

**Speech by Søren-
Peter Olesen at the
D NRF anniversary
meeting, November
4, 2016**

Dear colleagues,
friends, ladies and
gentlemen. The
Danish National
Research
Foundation, as we
have heard today,
was established from
the proceeds of the
sale of a state
insurance company.
Now the foundation
invests the capital
and dividends in
basic science, which I
think very
appropriately is the
best life insurance a society can have.



Curiosity-driven, blue sky basic research, however, sometimes has a hard time justifying itself as life insurance, since the outcome of the individual studies is so

unpredictable. A beautiful example is in the short historical film where the nature-philosopher Hans Christian Ørsted stumbled across electromagnetism as he was setting up materials for an evening lecture in the spring of 1820. Well, luck favors the prepared mind, and he was well prepared. Soon after, he went on the road in Europe to tell about his discovery. Ten years later, Faraday described electromagnetic induction, forming the basis for the use of electricity in society. A more recent example of the outcome of blue sky research is the gene-editing system CRISPR-CAS9 that was discovered a few years ago as a bacterial defense system against attack by other microorganisms. Now this method is transforming biology and medical therapy. Thus, it should be beyond doubt that basic science has the potential to change our lives for the better.

We should maximize our chances of success to the extent it is possible. By success I mean generating truly new knowledge. It is said that only about 5% of publications generate something really novel and are frequently being referenced, so that is where we want to be. How do we do that? We invest in the very best scientists, as it is all about people. These can be trained scientists who have proven to have a unique flair for their field, but it can also be young scientists with an emerging talent.

We have heard two of the younger generation this afternoon: Professor Rubina Raja was a member of the so-called Young Academy in the Royal Academy of Sciences and Letters a few years ago and now she is driving a major field in archeology, transforming the way we look upon ourselves and our cultural development. The members of the Young Academy actually asked if they could participate today, which they are. They represent tomorrow's talents. Tom Gilbert, together with the

geogenetics team, has likewise transformed his field and put Copenhagen on the global map. He is now moving on to a new field.

Scientific discoveries are thus the commodity we trade in, and it is not something you can just order. You have to create environments where scientists thrive and have optimal conditions for conducting their studies. The DNRF has developed a very viable concept that we will maintain and further develop in the future. We believe in freedom, creativity, flexibility and trust. In many ways, this approach goes against the spirit of our times, which is to inflict academia with more control, more administration, and shorter deadlines. We will defend our values in the coming 25 years. With respect to the foundation itself, we strive to be very professional in the multitude of functions we have, including interaction with the scientists, handling contracts, debating science policy matters, and investing our endowments. We will have a new focus on the training of academic leaders, who are in severe shortage. It is important that our academic environments not be run by managers but by people who understand the special nature of science. We will also focus on the greatest international talents that our centers attract, and how to retain them in Danish society, both inside and outside academia.

Although the foundation will strive to be professional in all these matters, we cannot do anything alone. We depend on the politicians respecting the fact that we need significant capital in order to create a long-term strategy. We need politicians to understand that the scientists who apparently play all day in the sandbox are valuable children, albeit sometimes a bit difficult. We likewise need the scientists to understand that they have to live up to the trust they get: to focus on the most exciting problems, to take significant risks, to recruit the very best people they can get, to care about the careers of their young scientists, to be ethically correct in

their scientific behavior, and to care about gender balance since diversity is good for a center. You will need people with different backgrounds, since a scientific project is a voyage influenced by each crew member. The foundation takes a keen interest in all these issues, and we discuss them with the centers at the annual follow-up meetings. That constructive dialogue will certainly continue for the next 25 years. We will convey this first-hand knowledge from the scientific trenches to a broader audience, as we have recently done, for example, regarding post-doc career opportunities and gender imbalance as described in several publications over the last few years and as it also appears in new a 25th anniversary publication that you should pick up in the reception area outside this room before you go home. This publication also gives an overview of the first 100 DNRF centers and shows what you can get for an investment of 7 billion DKK over 25 years. It is quite impressive.

In this publication you will also find selected pictures of some of the many paintings we have on display at the DNRF, courteously on loan to us from the New Carlsberg Foundation. Art has a lot in common with science. Both disciplines have the ability to disrupt the frames we are used to thinking in. Art and science enlarge our world and are truly international in the sense that they can be understood by anyone independent of nationality, skin color, religion or other background. A strength of these disciplines is that they are open and ask questions. Art, however, never does come up with precise statements and that is a key difference, as we would very much like you scientists to come up with conclusions once in a while. It is these conclusions that end up in textbooks and together build our common knowledge base.

Today you will be able to taste a very innovative product coming from an environment where art and science were closely interwoven. It was a scientific

breakthrough when it was discovered about 140 years ago that bacteria and different strains of yeast produce different chemical entities during fermentation. It was one of the legacies of brewer Jacob Christian Jacobsen and Professor Emil Christian Hansen that pure yeast for lager beer was isolated at Carlsberg, improving the quality of beer all over the world, getting rid of lactic acid and off-flavors. Some of the original yeast was found at the bottom of a bottle from 1883 at the Carlsberg laboratory, and together with the barley strain and hops used at that time, this scientific product has now been re-brewed and can be tasted in the lobby after this session. Quite an accomplishment. We are grateful for that donation.

I want to thank all 100 centers and the Niels Bohr Professors for their hard work over the years, the politicians for being so generous with us, the DNRF board for being supportive and enthusiastic – especially our chair, Liselotte Højgaard, who cares so much about everything in or related to the DNRF, the professional staff in Holbergsgade for organizing this jubilee, Lise and Ole Trock-Jansen and the Schultz Foundation for their support, and all of you for your attention this afternoon.

We will now hear Nordic ballads by soprano Gitta-Maria Sjöberg from the Royal Opera Copenhagen and cellist Morten Zeuthen from the Royal Danish Academy of Music.