WHAT DO PHDS FROM HEALTH DO?

Career Portraits 2016




AARHUS
UNIVERSITY
HEALTH

AU CAREER
PHD

INTRODUCTION

This collection of career portraits of former PhD students from predominantly Health at Aarhus University is the most visible outcome of the first Career Management Skills (CMS) course held for PhD students from Health in the autumn of 2016.

One of the big questions for PhD students is often "what do PhDs actually do?" – Where do they find work and as what do they find work? This collection of career portraits seeks to answer that question by giving 22 examples of different career paths and the considerations behind the career choices. The focus of the CMS course was primarily on careers outside of academia, so the majority of the portraits are of PhDs working in the industry.

The career portraits are written by the participating PhD students on the basis of interviews they conducted during the course.

Enjoy the reading and we hope you get insights and inspiration.

From the course organizers:

Kamille Smidt Rasmussen (AU HE), Anja P. Einholm (AU HE) and Vibeke Broe (AU Career PhD)

Aarhus University 2017

PhDs in PRIVATE SECTOR jobs

Anil Mor
Medical Specialist at Novo Nordisk 4

Gregers Gram
Medical Advisor at Allergan 6

Helene Tilma Vistisen
Concept Developer at Ohmatex 9

Jens Peter Villadsen
Vice President at TDC group 11

Jesper Errboe Askov
Loads Test Specialist at Vestas 13

Jonatan Dichow
R&D manager at Hamlet Protein 15

Karina Bech Cullberg
Quality and Food Safety Coordinator at DuPont 18

Karsten Bork Nielsen
Project manager at Agilent (Dako) 20

Kartheeban Nagenthiraja
Head of Sales at Innoscan A/S 22

Lea Brader
Clinical Research Specialist at Arla Foods 25

Maciej B. Maniecki
Head of Sales at Roche 29

Marie Stampe Ostenfeld
Senior Research Scientist at Arla Food Ingredients 31

PhDs in PUBLIC SECTOR jobs

David Alberg Peters
Project Leader at Aarhus University Hospital 32

Mikkel Bo Hansen
CFIN researcher, Co-founder and CTO at Combat Stroke 34

Pernille Bøttger
Molecular biologist at the Department of Clinical Microbiology, AUH 36

Tina Slots
Forensic Chemist at the Department of Forensic Medicine, AU 37

Tore Hardlei
Forensic Chemist at the Department of Forensic Medicine, Aarhus 39

PhDs in ACADEMIA

Tue Fryland
Assistant professor at the Dept.of Biomedicine, AU 41

PhDs in PRIVATE SECTOR jobs

Anil Mor, Medical Specialist at Novo Nordisk

Education:	**Jobs:**
PhD in Clinical Epidemology, 2016, AU Doctor of Medicine, 2007	2016-present: Medical specialist, Novo Nordisk

Which skills/qualifications do you feel are the most important reason that Novo Nordisk wanted to hire you?
I think in my case my MD degree combined with PhD along with my international experience were critical to fetch me this job at Novo Nordisk.

Did your PhD provide you with skills that Novo Nordisk values?
My PhD thesis was focused on Type 2 Diabetes, so Novo Nordisk was obviously interested. Other than that, I think they look for 'analytical and critical thinking' skills and that we attain during PhD.

Are there certain skills or a certain knowledge, you see as being in short supply at Novo Nordisk, that you would encourage others to acquire?
I think at Novo Nordisk they are always in demand of clinically experienced doctors with scientific knowledge. And if someone has business acumen then it's an advantage because it's a rare combination of skills.

Did you actively plan to move from the academic world to the industry, and how did you find your way to Novo (networking, good grades, coincidence)?
During my PhD I had no plans to join industry. Few months before I concluded my PhD I started exploring my options. I actively participated in many programmes/workshops offered by AU career team headed by Vibeke Broe. I was part of two mentor programmes and in both I was matched with people who worked in academia as well as in industry and they really helped me to make my decision to joining industry. On top of that my supervisor specially helped me and supported me in my decision throughout the process. Finding the job was very difficult, I just applied to relevant positions and luckily I got a call from Novo Nordisk. So it was not

networking per se but network helped me to give insight into industry and helped me to decide to join industry.

What is the best part of working at Novo Nordisk?
The best thing about working at Novo Nordisk is its pool of talented people, its global and dynamic environment, and work-life balance.

Do you have some career advice for PhD students who wants to work at Novo Nordisk?
Well, I would say just be among the best in your field and they will come and pick you up. You just have to make yourself 'visible'.

Will you briefly summarize a normal working day at Novo Nordisk?
There is nothing like a usual day at Novo Nordisk. Every day is different and is always unpredictable (except for planned meetings of course).

Was it a challenge to land the job - or were your skills / PhD thesis already so relevant for Novo that they were pretty much pre-decided they wanted you?
Even though my skillsets matches very closely with interests of Novo Nordisk, still it was extremely difficult to get this job. I applied for hundreds of positions in many pharma companies and have had many interviews with Novo Nordisk and also with other companies and finally after many rejections they offered me this job.

How many hours would you say you work a week on average?
I don't work more than 40 hours a week and I can easily stop after 37.5 hours. The work is intense but the company is maintaining the Danish work culture.

By Anuj Pareek 2016

Gregers Gram, Medical Advisor at Allergan

Education:	**Jobs:**
MBA, University of Melbourne, 2010 PhD (med.dr.) University of Gothenburg, 2001 MSc in Biochemistry, KU	2015- present: Medical Advisor, Allergan 2014-15: Medical advisor, Bristol-Myers squibb 2011-2013: Scientific Advisor, GSK 2006-2008: Project manager, Statens Serum Institut 2002-2006: Post doc, Statens Serums Institut 2001-2002: Virologist QC, Novo Nordisk

How early did you plan your next career step after the PhD?

First employment after my PhD degree was in the private sector. I did my master project/thesis at Hvidovre Hospital, which is academia but not exactly, university. From the start, I was outside university community. I worked 3 years as scientific staff before I started my PhD studies. However, my scientific work after my Master was included in the PhD, which I did with collaborators at Gothenburg University. My PhD studies used up all the finances in the laboratory, which I headed at this time, so after I was done my employment ended. I was forced to find something after my PhD.

Novo Nordisk was very impressed that I had a PhD and I was very encouraged by their happiness, so I took a position in QC *quality Control*.

However, after 1,5 years I realized that the role did not have any research and it was a blind alley, career-wise. I chose to go back to academia in a Post doc position at Statens Serum Institute where I continued 3 years in another position as clinical manager of HIV trials in Denmark and Guinea/Bissau.

The post doc position was a 'negative' research project only giving 1 paper.

What kind of position do you have today?

Today I work as medical advisor in Allergan where I am the liaison between the company and prescribing physicians. I work with Botox for spasticity, overactive bladder and chronic migraine in both Denmark and Norway.

Why did you decide to go in the direction you chose?

I somehow drifted into the first role at Novo Nordisk so it was very much by coincidence. Before I had been an entrepreneur trying to make a diagnostic test for viral diseases but after 2 years I decided that it was time to have a permanent position instead of using all my time trying to find consultancy/time-limited employments to finance my life science start up.

Have you had other jobs prior to your current job – if yes, which? And how did they lead to your current job?
Yes, I have worked in the pharmaceutical industry previously and knew the role of medical advisor and medical science liaison.

How did you find your first job/current job?
Through network. In the project work, I had in Bristol Myers/Squibb my colleague told me that she had been contacted by a recruiter for the role in Allergan. I contacted the recruiter and went through the hiring process and got the job!

What contacts did you have at the company/university before you started?
I have good contact with my former employees at Statens Serum Institut. However, as I stated above, my work at Hvidovre University Hospital was already outside university society and connections to internal supervisor was sporadic.

Describe a typical day/week?
A normal week for me is that I visit doctors in Denmark and Norway giving presentations. This week I have been in Norway Monday and Wednesday; I visited a neurologist in Ølstykke on Tuesday and drove to an internal meeting in Helsingborg in the afternoon. Thursday and Friday, I worked from my home office. I am field based and that means that I do not go to an office every day but either work from home or is visiting someone in Denmark, Norway or south Sweden.

What skills from your PhD studies do you have the most benefit of today?
The PhD skills are not very different from my master skills. Research planning, execution, and analysis including statistical analysis and good scientific conduct. Writing together papers and a thesis demonstrates that you can master these broad skills.

What skills would you say you didn't develop during your PhD which you have developed afterwards?
Business / entrepreneurship / project management / economy / social networking skills /

I earned an MBA degree and paid it all by myself in 2010 from University of Melbourne. After my post doc and being clinical manager at Statens Serum Institut, I knew that my time as wet laboratory scientist was over. My talent was more in finance, project management, networking, etc.

What specific career advice would you like to share with someone who is just about to finish his/her PhD studies?
Two roads to go: Either harness your scientific area or skills or be broad - I did the second.

1. E.g. be an expert and world class in your receptor protein method.
2. Be a generalist / Try something different and try new things all the time that adds on to what you already know.

As you can see from my CV, I have tried many different things. It is difficult to argue what you can when you cannot do anything in depth, but on the other hand, I know a lot about many things and can draw experiences and conclusions from one field to the next.

Recently I talked with a recruiter, who told me that companies today do not want to hire a person that has done the same thing for 18 years. Instead, they look for talented people who have tried many different things (within limits off course)- because they have on open mind and a flexible and adaptable approach to things. Today the corporate environment changes so fast and you need to be agile and adaptable to new organizations, structure and job descriptions all the time. In addition, the new thing is not continuation of business but doing business in new ways learning from others and other sectors and industries. If you grow up in only one organization, you cannot not think outside the box.

By Kasper Lisager Jønsson 2016

Helene Tilma Vistisen, Concept Developer at Ohmatex

Education:	**Jobs:**
PhD in Clinical medicine, 2015, AU MSc in Biomedical engineering, 2007, AAU	2015-present: Concept Developer, Ohmatex

The following career portrait is an interview with concept developer at Ohmatex, Helene Tilma Vistisen, conducted on December 5th 2016. Helene has finished a PhD in Health within cancer research, and has been working both region-based before she began her postgraduate studies, and is now using her skillset in an industrial framework in Ohmatex; a textile company focusing on electronic components for various groups of people, both w. beneficiary and injury preventing foci.

When did you know, what your next step had to be after finishing your PhD?
Well, I did not really know what I wanted to do, and I continuously checked up on job adverts and suddenly an interesting advert (for my current job) appeared. I also considered the possibility of doing a post doc and I was not completely determined on what to do before I happened to run across the job advert.

Why did you decide to go in the direction you did?
It was not that I deselected a post doc but having a family and with the insecurities a post doc would bring, I could better do this later on. And I did not feel like doing a post doc when I finished my PhD.

Have you had another job before?
Yes, I had a job in the Region before I began my PhD. I worked with the Danish Quality Model and tried to optimize their IT system.

How does a typical day or week look like for you?
Well, right now I am spending a lot of time testing astronaut pants. We have added EEG electrodes to them, which are textile electrodes. I am testing the strength of the signal when we wash the pants, and I also work out in the pants. I have a test program where I go through different tests such as squats, running etc. Then I examine how the pants fit the best and how tight they must be.
It also involves a lot of literature reading in order to keep myself updated. I need to know what information is most relevant for the consumer. So I read studies to find out, what we should be able to do. I really enjoy this.

It also sounds like fun with the alternation between praxis and theory
Yes, I enjoy trying different integration possibilities.

Which skills have you developed during your PhD that you benefit from today?
Being innovative. That is what you learn and do as a PhD student. You must be able to explain both a problem and the solution – in other words which knowledge to obtain. When being a PhD student you make an innovative project, and I believe it is really important to know that when you are finished. You are very good at explaining the essence of things - and why it is relevant.
You also get used to using your network a great deal, because you can always call on someone who can help you move forward.
These are the most important competences you take with you as a PhD student. And then there's the thing about separating the wheat from the chaff and learning how to get into a new field.

Which skills would you say that you *have not* developed during your PhD then?
In an engineering company as I am in, I think the challenge is to speak the same language. When I say "*clinical validation",* I mean one thing, and when an engineer says it, he or she thinks of something else. Speaking the same language is a challenge and to realize that others do not necessarily have the same frame of references as you do.

Which specific career advice would you give to someone about to finish his/her PhD?
Well, I am a strong believer of coincidence in one's career. Some people know exactly what they want, but I really believe in chances. Something interesting might come up – probably because you are good at it. Learn how to sell yourself and know you competences. Reading and studying give you more than just subject knowledge – it is also a way of working with things.

Such as?

An example could be that you can work with great concentration and take action when under pressure. This is a very important competence when talking to customers for example.

By Casper Schmidt 2016

Jens Peter Villadsen, Vice President at TDC group

Education:	Jobs:
PhD in Opto-electronics, 1994, AAU	2016- present: Vice President at TDC group 1995-2016: Various manager positions in TDC 1993-1995: Consultant, Jysk telefon

How early did you plan your next career step after the PhD?
During my PhD, I had many speculations about continuing in a postdoc and I was offered one in Copenhagen. However, I came to the realization that if I wanted to pursue an academic career, I would have to go through several short time positions at different universities, and this did not fit into my other wish of settling down and starting up a family. So, at the end of my PhD, I applied for a position in Jysk telefon as consultant and got that position.

What kind of position do you have today?
I have just recently been promoted to Vice President in the TDC group with the responsibility of technical development of IP-based products (Broadband).

Why did you decide to go in the direction you choose?
First of all because of a technical interest. Jysk telefon (now TDC) were at that time one of the leading companies in Denmark within fiber communication. I did my PhD at Jysk telefon in collaboration with Aalborg University in a time-limited position of three years. Since, I had decided not to go into a postdoc and continue my academic career; it was natural to apply for a job within Jysk telefon.

Have you had other jobs prior to your current job?
After my PhD, I was employed in a research department focusing on fiber-optic communication and high-speed electronics. This department closed down after a short period, and I continued into a project leader role in building up the IP-based network and mobile e.g. ADSL and WAP. I have held several positions within TDC with an increasing leader role.

What contacts did you have at the company before you started there?
Half a year before I finished my master, Iapplied for a job at Jysk telefon and got it. During my master project, I also applied for money for a PhD and got those as well. I needed a company, which would host me as a PhD student, and I asked them if my newly acquired position could be transferred to a PhD position instead, which succeeded.

Describe a typical day/weeks
A typical day is filled with meetings about project progression, strategic decisions and input about what other parts of the company require from his branch.

What skills from your PhD studies do you have the most benefit of today?
Communication is an important skill; asking the right question to evaluate a project or employee, but also to

guide an employee in a correct direction. I would also say acquiring new knowledge fast, finding logic solutions in complex relations and keeping the focus on in large project without a clear goal as other important skills.

What skills would you say you didn't develop during your PhD which you have developed afterwards?
I lacked leadership skills both as project leader with distributing and prioritising projects, but also as in leading employees. I have had to learn how to hire, lay off and lead real person with all their differences.

What specific career advice would you like to share with someone who is just about to finish his/her PhD studies?
It is important to decide if what you do should make an impact on short term or if it ok that it takes several decades and that you should decide if you would like to become a specialist or a leader. You can switch between those during your career, but it is important to think about it to stay happy in your work.

By Jakob Toftegaard 2016

Jesper Errboe Askov, Loads Test Specialist at Vestas

Education:	**Jobs:**
PhD in biomedical engineering, AU, 2011	2014-present: Loads test specialist, Vestas
Msc. In biomedical engineering, AU 2008	2011-2014: Loads test engineer, Vestas

Jesper has a B.Sc. in mechanical engineering, a M.Sc. in Biomedical Engineering and a PhD from health with a special focus on annuloplasty supporting rings for the mitral valve in the heart.

Jesper received his PhD from Health in the fall of 2011. About six months before he handed in his thesis, Jesper began looking at job postings online, and saved the most interesting positions to make a small list of possible companies to send a job application after his PhD hand in. In particular, a job posting from Vestas'test department caught his attention. After he handed in his PhD thesis, he applied unsolicited for a job in the test department at Vestas, which he then got.

During his employment, now at the 5th year at Vestas, Jesper has been promoted several times and is a load test specialist. He is responsible for performing the mechanical tests on the different components within a windmill and reporting the test results back to the designers. Furthermore, he is now a senior employee and is responsible for the technical aspects as well as the other engineers within the testing department. He also hires in outside organizations to validate Vestas's in-house test-procedure/results of the windmills for government approvals and other kind of reports.

Jesper applied for this job because he was curious and finds it interesting to design and carry out test procedures, which is very similar to the work he did during his PhD (design of experimental studies). He also considers Vestas a company with a big potential, producing interesting products that evolves very quickly. He decided to make the transition from academia to the private sector in order to try new things. This is a decision he appreciates today.

Jesper believes that his PhD title facilitates his communication with others, specifically in two ways: Firstly, it acts as a door opener as people tend to consider higher educated people more important; and secondly, because he is skilled in presenting results clearly both in written and oral form. Furthermore, his networking skills are also very useful outside of academia, as it enables him to talk to a broad range of people, which also facilitates a more efficient workflow.

Jesper has gained a lot of knowledge working at Vestas, specifically regarding windmills and testing. He finds it meaningful and interesting to go to work every day, and he does not regret his transition to the private sector.

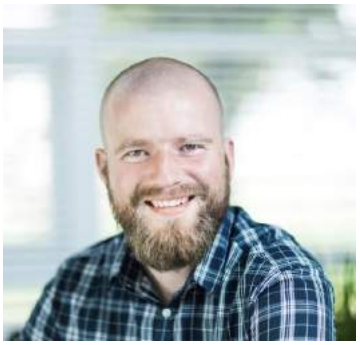
His advice to the current PhD students is not to be afraid of asking 'stupid' questions when speaking with new colleagues, especially if it is not within your area of expertise. Even though you are well educated, there is still much to learn.

In Jespers opinion the following two skills are essential:

Networking - as it opens up doors during your career.

Curiousness as it is what makes the work worth doing

By Tommy Bechsgaard 2016



Jonatan Dichow, R&D manager at Hamlet Protein

Education:	**Jobs:**
PhD in Food Science, 2011, AU MSc in Molecular Biology, 2008, AU	2011-present: R&D Manager at Hamlet Protein in Horsens.

Why did you decide to go in the direction you chose?

During my PhD, I worked with applied protein research and took some basic courses at Aarhus University School of Engineering within process engineering. This combination of protein research and process engineering steadily gave me an idea that my future was in industry. I wanted to move from test tubes to large scale experiments and set-ups.

How did you find your current job?

6 months before handing in my PhD thesis, I started actively looking for a job. Prior to this, I was continuously keeping an eye on the available job positions and considered which companies would be interesting for me. In May, I applied for my current position and about 1.5 month later I was offered the position after the 2nd interview. I handed in my thesis in August and 3 days later, I started working at Hamlet protein. After starting as R&D manager, I would say my technical qualifications matched very well with the job profile.

What contacts did you have at Hamlet protein before you started here?

I did not have any contacts at Hamlet protein when I applied for this position. However, I called them beforehand and was encouraged to apply. Of course, the challenge when contacting them beforehand is that sometimes the contact person at the company receives many calls. In our last job advertisement, we had 60 persons applying for the position, so be prepared and call them as quickly as possible if you are interested.

Were you only looking for positions within R&D or did you consider other positions as well?

I applied for two other relevant positions. One was at the Danish Technological Institute where I went for the 1st interview and the other was at DuPont, Brabrand where I received a rejection 5 months after I applied.

Did you have any business experience before starting at Hamlet protein?

No, I was exactly like other PhD students, only focusing on my own project. It was not something that I prioritized or would even know how to get. In my current position, business understanding is of course very important and for me this is acquired through learning-by-doing.

How has your position changed during the last 5 years?
Despite my job title being unchanged, the position has changed a lot with regard to responsibility and tasks. In the beginning, the R&D group consisted of my boss, a colleague, a technician in the pilot plant and me.

During these 5 years we have gone from 3 to 6 academics in the R&D group, 5 of them holding a PhD degree and overall the company has grown from app. 60 employees in Horsens to 120 worldwide when we expanded the business with a factory in USA.

Hence, in the beginning we were only few people to cover the daily practical tasks leaving only little time for actual idea development. Today we have weekly meetings, where we discuss the ongoing projects and brainstorm on new project ideas. If we then need a new project, we develop an existing idea and start the new project, giving a continuous flow of new exciting projects.

Describe a typical day/week?
Today I just answered three e-mails before our meeting at 8 AM. In industry, you have to prioritize and optimize your workday, so by answering these important e-mails others will be able to work while I am at this meeting. I hope that this means that I can have an answer to my requests at the end of the day.

Yesterday, I started an experiment in the pilot plant and later I talked to the technician about this experiment – what happened or did not happen. Furthermore, I had a telephone meeting with the staff at the factory in USA where I am coordinating a new experiment. After this meeting, I have to prepare the experimental plan for them to run the experiment. Besides these tasks, I continuously have to follow up on the different projects and keep the documents updated at all times. Generally speaking, I have a coordinating role during the day and we have a lot of communication out-of-the-house.

What would you say is the biggest difference between academia and industry?
The speed-decision making is definitely one of the main differences. If we do not believe a project has a positive outcome we can close it down in just one afternoon. Another difference is the budgets, which of course should be kept, but if an idea is good enough it will be financed. Overall, this gives more freedom and an increased efficiency of the product development.

What skills from your PhD studies do you have the most benefit of today and which skills have you developed afterwards?
My skills within protein chemistry, texture and process were very easy for me to apply at Hamlet protein.

On the other hand, project management was something I had to learn. Therefore, I went on a course few months after starting here at Hamlet protein, in order for me to learn the basic concepts within project management. From there it has been learning-by-doing, since running a project and evaluating the outcome gives you valuable experiences. Also, being responsible for projects in our factory in the USA, without being there physically, has really developed my communication skills. I have very close professional discussions with my colleagues, which is something that is essential for me in order to learn these skills, specifically when I started as R&D Manager.

What specific career advice would you like to share with someone who is just about to finish his/her PhD

studies?

Keep an eye on the job market throughout your PhD to evaluate which types of employees the companies are looking for. In addition, this will enlighten your knowledge about the opportunities and the different companies that are present. Also, I think you should be aware of what you want to do but at the same time be open for different opportunities to reach your goal whether this is within R&D, sales, QC etc.

When applying for a job, be sure to present your most important skills in the beginning of the CV – as I mentioned we had 60 applications for our last vacant positon so you only have little time to sell yourself.

By Ditte Søvsø 2016

Karina Bech Cullberg, Quality and Food Safety Coordinator at DuPont

Education:	Jobs:
PhD in Endochrinology and internal medicine, 2013, AU Civilengineer, 2007, DTU	2015-Present: Quality & Food safety coordinator, Dupont 2013-2015: Qualtiy Health safety coordinator,, Arla Foods Ingredients 2013: Postdoc, AU

***Tasks in this position**:*

- *Creation of new products.*
- *Implementation of customer requirements and completion of questionnaires*
- *Answer questions from customers.*
- *Handle deviation in the production*

How early did you plan your next career step after the PhD?
I have always wanted a position in the (private) industry, because the pace is faster and the career possibilities are better. I have never really known which kind of position should be my first. However, I have always believed in being investigative and having a good CV opens up possibilities. Additionally, I have always prioritized improving my CV e.g. exchange in Australia, I did my bachelor- and master thesis project in collaboration with companies in the industry, relevant student job, HD etc.

Why did you shift to the industry even though you had a post doc fellowship? Have you regretted in any ways?
I wanted a position in the (private) industry. The only reason I accepted the post doc position was to get that experience until the right position in the industry was available. I have never regretted the switch from academia to the industry. The pace of work is much faster, more focus on feedback on the working effort and not that many sharp elbows as in the research environment. Furthermore, in the private industry the possibilities for working independently and developing your own competences are better compared to academia, because you not are assigned to the ideas of a professor. I think that you use too much time on fundraising as a PhD or Postdoc.

Have you had other jobs prior to your current job – if yes, which? And how did they lead to your current job?
Yes, a similar position at Arla Food Ingredients. This experience made it quite easy to get my current position at Dupont.

How did you find your jobs in the industry?
Online job portals.

What contacts did you have at the company before you started there?
No contacts.

Describe a typical day/week?

1. Checking deviation in the production and suggest how we can apply the deviating product.
2. Checking questions from customers.
3. Checking complaints from customers.
4. Calculate/design new customer-specific products.
5. Talk to sales representative, product managers, production staff and regulative staff.
6. Comment on customer demands – what can and will we (Dupont) meet.
7. Handle visits from customers and public authority on factory plants. Shows our production facilities and answers questions.

What skills from your PhD studies do you have the most benefit of today?
Project management and the ability to learn new knowledge.

What skills would you say you *didn't* develop during your PhD which you have developed afterwards?
I have *not* developed as an independent person. In the industry, they listen to my ideas and give me the possibility to participate in courses and projects that develop my competences and me personally.

Have you benefitted from your HD1 education?
The primary reason why I took HD1 was to differentiate from other candidates from Aarhus University with the same education as me, to make myself a more attractive candidate to potential companies and finally because I had the time and interest during my PhD study to learn more about business.

What specific career advice would you like to share with someone who is just about to finish his/her PhD studies?

- Update your LinkedIn profile. I am frequently contacted by headhunters via my LinkedIn profile.
- Apply for a job, even though it requires experience.
- In the area around Aarhus, there are many food companies, which all have a quality department. Candidates with a science-background fit into many different positions.

By Ann Bjørnshave 2016

Karsten Bork Nielsen, Project manager at Agilent (Dako)

Education:	**Jobs:**
PhD in Molecular Biology, 2010, AU MSc in Molecular Biology, 2003, AU	2015-present: Project Manager, Agilent Technologies 2012-2015: Research Scientist, DAKO 2009- 2012: Senior Scientist, Aros Applied Biotechnology.

When did you start planning your next career step after the PhD?
Already during my PhD. I was very tired of being in the lab and just wanted to get away from the university setting.

Why did you decide to go in the direction you chose?
During my studies, I had always aimed at getting closer and closer to the patients and applications. Basic research did not interest me much. I did not enjoy the constant cycles of ups and downs in research. I was looking for projects with well-defined aims. I like short deadlines and that unfeasible projects are shut down. I am driven by finishing projects not by never ending fine-tuning of details.

What kind of position do you have today?
I work as a project manager in companion diagnostics at Dako (Agilent) where we in collaboration with pharmaceutical companies develop antibody-based assays for personalized medicine. E.g. we have a HER2 assay, that can determine if breast cancer patients will respond to therapy.

Have you had other jobs prior to your current job?
My first job was at AROS Applied Biotechnologies in Skejby. AROS AB is a contract research organization where I worked on PCR assays. I worked at AROS AB from 2009 to 2012.

How did you find your first job?
I got my first job through my network. I knew the founders of the company from my master's project at Skejby Hospital and they knew that I was experienced in PCR.

How did you find your current job?
My first job at Dako was as a scientist responsible for assay development. I just applied to a job advert. I wanted to make the move to a bigger company where it would be possible to go abroad. After working as a scientist at Dako for a while I had found that I was interested in project management. I wanted to move away from the lab work and work in close collaboration with our collaborators from big pharma. I talked to my

closest leader about this and was send on a project management course. I have worked at Dako since 2012.

Describe a typical day/week
My project team consists of people from R&D, clinical affairs, regulatory staff, production, marketing and QA/QC. The team is primarily located in California, hence late afternoon calls and trips to US is part of the job. We collaborate with the top tier pharmaceutical companies and function as consultants that assist them in developing diagnostic tests that are used in their clinical trials for selection of patient groups. We work closely together with both their management, regulatory and R&D. I like to see how the projects develop. In the initial phase of the project, the Pharma company will most often dictate what we should do. With time, we gain their trust and they start to listen to us. In the end, it becomes a real collaboration where we share information as equal partners. The communication is really the exiting part.

What skills from your PhD studies do you have the most benefit of today?
I am skilled at extracting information in a quick and structured manner and am able to communicate these findings to others. Some of my colleagues come from a marketing background. Compared to them, I have an easier time taking part in the scientific discussions with R&D and stakeholders and also at judging if time schedules are realistic.

What skills would you say you did not develop during your PhD, which you have developed afterwards?
Compared to my colleagues who come from a background in marketing, project management is something I have had to learn along the way. I have been on courses but mostly it has been learn-as-you-go and asking my colleagues many questions.

When you come straight out of the university, you do not have any idea of the special language used in the industry, the focus on delivering products in a timely manner and the external pressure from stakeholders, which is very different from the more internal pressure and long deadlines I experienced during my PhD. It takes some getting used to.

What specific career advice would you like to share with someone who is just about to finish his/her PhD studies?
Take courses on quality management. Knowledge within quality control and good documentation practice are very popular with the companies. Get relevant things aiming at a career in the industry on your CV. Publications are important for the first job. The first job is the hardest to get. After that you will be hired on your work experience.

By Sara Bisgaard Jensen 2016

Kartheeban Nagenthiraja, Head of Sales at Innoscan A/S

Education:	**Jobs:**
PhD at CFIN, AU 2013	2015-present: Head of sales, Innoscan a/s
MSc in Biomedical engineering, AAU	2013-2015: Application engineer, Innoscan a/s

Dr. Kartheeban Nagenthiraja is currently the Head of sales at InnoScan A/s. He obtained his PhD from Aarhus University (AU). He worked with image processing to predict stroke outcomes using medical imaging technologies at the Center for Functionally Integrative Neuroscience (CFIN) in Aarhus University in 2013. He also has a Master's degree in Biomedical engineering from Aalborg University. After an initial contact via LinkedIn, Kartheeban graciously agreed to do a sit down interview. Here are some excerpts from the chat.

What was your journey to a PhD in Health at AU and your PhD journey?
I did my Masters in Biomedical engineering at Aalborg, and then moved to Aarhus. CFIN just then received a large grant from EU for a project for predicting stroke outcomes. I was hired into the project to start with. My masters was dealing with predictive algorithms for heart diseases using ECG and audio signals from a stethoscope, which became my point of entry into CFIN.

In the PhD, being an engineer, the main thing was that I should make something useful. We eventually made 3 patents together. One of the ideas was so good that the AU urged us to look for seed investment to develop it. With a lot of help from the patent support in the AU, we landed an investment. This process opened me up from being a nerdy guy developing algorithms to being an extrovert, able to sell your ideas to non-experts and to convince them to invest. It was a challenge I had never experienced, was an exciting one and my move from academia.

I understood my skill was to see a technology, map it and see a clear path to a commercial stage. The life-cycle perspective. I have my experience with coding and so forth, makes me know the limitations, but also the possibilities. So, one of the things I continue to do is my involvement with Aalborg University on student projects where I act as a supervisor along with academic Professors. My role is to see that significant problems can be solved in pragmatic ways.

How did you get in touch with InnoScan?
It was a coincidence. I knew it had to be in the industry and I was looking for project manager position. When I talked with the CEO, I knew he had other ideas. During an interview session, he walked in and said we've just

sold to a bigger Italian company. I think you should move to the position of one of the founders – as the head of the technical sales. It was not what I came for. It was a new opportunity nevertheless and I accepted it. I did not have a game plan and just tried something. The interview was a long process with many rounds mainly with the CEO and the founders. Mainly, they wanted to know if I could play the role. Liaise with several departments and handle the customer expectations.

What do you think made them recruit you? Your experience with pitching ideas to VCs for your patents?
Maybe it did. But one of the main things that helped me get this position was my PhD. We are a premium priced brand – the most expensive brand in our niche. We build inspection machines for quality control. So, we need to sell our machines in a different way. The average project from the request for information to a purchase order is almost 12 months, with intensive work in between. The founder, who built the machine, used a technical approach to the sales. So they searched for an alternative who had the technical know-how. A PhD gives credibility and integrity to the person. That was one of the reasons. Also I had a background in computer vision systems. The core business of the company was image processing and computer vision. So a PhD within this field, along with my background in commercialization probably helped me with the job. To be honest, I was not looking for an engineering position, I was more interested the management or leadership role of development. That is why I am where I am today.

What made you think you would fit into a managerial position rather than a development oriented one?
Because I like to manage (chuckles). I think I am a strategic person, having a good overview of process and technology. I'm not so detail-oriented. But I have the strategic outlook comes from having seen a technology and quickly make a roadmap to commercialize. That is my ambition.

It seems your PhD has really helped then. You're still in a company that has image processing at its heart. But you don't work with patients directly? It's more of a quality control setup?
Not anymore. But it's good to have that experience (working with patients). For me just knowing the names of the medical products can put me in a better on how to put the sales outlook across.

What is your role as head of sales?
I have a relationship with all the departments. It's a mitigating role, you have customer who asks for something, an engineering department not willing to commit – you're in between trying to lower the customer's expectations and increase the output of the engineering department. It's a very political role. I need to push innovation and improvement of the products in the company while balancing costs.

You had certain perspectives when you walked into a company. Some were right and some were wrong? How long did it take for you to settle down?
It's a completely different world. The time you use in the company has a money stamp on it. Every time I use one hour I should decide if it was billable or not and whom it was billable to. It was so crazy when I started. Time management was completely different. There were also practical things like meeting invites which are more complicated when you need to find a time when everyone's available, use the scheduling assistant and so on. It's these practical things that are completely different when I came in. It is also essential to say where you are during office hours so everyone knows. These were small practical things that were also very different.

What is your attitude of academic research after your industrial stint now?

I think there should be more focus on strengthening collaboration between industry and research centers. We spend a lot of money on research in Denmark. But I also think we must be more focused on commercial or the societal value in mind. This is something that has a lot of focus in CFIN. There could be more focus on it. Commercial companies should also be more interested in working with research centers. The relationship I maintain with Alborg is a win-win situation for both me as well as the students.

By Kousik Sarathy Sridharan 2016

Lea Brader, Clinical Research Specialist at Arla Foods

Education:	**Jobs:**
PhD at Aarhus University Hospital, 2013, AU MSc in Human Nutrition, 2007, KU	2013- present: Clinical Research Specialist at Arla Foods

Where did you see yourself working in the future during your PhD? What was your preferred job?
I saw myself as an academic researcher as I liked being a PhD student and doing research so much . I even applied for a post doc, but I found a very interesting position with ARLA that seemed to really suit me. I thought OK I'll give it a try! At the time, I considered academia my ideal career path and it was not my first thought to go into industry or private sector.

How early did you plan your next career step when you were a PhD student?
I did not really plan my next job! There was so much happening with the PhD that I felt there was not much time for planning my career.

When did you start applying?
I did it right at the end, around the time I was handing in my thesis. My current boss was actually at my PhD defence. I think this was really nice as she got to see what my PhD was all about. Then I started my new job a week after the defense. I was lucky that the right job was available for me and I got it. It was a really easy and fortunate process.

Did you take any courses or workshops to help you prepare to find a job?
No, I didn't. I had a lot on my mind at the time and I just didn't have the energy for it all.

Could you tell us more about how you found your current job?
My father in law actually saw it first in the newspaper Jyllandsposten and brought it to my attention. Then I found the job advertisement online.

Which resources have you used in finding your job e.g. recruitment companies, LinkedIn or other social media?
I did not use social media websites like LinkedIn. The job application was also advertised online at Foodjob which is a recruitment company. There was a very thorough job description on Foodjob website and I applied through it. Arla recruits via Food job. My first interview was with that company.

During the interview process what kind of tests did you go through?
The first interview was an informal oral interview at Foodjob. Then I had to complete an online personality test and a mixed logic, reasoning and spatial awareness test. It was important for me to be myself and to be honest during the personality test, because I think in order to find a job that really fits you, you have to have an accurate measure of your personality. Honestly, the second test made me a bit nervous as I didn't know the format very well.

How much time did it take after finishing the interview process for you to get the job offer?
It was very short partly because the interview took place just before the summer holidays. I was told I got the job just after I finished my PhD defense. Don't be envious! ha ha ha!

We try not to be! I'd like to know what contacts did you have at the Company or University before you started there?
I only knew my current boss during my PhD plus a number of academic contacts.

To which extent did your network help you find your current position?
I probably use it to some extent, but it was not absolutely needed. Everybody says networking is so important, but you do not necessarily need to know somebody inside the company to get a job. I did not know anybody here and my references were all from the University. It is of course fairer that everybody has the same chance to get a job. In my case, I was lucky, but I can see the value of networking in other cases. It is very useful for getting insight about what kind of jobs are available in your company of interest.

What is the current position you have?
Nutrition Scientist, my job is to turn science into business, meaning that I design research studies, improve products, and interact with lab scientists.

Your field is general nutrition or it is further specialised?
We start as a global nutritionist, however, we have various expertise in different markets and categories.

Can you decide in which areas you specialize and work?
Yes, it is both up to me and my manager. For example, my work covers a multiplicity of nutritional areas as my manager is very open and listens to me. She knows that is how we perform at our best.

What opportunities have been available to you to progress you career within the company?
You can transition horizontally (into other fields) and vertically. A positive aspect of the company is that it encourages transitions between areas, so we bring expertise from one area into another and the company assists us in adapting and developing in new roles. Twice a year we have a career meeting with our managers where we can discuss our ideas about potential new roles or promotions within a particular position within the company. There are also numerous internal courses that we are encouraged to take to develop our skills. 'Success in collaboration' is the main focus of my group and company.

Does your position match your PhD field?
It shares many similarities with my PhD. My PhD was very broad covering aspects of the metabolic syndrome (which includes obesity, high blood pressure etc.) and the Nordic Diet (which included dairy but this was not a factor in my getting the job!). I did not actually know very much about dairy when I got the job. Personality was a very important factor, especially as we work in a team here and we have a lot of collaborations, teaching and workshops. My boss actually prefers having people of a broad personality types' spectrum including introverts and extroverts; so we are best equipped to tackle all sorts of assignments. In certain cases which involve certain types of assignment, they prefer a certain type of personality. Arla wants to see its employees' passion for their work and this is the most important factor.

Did you change your position in the company?
No.

How do you find working for ARLA?
I'm so happy that I started here. I'm sure a post-doc would have been nice as well, but in this job, I get a lot of challenges because I have so many diverse tasks and I'm constantly getting new ones; so it never gets boring.

Was the working conditions what you expected?
I had very few expectations over and above what was written in the job description, which later turned out to match the job very well.

How is the workload, is working here stressfull?
No, mostly because I have a perfect manager. As she is really conscientious, we never get too stressed. We have a very open relationship where we are encouraged to approach her should any problems transpire. We also have the liberty to manage our tasks and workflow to a certain extent.

How is your work/life balance?
I think it is fine. It depends on your boss, and for me my boss is quite good. I more or less never work overtime, 37 hours a week unless I have a meeting or conference etc. The time management aspect of our work is very flexible.

What skills from your PhD studies do you have the most benefit of today?
Of course I learned a lot of skills afterwards, but I have also used some of the skills developed during my PhD in my current job. Some of the things we do now are very much involved with clinical trials and I performed both human and animal intervention trials during my studies. In fact, the statistics skills I developed during my PhD were the most useful. Besides giving me a strong background for designing and carrying out trials, I developed a broad academic network during my PhD and these networking skills are very applicable to my current job. All of my team have a PhD. I rely a lot on my scientific English reading, writing, and statistics skills I had developed during my PhD for my job.

What about practical skills, like time management?
The time management skills during my PhD had to be changed. Because in my PhD there was only one project, while here I have several projects at the same time. So it's a completely different way of time managing, something like multitasking. Also my ability to read and gather scientific knowledge and be critical is really important and I have developed these skills mostly at the company.

If you could go back in time what would you do differently to better prepare yourself for this job?
I would have loved to have gone abroad in a native English speaking country because here we use a lot of English. Although I can easily manage, as all of our presentations and communications are in English it would be nice if it came more naturally to me.

What specific career advice would you like to share with someone who is just about to finish his/her PhD studies?
Depending on your area, the network that you build during PhD can be very useful in your future job. I would have benefited from starting earlier during my PhD to gather information on job opportunities to get an overview of what areas I can play in, and to find out more companies that were of interest. I would say do not restrict yourself, be open minded and contact companies you think would be a fit for you. Don't limit yourself based on job application requirements. In my case they needed 5 years industrial experience and I did not have any, but still they liked me as a person, my way of thinking, and my enthusiasm and engagement. At the same time, remember to be realistic about how the job fits your competencies. Be persistent and proactive but not overbearing, and always follow-up your application. In my case, I called after the first interview and if I hadn't I'm not sure if I would have been included in the final round or not. Remember it's not all about what you want, for the company, it's more important what you bring and how that will benefit the company.

How can you show that you have the passion?
Explain why you have the value that the company needs. Be enthusiastic and be clear that you will make a positive difference for the company.

Do you consider returning to academia in the future?
Probably not, I think the academic route is more restrictive in terms of job opportunities and job stability.

By Max Norman Tandrup Lambert and Pedram Shokouh 2016

Maciej B. Maniecki, Head of Sales at Roche

Education:	**Jobs:**
MBA, AU 2018 PhD in Biochemistry, AU, 2009 MSc in Health and Biotechnology, AU 2004	2017: Sr.International Product Manager HPC/Virology Roche Global, USA 2015-2017: Head of Sales, Diabetes care, Roche 2014-2015: Subregional Business Development Manager, Roche 2012-2014: Account manager, Roche 2012: Assistant Professor, Health, AU 2009-2012: Post Doc, Clinical Medicine, AU 2011: Visiting Scientist, Yale University, School of Medicine 2010: Post Doc, Yale University, School of medicine.

How early did you plan your next career step after the PhD

I did not have any plans during my PhD about shifting from academia to the private industry. Saying that one considered a career in the industry is seldom well accepted in the research environment. So, it was not until my Post Doc that I started considering a shift; mainly owing my work with patent processing and finding the commercialization part very interesting to work with.

What kind of position do you have today?

I have a position as Head of Sales, Diabetes Care (Denmark, Greenland, and Faroe Islands) at Roche Diagnostics leading a team of seven employees. However, I have just landed a new position in Roche Global in the USA; being responsible for product development within the field of molecular diagnostic and Hepatitis.

Why did you decide to go in the direction you chose?

After many years working with basic research, I missed being close to the patients and to work in teams having the same goals. Basically, I wanted to be part of something bigger!

Have you had other jobs prior to your current job – if yes,which? And how did they lead to your current job?

I have had three other jobs in Roche Diagnostic (Account Manager, Sub-regional Business Development Manager and Head of Sales, Diabetes Care prior to my current position in Roche Global. These jobs have giving me skills like team leadership, business strategies and commercialization.

How did you find your first job/current job?

An account manager from Roche came to my laboratory to sell and discuss products. I found the manager very credible, and his presentations of Roche's visions, values and spirit made me consider a career in the industry.

Furthermore, Roche had contacted me several times asking me, if I would consider a career within the company.
However, it was a difficult decision to make, and I considered for a long time the pros and cons against leaving academia; mainly because it can challenging to return to research after being in the industry for some time.

What contacts did you have at the company/university before you started there?
I knew several persons working in Roche, especially the ones who had visited my laboratory.

Describe a typical day/week?
Working hours per week might vary from 37 to 80 hours depending on the work load. However, the company prioritize that the employees have a good work/family life balance.
A day on work may consists of a customer visit together with one of my employees, where my responsibility is to coach my employee to perform better. Meetings in Denmark and abroad also take a lot of my time.

What skills from your PhD studies do you have the most benefit of today?
Being innovative, getting new ideas and thinking analytically, but also being good at problem solving. Insight in every kind of research methodology and the ability to gain new knowledge quickly are important skills, especially in my new position.

What skills would you say you didn't develop during your PhD which you have developed afterwards?
More focus on leadership during the PhD could have been beneficial for my career.

What specific career advice would you like to share with someone who is just about to finish his/her PhD studies?

- Make the shift from academia to the private industry if you have a good feeling about it, and then be authentic about your choice and go for it.
- If you apply for a job in the industry it has to shine through in the cover letter and at the job interview that the job is something that you really want and it should not just be an opt.-out ption.
- Apply for jobs, before you PhD or Post Doc is finished, then you seem less "desperate" and more confident.

By Mette Tranberg Nielsen 2016

Marie Stampe Ostenfeld, Senior Research Scientist at Arla Food Ingredients

Education:	**Jobs:**
PhD in Oncology and Cancer Biology, 2006, KU MSc in Molecular Biology, 2001, AU	2015- present: Senior Research Scientist at Arla Foods Ingredients 2007-2015: Post doc and associate professor at AU Health.

What were your considerations for moving away from academia?
After several successful years in academia, Marie was looking for new challenges. While she was happy with a job in academia some conditions were not ideal. New challenges seemed appealing and she had already considered if the current job was what she wanted to do the rest of her life – which it was not. The lack of diversity among colleagues and collaborators was the main issue. Making the change before being too well set in the academic ways was also a factor.

Marie is very happy with her change. The larger focus on results and considerations regarding cost-benefit are highly motivating to her. Furthermore, the focus on personal wellbeing and rewarding of extraordinary performance are important aspects.

How did you get your current job?
Marie was through her network encouraged to apply for the position.

Are the skills you acquired in academia relevant to your current job?
The specific skills are not. Approaching challenges analytically and critically are the most important skills.

Is there anything you miss from academia?
The much more tempo-oriented style of work suits Marie. Although the transition from always being 100% certain prior to making decisions to now being maybe 60% certain, has been very challenging. She does sometimes miss being able to fully commit to projects, but what she misses the most is shaping new projects through great ideas and being creative.
The main thing she does not miss from academia is the struggle to obtain funding and the sometimes everlasting optimizations needed to actually carry out the projects.

Can you describe a typical work day?
No. A typical work day no longer exists for Marie. As the coordinator of several major projects she has to be involved in numerous meetings, answer countless mails and gather information from relevant experts so she can determine how the projects should move forward.

Can you give any career advice?
Self-awareness. Determine what you would like to work with, what truly motivates you and go for it. Know your comfort zone and do not be afraid to step out of it.

By Emil Christensen 2016

PhDs in PUBLIC SECTOR jobs

David Alberg Peters, Project Leader at Aarhus University Hospital

Eduction:	**Jobs:**
PhD Student, DTU, 2004- 2008 MSc. in Biomedical Engineering, AU, 2002 -2004 Research year, Hydrodynamic transfer of genes, AU 2001-2002 Bachelor, Medicine, AU 1999-2001	2016- present: Project leader, moving and planning medical equipment to AUH 2008-2016: MR Physicist at The Department of Procurement and Clinical Engineering

How early did you plan your next career step after the PhD?
Not until the end of my PhD, and it was mainly a personal decision and not so much a carrier decision.

What kind of position do you have today?
For the last 8 years, I have been working in MR procurement at the hospital, but a few months ago, I transferred to work as a project leader for the DNU building process.

Why did you decide to go in the direction you chose?
I needed a change, and was looking for either a new job entirely or a new position. Then the opportunity to become project leader for the DNU move, and I took it to get new challenges.

Have you had other jobs prior to your current job – if yes, which? And how did they lead to your current job?
The first job was in MR service, then I moved to MR procurement. The knowledge about building design and specification, I got from MR procurement help me move to the new job

How did you find your first job/current job?
My first job was simply a job add. My current job was an internal move.

What contacts did you have at the company/university before you started there?
None.

Describe a typical day/week?
Meetings, a lot of meetings. My focus area is mainly on planning, timetables and final approval. There is a lot of revising going on, some plans are years old by now and the needs of departments has changed since then. I still try to find time to do research whenever possible.

What skills from your PhD studies do you have the most benefit of today?
Planning, cooperation, mostly the softer skills and not the academic ones.

What skills would you say you didn't develop during your PhD which you have developed afterwards?
Leadership, group dynamics and some technical knowledge about construction.

What specific career advice would you like to share with someone who is just about to finish his/her PhD studies?
Don't settle down, if you really want to follow you dream job you might need to move. Be open to every possibility; look at it from all sides.

By Kennet Thorup 2016

Mikkel Bo Hansen, CFIN researcher, Co-founder and CTO at Combat Stroke

Education:	**Jobs:**
PhD in Theoretical Physics, AU, 2010 MSc in Chemstry, AU 2006	2013-present: Co-founder and CTO at Combat Stroke 2011- present: Data and software engineer, CFIN 2010-2011: Postdoc AU

Mikkel holds a Masters degree in chemistry (2006). He did both his masters thesis, Ph.D. (2006-2010) and Post doc. (2010-2011) within theoretical quantum physics and mathematical modeling.

Upon completion of his Post doc., Mikkel felt he had accomplished his major goals of interest within theoretical physics and subsequently he developed an interest in translational research with 'a direct application perspective', relevant for a broader audience. Thus, Mikkel applied for a position as Software Engineer and Researcher at the neuroinformatics research group at CFIN; an integrative neuroscience research center at Aarhus University. While having a Ph.D. degree was a prerequisite for the job, Mikkel was employed because of his strong capabilities within mathematics and mathematical modeling and because of his programming skills, his creativity, his ability to complete projects, and for his desire to do research and development.

Although being employed as a CFIN Software Engineer, Mikkel actually works as a Senior Scientist with very few restrictions. During his five years at CFIN, Mikkel has been developing sophisticated algorithms for characterizing brain perfusion and for predicting brain-tissue outcome after stroke, using various magnetic resonance imaging techniques. He personally holds two patens on these methods. Partnering with his colleague, Kim Mouridsen, who holds supplementary patents within the field, the combination of their patented technologies started to generate commercial interest. Therefore, Mikkel and Kim decided to engage in commercializing their technologies as a diagnostic software package with the power to quickly and automatically localize and predict the final infarct size, as well as with the ability to estimate the treatment-potential of affected tissue - Combat Stroke was born.

Quickly, Combat Stroke managed to raise a suitable startup investment. Hence, while continuing his work as a researcher at CFIN, Mikkel began searching for clinical collaborators willing to test their initial Combat Stroke prototypes. Effectively, a research conference meeting fostered collaboration with South Korean clinicians. In the meantime, Combat Stroke had decided to break up collaboration with one of the investors, following a

disagreement with product rights. However, using their growing business network, Mikkel and his collaborator managed to involve an experienced entrepreneur with a track record of selling several Aarhus based companies. Now, utilizing their contacts large business network, Mikkel and Kim worked hard pitching their project to investors, and in summer 2016 Combat Stroke raised a solid two-digit million-amount of DKK from a Norwegian multi-billionaire family based foundation as well as from several angel investors. Recognizing the need to employ expertize beyond the core skills of Mikkel and Kim themselves, they utilized the capital injection to employ people who could help develop a top quality business model, help perfecting marketing strategies and help handling structured software development in the context of American and European regulatory affairs. This leaves Mikkel with the opportunity to spend more time as a Chief technology officer (CTO), managing product development and innovation.

When elaborating on the differences between working in academia and working in the industry, Mikkel quickly emphasizes the much faster pace of industry work-life: "you have to deliver every time, even with very short deadlines. The evaluation of you as a person and of your work is very direct and indiscrete. If your presentation or technology is not good enough, no one will invest any money in you or your project. There is no such thing as in-between". However, this pace and harshness is also part of what drives Mikkel forward. In Combat Stroke, Mikkel enjoys constantly chasing the next success, and upon an achievement he feels a unique and genuine satisfaction, truly boosting his motivation. Yet, Mikkels attraction to academia persists because he appreciates being able to keep exploring alien grounds, generating new knowledge. In addition, he feels that supervising students and having discussions with other scientists with great visions is very rewarding.

Being faced with short deadlines, investors demand for quick product development, and concurrent steep learning curves within the commercial and legal side of starting a company, Mikkel benefits from his personal persistency, his ability to carry a large workload, his fast learning skills and his ability to manage complex settings and solve complex problems. Furthermore, Mikkel accentuates his Ph.D. experience with communication of complex technologies as especially valuable with regards to communicating technology in form of investor prospects.

Operating two jobs, Mikkel typically works 60 hours a week. A typical workday begins at 8.30 am at CFIN, which he leaves between 4.00 and 5.30 pm. Then, after dinner he often works at home until midnight, while during the weekend he typically works 3-6 hours. The workload is differential with periods of much higher workload and periods with a little less.

As a career advice, Mikkel recommends spending time on self-reflection and self-awareness, as he feels that you cannot fully enjoy your work neither perform your best without knowing your true motivation. Moreover, Mikkel stresses that when landing your first job, you have to be humble and work hard to prove yourself.

By Rune Bæksager Nielsen 2016

Pernille Bøttger, Molecular biologist at the Department of Clinical Microbiology, AUH

Education:	**Jobs:**
PhD in clinical medicine, 2006, AU Msc in Molecular Biology, 2001, AU	2016-present: Molecular biologist, AUH 2015-2016: Postdoc, AUH 2014-2015: Postdoc, AUH 2013: Postdoc, SDU 2007-2013: Postdoc, AUH

After finishing her PhD, Pernille was offered a Post. doc. position at the department of biomedicine at Aarhus University, and remained in the group until 2013. She honestly admits to not having given much thought to career planning during or after finishing her PhD studies. After having worked at Aarhus University for a number of years, she decided that she did not want to stay in academia.

During a short period of unemployment, Pernille took a six weeks journalistic course, and she emphasizes that this course has been mentioned during interviews later in her career, as something that stands out and sets her apart from other applicants.

In 2014 Pernille was employed in a temporary position (11 months) as a molecular biologist at Aarhus University Hospital, department of Clinical Biochemistry. The shift to working at a clinical department, where the benefit of the work that is carried out is more directly apparent, was something that meant a lot to her, and gave value to her work. She emphasized that the shift from academia to work at a clinical department was the right thing for her, and she wished to continue working at the hospital. Pernille got a position as post.doc at Aarhus University Hospital, split between Department of Clinical Immunology and Department of Infectious Diseases, where she worked for one year.

After a short period of unemployment, Pernille is currently employed in a temporary position (6 months) as a molecular biologist at Department of Clinical Microbiology at Aarhus University Hospital, where she is optimizing a specific method used for routine diagnostics. A job she got via a job add for a different position, which she did not get, but led to a temporary project position at the department.

In her current position, Pernille uses a lot of the general skills learned as a PhD student, mainly project management skills, conducting experiments, trouble shooting and communicating results to co-workers.

As a career advice, Pernille advises new PhD's to choose something that you like to do and go for it, and to not waste too many years at University unless aiming for a career in academia. She also stresses career planning, something she herself has become more aware of in recent years.

By Signe Maria Nielsen 2016

Tina Slots, Forensic Chemist at the Department of Forensic Medicine, AU

Education:	**Jobs**:
PhD in Dairy Engineering, 2009, AU & KU	2014- present: Forensic Chemist, AU
MSc in Dairy Engineering, 2003, KU	2010-2014: Analysekemiker, Eurofins Steins Laboratorium A/S

In truthfulness, Tina Slots did not take her PhD at Aarhus University, but was a PhD-student at University of Copenhagen in a collaboration with Aarhus University. The PhD was carried out at AU Foulum with a day-to-day supervisor from Aarhus University.

Originally, Tina was trained as lab technician. However, her curiosity of how and why things reacted as they did motivate her to educate herself further. Therefore, Tina took a master degree in dairy engineering from the University of Copenhagen. During her master thesis, she was offered a PhD position by her main supervisor which would be a continuation of her master thesis. Her PhD project was about prolonging the chemical shelf-life of cow milk by modifying the feed composition. By changing the feed composition, it was aimed at increasing the amount of naturally occurring antioxidants or change the fatty acid composition to fatty acid which did not oxidize easily. The work required extensive analytical work and dealing with the chemical profiles from thousands of cows. Tina's PhD took her six years to complete as she during her time as a PhD had two kids and was a research assistant for half a year. As a research assistant, Tina handled massive amount of feed and chemical data from all over Europe.

Moving on from Research

While doing her PhD, Tina did however realize that research was not really her thing. She did not feel especially innovative and was not sprouting with new ideas. This may also have derived from her main supervisor who had a clear idea of her PhD progress and did not pick up on her ideas. Therefore, she decided to leave academia.

After a period of unemployment, she found a job as an analytical chemist at Eurofins Steins Laboratory in Holstebro. At Eurofins Steins, she continued with the analysis of food products including the analysis of proteins, fatty acids, fibers and salts. When Tina started at Eurofins Steins, she found out the workflow was very rapid compared to her time as PhD. It took some time, but she eventually picked up on the pace. She

could sometimes panic a bit of the rapidness as it was more difficult to plan the work at Eurofins Steins compared to her PhD. However, she was in a group of three chemists, each with their own specialties, and they benefitted greatly from each other.

After almost four years at Eurofins Steins, the management decided to move the laboratory from Holstebro to Vejen. Tina decided that it was time for a change, as the move would mean a two hour drive each way for her. The position as a forensic chemist at the Department of Forensic Medicine, Section of Forensic Chemistry was one of the few available positions inside geographical possibility. She contacted a former coworker from Eurofins Steins which worked at the Section of Forensic Chemistry to learn more about the position and the workplace. This pushed her to apply for the position which she in the end got.

Working with forensic chemisty

The new position as a forensic chemist gave way to a less rapid workflow than Tina encountered at Eurofins Steins. It took again some adjustment, but she now enjoys the less rapid pace. The transition from food product to human tissue was a bit challenging, especially when she observed an autopsy. In the beginning, she did miss the food product community, but in time this faded away as she adapted to the new work.

In her present work as a forensic chemist, she works with the science based consultancy for the Danish police. The work primary is chemical analysis from autopsy and traffic cases. Usually, the chemists take weekly turns on assignments. Therefore, one week she may be checking and signing the final case reports. Another week, she may have the responsible to correct the analytical sequences and ensured that the results are of high quality. In addition to the consultancy assignments, Tina is also the leader of the work environment group and is also working on incorporated and validating a pipetting robot in the laboratory. Tina usually starts her workday with the day operation to ensure that the analyses are performed in due time. Hereon, she continues with her other functions, if not ad hoc question from the laboratory technicians or urgent cases occurs. Tina has been in her current job for about three years and does not see a need for change any time soon.

Tina benefitted greatly from learning to handle massive amount of data from her time as a PhD. Furthermore, learning the need for planning and keeping the big picture was very valuable as Tina continued her career. However, the more research-based learning is not something that she has used afterwards. The most valuable lesson for her present work comes from her time at Eurofins Steins, where she learned how work in a production laboratory.

Follow your heart

Her best advice to newly finished PhD is to follow their heart and stomach as they venture on in the post-PhD life. Tina may have regretted taking a PhD a bit, as she did not learn what she thought that she would. But she is quite happy with her career and present work. In her own words, her career has been nice and quiet.

By Christian Reuss Mikkelsen 2016

Tore Hardlei, Forensic Chemist at the Department of Forensic Medicine, Aarhus

Education:	**Jobs:**
PhD at AUH, 2009 Msc. In organic chemistry, Molecular Biology, 2003, AU	2015-present: Forensic chemist at AU 2009-2015: Biochemist, AUH

Tore took a master's degree in chemistry from Aarhus University. Afterwards, Tore did not want to leave Jutland in order to establish a career path in Copenhagen or Zealand in general. Hence, after a year as a fulltime mailman, Tore was hired as a research assistant at the Department of Clinical Medicine – Clinical Biochemistry, Aarhus University. After a bit over a year in this position, Tore was offered a PhD position at the same department under the supervision of Ebba Nexø. During his PhD, Tore investigated cobalamin forms (vitamin B12) and cobalamin-analogues in human plasma.

Tore was hired as a post doc at the same department after finishing his PhD. However, he did not thrive with the idea of having to constantly apply for grants for the academic fixed-termed employment contracts in hopes of getting a permanent position later on. He therefore applied for a position as the QA-responsible at the Department of Clinical Biochemistry, Aarhus University Hospital, Skejby, after seeing the job advert. He got the job even though he had no experience with quality assurance. At the Department of Clinical Biochemistry, Tore's main task was to get the department accredited according to the ISO 15189 standard. After completing this comprehensive task, his main function was to analyse biomarkers including research and development of clinical biochemical analyses.

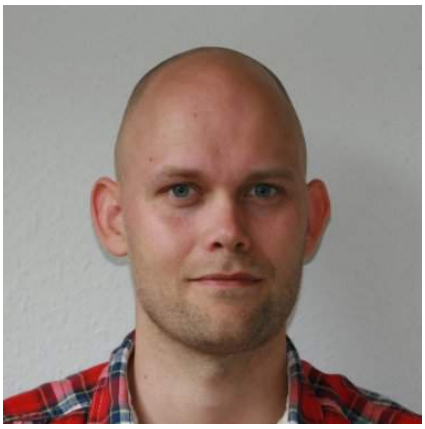
After 6.5 years at the Department of Clinical Biochemistry, Tore decided that it was time for some new challenges. He therefore applied for his current position after seeing the job advert. In his present work, Tore works with science based consultancy for the Danish Police. In his team, the chemists have a weekly turn on the different assignments. One week, he is responsible for checking the analytical results in order to ensure their validity. Another week, he is responsible for signing and completing the case reports to the police. Overall, his job is all about acquainting himself with many different cases, ensuring that every detail in each case is taking care of, and delivering high quality scientific results to the police within the deadline. Tore sees his current job as professional, detailed oriented, versatile and what he thought was the epitome of what a chemist do when he started his education as a chemist.

The main thing Tore has benefitted greatly from during his PhD is the aspect of being able to quickly acquaint oneself with new things and to filter out anything irrelevant. Contrary, he had to adjust to meeting deadlines in his time after his PhD, as the deadlines during the PhD are very abstract compared to the deadlines in his following career.

Tore's career advice for newly finished PhD students:
"If you see a job advert and don't feel that you can live fully up to it, then apply for the job anyway. Take the plunge. It is going to be fun"

By Louise Stride Nielsen 2016

PhDs in ACADEMIA



Tue Fryland, Assistant professor at the Dept.of Biomedicine, AU

Education:	**Jobs:**
PhD in Biotechnology, AU, 2012 MSc in Biotechnology, AU, 2009	2014-present: Assistant Professor at the dept. of Biomedicine, AU 2012-2014??: Postdoc, AU

What kind of position do you have today?
I am an assistant Professor at Department of Biomedicine at Aarhus University, where I work in the field of neurobiology. I work a lot in bioinformatics and analyses of big data sets which takes place in front of the computer, but I am also frequently in the laboratory performing experiments which I enjoy. My other responsibilities include teaching and supervising students and of course writing papers, abstracts, and applications for funds.

Why did you decide to go in the direction you chose and how early did you plan for it?
Ever since my childhood I knew I wanted to work with something in biology. In high school I got more interested in molecular biology and chemistry and although I applied for the university to study biology I quickly realized I wanted to study molecular biology and made a transition towards that.

When I was about to decide what field to write my masters in, I remember watching a TV program with a gathering of Nobel laureates to discuss the different fields and what field would be the most interesting to work with in the future. Many of the laureates said that it had to be within studies of the human brain, and I figured neurobiology should be the field of my studies then.

During my studies, I realized I liked during research. I like writing papers, teach and supervise students, and doing experiments in the laboratory. Although it can be stressful at times writing fund applications and having to act in so many different roles all at once, I generally think what I do is very interesting and fun. if I didn't I

would have done something else.

Have you had other jobs prior to your current job? And how did they lead to your current job?
Prior to my assistant Professorship I was a post doc. in the same group as where I am now. When my position was coming to an end and I was about to apply for other jobs I asked my boss/supervisor if he wanted to keep me. He did, and made a job posting which I applied for.

Can you describe a typical day or week?
It changes a lot. There are typically different phases. In some phases, I am a lot in the laboratory, in others I sit at my desk analyzing data or writing papers or fund applications. For the moment, I get up early and go to work around 7 and go home around 16-17. Sometimes I may work a bit in the evening as well.

If I have a something I need to focus on, I may choose to work at home so that I am not interrupted. But I don't have a fixed work schedule – it changes from day to day. It is often about figuring out for yourself how to be most productive. So, nothing is really by routine and therefore the job allows you to be very flexible.

What skills would you say you didn't develop during your PhD which you have developed afterwards?
How to communicate and disseminate in terms of leadership are definitely skills I have had to learn and continue to develop. As an assistant Professor, I now have bigger responsibilities which include other people. Therefore, I have had to learn how to deal with people of different personalities. I am contentiously developing my skills in how to motivate people and figuring out what motivates them. But also, how to let people know when some work is unacceptable without being demeaning and instead try to motivate them is a skill I have had to learn.

What specific career advice would you like to share with someone who is just about to finish his/her PhD studies?
Within academia, there are specific criteria or qualifications you have to meet in order to advance. Unlike how I imagine it works in the industry, where your personality and motives are probably what's in focus, in academia you are mostly judged on your credentials and qualifications. Of course, you won't get hired if the group leader doesn't like you, but in order to even get to the interview you have to meet certain qualifications – and more so than in the industry. Being visible in your specific scientific area, like having your name on a lot of papers, is therefore very important.

By Johan Vad-Nielsen 2016