Editorial

A Cluster of Articles in Memory of Wim Jiskoot, Ph.D.

Wim Jiskoot died August 22 at the age of sixty years, three weeks after being diagnosed with incurable pancreatic cancer. He is survived by his partner Karin Hoogendoorn and his two children, Julia and Carlos. The biopharmaceutical science community suddenly lost a colleague who will be dearly missed. Wim was in the center of so many initiatives and had so many plans for the future, with a huge reach across organizations and disciplines. He was a friend as well as a trusted and valued colleague and his passing has left a hole that will be impossible to fill.

Wim Jiskoot was born in the Netherlands in 1961. He studied pharmacy at Utrecht University and received his master’s degree ‘cum laude’, a rare qualification in the Dutch academic world. During his master’s research project he worked at the Dutch Institute for Public Health and Environment, RIVM, on the development of (liposome-based) vaccines, a research direction that kept his interest over the years. He then started his thesis work at the department of Pharmaceutics at the same university on another subject that stayed with him during his whole career: pharmaceutical aspects of monoclonal antibodies. He finished his thesis work in July 1991. By the end of that year 9 articles with his name had been published. Then it was time to cross the Atlantic. He chose to work with Dr. James Herron at the University of Utah on the structural analysis of monoclonal antibodies. After his return to the Netherlands, he worked at the RIVM on vaccine development and in 1998 he returned to his ‘old’ department of Pharmaceutics as associate professor. Leiden University recruited Wim in 2006 as a full professor and head of the Biologics Formulation Group. His last career move came when he joined Coriolis Pharma in 2013 as a scientific advisor on a part-time basis. By that, he contributed to the exchange of knowledge between the academic and industrial communities of protein formulation scientists.

During his career Wim was active as a creative and productive researcher. As we love publication metrics here are some numbers: Wim Jiskoot was (co-)author of 338 articles that are highly cited; he has an h-factor of 69 and a number of citations of >18,000. He was also a great teacher, from the undergraduate courses in Leiden to conferences and workshops all over the world. He kept his audience engaged by a combination of his in-depth knowledge on the subject matter, his clarity on the presentation of the subject, all littered with funny associations. Wim did not forget his background as a pharmacist. Later in his career he bridged the gap between science and pharmacy practice by paying attention to handling of biologicals in practice and the impact on product stability.

Wim excelled at bringing scientists with different viewpoints and expertise together to reach a mutual understanding of the issues that needed to be addressed to make biopharmaceutical products safe, efficacious, and also affordable, and to begin working on solutions together. An example of this is his engagement and active contributions to various communities in AAPS (American Association of Pharmaceutical Scientists), where Wim shared his expertise in many disciplines of pharmaceutical sciences as well as his passion to enrich the knowledge base of protein drug development. A long-standing member of AAPS, Wim was invited to speak on numerous occasions in the AAPS National Biotechnology Conference and PharmSci360, including as a keynote speaker in the 2018 AAPS PharmSci 360 on Biomolecular Formulation and Quality. He was elevated to an AAPS Fellow in 2016, one of the highest honors given to members of the association, in recognition of his professional excellence in fields relevant to AAPS’ mission: to advance the capacity of pharmaceutical scientists to develop products and therapies that improve global health.

In his decades long involvement with the scientists focusing on protein aggregation (for the last 5 years in the BPABC Biopharmaceutical Product Attributes and Biological Consequences Community), we saw Wim in action in so many roles - a mentor, a friend, an expert researcher, and an outstanding collaborator. We all benefited from the vast knowledge base he brought to every meeting and every interaction. He reminded us every time of the importance of continuing to be a student in his eternal pursuit of learning, for example, of
protein product manufacturing. Many of us who collaborated with him over the years had the opportunity to see his discipline, commitment, generosity, insight, and humor. For a commentary article on protein drug substance manufacturing from the BPABC Community, Wim volunteered to do a comprehensive review of the manuscript and provided us with an astounding 435 edits/comments. He contributed as co-author to a couple of recent commentary articles on drug product production, as well as again providing comprehensive reviews for both articles (part of this cluster), and we are extremely fortunate that he saw the manuscripts in final preparation stages before we lost our friend to cancer. In an incredible example of Wim’s passion, generosity, and thoughtfulness, a few days before his death he provided us with appropriate contact information to ensure the article could continue to progress to publication smoothly, and thanked us for the ‘wonderful collaboration’. Cancer took him away but never was a match for his indomitable spirit. He wrote us in a ‘farewell’ message on Aug 10 “Yesterday I went to the hospital in style: cycling with Karin under a grey sky against the wind and rain”. Wim added “Luckily I am looking back to 60 fantastic, intensive years with ups and downs (without downs, there won’t be ups)....... I am grateful that I have been able to work with all of you, which has greatly contributed to my pleasure in work and life in general.”

That brings us to the man Wim Jiskoot. A very special person, indeed. A multi-talented colleague and friend. Where to start? A characteristic that definitely helped him in his career was his feeling for languages and his critical look at his own texts and the texts of others (remember the 435 edits above). An example of his attitude to identify and fight improper use of terminology is his Commentary in the Journal of Pharmaceutical Sciences in 20201. We cite the abstract here: ‘In this commentary I briefly discuss the term advanced therapy medicinal products (ATMPs)…… oftentimes ATMPs and products within the ATMP family are erroneously called therapies, which may raise confusion, as illustrated with some examples, and may lead to ignorance of the importance of pharmaceutical product quality. The first two words, advanced therapy, are arguable as well, because they do not accurately describe the products involved and advanced is a temporal description of therapies, many of which may not (yet) be advanced at all. It is recommended to avoid such confusing wording and instead call medicines by their proper name.’ He concluded with ‘what is advanced today may be routine or obsolete tomorrow…… while the A in ATMP may stand for Advanced today, eventually it will stand for Archaic.’!

Another characteristic of Wim Jiskoot was his planning and on time delivery of what he promised. Whether you were a Ph.D. student, co-author, book editor, congress organizer: Wim delivered on time, usually ahead of time. Together with his excellent command of the English language, as a non-native speaker, this attitude made him a sought-after as supervisor, mentor and colleague.

Wim was a sportsman. Biking, playing soccer and skiing were among the hobbies where he could relieve his mental pressures. Many colleagues accepted his invitation to join him in those endeavors getting acquainted with the sportsman Jiskoot next to the scientist. He was in an excellent condition until he heard the dreadful news of his disease.

Wim was an avid and talented photographer. His presentations usually contained several of his photographs, chosen to highlight key points in a unique and often amusing way, confirming the adage that a picture is worth a thousand words. While the rest of us had staid headshots as our portraits Wim’s was always a self-portrait with an interesting perspective. A side less well-known among his colleagues was his musical talent. Both in playing the flute and - in combination with his language skills- the song texts that he produced for many festive occasions: sharp, funny and (unfortunately) very true.

On August 22 we lost a great colleague and a friend. His impact and influence on the field is demonstrated by the breadth of articles included here, some of which he co-authored. These are but a sample of the different organizations and areas of research to which Wim was actively contributing (and often steering). With the cluster of articles in this issue of the Journal of Pharmaceutical Sciences we honor him.

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**Declaration of Interests**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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