustainable Energy theme. Until now the theme has focussed primarily on the supply side of energy systems, including fusion, solar, wind, bioenergy (biomass and waste), and gradually also energy systems. Since the launch of the Master's degree programme in Chemical and Biochemical Engineering (CBE) in 2013, research resources have especially supported this activity, and in 2017 the non-CBE research activities were phased out, waiting for a reorientation of the research theme.

The new research areas all have a high degree of relevance in relation to the development of a sustainable energy system in Denmark and China, and they complement biomass and waste.

- The areas focus on:
  - Energy systems analysis
- and markets
- Smart energy systems
- Flexibility options
- Digitisation



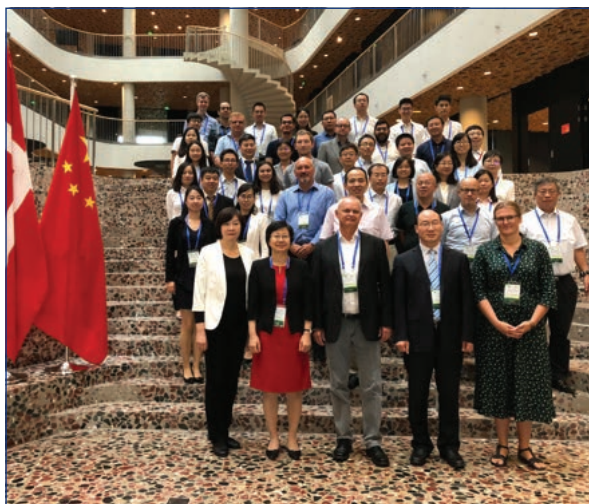
Birte Holst Jørgensen  
Principal Coordinator

*'The new research areas all have a high degree of relevance in relation to the development of a sustainable energy system'*

The future research areas have been defined in collaboration with leading researchers from Danish universities. Danish experts engaged in the Sino-Danish strategic partnership have been consulted to ensure relevance, including the energy counsellor at the Royal Danish Embassy in Beijing and the chief expert at the China National Center on Renewable Energy. Our Chinese partners from UCAS, CAS Institute of Electrical Engineering and CAS Institute of Science and Development have continuously been involved in developing the research strategy.

First step in the development of the new research areas will be a joint kick-off seminar in China and the launch of PhD projects.

Through 2018, the biomass and waste research collaboration between DTU Chemical Engineering and the CAS Institute of Process Engineering has continued to grow. A joint PhD book, contributed to by 28 PhD students involved in the collaboration over the last five years, was published in September 2018. The abstract book is oriented towards other researchers and the industry.



### The second joint seminar – held in China

Within the biomass and waste research subarea, the second joint seminar was held at SDC in September with participants from DTU Chemical Engineering, the CAS Institute of Process Engineering, and Vice President of UCAS Wang Yanfen, among others. The researchers discussed the possibilities of a future Sino-Danish Laboratory for Sustainable Process and Product Engineering. Also a number of research projects with common interests were discussed and defined, and several co-supervisors for Master's and PhD projects were identified.

## 2018 PhD Graduates

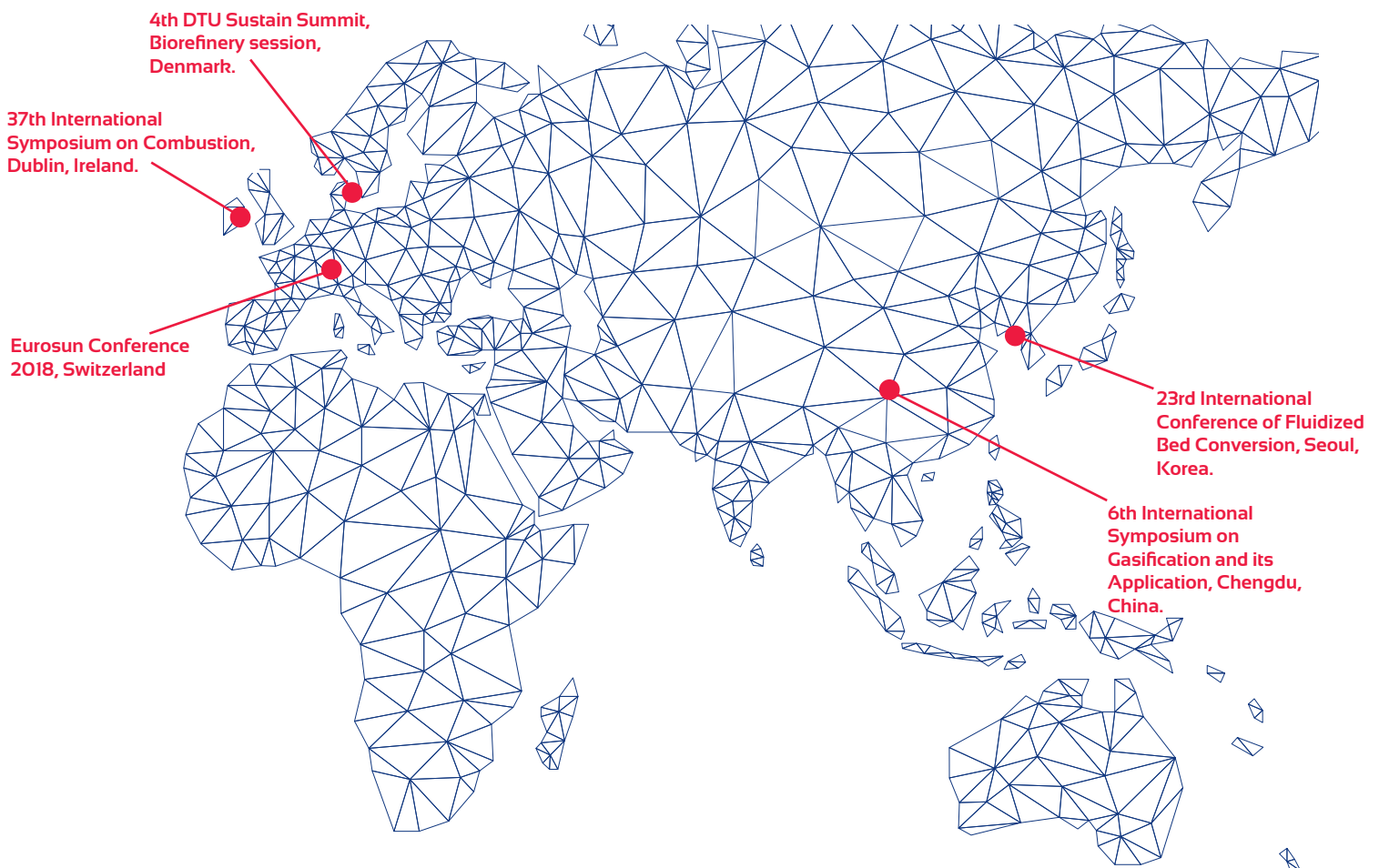
### Rasmus Seerup

PhD Student Rasmus Seerup from Department of Chemical and Biochemical Engineering, Technical University of Denmark, successfully defended his PhD thesis titled Modelling of Gasification of Biomass in Dual Fluidized Beds. Rasmus did the PhD in cooperation with CAS Institute of Process Engineering.

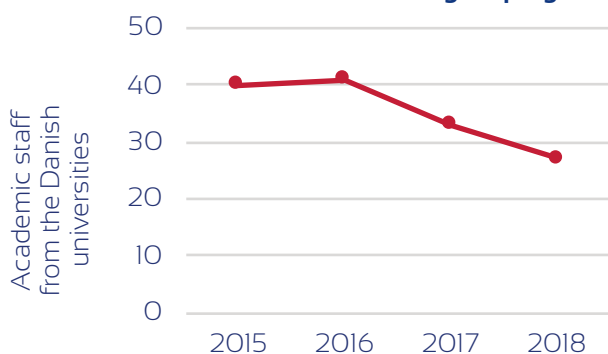
### Bozidar Anicic

PhD Student Bozidar Anicic from Department of Chemical and Biochemical Engineering, Technical University of Denmark, successfully defended his PhD thesis titled Agglomeration Mechanisms during Fluidized Bed Combustion of Biomass. Bozidar did the PhD in cooperation with CAS Institute of Process Engineering.

## Conference proceedings 2018 by SDC PhD Students



### Academic staff who have been in China to conduct research or teach on SDC Master's degree programmes



17

peer reviewed articles were published in 2018 by faculty in the Sustainable Energy theme.



## Head of Educational Programme's Report

The world's resources are under pressure and the need for securing sustainable energy solutions is growing. So is the demand for innovative green methods to convert raw materials into valuable products through improved process technology. The aim of the Master's degree programme in Chemical and Biochemical Engineering is to educate graduates who are able to take new methods from the laboratories into industrial production. In recent years, product design has become more

not accessible in China. The laboratory offers state-of-the-art pilot-scale equipment, which simulates industrial-scale operations. Furthermore, the eight-week stay in Denmark strengthened the Chinese students' connection to Denmark and the Danish universities.

In 2018 the strong relations to leading chemical engineering companies in Denmark and China have been

*'relations to leading chemical engineering companies in Denmark and China have been strengthened...'*



Kim Dam-Johansen  
Head of Educational  
Programme

Photo: Christian Ove Carlsson

important for the chemical industry, and in order to strengthen the graduates' competences within this field a new course, Coating Science and Technology, was introduced in 2018.

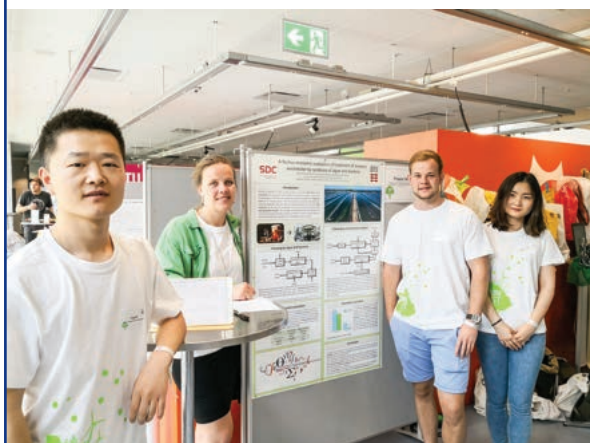
The year has been characterised by a continued focus on the academic and intercultural exchange between the students. From June to August students took two courses at Technical University of Denmark's Department of Chemical and Biochemical Engineering. This gave all of the students the opportunity to take a unique lab course within large-scale chemical unit operations, which is

strengthened, and this year's company visits, guest lectures and thesis collaborations included a high degree of involvement from Hempel, Haldor Topsøe and Novozymes, among others. During the year, 15 students from the 2016 cohort defended their DTU Master's degree thesis, and some of the students did their thesis in collaboration with a company.

PhD Student Bozidar Anicic carried out the first PhD defence in the SDC building, and he invited the Chemical and Biochemical Engineering students to participate, as the defence was included as a lecture in the Progress in Research course.

## Green Challenge

Every year in June the students finalise their first year with a stay in Denmark where they take part in the Green Challenge student conference at Technical University of Denmark. Here they team up and present their green projects developed as an integrated part of the programme.



Mia Bodenhoff, Morten Lysdahlgaard Pedersen, Zhang Ting and Wang Jingyu made up one of the 2018 teams. They presented a techno-economic evaluation of treatment of brewery wastewater. Each year the production of beer in China results in more than 220 million m<sup>3</sup> of brewery wastewater. It has been found that brewery wastewater can be cleaned using algae, and thereby a biomass is produced in the process. The team looked into whether it would make sense – from an economic perspective – to use this new wastewater treatment instead of the conventional methods.



# Teaching in a Cross-cultural Classroom

## **When teaching PhD Student Burak Ulusoy draws on his experience from various research stays in China**

When Burak Ulusoy started his PhD studies at the Technical University of Denmark in 2016 he also embarked on a position as teaching assistant for the Master's students at the Chemical and Biochemical Engineering programme. So far, he has spent 11 months in China with his collaborative partners at CAS Institute of Process Engineering. Besides doing research, he has taught on the course Industrial Reaction Engineering, which relates well to his PhD project within fluidised bed combustion of biomass.

*'The course is based on course assignments, and I am responsible for the part that is more or less a simplified version of my PhD project. Teaching gives me a lot on the personal level, as it can be challenging to help teach an intercultural class', Burak says.*

## **New Research and Teaching Culture**

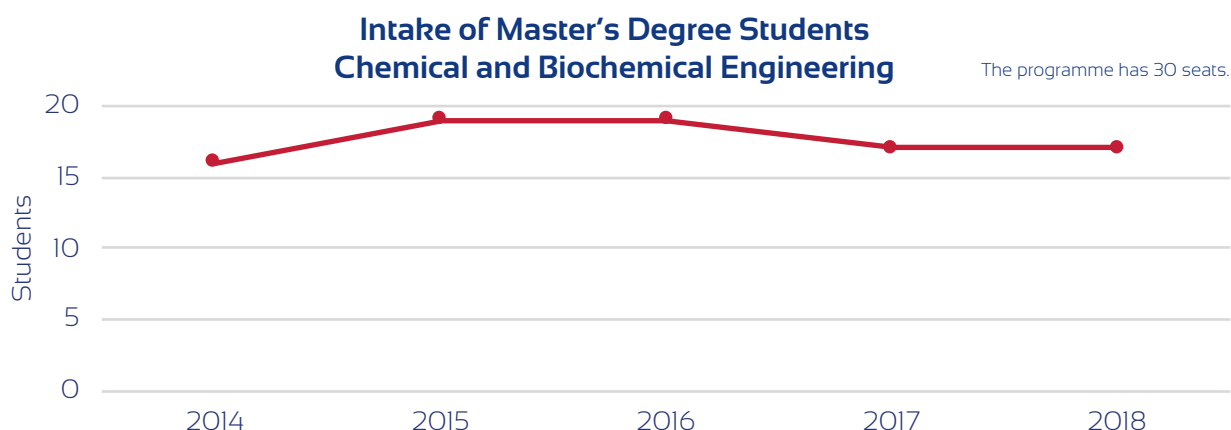
The time spent in China has paid off for Burak, as he has a profound understanding of the way things work in a Chinese research environment, and he can use this experience in teaching situations.

*'When it comes to industrial engineering there is not one correct answer, so it is beneficial for the students to engage in discussions and come up with a few solutions. In Chinese teaching culture, discussions are not common, so it is important that they adapt to this way of learning. For this purpose, the open-mindedness of the Danish and international students is pivotal. On the other hand, the Chinese students bring with them a strong theoretical background. This can in some cases create a synergy between the students as they learn from each other and contribute to the best of their abilities', says Burak, who has another research stay in China coming up in May 2019.*



From the right: Burak Ulusoy with Master's degree student Chen Kaicheng, his supervisor Professor Wang Wei and Master's degree student Xu Fei

Burak will finish his PhD in the summer of 2019.





## Principal Coordinator's Report

The research theme is growing rapidly with more people getting involved, and in connection with the launch of the Master's degree programme in International Food Quality and Health the intention is to make a strong impact for the Danish food industry in the coming years. The development will include further building of strong bonds with Chinese counterparts.

The global food and food technology market is rapidly expanding, and food investment is central in both the Danish and the Chinese government's growth plans. SDC's Food and Health research area has been developed to meet Danish and Chinese food market challenges.

*'...the intention is to make a strong impact for the Danish food industry in the coming years.'*

The research area focusses on application-oriented food science for sustainable, healthy and high-quality food supply and security. Danish and Chinese university partners have complementary

competences that span from primary production to consumer behaviour including food quality, economics, marketing and health as core aspects in food solutions.

The focus areas span the entire food chain 'from farm to fork':

- Food quality, processing and production
- Microbial food safety and hygiene
- Food business, marketing and the consumer
- Food sociology, economics and supply chain management
- Nutrition and health



Derek V. Byrne  
Principal Coordinator

In 2018, several trips to China took place to build and consolidate a network around our PhD students with collaborators at CAS institutes, including the Tianjin Institute of Industrial Biotechnology and the Institute of Psychology. Visits were also made to potential industrial placement for Master's degree students and PhD students placement environments with Arla and COFCO, amongst others.



**The coordinating group from the Danish side met with Chinese partners in Beijing to discuss the Master's degree programme, research activities and industry collaborations.**

Six PhD students are linked to the research theme working on key subjects that span the food chain in relation to cross-cultural knowledge development.

In addition, two postdoc positions have been initiated in 2018, one linked to food safety and another to cross-cultural understanding of sensory food quality.



## Master's Degree Programme in International Food Quality and Health to be launched in 2020

The Master's degree programme in International Food Quality and Health was approved by the Danish authorities in 2018. The programme will be launched in the autumn of 2020. With a Master's degree in International Food Quality and Health graduates will have a firm grasp of the journey of food products from farm to fork

with a key cross-cultural focus. Through the Master's degree programme students will gain an understanding of the food chain across different disciplines by immersing themselves in subjects such as sustainable food production, food safety, food quality, nutrition and marketing for the international market.



**The workshop that kicked off the development of the Master's degree programme was held in Copenhagen.**



**Søren Tinggaard, Vice President, Pork Export  
Strategy & Marketing Export, Danish Crown A/S**

*'China is one of Danish Crown's main markets. We have seen a significant growth in sales in recent years, and it is important for us to continue to maintain and strengthen our position in this market. Masters in International Food Quality and Health familiar with Chinese business culture are in high demand here.'*



# Ready to Meet the World



**A new wave of SDC graduates were ready to take on the future, when they were celebrated at the 2018 graduation ceremony at SDC in June.**

Their academic achievements were marked at the occasion where they were joined by their fellow students, family and friends. The Ambassador of Denmark to China, A. Carsten Damsgaard and President of UCAS, Li Shushen were among the many guests to join the celebration and congratulate the joyful graduates on a memorable day.







*'Before I stood here, I was trying to find the right word to describe SDC. I think the word should be 'bridge'. SDC is a bridge linking China and Denmark...each of us is a small bridge, and I believe the existence of SDC will fundamentally contribute to the cooperation between China and Denmark.'*

**Commencement speech by Pang Kanglei, 2018 graduate with a Master's degree in Nanoscience and Technology.**



*'Initially, when I applied for a Master's at SDC, my bachelor supervisor called it 'an academic investment in my future'. Little did I know that it would turn out to be a lot more than that.'*

**Commencement speech by Naghmeh Salami, 2018 graduate with a Master's degree in Public Management and Social Development.**





# House of the

Opening the doors of a Danish building in China was a landmark event, and it attracted attention in both countries when the home of SDC was inaugurated by HRH The Crown Prince on 25 September 2017. In 2018, all educational activities and the administration moved into the building, and for the first time it enables SDC to compile teaching and research

activities under one roof.

The building design is based on a proposal by Danish architects Lundgaard & Tranberg, and it is located at UCAS' Yangtze Campus 60 km north of the Beijing city centre.



## Events in 2018

The new facilities create a wide range of opportunities to strengthen SDC's relations to industrial collaborators. SDC is open to companies, universities and institutions with activities in China, and since the building was inaugurated in 2017, it has hosted activities organised by the Danish universities, CAS institutes and companies such as Novo Nordisk. In 2018 SDC hosted more than 70 activities in the building.

**24** Symposia and workshops  
*'Daimler workshop', Corporate Innovation Days, 'Green Windows of Opportunity in China', 'Middle Class on the Move', 'Entrepreneurship Research', among others*

**3** Visits from a Danish minister or high-level Chinese officials

... and more

**16** Visits from Danish and Chinese educational institutions

**30+** PhD courses, guest lectures, meetings and student-driven events



# Danish Industry Foundation



## Facts About the Building

The building has five floors and covers almost 11,000 m<sup>2</sup>. On a daily basis it is frequented by 200 Master's degree students, PhD students, teachers and researchers, guests and staff.

The building contains:

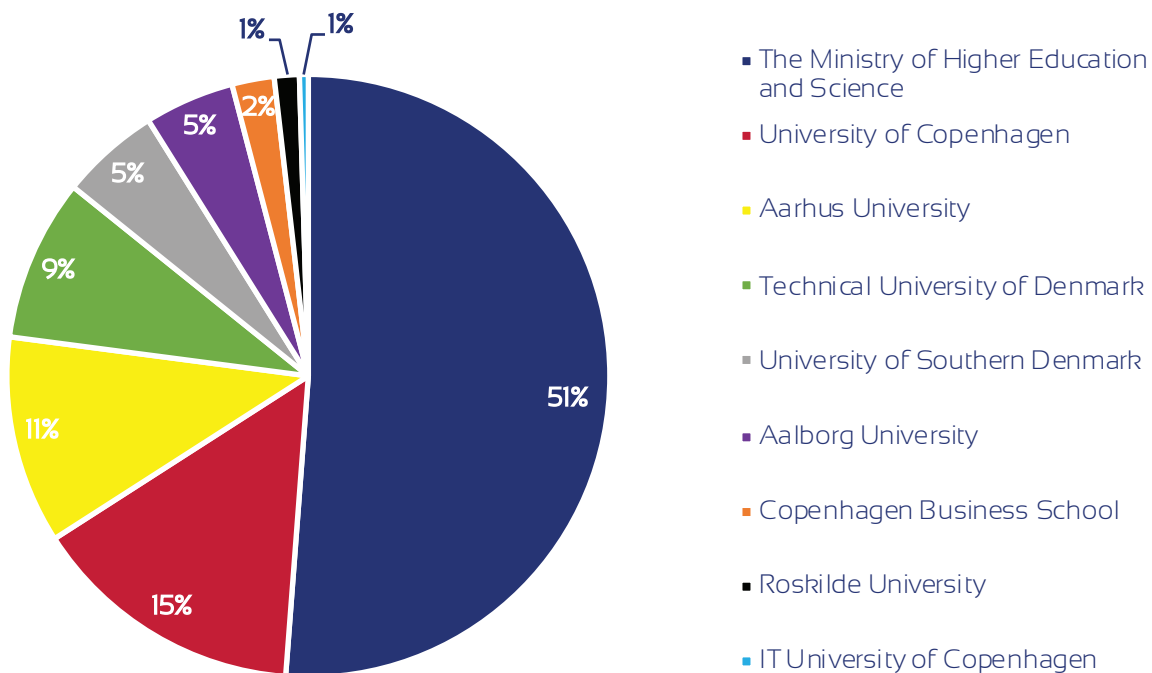
- 20 flats for teachers and researchers
- 1 lecture hall
- 1 lecture room
- 10 classrooms
- 8 group rooms
- 10 research offices
- 8 PhD offices
- 6 thesis offices
- 4 meeting rooms
- Lounges for students and teachers
- Common areas with study stations
- 4 administration offices



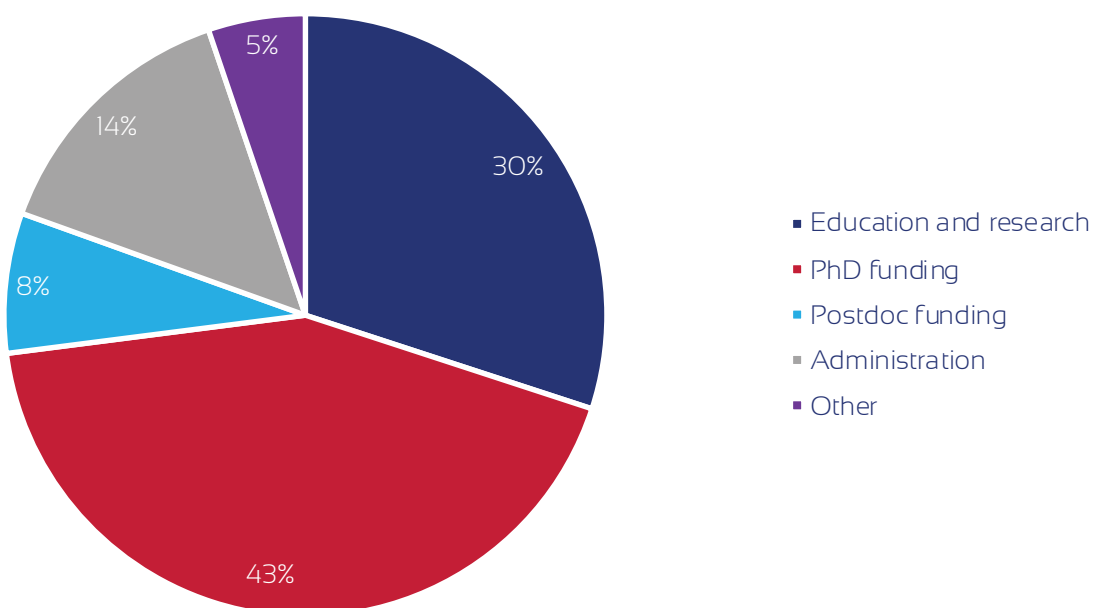
# Finances

The Danish part of SDC is funded by the Ministry of Higher Education and Science and the Danish universities. The eight universities contribute financially to SDC based on their annual turnover.

**Income 2018 - 61 DKK million**



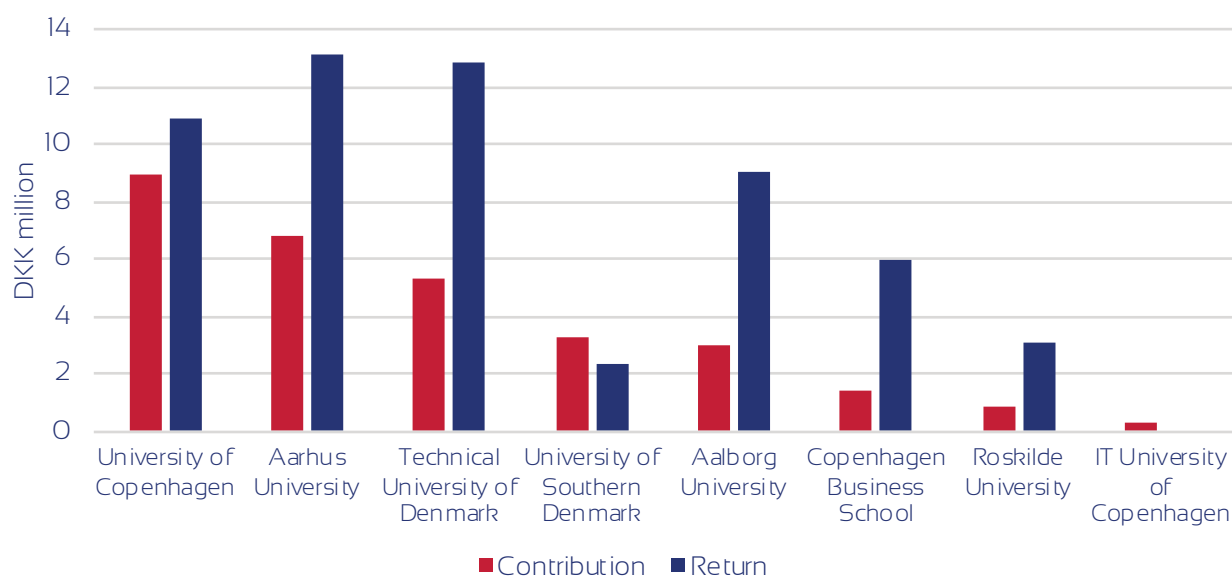
**Expenses 2018 - 67 DKK million**



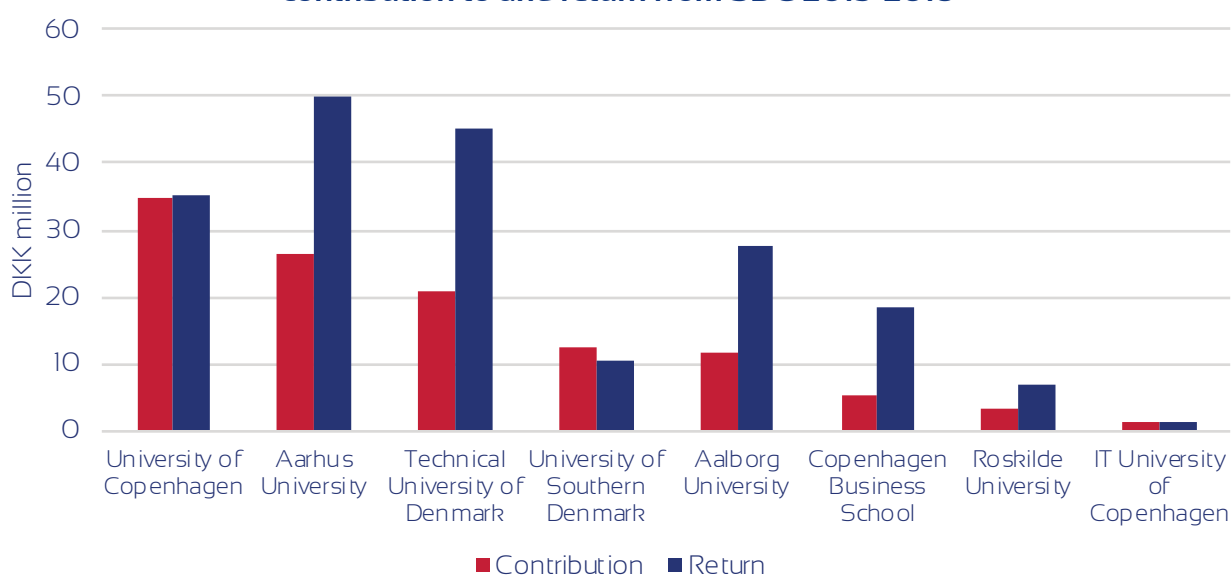
# Financial Flow

The Danish side of SDC compensates the universities for research and educational activities carried out in China and co-finance PhD projects and postdoc positions at the Danish universities.

**The Danish universities' financial contribution to and return from SDC 2018**



**The Danish universities' financial contribution to and return from SDC 2015-2018**

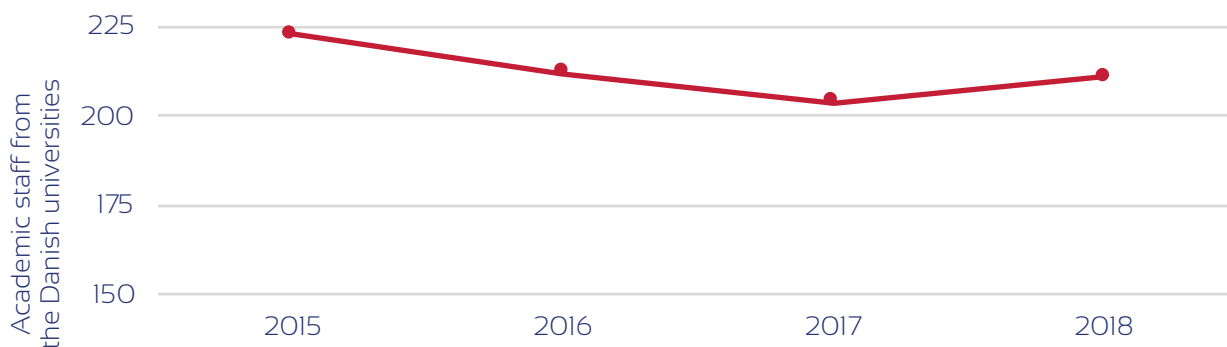




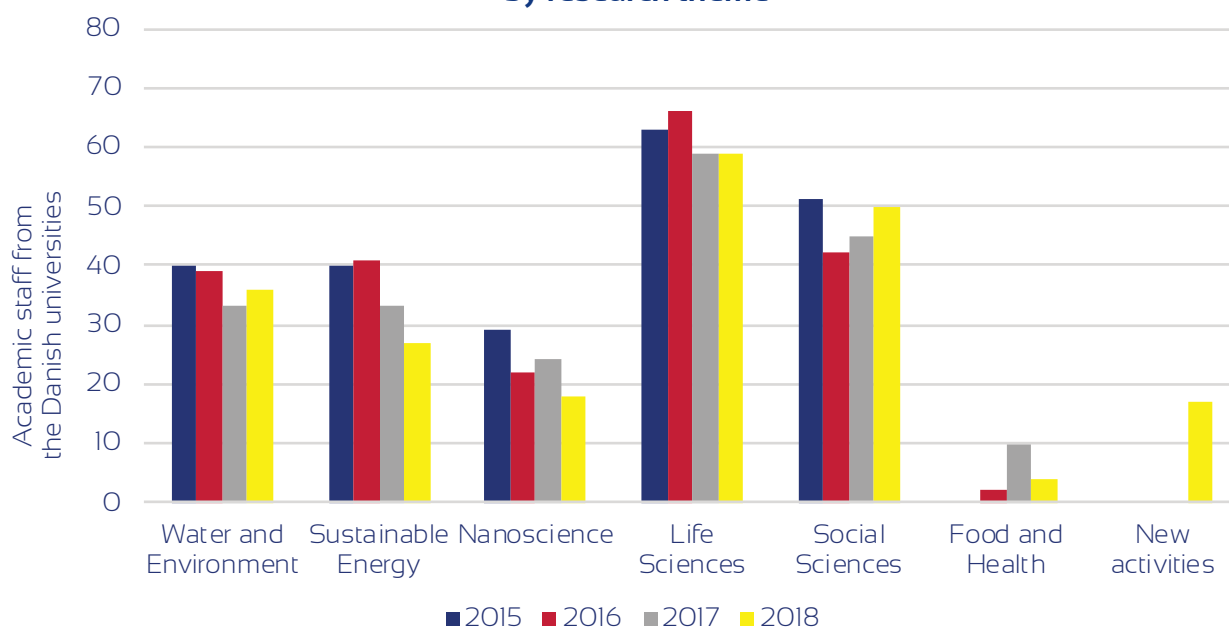
# 211

Academic staff members from the Danish universities conducted research or taught in China within the framework of SDC in 2018.

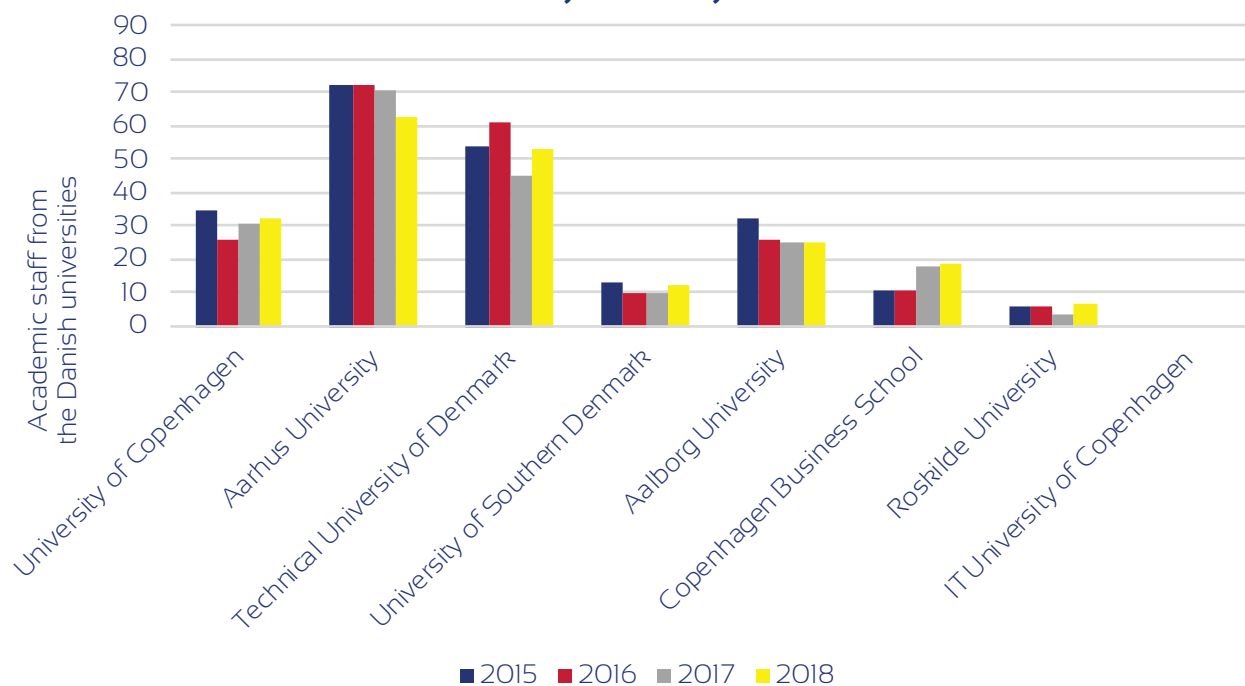
**Academic staff who have been in China to conduct research or teach on SDC Master's degree programmes**



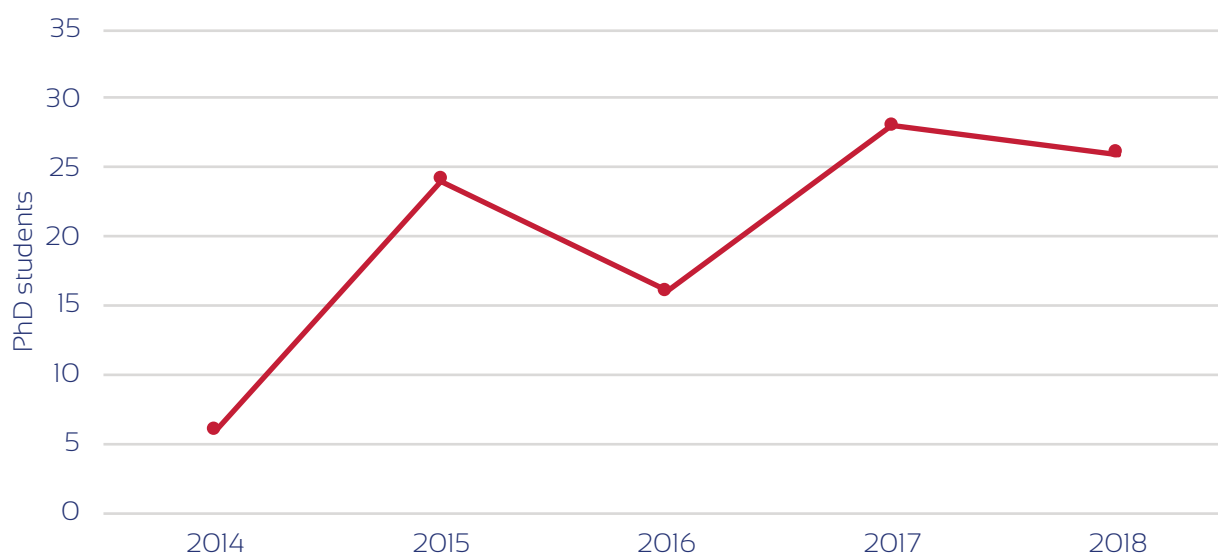
**Academic staff who have been in China to conduct research or teach on SDC Master's degree programmes - by research theme**



### Academic staff who have been in China to conduct research or teach on SDC Master's degree programmes - by university



### SDC-funded PhD Students Enrolled at the Danish Universities



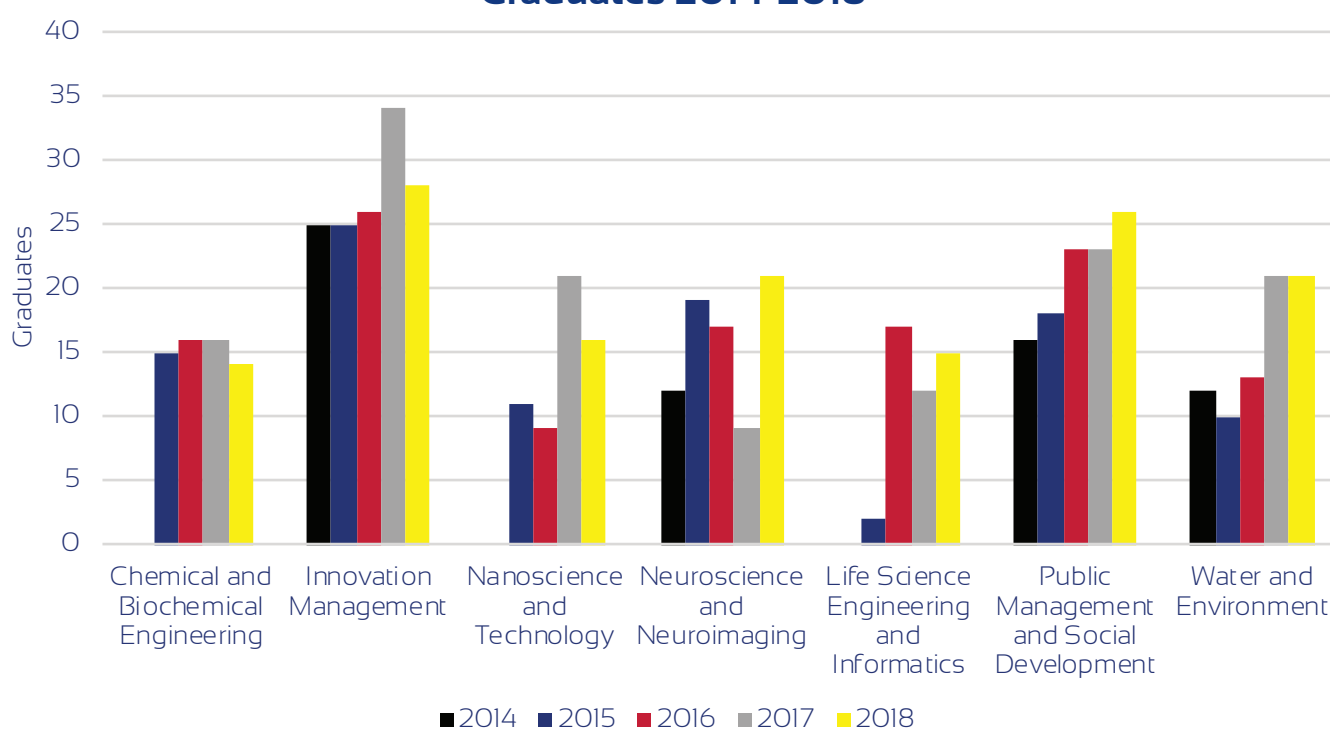
Since 2011 the Danish side of SDC has co-financed a number of PhD students each year at Danish universities. SDC PhD students have both a Danish supervisor and a Chinese supervisor, and the Danish SDC PhD students must spend a minimum of six months at a Chinese research institute during their studies. They have the opportunity to obtain a double PhD degree if they meet the requirements of both their Danish and Chinese host institutions.

# Master's Degree Students and Graduates

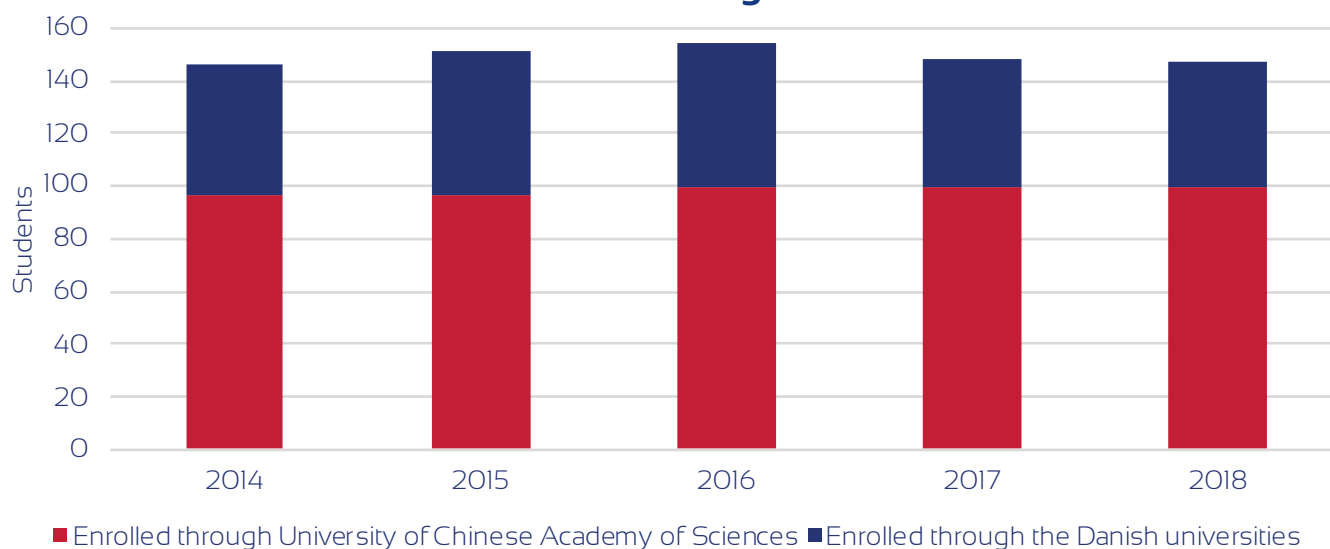
# 141

**Master's degree students graduated from SDC in 2018**

**Graduates 2014-2018**

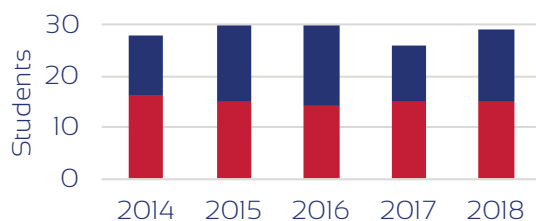


**Intake of Master's Degree Students**



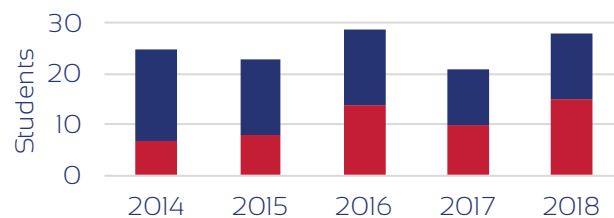


### Intake of Master's Degree Students Innovation Management



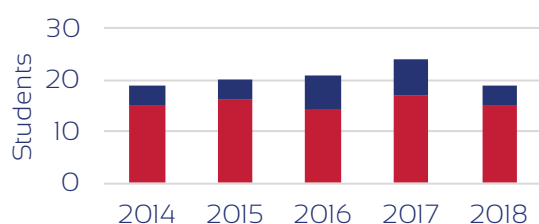
- Enrolled through Aalborg University
- Enrolled through the University of Chinese Academy of Sciences

### Intake of Master's Degree Students Public Management and Social Development



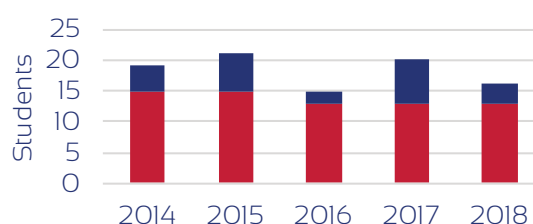
- Enrolled through Copenhagen Business School
- Enrolled through the University of Chinese Academy of Sciences

### Intake of Master's Degree Students Water and Environment



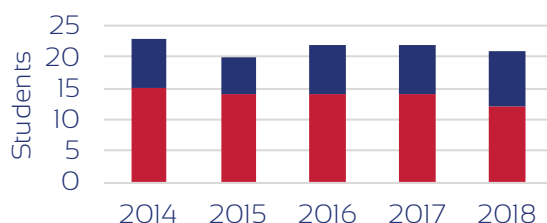
- Enrolled through the University of Copenhagen
- Enrolled through the University of Chinese Academy of Sciences

### Intake of Master's Degree Students Nanoscience and Technology



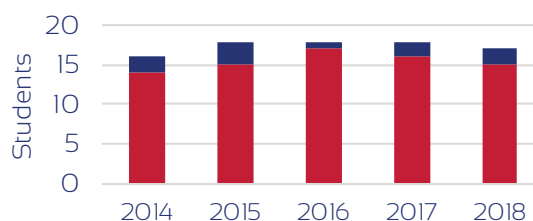
- Enrolled through the University of Copenhagen
- Enrolled through the University of Chinese Academy of Sciences

### Intake of Master's Degree Students Neuroscience and Neuroimaging



- Enrolled through Aarhus University
- Enrolled through the University of Chinese Academy of Sciences

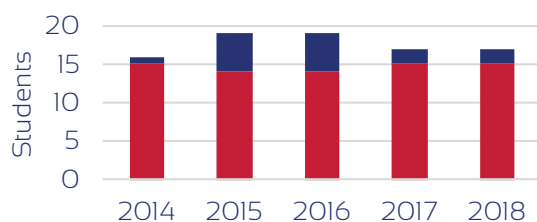
### Intake of Master's Degree Students Life Science Engineering and Informatics



- Enrolled through the Technical University of Denmark\*
- Enrolled through the University of Chinese Academy of Sciences

\*In September 2018, the Master's degree programme was transferred from the University of Southern Denmark to the Technical University of Denmark

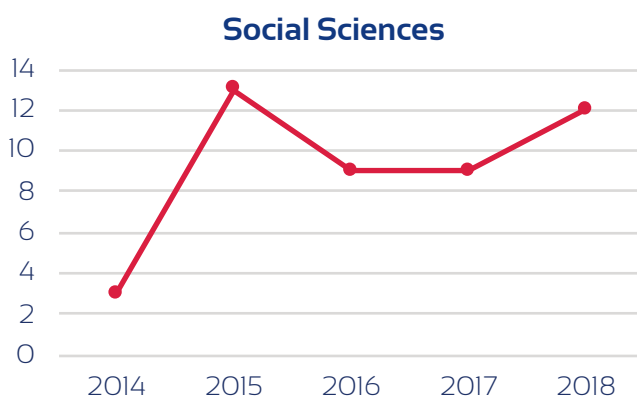
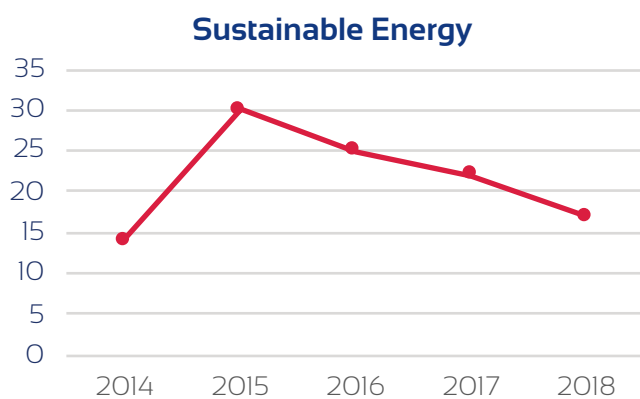
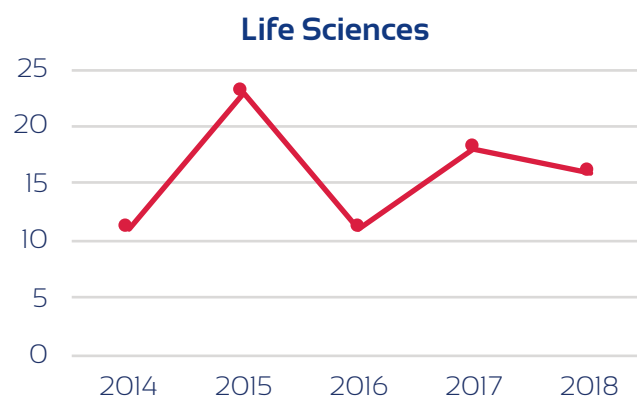
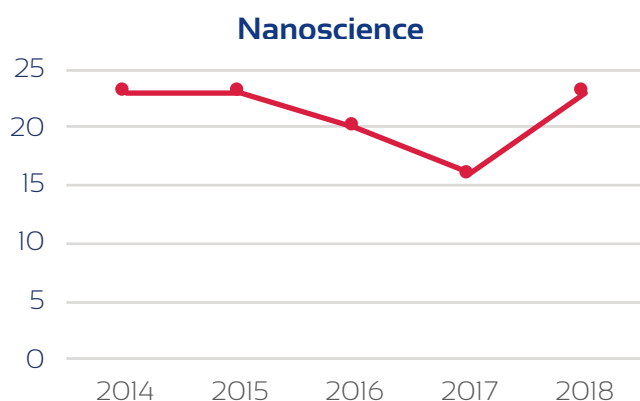
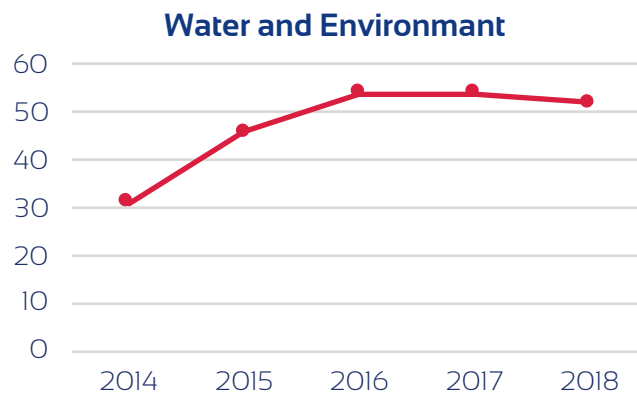
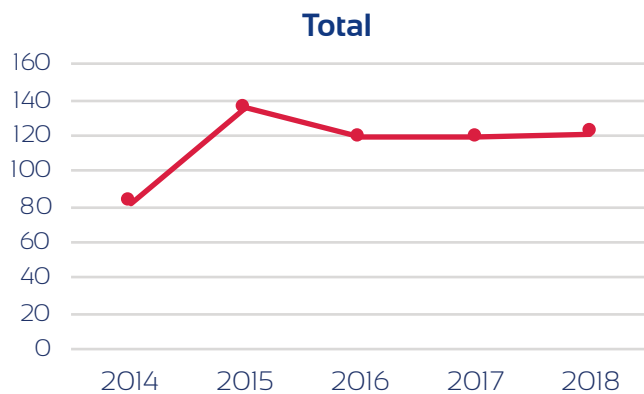
### Intake of Master's Degree Students Chemical and Biochemical Engineering



- Enrolled through the Technical University of Denmark
- Enrolled through the University of Chinese Academy of Sciences

# Publications

From 2014-2018, SDC faculty registered 576 scientific publications.



# 2018 Publications

The list of publications was compiled based on searches in Web of Science, Scopus and the Danish National Research Database. Only publications registered with affiliation to Sino-Danish Center for Education and Research are included.

## Social Sciences

Arnoldi, J; Muratova, Y

Unrelated acquisitions in China: The role of political ownership and political connections

Cheng, Yang; Matthiesen, Rikke; Farooq, Sami; Johansen, John; Hu, Haibo; Ma, Lei

The evolution of investment patterns on advanced manufacturing technology (AMT) in manufacturing operations: A longitudinal analysis

Haakonsson, Stine Jessen; Slepnirov, Dmitrij

Technology Transmission Across National Innovation Systems: The Role of Danish Suppliers in Upgrading the Wind Energy Industry in China

Li, Y; Meng, X; Zhang, Y; Wei, X

China's NTB Market: A Liquidity Dilemma

Liu, X; Dong, C; Gao, Y; Wang, D

Effects of relative power imbalance in the ecosystem on innovation

Liu, Y; Schøtt, T; Zhang, C

Women's experiences of legitimacy, satisfaction and commitment as entrepreneurs: embedded in gender hierarchy and networks in private and business spheres

Muratova, Yulia; Arnoldi, Jakob; Chen, Xin; Scholderer, Joachim

Political rotations and cross-province firm acquisitions in China

Schøtt, T

Entrepreneurial pursuits in the Caribbean diaspora: networks and their mixed effects

Søberg, P V; Chaudhuri, A

Technical knowledge creation: Enabling tacit knowledge use

Su, Weiliang; Eriksson, Tor; Zhang, Linxiu

Off-farm employment, land renting and concentration of farmland in the process of urbanization: Chinese evidence

Wang, Cancan; Medaglia, Rony; Zheng, Lei

Towards a typology of adaptive governance in the digital government context: The role of decision-making and accountability



## Water and Environment

Ai, Z; Yang, Y; Wang, Q; Manevski, K; Wang, Q; Hu, Q; Eer, D; Wang, J

Characteristics and influencing factors of crop coefficient for drip-irrigated cotton under plastic-mulched condition in arid environment

Bartrons, Mireia; Arranz, Ignasi; Canedo-Arguelles, Miguel; Sgarzi, Serena; Lauridsen, Torben L; Landkildehus, Frank; Quintana, Xavier D; Brucet, Sandra; Jeppesen, Erik

Fish shift the feeding behaviour and trophic niche diversification of their prey in subarctic Lake Myvatn, Iceland

Bornø, M L; Eduah, J O; Müller-Stöver, D S; Liu, F

Effect of different biochars on phosphorus (P) dynamics in the rhizosphere of *Zea mays* L. (maize)

Bornø, M L; Müller-Stöver, D S; Liu, F

Contrasting effects of biochar on phosphorus dynamics and bioavailability in different soil types

Brauns, Bentje; Jakobsen, Rasmus; Song, Xianfang; Bjerg, Poul L

Pesticide use in the wheat-maize double cropping systems of the North China Plain: Assessment, field study, and implications

Bucak, Tuba; Trolle, Dennis; Tavsanoğlu, U Nihan; Cakiroğlu, A Idil; Ozen, Arda; Jeppesen, Erik; Beklioglu, Meryem  
Modeling the effects of climatic and land use changes on phytoplankton and water quality of the largest Turkish freshwater lake: Lake Beysehir

Buttet, Geraldine Florence; Murray, Alexandra Marie; Goris, Tobias; Burion, Melissa; Jin, Biao; Rolle, Massimo; Holliger, Christof; Maillard, Julien

Coexistence of two distinct *Sulfurospirillum* populations respiring tetrachloroethene-genomic and kinetic considerations

Chen, D; Li, F; Gao, Y; Yang, M

Pilot performance of chemical demulsifier on the demulsification of produced water from polymer/surfactant flooding in the Xinjiang Oilfield

Davidson, Thomas A; Audet, Joachim; Jeppesen, Erik; Landkildehus, Frank; Lauridsen, Torben L; Sondergaard, Martin; Syvaranta, Jari

Synergy between nutrients and warming enhances methane ebullition from experimental lakes

Deng, Jianming; Paerl, Hans W; Qin, Boqiang; Zhang, Yunlin; Zhu, Guangwei; Jeppesen, Erik; Cai, Yongjiu; Xu, Hai  
Climatically-modulated decline in wind speed may strongly affect eutrophication in shallow lakes

Florencia Gutierrez, Maria; Tavsanoğlu, Ulku Nihan; Vidal, Nicolas; Yu, Jinlei; Teixeira-de Mello, Franco; Cakiroğlu, Ayse Idil; He, Hu; Liu, Zhengwen; Jeppesen, Erik

Salinity shapes zooplankton communities and functional diversity and has complex effects on size structure in lakes

Guan, B; Wang, X; Yin, C; Liu, Z; Wang, Z; Gao, Y

Comparison of the morphological traits of the submerged macrophyte *Potamogeton malaianus* from turbid and clear waters in Lake Taihu

Hao, Beibei; Roelkjaer, Anna Fabrin; Wu, Haoping; Cao, Yu; Jeppesen, Erik; Li, Wei  
Responses of primary producers in shallow lakes to elevated temperature: a mesocosm experiment during the growing season of *Potamogeton crispus*

Hao, Beibei; Wu, Haoping; Jeppesen, Erik; Li, Wei

The response of phytoplankton communities to experimentally elevated temperatures in the presence and absence of *Potamogeton crispus*

Havens, Karl; Jeppesen, Erik

Ecological Responses of Lakes to Climate Change

Hu, Wenyou; Huang, Biao; Borggaard, Ole K; Ye, Mao; Tian, Kang; Zhang, Haidong; Holm, Peter E

Soil threshold values for cadmium based on paired soil-vegetable content analyses of greenhouse vegetable production systems in China: Implications for safe food production

Hu, Wenyou; Wang, Huifeng; Dong, Lurui; Huang, Biao; Borggaard, Ole K; Hansen, Hans Christian Bruun; He, Yue; Holm, Peter E

Source identification of heavy metals in peri-urban agricultural soils of southeast China: An integrated approach

Huang, W M; Shao, H; Zhou, S N; Zhou, Q; Fu, W L; Zhang, T; Jiang, H S; Li, W; Gontero, B; Maberly, S C

Different CO<sub>2</sub> acclimation strategies in juvenile and mature leaves of *Ottelia alismoides*

Jabloun, Mohamed; Li, Xiaoxin; Zhang, Xiyang; Tao, Fulu; Hu, Chunsheng; Olesen, Jurgen

Sensitivity of simulated crop yield and nitrate leaching of the wheat-maize cropping system in the North China Plain to model parameters

Jin, Biao; Nijenhuis, Ivonne; Rolle, Massimo

Simulation of dual carbon-bromine stable isotope fractionation during 1,2-dibromoethane degradation

Jin, P; Shi, X; Sun, G; Yang, L; Cai, Y; Wang, X C

Co-Variation between Distribution of Microbial Communities and Biological Metabolization of Organics in Urban Sewer Systems

Kalkhajeh, Yusef Kianpoor; Sorensen, Helle; Huang, Biao; Guan, Dong-Xing; Luo, Jun; Hu, Wenyou; Holm, Peter E; Hansen, Hans Christian Bruun

DGT technique to assess P mobilization from greenhouse vegetable soils in China: A novel approach

Li, Liu; Bergen, Jensen Marina

Green infrastructure for sustainable urban water management: Practices of five forerunner cities

Liao, Y; Xu, B; Liu, X; Wang, J; Hu, S; Huang, W; Luo, K; Gao, L

Using a Bayesian belief network model for early warning of death and severe risk of HFMD in Hunan province, China

Liu, Zhengwen; Hu, Jinrun; Zhong, Ping; Zhang, Xiufeng; Ning, Jiajia; Larsen, Soren E; Chen, Deyuan; Gao, Yiming; He, Hu; Jeppesen, Erik

Successful restoration of a tropical shallow eutrophic lake: Strong bottom-up but weak top-down effects recorded

Ma, Tianxiao; Li, Runkui; Svenning, Jens-Christian; Song, Xianfeng

Linear spectral unmixing using endmember coexistence rules and spatial correlation

Mo, X; Liu, S; Chen, X; Hu, S

Variability, tendencies, and climate controls of terrestrial evapotranspiration and gross primary productivity in the recent decade over China

Mu, J; Hu, Z; Huang, L; Tang, S; Holm, P E

Influence of alkaline silicon-based amendment and incorporated with biochar on the growth and heavy metal translocation and accumulation of vetiver grass (*Vetiveria zizanioides*) grown in multi-metal-contaminated soils

Nüchel, J; Bøcher, P K; Xiao, W; Zhu, A.-X.; Svenning, J.-C.

Snub-nosed monkeys (*Rhinopithecus*): potential distribution and its implication for conservation

Özen, A.; Tavşanoğlu, Ü.N.; Çakıroğlu, A.İ.; Levi, E.E.; Jeppesen, E.; Beklioğlu, M.

Patterns of microbial food webs in Mediterranean shallow lakes with contrasting nutrient levels and predation pressures

Peter, Hannes; Jeppesen, Erik; De Meester, Luc; Sommaruga, Ruben

Changes in bacterioplankton community structure during early lake ontogeny resulting from the retreat of the Greenland Ice Sheet

Rashid, Muhammad Adil; Andersen, Mathias Neumann; Wollenweber, Bernd; Korup, Kirsten; Zhang, Xiying; Olesen, Jorgen Eivind

Impact of heat-wave at high and low VPD on photosynthetic components of wheat and their recovery

Rashid, Muhammad Adil; Andersen, Mathias Neumann; Wollenweber, Bernd; Zhang, Xiying; Olesen, Jorgen Eivind

Acclimation to higher VPD and temperature minimized negative effects on assimilation and grain yield of wheat

Ravn, H D; Lauridsen, T L; Jepsen, N; Jeppesen, E; Hansen, P G; Hansen, J G; Berg, S

A comparative study of three different methods for assessing fish communities in a small eutrophic lake

Ren, Lijuan; Song, Xingyu; Jeppesen, Erik; Xing, Peng; Liboriussen, Lone; Xu, Xiangrong; Wu, Qinglong L

Contrasting patterns of freshwater microbial metabolic potentials and functional gene interactions between an acidic mining lake and a weakly alkaline lake

Rolle, Massimo; Sprocati, Riccardo; Masi, Matteo; Jin, Biao; Muniruzzaman, Muhammad

Nernst-Planck-based Description of Transport, Coulombic Interactions, and Geochemical Reactions in Porous Media: Modeling Approach and Benchmark Experiments

Su, Y; Hu, E; Liu, Z; Jeppesen, E; Middelburg, J J

Assimilation of ancient organic carbon by zooplankton in Tibetan Plateau lakes is depending on watershed characteristics

Sun, X; Li, M; Wang, G; Drosos, M; Liu, F; Hu, Z

Response of phosphorus fractions to land-use change followed by long-term fertilization in a sub-alpine humid soil of Qinghai–Tibet plateau



Trochine, Carolina; Brucet, Sandra; Argillier, Christine; Arranz, Ignasi; Beklioglu, Meryem; Benejam, Lluís; Ferreira, Teresa; Hesthagen, Trygve; Holmgren, Kerstin; Jeppesen, Erik; Kelly, Fiona; Krause, Teet; Rask, Martti; Volta, Pietro; Winfield, Ian J; Mehner, Thomas

Non-native Fish Occurrence and Biomass in 1943 Western Palearctic Lakes and Reservoirs and their Abiotic and Biotic Correlates

Volta, Pietro; Jeppesen, Erik; Sala, Paolo; Galafassi, Silvia; Foglini, Claudio; Puzzi, Cesare; Winfield, Ian J

Fish assemblages in deep Italian subalpine lakes: history and present status with an emphasis on non-native species

Wang, Fang; Liu, Yuexian; Li, Xiangnan; Liu, Fulai

EFFECTS OF BIOCHAR AMENDMENT, CO<sub>2</sub> ELEVATION AND DROUGHT ON LEAF GAS EXCHANGE, BIOMASS PRODUCTION AND WATER USE EFFICIENCY IN MAIZE

Wang, S; Mo, X; Hu, S; Liu, S; Liu, Z

Assessment of droughts and wheat yield loss on the North China Plain with an aggregate drought index (ADI) approach

Wang, Y; Song, X; Li, B; Ma, Y; Zhang, Y; Yang, L; Bu, H; Holm, P E

Temporal variation in groundwater hydrochemistry driven by natural and anthropogenic processes at a reclaimed water irrigation region

Wengrat, Simone; Padial, Andre A; Jeppesen, Erik; Davidson, Thomas A; Fontana, Luciane; Costa-Boeddeker, Sandra; Bicudo, Denise C

Paleolimnological records reveal biotic homogenization driven by eutrophication in tropical reservoirs

Ye, Yu; Chiogna, Gabriele; Lu, Chunhui; Rolle, Massimo

Effect of Anisotropy Structure on Plume Entropy and Reactive Mixing in Helical Flows

Yu, Qing; Wang, Hong-Zhu; Jeppesen, Erik; Xu, Chi; Wang, Hai-Jun

Reply to Cao et al.'s comment on "Does the responses of *Vallisneria spiralis* (Lour.) Hara to high nitrogen loading differ between the summer high-growth season and the low-growth season? Science of the Total Environment 601-602 (2017) 1513-1521"

Zhang, Qinghui; Dong, Xuhui; Chen, Yuwei; Yang, Xiangdong; Xu, Min; Davidson, Thomas A; Jeppesen, Erik

Hydrological alterations as the major driver on environmental change in a floodplain Lake Poyang (China): Evidence from monitoring and sediment records

Zhen, Wei; Zhang, Xiumei; Guan, Baohua; Yin, Chunyu; Yu, Jinlei; Jeppesen, Erik; Zhao, Xuefeng; Liu, Zhengwen

Stocking of herbivorous fish in eutrophic shallow clear-water lakes to reduce standing height of submerged macrophytes while maintaining their biomass

Zhi, Yongwei; Cao, Yu; Sun, Junyao; Li, Wei; Jeppesen, Erik

Indirect effects of extreme precipitation on the growth of *Vallisneria spiralis* Makino

Zhou, Lei; Bai, Chengrong; Cai, Jian; Hu, Yang; Shao, Keqiang; Gao, Guang; Jeppesen, Erik; Tang, Xiangming

Bio-cord plays a similar role as submerged macrophytes in harboring bacterial assemblages in an eco-ditch

Zhou, Yongqiang; Xiao, Qitao; Yao, Xiaolong; Zhang, Yunlin; Zhang, Mi; Shi, Kun; Lee, Xuhui; Podgorski, David C; Qin, Boqiang; Spencer, Robert G M; Jeppesen, Erik

Accumulation of Terrestrial Dissolved Organic Matter Potentially Enhances Dissolved Methane Levels in Eutrophic Lake Taihu, China

Zingel, Priit; Cremona, Fabien; Noges, Tiina; Cao, Yu; Neif, Erika M; Coppens, Jan; Iskin, Ugur; Lauridsen, Torben L; Davidson, Thomas A; Sondergaard, Martin; Beklioglu, Meryem; Jeppesen, Erik

Effects of warming and nutrients on the microbial food web in shallow lake mesocosms

## Nanoscience 2018

Cheng, Y; Pang, K; Wu, X; Zhang, Z; Xu, X; Ren, J; Huang, W; Song, R

In Situ Hydrothermal Synthesis MoS<sub>2</sub>/Guar Gum Carbon Nanoflowers as Advanced Electrocatalysts for Electrocatalytic Hydrogen Evolution

Dai, Yitao; Li, Chao; Shen, Yanbin; Lim, Tingbin; Xu, Jian; Li, Yongwang; Niemantsverdriet, Hans; Besenbacher, Flemming; Lock, Nina; Su, Ren

Light-tuned selective photosynthesis of azo- and azoxy-aromatics using graphitic C<sub>3</sub>N<sub>4</sub>

Dai, Yitao; Li, Chao; Shen, Yanbin; Zhu, Shujie; Hvid, Mathias S; Wu, Lai-Chin; Skibsted, Jurgen; Li, Yongwang; Niemantsverdriet, J W Hans; Besenbacher, Flemming; Lock, Nina; Su, Ren

Efficient Solar-Driven Hydrogen Transfer by Bismuth-Based Photocatalyst with Engineered Basic Sites

Deng, Jinqi; Yang, Mingzhu; Wu, Jing; Zhang, Wei; Jiang, Xingyu

A Self-Contained Chemiluminescent Lateral Flow Assay for Point-of-Care Testing

Fan, P; Ren, J; Pang, K; Cheng, Y; Wu, X; Zhang, Z; Ren, J; Huang, W; Song, R

Cellulose-Solvent-Assisted, One-Step Pyrolysis to Fabricate Heteroatoms-Doped Porous Carbons for Electrode Materials of Supercapacitors

Friedman, Ran; Khalid, Syma; Aponte-Santamaria, Camilo; Arutyunova, Elena; Becker, Marlon; Boyd, Kevin J; Christensen, Mikkel; Coimbra, Joao T S; Concilio, Simona; Daday, Csaba; van Eerden, Floris J; Fernandes, Pedro A; Graeter, Frauke; Hakobyan, Davit; Heuer, Andreas; Karathanou, Konstantina; Keller, Fabian; Lemieux, M Joanne; Marrink, Siewert J; May, Eric R; Mazumdar, Antara; Naftalin, Richard; Pickholz, Monica; Pioletto, Stefano; Pohl, Peter; Quinn, Peter; Ramos, Maria J; Schiott, Birgit; Sengupta, Durba; Sessa, Lucia; Vanni, Stefano; Zeppelin, Talia; Zoni, Valeria; Bondar, Ana-Nicoleta; Domene, Carmen

Understanding Conformational Dynamics of Complex Lipid Mixtures Relevant to Biology

Han, Q; Wang, X; Cai, S; Liu, X; Zhang, Y; Yang, L; Wang, C; Yang, R

Quercetin nanoparticles with enhanced bioavailability as multifunctional agents toward amyloid induced neurotoxicity

Hu, Hongxia; Nikitin, Sergei; Berthelsen, Adam Bjørnholdt; Diness, Frederik; Schoffelen, Sanne; Meldal, Morten

Sustainable Flow Synthesis of Encoded Beads for Combinatorial Chemistry and Chemical Biology

Ji, T; Lang, J; Ning, B; Qi, F; Wang, H; Zhang, Y; Zhao, R; Yang, X; Zhang, L; Li, W; Shi, X; Qin, Z; Zhao, Y; Nie, G

Enhanced Natural Killer Cell Immunotherapy by Rationally Assembling Fc Fragments of Antibodies onto Tumor Membranes

Kühnel, M; Overgaard, M H; Hels, M C; Cui, A; Vosch, T; Nygård, J; Li, T; Laursen, B W; Nørgaard, K

High-Quality Reduced Graphene Oxide Electrodes for Sub-Kelvin Studies of Molecular Monolayer Junctions

Liang, H.-P.; Chen, Q; Han, B.-H.

Cationic Polycarbazole Networks as Visible-Light Heterogeneous Photocatalysts for Oxidative Organic Transformations

Lin, Y; Xu, J; Yu, L; Yang, Y; Wang, C

Probing Molecular Basis for Constructing Interface Bionanostructures

Lin, Yuchen; Zheng, Yongfang; Guo, Yichuan; Yang, Yanlian; Li, Hongbian; Fang, Ying; Wang, Chen

Peptide-functionalized carbon dots for sensitive and selective Ca<sup>2+</sup> detection

Liu, Kaili; Wang, Fengmei; He, Peng; Shifa, Tofik Ahmed; Wang, Zhenxing; Cheng, Zhongzhou; Zhan, Xueying; He, Jun

The Role of Active Oxide Species for Electrochemical Water Oxidation on the Surface of 3d-Metal Phosphides

Liu, Yuqing; Santella, Marco; Fan, Zhiqiang; Wang, Xintai; Jiang, Xiangwei; Nielsen, Mogens Brondsted; Norgaard,

Kasper; Laursen, Bo W; Li, Jingbo; Wei, Zhongming

Diamine anchored molecular junctions of oligo(phenylene ethynylene) cruciform

Stenvang, Marcel; Schafer, Nicholas P; Malmos, Kirsten Gade; Perez, Adriana-Michelle Wolf; Niembro, Olatz; Sormanni,

Pietro; Basaiawmoit, Rajiv Vaid; Christiansen, Gunna; Andreasen, Maria; Otzen, Daniel E

Corneal Dystrophy Mutations Drive Pathogenesis by Targeting TGFBIp Stability and Solubility in a Latent Amyloid-forming Domain

Tu, Bin; Bai, Shiyang; Lu, Benzhuo; Fang, Qiaojun

Conic shapes have higher sensitivity than cylindrical ones in nanopore DNA sequencing

Wang, B; Ding, Y; Zhao, X; Han, X; Yang, N; Zhang, Y; Zhao, Y; Zhao, X; Taleb, M; Miao, Q R; Nie, G

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# The Danish Board of SDC

The annual report was approved by the Danish Board of SDC in April 2019.



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