

## Catharina Elise (Cari) Sanger – van de Griend



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### Summary

I am a broadly oriented Analytical Pharmaceutical Chemist with scientific and line-management background and long experience within the international (bio)pharmaceutical industry. I have a long track record of scientific collaborations with academia and in teaching for and supervision of BSc, MSc, and PhD students.

I am recognized for quality scientific leadership and people management, network and team building, drive, enthusiasm, conceptual and analytical thinking, knowledge sharing, problem solving, implementation and ease to interact with cultural differences. In my work, I like to stimulate others to make pragmatic decisions on scientifically sound grounds and I strive to develop people and get the best out of every team member. I have good knowledge of the CMC drug development process for small molecules, protein pharmaceuticals, as well as virus vaccines. I am an internationally recognized expert on pharmaceutical analysis and I combine thorough fundamental knowledge with every-day practice and implementation in industry. As such, I have been a connecting factor between academia and industry for many years and I would like to contribute with this knowledge and experience to education, research and valorisation for the ultimate benefit of the patients.

I manage my own consultancy in (Bio)Pharmaceutical Analysis since 2011, and I am Associate Professor Analytical Pharmaceutical Chemistry at Uppsala. My major voluntary scientific society functions currently include guest lecturing at universities, Associate Director of CASSS, Board Member of EuCASTE, member of the Advisory Board of *Electrophoresis*, Chair of the EDQM PhEur Capillary Electrophoresis Working Party, and member of the EDQM Analytical Quality by Design Working Party.

### Current employment

2011 – date **Founder, owner, managing director, and scientific consultant** of Kantisto Beheer BV and Kantisto BV, Baarn, the Netherlands. Activities: Courses, trainings, consultancy, and scientific research & development in the field of analytical pharmaceutical chemistry in Europe and throughout the world. Website: <https://www.kantisto.nl>.

### Previous employment

2009 – 2011 **Head Early Analytical Development, Solvay Pharmaceutical BV/Abbott Healthcare Products BV**, Weesp, the Netherlands. Full managerial, scientific and quality responsibility of a department of 20 – 25 people at BSc, MSc, and PhD level.

2007 – 2009 **Senior Scientist Pharmaceutical Analysis, Solvay Pharmaceuticals BV**, Weesp, the Netherlands. Supervision of a group of 6 – 9 Analytical Technicians/Scientists.

1994 – 2007 **Associate Principal Scientist / Research Scientist Analytical Development, Astra Pain Control/AstraZeneca**, Södertälje, Sweden.

1992 – 1994 **Research Scientist, Netherlands Organisation for Applied Scientific Research, TNO Prins Maurits Laboratory**, Rijswijk, the Netherlands.

1990 – 1991 Extracurricular **MSc Trainee, Technologie Servier**, Orléans, France.

1986 **Volunteer staff member, Kandersteg International Scout Centre**, Kandersteg, Switzerland.

### Academic appointments

2024 **Visiting Professor** Jagiellonian University of Krakow, Poland

2022 – 2024 **Visiting Professor** Technische Universität Carolo-Wilhelmina zu Braunschweig

2021 **Visiting Professor** Jagiellonian University of Krakow, Poland

2020 – date **Guest Lecturer** University of Applied Sciences of Western Switzerland, Sion

2018 – date **Guest Lecturer** Jagiellonian University of Krakow, Poland

2015 – 2016	<b>Ad interim Associate Professor</b> at the Vrije Universiteit Amsterdam, div of BioAnalytical Chemistry, Department of Chemistry and Pharmaceutical Sciences, Faculty of Sciences
2013 – 2019	<b>Adjunct Senior Lecturer</b> at Australian Centre for Research on Separation Science ACROSS, University of Tasmania.
2013 – date	<b>Associate Professor (habilitation) Analytical Pharmaceutical Chemistry</b> , Department of Medicinal Chemistry, Faculty of Pharmacy at Uppsala University.

### Education

**2013:** *Docentur* (habilitation) Analytical Pharmaceutical Chemistry, Faculty of Pharmacy, Uppsala University.  
**1999:** PhD (*DPharm*) in Analytical Pharmaceutical Chemistry, Faculty of Pharmacy, Uppsala University, Sweden.  
**1992:** MSc in BioPharmaceutical Sciences, Faculty of Science and Mathematics, Leiden University.  
**1987:** Propaedeutical exam in Chemistry, Faculty of Science and Mathematics, Leiden University.

### Dissertation and habilitation

*Dissertation:* **1999:** PhD/DPharm “Enantiomeric separations by capillary electrophoresis in pharmaceutical analysis”, Supervisors Prof. Douglas Westerlund, Dr Kerstin Gröningsson, Dr Torbjörn Arvidsson, Analytical Pharmaceutical Chemistry, Faculty of Pharmacy, Uppsala Universitet  
*Habilitation:* **2013:** Analytical Pharmaceutical Chemistry, Faculty of Pharmacy, Uppsala Universitet

### Scientific output

47 peer-reviewed papers, 5 book chapters, 2 online courses, 6 web tutorials, 3 webinars, > 120 invited lectures. Patent “Method for quantification of virus particles”, international patent application serial no. PCT/EP2016/053405, filed 18 February 2016.

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“Method for quantification of virus particles”, international patent application serial no. PCT/EP2016/053405, filed 18 February 2016.

### Teaching experience & Supervision

> 2000 h of teaching experience at universities, schools, short courses, industrial courses, web-based courses, etc. Supervision of ≥6 BSc, ≥ 21 MSc, and ≥ 10 PhD (3 main supervisor) students of universities in the Netherlands, Sweden, UK, France, Germany, and Belgium since 1992.

### Examination tasks

I have been examiner at ≥ 10 dissertations at Free University Amsterdam, Groningen University, Stockholm University, Durban University of Technology, Utrecht University and Uppsala University since 2000. For the Swedish dissertations, I was examiner. For the dissertations outside Sweden, the role of the examiner includes both opposition as well as examination.

### Grants

- As founder, owner, and managing director of Kantisto, I have generated sufficient funding to employ myself and, over different periods, 1 – 2 co-workers since 2011.
- MIT (SME innovation stimulation region and top sectors) grant of the Provincie Utrecht of SEK 195 k, 2019
- WBSO grants (wet bevordering speur- en ontwikkelingswerk, > SEK 1.32 M since 2018
- European Union’s Horizon 2020 grant project iConsensus SEK 105 M 2018 – 2022
- US Government-funded BARDA agreement, SEK 84 k, 2021

### Awards & Recognition

- **CASSS CEPharm Award 2015** for sustained and significant contribution to the practical application of Capillary Electrophoresis to the analysis of biotechnology and pharmaceutical products. Quotes from the committee: “Cari advocates tirelessly for scientifically sound CE method development and for the use of CE to ensure the quality of pharmaceutical products. She enabled acceptance of CE in the pharmaceutical industry and provides essential input to the community by teaching and otherwise sharing knowledge.”
- Since 2018, yearly in the top 10 downloaded or cited paper list for *Electrophoresis*.
- Interview “[Gurus of Capillary Electrophoresis](#)” in the Analytical Scientist, March 2019

- Janssen R&D Vice President's Research Award for Outstanding Technical Achievement 2017 to my PhD students Ewoud van Tricht and Lars Geurink (award only given to employees) for our work the quantification of intact viral vaccine particles (see Patent)

### **Leadership and managerial experience, Positions of Trust**

Over the years as project leader, technical leader, department head, and managing director, I received over 370 h of formal leadership training. This does not include the hours of leadership training I received within Scouting or other volunteer organizations. My experience in leadership and management include:

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|----------------|---|
| 2011 – current | Managing director Kantisto BV and Kantisto Beheer BV  |
| 2023 – current | Advisory Board <i>Electrophoresis</i>   |
| 2023 – current | EDQM PhEur Member of Analytical Quality by Design Working Party   |
| 2023 – current | Member of the KISC strategic planning committee   |
| 2019 – current | EDQM PhEur Member of Capillary Electrophoresis Working Party, Chair since 2020  |
| 2018 – current | Board member EuCASTE, Foundation for European Conference on Analytical Science, Technology, and Education   |
| 2010 – current | Chair of international meeting organizing committees such as CEPHarm, ATEurope, NLab  |
| 2018 – 2023    | Editor for <i>Electrophoresis</i>   |
| 2015 – 2023    | Director and Board Member of <a href="#">CASSS</a> , Associate Director since 2009  |
| 2015 – 2021    | President of the Section Analytical Chemistry of the Dutch Royal Society of Chemistry   |
| 2009 – 2011    | Department Head Early Analytical Development  |
| 2007 – 2009    | Business Acceleration Leadership team member at Solvay Pharmaceuticals  |
| 2000 – 2007    | Global Capillary Electrophoresis Core Team Leader AstraZeneca   |
| 2000 – 2007    | Global Separations Core Team member AstraZeneca   |
| 1999 – 2006    | Member of the Impurity Profiling Group, a collaboration between pharmaceutical companies and Prof. dr GJ de Jong, dr GW Somsen, Utrecht University, representing AstraZeneca  |
| 1994 – 2007    | Project-responsible scientist / analytical project leader at Astra Pain Control / AstraZeneca   |
| 1994 – 1997    | Scout leader Grusåsens Scoutkår, Södertälje   |
| 1986 – 1994    | Several tasks at national level for Scouting Nederland  |
| 1986           | Volunteer full-time staff member KISC, Kandersteg International Scout Centre  |
| 1981 – 1985    | Cub scout leader, Van Brederodegroep, Papendrecht   |
| 1996 – current | Reviewer for scientific journals  |
| Symposia       | <i>Initiator and founder</i> of Astra/AstraZeneca CE User Group, of CASSS Analytical Technologies Europe, ATEurope, of the CASSS Netherlands Area Biotech Discussion Group, NLab. Re-initiator of the KNCV SAC CE User Group<br><i>(Co-)Chairing</i> CEPHarm 2010, CEPHarm 2011, ATEurope 2015, ATEurope 2016, The Netherlands Area Biotech discussion group, NLab, since 2017<br><i>Organizing Committee member</i> of CEPHarm 2003 – 2016, ATEurope since 2014, NLab since 2017, Microscale and Bioseparations MSB 2017, EuroAnalysis 2021, EuroFAST 2022, KNCV SAC CE User Group 2010 – 2021<br>Organizing sessions, workshops, or theme days at HPCE 2002, MSB meetings, Analysdagarna, EuroAnalysis, The Analytical Challenge, HPLC, Apotekarsocieteten<br>Co-organization of Analytical Quality by Design e-Seminar with Separation Science, May 2014 |
| Occasionally*  | Management support and coaching during reorganisations  |
| Occasionally*  | Coaching young career professionals and managers  |
| Occasionally*  | Grant reviewer for Netherlands Organisation for Scientific Research (NWO) and Technology Foundation STW   |
| Occasionally*  | Grant reviewer for the National Research Foundation NRF Research and Innovation Support and Advancement RISA of South Africa  |
| Occasionally*  | Grant reviewer for Research Foundation - Flanders (Fonds Wetenschappelijk Onderzoek – Vlaanderen FWO)   |
| *)             | Details not given for confidentiality reasons   |

### **Language proficiency**

Fluent in speaking, reading and writing Dutch, Swedish, and English, working knowledge of French and German.