Research seminar

Pharmaceuticals in the Environment (PiE) - From Troublemakers Toward Benign by Design

Students are eligible to 2 ECTS upon participation to the lectures on 9-10 November and to the visit to MWWTP and the problem-based learning session on 11 November.

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**Wednesday 9 Nov**

**Location:** University of Helsinki main building, Lecture room 12, Fabianinkatu 33, Helsinki

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**Identifying the Problem**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>10:00-10:10</td>
<td>Salutation, Dean Jouni Hirvonen, Faculty of Pharmacy, University of Helsinki</td>
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<tr>
<td>10:10-10:20</td>
<td>Welcome on behalf of the organizers,</td>
</tr>
<tr>
<td>10:30-12:00</td>
<td>Plenary: Green and Sustainable Pharmacy, Prof. Dr Klaus Kümmerer, Sustainable Chemistry and Material Resources, Leuphana University, Germany</td>
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</table>

*Lunch break*

<table>
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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>13:15-14:15</td>
<td>Pharmaindustry in Europe and the EFPIA environmental program, Dr Bengt Mattson, Co-Chair of the EFPIA Pharmaceuticals in the Environment</td>
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*Coffee break*

<table>
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<tbody>
<tr>
<td>14:45-15:45</td>
<td>PIE – Impact on the global antimicrobial resistance, Prof. Tanel Tenson, Institute of Technology, University of Tartu, Estonia</td>
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<tr>
<td>15:45-16:15</td>
<td>PIE – Local exposure and impact on living species, Researcher Lauri Äystö, The Finnish Environment Institute</td>
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<tr>
<td>16:15-16:45</td>
<td>PIE – The impact of biotransformation, Dr Tiina Sikanen, Faculty of Pharmacy, University of Helsinki</td>
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*Evening event* (more information will follow, limited seats)

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**Thursday 10 Nov**

**Location:** Psychologicum, Lecture hall A132, Siltavuorenpenger 1, Helsinki

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**From the Problem to Solutions**

**Drug discovery and development**

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<tr>
<td>9:00-10:30</td>
<td>Plenary: Benign by Design, Prof. Dr Klaus Kümmerer, Sustainable Chemistry and Material Resources, Leuphana University, Germany</td>
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*Coffee break*

<table>
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<tr>
<td>11:00-11:30</td>
<td>Natural product chemistry, Prof. Jari Yli-Kauhaluoma, Faculty of Pharmacy, University of Helsinki</td>
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<tr>
<td>11:30-12:00</td>
<td>The impact of drug formulation on a drug’s environmental exposure, Prof. Anne Juppo, Faculty of Pharmacy, University of Helsinki</td>
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*Lunch break*

**Waste water treatment**

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<tr>
<td>13:30-14:00</td>
<td>The reality at MWWTPs, Dr Mari Heinonen, Helsinki Region Environmental Services Authority</td>
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<tr>
<td>14:00-14:30</td>
<td>Drug accumulation in (water) environment &amp; risk assessment, Dr Niina Vieno, Law and Water Ltd</td>
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*Coffee break*

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<tr>
<td>14:45-15:30</td>
<td>Emerging water treatment technologies, Prof. Mika Määttäri, Lappeenranta University of Technology, School of Engineering Science</td>
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<tr>
<td>15:30-16:00</td>
<td>Discussion and Adjourn</td>
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<tr>
<td>16:00-17:00</td>
<td>Farewell event with servings</td>
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Registrations due 31 October 2016 via the e-form below: [https://elomake.helsinki.fi/lomakkeet/72069/lomake.html](https://elomake.helsinki.fi/lomakkeet/72069/lomake.html)
Researchers and seminars

Pharmaceuticals in the Environment (PiE) - From Troublemakers Toward Benign by Design

Friday 11 November 2016 (students only)

Students are eligible to 2 ECTS upon participation to the lectures on 9-10 November and the visit to MWWTP and the problem-based learning session on 11 November.

Location: University of Helsinki, Viikki campus, Lecture room 511, Infocenter Corona (5th floor), Viikinkaari 11, Helsinki

Problem-based learning

8:00-10:00 Visit to the Viikinmäki Municipal Waste Water Treatment Plant, Hernepellontie 24, Helsinki
Lunch break
11:30-12:00 Learning assignments, Prof. Jari Yli-Kauhaluoma, Dr Tiina Sikanen
12:00-14:00 Independent problem solving in groups, tutors available
Coffee break
14:30-15:00 Preparing the presentations in groups
15:00-16:00 Group presentations (solutions to learning assignments), Discussion, Q&A

More information on the seminar and/or the workshop:

Organizers:
Prof. Jari Yli-Kauhaluoma, E-mail: jari.yli-kauhaluoma@helsinki.fi, Phone: +358-2941-59170
Dr Tiina Sikanen, E-mail: tiina.sikanen@helsinki.fi, Phone: +358-2941-59173

More on the topic:
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pharmacygenerationgreen
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