

Annual report 2016 of ACLC research group: *Oncology-related communication disorders*

Coordinator: Prof. Dr. Michiel van den Brekel

Web page: <http://www.hoofdhalskanker.info/>

Current external funding:

- Long term funding from Atos Medical Sweden
- Sta Op Tegen Kanker, Belgium
- Verwelius Stichting Naarden
- Stichting de Hoop

Participants in 2016:

- prof. dr. Michiel van den Brekel (NKI/AVL & ACLC), senior researcher, coordinator
- prof. dr. Olga Fischer (ACLC), senior researcher
- prof. dr. Frans Hilgers (NKI/AVL & ACLC)
- dr. Rob van Son (NKI/AVL & ACLC), senior researcher
- dr. Anne Bannink (ACLC), senior researcher
- dr. Lisette van der Molen (External members: NKI/AVL), senior researcher
- Prof. dr. Jean-Pierre Martens (External members: DSSP-ELIS Ghent University), senior researcher
- dr. Catherine Middag (External members: DSSP-ELIS Ghent University), senior researcher
- dr. Gwen van Nuffelen (External members: Antwerp University Hospital), senior researcher
- Renee Clapham (NKI/AVL & ACLC), PhD candidate on Rob van Son's project, September 2010 – September 2015
- Klaske van Sluis (NKI/AVL & ACLC), PhD candidate on Rob van Son's and Lisette van der Molen's project, September 2015
- Manon van der Laaken (ACLC), PhD candidate on Michiel van den Brekel's project, September 2016
- Sophie Kraaijenga (NKI/AVL), PhD candidate on Michiel van den Brekel's project September 2012 - January 2017

Description of the research group:

One of the key aims of these research projects is to investigate if, and how, speakers learn to compensate for changes in speech and voice as a result of head and neck cancer. It is assumed that physiological limitations constrain certain communicative and language functions, which can impact language behaviour. All research has a clinical focus and there are strong ties between the ACLC and the Netherlands Cancer Institute-Antoni van Leeuwenhoek. There is extensive collaboration with the DSSP-ELIS at Ghent University and the Antwerp University Hospital.

This research has five major branches:

- Phonetics of oncology-related pathological speech
- Automatic evaluation of oncology-related pathological speech (collaboration with Ghent University)
- Tele-Health applications and tools for Speech and Language Therapists collaboration with Ghent University and Antwerp University Hospital)
- Tools and resources for Speech Research and Speech and Language Therapists
- Conversation analysis of physician-patient interaction

Current PhD projects

- Predicting substitute voice source characteristics after laryngectomy. **Klaske van Sluis**
- Automatic evaluation of voice and speech intelligibility following treatment of head and neck cancer. **Renee Clapham**
- Physician-Patient communication about quality of life in head and neck cancer consultations. **Manon van der Laaken**
- Long-term oropharyngeal and laryngeal function in patients with advanced head and neck cancer. **Sophie Kraaijenga**

Research highlights in 2016:

- On May 27 2016, the ASISTO project organized a workshop in Antwerp “*The emerging role of e-Health tools for speech assessment and rehabilitation*”. In this workshop, the ASISTO e-Health tool was presented to speech and language pathologists and other health professionals. The ASISTO project formally ended in August 2016 and the tool has been made available to Speech and Language Pathologists and hospitals.
- **Sophie Kraaijenga** defended her thesis *Long-term oropharyngeal and laryngeal function in patients with advanced head and neck cancer*.
- **Klaske van Sluis** presented her research at the Interspeech 2016 conference in San Francisco showing that voice quality of laryngectomees who use an in-dwelling prosthesis remains stable over periods of 7 years and longer.
- **Manon van der Laaken** presented her research at the 2016 OCHER meeting in Oslo, showing how wellness is oriented to by both physicians and patients in follow-up cancer consultations.

Societal relevance:

Interactions in doctor-patient communication are a hot topic in psychosocial medicine. Our emphasis on conversation analysis and language aspects is quite new and will bring insights that can contribute to better interaction. This of course has an important impact on society. The development of tools to better assess and train patients with communication handicaps aims to have an impact on treatment. If indeed this will lead to better outcome, social functioning and quality of life, its impact in society is substantial.