# Medical Science and Nanoparticles Interfaces
# 2nd Meeting of the French Chapter of IMGA

Avril 2 and 3, 2026

Scientific Committee

Dr. Alexandra Gourlan, Grenoble
Pr. Laurent Charlet, Grenoble
Dr. Latifa Sarra Kazi Tani, Grenoble

ISTerre, Grenoble, France

# SCIENTIFIC PROGRAM

| Day 1 (April 2, 2026) | |
|---|---|
| 9 :00 | Welcome address and Opening session<br>**Céline Duwig** (DISCO Head, IRD) and **Laurent CHARLET** (ISTerre, Grenoble) |
| ***Session 1 - Natural Nanoparticle and human exposure pathways*** | |
| 9 :15 | *Introductory Lecture*<br>**Ben Gilbert**, LBNL and UC Berkeley, USA *Human exposure to Mineral nanomaterials through the ages: toxicity and social impact* |
| 10 :00 | **Coffee break** |
| 10 :30 | **Leon Kaub,** Institut Curie, Paris, France.Stuart Gilder, Andreas Büttner, Stefan Milz, Christoph Schmitz<br>*Magnetite nanoparticles in the brain: physiological, iron overload, or pollution?* |
| 11 :00 | **Ines Tomašek,** LMV**,** Clermont Ferrand, France.<br>*Respiratory toxicity of volcanic pollutants: insights from in vitro studies* |
| 11 :30 | **Catherine Mériaux** East African Institute for Fundamental Research (EAIFR), Rwanda and **Virginie Pinel,** ISTerre, Chambery, France<br>*Long term impact of volcanic activity on health in Western Rwanda* |
| 12 :00 | **Lunch and Poster** |
| ***Session 2 - Particles and Health: Risks and innovative Measurements*** | |
| 13 :30 | *Keynote*<br>**Gaëlle Uzu,** IGE, Grenoble, France.<br>*The rise of oxidative potential of atmospheric particles: from research to regulation* |
| 14 :15 | **Alexandra Gourlan,** ISTerre, Grenoble, France.<br>*Copper isotopes as emerging biomarkers in medicine* |
| 14 :45 | **Sanjana Sridhar et Lucie Sauzeat**<br>*The use of redox-sensitive metal stable isotopes to decipher the health effects of chronic exposure to metal-rich volcanic particles* |

| | |
|---|---|
| 15 :15 | **Coffee break** |
| 15 :45 | **Benoit Busser,** IAB, France.<br>*Nanoparticle exposure and LIBS tissue elemental analysis* |
| 16 :15 | **Stanislav Jelavic**<br>*DNA-clay interaction* |
| 16 :45 | **Andrij Holian et al.,** University Montana and **Michael Pollard** Scripps Institute, CA, USA (remote)<br>*Mineral clays as potential sources of environmental and occupational respiratory diseases* |
| | |
| Day 2 (April 3, 2026) | |
| ***Session 3 - Nanomedecine*** | |
| 09 :00 | *Keynote*<br>**Steve Conlan (remote),** British Nanomedecine Society, Swansea, UK.<br>*Ups and downs of "nanorobots", nanoparticle- based drug delivery systems* |
| 09 :45 | **Sylvain Bohic,** INSERM, IAB, Grenoble, France.<br>*Synchrotron for Nanomedicine: Tomography, FTIR, FluoX* |
| 10 :15 | **Coffeee Break** |
| 10:45 | **Aurore Van de Welle** and **Claire Wilhelm**, Institut Curie (CNRS, l'Inserm, Sorbonne Université et l'université Paris-Saclay), France.<br>*Biosynthesis of magnetic nanoparticles from nanodegradation products revealed in human stem cells* |
| 11 :15 | **Florence Gazeau**, LMSC, Université Paris-Cité, Paris, France.<br>*Nanomedicine Physics: Immunotherapy, T-cell migration into tumor and MRI* |
| 11 :45 | **Emmanuel Brun**, IAB, Grenoble, France.<br>*Revealing the micro and nano porosity in entire human teeth* |
| 12 :15 | **Lunch and Poster** |
| ***Session 4 - Particle induced diseases*** | |
| 13 :15 | *Keynote*<br>**Francesco Turci** and **Cristina Pavan,** Turin University, Italy. |

| | |
|---|---|
| | *Comparative Mechanisms of Toxicity of Asbestos, Crystalline Silica, and Engineered Stone Dust* |
| 14 : 00 | **Latifa Sarra Kazi Tani,** IRD and ISTerre, France<br>*Volcanic particle Volcanic Particles, Inflammation, and Podoconiosis: Pathophysiological Insights* |
| 14 :30 | **Coffee Break** |
| 15 :00 | **Laurent Charlet,** ISTerre, Grenoble, France<br>*Nanoparticle surface chemistry control on human toxicity* |
| 15 :30 | **Lucie Sancey,** Société Française de Nano medecine, Paris, France.<br>*Body fate of Nanoparticles: Absorption – Distribution- Elimination* |
| 16 :00 | **Discussion and Concluding Remarks** |
| 17 :00 | **Closing** |