

SETAC EUROPE 27TH ANNUAL MEETING “ENVIRONMENTAL QUALITY THROUGH TRANSDISCIPLINARY COLLABORATION”

The SETAC Europe 27th Annual Meeting was held from 7th to 11th May 2017 at the SQUARE conference center, located close to the “Mont-des-Arts” in the city of Brussels (Belgium). Almost 30% of the attendees were students, so special occasions were set up for them, including the Mentorship Programme, a lunch seminar, a night party and a job event consisting of a speed dating platform, where students and companies could meet each other to discuss career opportunities. The 27th SETAC Europe started on Sunday with 5 parallel short courses and the Opening Ceremony where Professor Lora Fleming, from the University of Exeter (UK), gave an interesting plenary lecture entitled ‘Seas, Oceans, and Public Health in Europe’.

On Monday, the congress started with the first Morning Platform Session including 10 parallel presentations with different general topics such as wastewater effluents, nanoparticles, metals in the environment, environmental risk assessment and the effect of different stressors in the environment. At the same time, one Special Session called ‘Linking Oceans and Human Health: a new trans-disciplinary research challenge’ by Collin Janssen, Lora Fleming and Jan Mees began. Also, there were parallel Poster presentations and Poster corners in the Exhibition Hall up to the end of the day. After the Coffee Break, the second Morning Session started together with other 10 themes like environmental stressors, wildlife ecotoxicology or nanomaterials and toxicity. At this time, two other Special Sessions started: ‘The role of ecotoxicology in fisheries science and aquaculture’ by Marc Berntssen, Ketil Hylland and Craig Robinson; and ‘Toxicology and ecotoxicology: bridging the gaps’ by Dries Knapen, Dominique Lison, Bruno Campos and Maurice Whelan. Later on, there was the Student Mentor Lunch sponsored by Smithers Viscient. Following the break, 10 more presentations within the last Platform Session were done. After that, there was the moment for the Speaker of the day keynote, Geert Dancet, Executive Director of European Chemicals Agency (Finland), to talk about ‘10 years of REACH: Achievements, Scientific Challenges and Research Needs’. At the end, there was the Reddit online ‘Ask Me Anything’ in SETAC Square where people from the Congress could help answer questions to anyone curious about the science.

On Tuesday morning, the congress started with ten parallel sessions including special sessions. The student lunch seminar was conducted by Dr. Iain Davies, from Personal Care Products Council in the USA and was focused on the dissemination of environmental science to the general public. The afternoon presentations started with some new sessions and the continuation of others, including a special and think-outside-the-box sessions. After the coffee break, the Science Slam was celebrated, where three researchers or groups presented their projects in a fun and entertaining way.

Wednesday began with 10 sessions in parallel. The most prominent sessions were on plastics monitoring, endocrine disruptors and OMICS. Regarding the first of these sessions, aimed to highlight challenges in microplastic (MP) monitoring and predicting MP abundance and distribution, and to share and evaluate (new) methods for addressing observed challenges. We welcome contributions presenting studies focused on method optimization, contributions presenting a critical view on methods employed in particular studies, as well as contributions suggesting possible solutions to overcome identified obstacles. While problems related to ocean plastic litter pollution have been recognized since the early 1970’s, microplastic (MP) pollution of marine areas has been subjected to renewed focus in recent years. A number of recent publications have pinpointed that freshwater systems may also be at risk from MPs, mainly due to the release of particles and fibers from waste-water treatment

plants (WWTP). Although certain types of MPs may originate from focal points such as WWTP, plastics tend to travel large distances in the aquatic environment and many sources of plastic pollution are inherently more diffuse. This session highlighted 'Current methodologies for the isolation of microplastic pollution cannot account for all domestic microplastics' and followed of "The use of reference materials in microplastic research: general aspects" by Anne-Kathrin Barthel. Another presentation of this session was 'Associations of nanoplastic with freshwater algae traced using a novel fluorescence assay' presented by Corin Liddle (Heriot Watt University, UK). Another interesting presentation on 'Nano-sized polystyrene impact on individual and embryo of fish and trophic transfer in freshwater food chain" was given by Yooeun Chae, Konkuk University (South Korea).

On Thursday, the last day of the congress, a decrease in the number of attendees was observed in the different parallel sessions. The most interesting sessions were 'Analytics organic micro pollutants' and 'Increase relevance of toxicity assessment'. Among the different presentations on these topics, we would like to emphasize two: 'Breaking new ground in highthroughput analysis: MALDI-TOF MS for the quantitation of explosives in contaminated soil' by Sascha Kober (TUAS Wildau, Germany) and 'Screening for pharmaceuticals in wastewater and receiving seawater in Nuuk, Greenland' by Leendert Vergeynst (Aarhus University, Arctic Research Centre, Denmark). In the first presentation, the contaminants of explosives were analyzed in the soil using the MALDI-TOF technique and data were corroborated by LC-MS. The second one was about pharmaceuticals. Although these micropollutants have received increasing attention over the last 15 years, little information on the pollution levels of pharmaceuticals in arctic and sub-arctic environments is available. In Nuuk, the capital and largest city of Greenland, all industrial and domestic wastewater is discharged untreated in the surrounding sea. In this study, a broad screening for 205 pharmaceuticals in four wastewaters, including a hospital wastewater, a landfill percolate and their receiving seawaters in Nuuk was performed using a recently developed suspect screening method based on ultra-high performance liquid chromatography (UHPLC) and Orbitrap high-resolution mass spectrometry (HRMS).

The SETAC Europe 27th annual meeting in Brussels was a great success. There was a total of 2,079 attendees belonging to different sectors as academia, business and government, from more than 60 different countries around the world. The meeting congregated a total of 81 parallel sessions, 564 platform presentations, 54 exhibitors and 1,188 poster presentations.

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