Newsflash of the Innovation Society, St.Gallen Edition June 2017

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the innovation society	June 2017 Newsflash
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Nano cigarettes are less harmful	Welcome to our June newsflash of the Innovation Society, St. Gallen with the following News:
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Engineered Nanomaterials in the	Enjoy the reading and kind regards,
environment	The Innovation Society, St. Gallen
New Nanorama- Version for tablets and smartphones	
<u>SimplyNano 2</u> courses (in German)	
Internship "Emerging <u>Risks/</u> Nanotechnology"	

## Nano cigarettes are less harmful



Today's 31st May is World No Tobacco Day, which was launched by the WHO in 1987. Every year 6 million people die from the consequences of tobacco consumption. Tobacco smoke contains around 12,000 harmful substances. Among them are a number of carcinogenic substances, such as the reactive oxygen radicals. A group of scientists has now found a way to remove these radicals from the cigarette smoke with the help of nanoparticles, thus making smoking less harmful.

## **Ultimate Natural Sunscreen**



Chemists, materials scientists and nanoengineers at UC San Diego have created what may be the "ultimate natural sunscreen".

In a paper published in the American Chemical Society journal ACS Central Science, they report the development of nanoparticles that mimic the behavior of natural melanosomes, melanin-producing cell structures that protect our skin, eyes and other tissues from the harmful effects of ultraviolet radiation.

# The Complex Interplay of Nanosilver and Wheat Roots



Scientists have hypothesized that silver nanoparticles (Ag-NPs) may act as "Trojan horses" entering living organisms and then releasing silver cations (Ag+) over time, causing toxicity. This has been recently proposed as the mechanism by which Ag2S-NPs could be toxic to wheat and cowpea. New work by a team of French scientists evidences a more complex scheme – although the Trojan horse scenario is very likely to take place. Different reactions of the plant as a function of the initially used silver forms were determined. Data from this study showed drastic different responses of the plant depending upon the starting nanoparticles.

The NanoFate Model Assesses the Risk of Engineered Nanomaterials in the Environment



While there is currently no evidence that engineered nanomaterials (ENMs) pose a significant threat to the environment, many gaps in our knowledge remain with regard to ENM ecotoxicity. Researchers at the University of California, Santa Barbara, have developed a dynamic multimedia fate and transport model (nanoFate; not to be confused with the European NanoFATE project) to predict the time-dependent accumulation of metallic engineered nanomaterials across environmental media.

# Nanorama-Versions now available for tablets and smartphones!



The DGUV Nano-Portal contains aside from exhaustive information material also interactive 360°-Nanoramas, which depict standards for a safe work environment with nanomaterials in different job fields. These applications have now been optimised for use on mobile devices (tablets, smartphones). This allows the nanoramas to be used "on site" during training, without the need for a computer or laptop.

## New SimplyNano 2 courses (in German)



## 28.06.2017 SimplyNano 2 course in Erlen

06.09.2017 SimplyNano 2 course in Lachen

25.10.2017 SimplyNano 2 course in Domat/Ems

## 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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