Curriculum Vitae

My person in brief

Name	Charlotte Busch Ahler
Academic degrees	MSc. Humanbiology, 1996 BSc. Biochemistry, 1993
Age	41 years, married, one child
Contact	Birkevej 2, Sengeløse, DK – 2630 Taastrup Phone : 43 99 33 60, mob. 29 90 31 54 E-mail : charlotte@ahler.net

I have been in Research for 14 years, specifically with interests in cancer. My profile is quite unique, as I have academic research experience from Universities for 4 years, and I have performed in vitro diagnostic product development within biotech for 9 years.
I have the best to offer from these different areas: independent and innovative research, understanding and keeping up with the latest scientific literature - and from this initial step, I am able to transfer an idea into project management and design control. I can structure and organize project tasks down to individual experiments with respect for deadlines, and I have the skills to communicate with other disciplines like patent, RA/QA, QC, production, sales and marketing, and externally to medical partners.

Employment

Sept.2010 - April 1, 2011 **Research Scientist, LEO Pharma**

Departm. of Molecular Biomedicine
Milestone 1 Project employment, Danish National Advanced Technology Foundation, possibility of 2 years extension

Research Activities

microRNA profiling by RT-qPCR, in situ hybridisation, 3D skin models and in vitro models. Our aim is to develop diagnostic tools to improve stratification, treatment and prognosis of inflammatory skin diseases as ancer, psoriasis and atopic dermatitis. The miRskin project is a collaboration between LEO Pharma, Exiqon, University of Copenhagen, Gentofte Hospital and Rigshospitalet

Jan. 2010 - Aug. 2010 **Inbetween jobs**

Attended courses
- Networking
- Unsolicited Job Search

Several interviews and Recruitment Agency contacts

Jan. 2007 – Dec. 2009 **Staff Scientist, BRIC (Biotech Research & Innovation Center), KU**

3-year VIP-TAP Tenure Contract with the University of Copenhagen

- Part-manager of BRIC RNAi Core Facility
- BRIC Board member
- Liaison Committee member

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Research Activities

BRIC was established in 2003 as an Elite Centre in Biomedical research, with the aim of performing cutting-edge science and ensure that research results are used in development of commercial products. The focus is identification and characterization of cancer related genes, using sophisticated equipment and new technologies. I performed High-Throughput Cell-based Screens in collaboration with researchers at all levels. I handled programming of BRIC's liquid-handling robot, performed assay optimizations in microtiter format, I carried out the screen, and did data acquisition and statistical analysis.

Robotics : Hamilton MicrolabSTAR Liquid Handling Workstation

- HT Assay optimizations for screens (96-well,384-well)
  - Dual-Glo Luciferase
  - Click-iT Edu Alexa Fluor, Cell Proliferation Assay
  - WST-1, Cell Count Assay
  - shRNA & siRNA transfection protocols
- HT Library handling (96-well)
  - Generation of Database search tool to find specific shRNA
  - SW Protocol Development for specific use of shRNA Libraries
  - Generation of BRIC Kinome and Phosphatome Plasmid DNA Libraries
  - Generation of customized plasmid DNA sub-libraries
  - Reformatting & Back-up of shRNA Library
- HT Immunofluorescense assisting BRIC Hybridoma Facility in clone selection
- HC Imaging, automated image acquisition using different biology software modules for multi-color quantitative read-out (96-well,384-well)

Administrative tasks

- Organization & sustaining activities in relation to the use of BRIC Whole Genome Human & Mouse pGIPZ shRNA Libraries
- Core Facility payment system and Homepage

Feb.1998 – Nov.2006 **Research Scientist, Dako A/S**

Pathology Workflow – IHC Cancer Diagnostics
Department of Instrument Adaptation

Research Activities, selected

Dako is a world leader in developing tissue-based IHC cancer diagnostics for use in the clinical pathology laboratory. As the strategy is to improve workflow, quality and reliability with automation, Dako develops and markets instruments, reagents and software.

HER2, TOP2A, EGFR CISH Conversion Kit : Discovery

My technician and I developed a gene detection system for the conversion of FISH signals into 2-colour IHC chromogenic signals. We reached proof-of-concept, initiated development of a blue chromogen, and I coordinated an external study at Roskilde Amts Sygehus, Department of Pathology. Today the Dako HER2 CISH is launched, and has just received a PMA approval from FDA to be used for clinical diagnostics.

p16INK4a Cytology Kit : Clinical Study

Development of an ICC Assay to be used in the diagnostic of cervical smears and liquid based cytology. Our team initiated a collaboration with a gynaecologist and worked on clinical samples, and we had training in diagnostic evaluation of ASCUS, CIN I-III. We reached proof-of-concept, and I was writing a Clinical Study Protocol, when Dako's collaboration with the external antibody supplier was terminated.

Dako pharmDx HercepTest™ : FDA documentation

Product maintenance and application improvements. This product has been used since 1998 in breast cancer screening, selecting patients eligible to Herceptin® treatment (Trastuzumab).

Antibody Product Line for the Dako Autostainer : Adaption for Automation

I headed research activities in DK to optimize 150-200 antibody dilutions and staining protocols (HRP/AP) to give standardized and reliable results. Our Team collaborated with Dako R&D US and established external consultancy with UK NEQAS Pathology IHC Standardization Programme. Today these products are launched as the FLEX RTU antibodies.

Project Management, selected

Dako A/S has an education program in project management, level I + II. I have e.g. been trained in Gantt Charts as a tool, team-relations, stakeholder- and risk analysis.

2005 - 2006, large scale

Project Team lead (1 academic, 4 technicians) : FLEX RTU Antibody Product Line

I headed Design Control activities in DK, and wrote Design Specifications, coordinated laboratory investigations, expert diagnostic histology input and collaborations with Dako US R&D. When I left, we had reached Proof-of-concept, and I was drafting the Project Definition and relevant parts of the Business Case.

2001 – 2005, medium scale

Project Manager (1 academic, 3 technicians) : Dako HercepTest™ Discovery

Collaboration with chemistry and development of quantitative peptide-conjugation to cell surfaces, as potential cell control material. I was responsible for laboratory investigations, Design Control documentation and reports back to management.

Project Manager (1 academic, 1 technician) : Dako Eridan Reagent Optimization

Development of Dako Eridan - a new IHC instrument platform, product line of ready-to-use antibodies (50-60) and visualization kits (AP / HRP). The project was in collaboration with Dako US R&D, and I was responsible for Design Control documentation.

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Feb.2007 – Aug.2007 **Guest Scientist, University of Chicago, Department of Neurology**

I obtained private funding (The plasmid Foundation, L. F. Foghts Foundation) to explore the scientific community in the United States for 6 months and acquire new technical skills. I worked in the lab of Associate Professor Deborah J. Nelson, in the field of neuropharmacology, performing molecular biology and electrophysiology by voltage clamp on G-protein coupled potassium channels. I was recommended for Ph.D. at the School of medicine, and became part of a publication.

Publication **Impermeability of the GIRK2 *weaver* channel to divalent cations**
Ping Hou, Anke Di, Ping Huang, Charlotte B. Hansen, and Deborah J. Nelson
Am J Physiol Cell Physiol 278: C1038-C1046, May 2000

Research, Ph.D. work

Autumn 2003 **VTU Ph.D. applicant, between Dako and The Royal Veterinary and Agricultural University, supervisor Professor, Dr. Vet. Lars-Inge Larsson**
Collaboration terminated due to new strategies at Dako A/S

Summer 2003 **VTU Ph.D. applicant, between Dako and The Danish Cancer Society, supervisor Professor, Dr. Jiri Bartek and Dr. med. Maxwell Sehested, Rigshospitalet, University Hospital of Copenhagen**
I wrote the application for the Industrial PhD Fellowship Programme, unfortunately the collaboration between Dr. Jiri Bartek and Dako was terminated.

Titel : *Prognostic significance of Cell Cycle markers in Breast Cancer*

Aug.1997 – Feb.1998 **Ph.D. applicant at Rigshospitalet, Institute of Molecular Pathology, supervisor Dr. med. Paul E.G. Kristjansen**
I did pilot experiments using ICC and IHC, and wrote my application which was approved by the Faculty of Health Science, but limited funding was obtained (Andersen-Isted Foundation, Dagmar Marshall Foundation, Beckett Foundation).

Titel :*Treatment Induced Modulation of Tumor Angiogenesis and Endothelial Cell Reactivity in Human Malignant Glioma.*

Academic Education

1993 – 1996 **M.Sc. in Human Biology, The Faculty of Health Sciences, Panum Institute, University of Copenhagen. Grade average : 9,4 (admission : 24 students/year)**

Thesis : August 1995 - September 1996
Induction of Jun Oncoprotein and Urokinase-type Plasminogen Activator mRNA in vivo. A qualitative in situ study in mouse.

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Supervision : Department of Molecular Cell Biology, Copenhagen University, Senior Lecturer Morten Johnsen, and Finsen laboratory, Rigshospitalet, Dr. med., ph.d. John Rømer

1989 – 1993 **Bachelor of Science in Biochemistry, The Faculty of Science, H.C.Ø. Institute, University of Copenhagen. Grade average : 9,1**

1984 - 1987 **Mathematics - Physics Student Exam, Køge Gymnasium. Grade average : 9,2. Elected Student of the Year 1987.**

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