

## Dansk forskning – globale muligheder



Flamingoen får taget blodprøve som led i et større forskningsprojekt

A flamingo has a blood test taken as part of a major research project

Danske forskere er i front på flere områder, der kan udnyttes og gavne globalt. Det gælder f.eks. indenfor design i bredeste forstand, indenfor nanoteknologi og dyreliv. Der er meget at være stolte af og glade for – ikke mindst at bo i et land med et forskningsmiljø, der muliggør at kunne hjælpe bredt.

### En ny måde at tænke design

Service design bruges til at udvikle og overbringe de bedst mulige services på brugerens vilkår. Mål: At optimere ydelser i interaktion mellem udbyder og bruger. Interaktionsdesign er kunsten at definere og forme produkter, miljøer, systemer ud fra brugerens indfaldsvinkel. Copenhagen Institute of Interaction Design starter som pilotprojekt en helt ny kandidatuddannelse indenfor design i denne brede forstand. 22 studerende fra stort set hele verden deltager i pilotåret; seks er fra Danmark. Et elektronisk værksted er en grundsten i uddannelsen, der gennemføres i samarbejde med blandt

andre Danmarks Designskole. JL-Fondet har støttet projektet og værkstedet med 250.000 kr.

### Zoo forvalter en helt unik ressource

Zoologisk Have i København står for langt mere end muligheden for at se søløverne blive fodret, elefanterne boltre sig i deres nye omgivelser og aberne tumle sig og lege Tarzan. Haven har også en mangeårig tradition for forskning og naturbevaring. Dette arbejde er taget til i de senere år. Haven forvalter en unik ressource, nemlig flere hundrede sjældne dyrearter, og ser det som en forpligtelse at bruge ressourcerne til målrettet forskning. En nyere videnskabelig afdeling samt 'Center for Zoo and Wild Animal Health' i samarbejde med Københavns Universitet er resultater af

denne forpligtelse. Nu er behovet for et egentligt forskningslaboratorium akut. JL-Fondet, som er sponsor for Zoos moskusokser, finansierer etableringen af laboratoriet med 390.000 kr.

### En mio. til banebrydende dansk forskning

Dansk forskning har spillet en stor rolle i udviklingen af såkaldte cantilever-sensorer, nanoteknologi med mange anvendelsesområder indenfor f.eks. medicin og miljøovervågning. Teknologien baserer sig på måling af elektriske udslag i sensorerne og adskiller sig fra andre lignende teknologier, der baserer sig på laser. Den elektriske metode anerkendes i dag som den eneste til kommercielt brug. På DTU, Danmarks Tekniske Universitet, har man gennem de seneste ti år arbejdet med teknologien, senest med at udvikle nye sensorer til analyse af drikkevand og industrielt vand, f.eks. opsporing af pesticidrester, med det mål tidligt at kunne opdage uregelmæssigheder i vandkvaliteten og dermed hurtigt kunne sætte ind med forholdsregler. Projektet, Sensors for Monitoring of Water Quality – SENSOWAQ (Mogens Havsteen Jakobsen), manglede udstyr til en professionel måleplatform. Dette har JL-Fondet støttet med 1.000.000 kr.

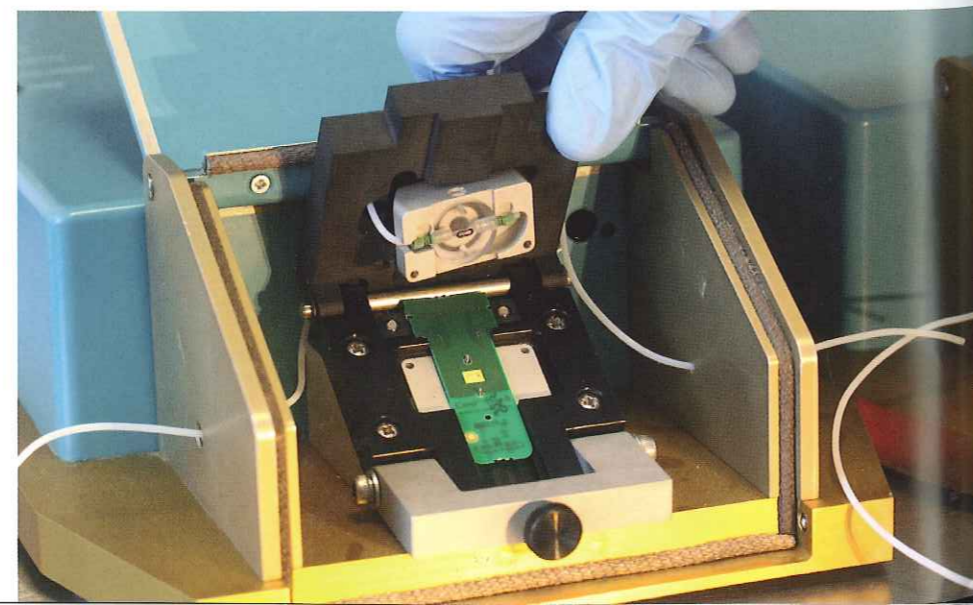


Foto fra DTU af den nye, professionelle cantilever måleplatform. Sensorerne er ca. 100 µm lange og er indkapslet i en mikrofluid kanal. De elektriske forbindelser til elektronikken sikres via den grønne printplade

A picture from DTU of the new professional cantilever measuring platform. The sensors are approx. 100 µm long and encapsulated in a microfluid channel. The electrical connections for the electronics are made via the green printed circuit board

## Danish research – global opportunities



CID's Electronic Lab, grundstenen i uddannelsen

CID's Electronic Lab, the heart of the course

Danish researchers are at the forefront in several areas that can be exploited to provide global benefits. This applies for example in the field of design in the broadest sense, in nanotechnology and animal life. There is much to be proud of and pleased about, especially being able to live in a country with a research environment that makes it possible to provide help far and wide.

### A new way of thinking about design

Service design is used to develop and transfer the best possible services on the user's terms. The aim: For providers and users to interact to optimize services. Interaction design is the art of defining and designing products, environments and systems from the user's point of view. Copenhagen Institute of Interaction Design is running a pilot project on a completely new postgraduate course in design in the broadest sense. Twenty-two students from practi-

cally the entire world are participating in the pilot year, with six from Denmark. Based around an electronic workshop, the course is being run in conjunction with the Danish Design School. JL-Fondet has donated DKK 250,000.

### Zoo looking after a unique resource

Copenhagen Zoo does much more than just provide the opportunity to watch sea lions being fed, the elephants enjoying their new surroundings and the monkeys tumbling about playing Tarzan. The zoo also has a long tradition for research and nature conservation. There has been more emphasis on this in recent years. The zoo looks after a unique resource, that is several hundred rare animal species and is committed to using these resources for targeted research. A recently established scientific department and the 'Center for Zoo and Wild Animal Health' in collaboration with the University of Copenhagen are the results of this commitment. They now urgently need a proper research laboratory. JL-Fondet, which sponsors the Zoo's Musk Oxen, is providing DKK 390,000 towards setting up the laboratory.

### DKK 1m for innovative Danish research

Danish research has played a major role in the development of so-called cantilever sensors, nanotechnology with many applications in medicine and environmental surveillance. The technology is based on detecting electrical pulses in sensors and differs from other similar technologies based on lasers. The electrical method is now recognized as the only one suitable for commercial use. At DTU (Technical University of Denmark), they have been working on the technology over the past ten years. Most recently they have succeeded in developing new sensors for analyzing drinking water and industrial effluent, for example tracking pesticide residues so as to be able to detect water quality problems at an early stage, and so introduce remedial regulations quickly. The project, Sensors for Monitoring of Water Quality – SENSOWAQ (Mogens Havsteen Jakobsen), lacked equipment for a professional measuring platform. JL-Fondet has donated DKK 1,000,000 to support this project.