

## Are microplastics poisonous? Guest researcher from France examines possible health risks

Toxicologist Dr. Valérie Fessard awarded the BfR's Maria Sibylla Merian Fellowship.

BfR Communication No. 038/2018 of 6 December 2018

The possible health risks of nano and microplastics are a topic of public discussion. They are also one of the main areas of focus of the work of Valérie Fessard. The toxicologist conducts research into food contaminants and is a research fellow at the German Federal Institute for Risk Assessment (BfR). Dr. Fessard has been involved with marine biotoxins (phycotoxins) and mycotoxins ever since she completed her dissertation in 1996, and has in the meantime expanded the scope of her work to include nano and microparticles.

After Professor Malcolm Macleod (University of Edinburgh), Dr. Valérie Fessard is now the second person to be awarded the Maria Sibylla Merian Fellowship by the BfR. With this fellowship programme, the BfR honours people who have distinguished themselves through their exceptional scientific performance. By doing so, the BfR is also expanding its international expertise and network of contacts.

Dr. Valérie Fessard works for the French Agency for Food, Environmental and Occupational Health and Safety (ANSES). Over the last three years, the Unit of Toxicology of Contaminants (ANSES Fougères Laboratory), of which she was co-director, and the BfR Food Safety Department headed by Prof. Dr. Alfonso Lampen, jointly investigated the uptake and effects of various aluminium nanoparticles in the Franco-German project "SoNanoTox" (2013 - 2018). In addition to this, the mechanisms of the potentially toxic effect of marine biotoxins were examined successfully by a mutual doctoral candidate.

During the fellowship, Dr. Valérie Fessard will be working for six weeks in the BfR department for Food Safety in Berlin. The plan is to publish the results of completed projects, pick up on new topics (including new 3D cell culture technology) and intensify the collaboration between ANSES and the BfR. In the course of the cooperation between the two institutes, Dr. Fessard will also be working at the BfR for a time in 2019 und 2020.

With the Maria Sibylla Merian Fellowship, the BfR promotes the transfer of knowledge between internationally renowned scientists and researchers at the BfR. The name was given by the BfR in honour of the natural scientist and artist *Maria Sibylla Merian* (1647 – 1717), who distinguished herself through her extraordinary pioneering spirit in the field of bio-scientific research at the turn of the 18<sup>th</sup> century. Merian's independent scientific achievements are an inspiration for the mission of the BfR in the field of consumer health protection.

### About the BfR

The German Federal Institute for Risk Assessment (BfR) is a scientifically independent institution within the portfolio of the Federal Ministry of Food and Agriculture (BMEL) in Germany. It advises the Federal Government and Federal Laender on questions of food, chemical and product safety. The BfR conducts its own research on topics that are closely linked to its assessment tasks.

More detailed information on the fellowship programmes at the BfR is available here:

[https://www.bfr.bund.de/en/fellowship\\_programmes-202754.html](https://www.bfr.bund.de/en/fellowship_programmes-202754.html)

*This text version is a translation of the original German text which is the only legally binding version.*