the innovation society

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Newsflash

Issue

Dear Sir or Madam

Welcome to our August Newsflash of the Innovation Society, St.Gallen with the following News:

- Titanium Dioxide Nanoparticles can exacerbate colitis
- Nano-Medicine for the unborn child
- Effectiveness of hand washing in the removal of iron oxide nanoparticles from human skin ex vivo
- Nano-Antibiotics
- ECHA publishes REACH guidance for nanomaterials
- Internship "Emerging Risks / Nanotechnology"

Enjoy the reading and kind regards,

Christoph Meili
The Innovation Society, St. Gallen

Titanium Dioxide Nanoparticles can exacerbate colitis

Titanium dioxide is one of the most-produced nanoparticles worldwide and it is being used more and more in foodstuffs. When intestinal cells absorb titanium dioxide particles, this leads to increased inflammation and damage to the intestinal mucosa in mice with colitis. Researchers at the University of Zürich recommend that patients with colitis should avoid food containing titanium dioxide particles.

Read article

Nano-Medicine for the unborn child

A team of Swiss researchers has succeeded in developing a new three-dimensional cell model of the human placental barrier. The "model organ" can quickly and reliably deliver new information on the intake of substances, such as nano-particles, by the placental barrier and on any possible toxic effects for the unborn child. This knowledge can also be used in the future for the development of new approaches to therapy during pregnancy.

Read article

Effectiveness of hand washing in the removal of iron oxide nanoparticles from human skin ex vivo

In this study, the effectiveness of washing with soap and water in removing nanoparticles from exposed skin was investigated. Dry, nanoscale hematite (α-Fe2O3) or maghemite (γ-Fe2O3) powder, with primary particle diameters between 20–30 nm, were applied to two samples each of fresh and frozen ex vivo human skin in two independent experiments. The permeation of nanoparticles through skin, and the removal of nanoparticles after washing with soap and water were investigated.

Read article

Nano-Antibiotics

Antibiotic resistance is a growing problem, especially among a type of bacteria that are classified as “Gram-negative.” These bacteria have two cell membranes, making it more difficult for drugs to penetrate and kill the cells.

Read article

ECHA publishes REACH guidance for nanomaterials

ECHA has published five documents that will help registrants preparing dossiers that cover nanoforms ahead of the 2018 registration deadline. The documents include two new pieces of guidance as well as recommendations and updates of the existing guidance on nanomaterials.

Read article

Internship "Emerging Risks/Nanotechnology"

We are looking for an intern to join our team in St. Gallen.

Find the job opening **here** (German only)

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