

PETER SNIJDERS, PhD

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fter finishing high school in 1979, Peter served with the Dutch Airforce and started to study biology at the Catholic University in Nijmegen in 1980. He specialised in molecular biology under the supervision of Prof J.G.G Schoenmakers and prof RNH Konings with subsidiary subjects in chemical cytology and farmacology and graduated on May 26th 1997.

I met Peter for the first time in 1987, so already 30 years ago, when he started in my lab at the department of Pathology of the Vrije Universiteit with his PhD project "HPV and carcinomas of the aerodigestive tract" under the direct supervision of Jan Walboomers and myself. At that time, this was a real challenge since the role of HPV in cervical carcinomas was not well established and PCR technology was not yet well developed. During this project, Peter was instrumental in the development of general primer PCR's using degenerate primers based on highly conserved regions of amino acid sequence in papilloma viruses. This resulted in the GP5/6 primers which played an important role in the detection of hrHPV in different tissues and bodily fluids. Later on, the elongated primer version Gp5+/6+ consensus PCR was developed by which many HPV types including all high-risk HPV (hrHPV) types could be detected by one test. This last version is still in use in reference and clinical studies.

The starting hypothesis of Peter's PhD project was that transmission of HPV via sexual contact in the anogenital region might also involve oro-genital transmission. In the first year of his project, he mainly worked on laryngeal carcinomas and the outcomes of his studies were negative. However, when he started testing carcinomas more proximal to the mouth, i.e tonsillar and oropharyngeal carcinomas, striking results were obtained. Using both RT-PCR and RNA in situ hybridization, he was the first researcher to show in 1992 convincingly that HPV 16 and HPV33 E6/E7 transcripts were present in tonsillar carcinomas. He was awarded for his thesis with the judicium cum laude.

Directly after completion of his thesis, he successfully applied for a prestigious fellowship from the Dutch Royal Society of Academic Sciences (KNAW). During his fellowship in the years 1993-1996, he visited the lab of Lutz Gissmann at the *Deutsches Krebsforschungszentrum* in Heidelberg and the lab of Gerard Orth at the *Institut Pasteur* in Paris to exchange ideas and techniques.

Peter grew further into a broadly oriented molecular biologist with an ample view on molecular pathology. In 1997, he acquired the position of senior scientist at the department of Pathology of the VU University Medical Centre (VUMC) in Amsterdam. Because of his scientific abilities, he succeeded Jan Walboomers after his sudden death in 2000 as head of the molecular pathology lab of the department of Pathology at the VUMC. In 2006 he was appointed as professor of pathology with special emphasis on HPV-associated diseases.

Peter's contribution to the HPV field are many. To mention some: he played a great role in the standardisation of HPV tests which opened the way to the implementation of HPV-based screening programmes. As such, he stood at the basis of the HPV based screening programme which was introduced in the Netherlands in 2017. Peter was also very interested in the basic molecular mechanisms by which hrHPV induces cervical and head and neck carcinomas and translated the molecular insights into new biomarkers. New HPV and DNA methylation tests have been developed that were subsequently validated in clinical studies.

Peter was not only an excellent molecular biologist, but he was also very amiable and modest and had a contagious smile. These properties helped him to be involved in several international collaborative research projects of which the IARC studies on the global distribution of HPV are a nice example. Peter was hard working and always formulated his results in an precise way. For more than 20 years, Peter was the scientific group leader of the research programme "Oncogenesis" of the Comprehensive cancer Center Amsterdam. Because of his scientific merits, he was in

2014 appointed as one of the directors of the scientific board of CCA. For me as head of the department of Pathology, Peter was the ideal head of the molecular pathology lab. Pleasant to work with and scientific top. He has left us with more than 400 international publications and has supervised more than 40 PhD students.

Peter was also an enthusiastic and passionate teacher who could explain difficult scientific problems in a very clear way. He was regularly invited to teach at a postgraduate course or to give a keynote lecture at an international symposium or conference. During drinks and dinner, he was known for his jokes and laughter and animated story telling.

Besides being an excellent scientist, Peter also was very active in sports. He practiced indoor football for a long time, and later on became a meritorious distance runner and ice skater. He tried to do this with the same passion as he practiced science. For example, fifteen years ago, Peter was still a beginner in ice skating as this winter sport is not much practiced in his native region. After two years of toil on the skating court, he was the fastest of all of us. This characterized Peter who was always dedicated even when it concerned leisure activities. Although this was not to everyone's liking. At a limited triathlon in the hilly woods of France, he was attacked by a boar who was protecting his offspring. He noticed the chasing boar, managed to jump off his bike in time, but the boar went all in and destroyed his bike. The boar tumbled into the valley, but Peter was disappointed of not having finished the triathlon. Well, no medal this time but a good story to share at HPV conferences.

Two and a half year ago, Peter was diagnosed with oesophageal cancer. Although the

prognosis was poor, he was optimistic especially since no metastases were detected. However, despite successful curative surgery, three months later he developed severe nerve pains in his neck and armpit due to perineural tumor growth. He started to loose weight and obtained more intense nerve pains in his right arm, which were difficult to manage. Whenever his mind was clear enough from analgetica, he tried to work on papers and attended scientific meetings. In September 2017, he was congress president of Eurogin meeting in Amsterdam and later that year he still participated in the European consortium meeting CoheaHr. Just before he died, he was co-author of the excellent

review paper "the molecular landscape of head and neck cancer" which appeared in Nature reviews cancer and describes new insights into the molecular pathways and its clinical consequences in HPV associated oropharyngeal carcinomas.

The HPV field will miss Peter with his amiable smile, a top notch HPV researcher, very creative and entertaining. For all of us, the loss of Peter is a big blow, which is very difficult to overcome. More importantly, we miss a good friend and an exceptional colleague. We wish his wife Suzanne and his daughters Muriël and Nicole much strength to carry this big loss.