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Ghibelli is a professor at the University of Rome Tor Vergata. In 1979, she graduated with a degree in biological science from the Università La Sapienza. She has served as a visiting scientist at the Karolinska Institutet; a visitor at the European Molecular Biology Laboratory in Heidelberg, and a research associate at the University

of Chicago. Her basic research is in the biomedical field, with a focus on intracellular mechanisms of apoptosis; intrinsic pathway, damage-induced apoptosis; cell response to oxidative stress; and the role of glutathione in apoptosis and survival pathways. She is the author of more than 200 publications and is a member of the Editorial Board of *Conference Papers in Science: Pharmacology*.



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Central South University, China, and National Institute of Science Education and Research, India. He is an Academician of the World Academy of Ceramics and a Fellow of the American Ceramic Society. He also acts as the International Ambassador of the University of Cologne. His research interests focus on various facets of chemical nanotechnologies with applications ranging from biocompatible materials, nanotoxicology studies, engineered surfaces, and new materials and devices for energy applications. He holds six patents and has authored/co-authored over 290 original research publications and has edited several books. He serves as the editor for the *Journal of Electroceramics* and as a principal editor of *Journal of Materials Research*.



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Baer is a Laboratory Fellow at Pacific Northwest National Laboratory (PNNL) and Science Lead for Energy Materials and Processes at the Environmental Molecular Sciences Laboratory, a US Department of Energy user facility located at PNNL. He received a BS degree in physics in 1969 from Carnegie Mellon University and a PhD degree in experimental physics in 1974

from Cornell University. Most of his research has explored the impact of surfaces and interfaces on material properties, including understanding the behaviors of nanoparticles in aqueous and biological systems. He has more than 250 publications, and his awards include the Albert Nerken Award from the American Vacuum Society and the John Rivière Prize of the UK Surface Analysis Forum. He is a member of MRS, ACS, APS, and AVS.



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Bhattacharya is an assistant professor in nanotoxicology at Karolinska Institutet. He received his PhD degree in toxicology from the University of Duisburg-Essen, Germany, and conducted his postdoctoral training at the Dublin Institute of Technology. He is focused on biodegradation of carbon-based nanomaterials by immune cells and on the potential endocrine disrupting effects of nanomaterials.



Jared M. Brown

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Brown is an assistant professor and director of the Toxicology Graduate Program in the Department of Pharmaceutical Sciences at the University of Colorado Anschutz Medical Campus. He has authored more than 50 publications and served on multiple study sections for the National Institutes of Health (NIH), US Food and Drug Administration, National Institute for Occupational Safety and Health, and several European

Union funding agencies related to nanoparticle toxicity. He is the recipient of the 2010 Outstanding New Environmental Scientist Award and serves as a project director on the NIH-funded Center for Nanotechnology Health Implications.



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Calatayud is a postdoctoral researcher at the Institute of Nanoscience of Aragón. She obtained her MSc degree in analytical chemistry in 2005 at the University of Zaragoza and her PhD degree in inorganic chemistry in 2009 at the University of Edinburgh. Her research is focused on the synthesis and characterization of magnetic nanoparticles and their applications in biomedicine, specifically in magnetic hyperthermia and neural regeneration.



Srinivasulu Chigurupati

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Chigurupati is a US Food and Drug Administration Commissioner's Fellow and visiting scientist at the National Institutes of Health. His research interests are in the mechanisms involved in neuronal damage, related to aging and chronic neurodegenerative diseases such as Alzheimer's, Parkinson's, and amyotrophic lateral sclerosis; and in the molecular basis of glioblastomas to

identify novel drug targets and develop new animal study protocols in neurooncology and neuroscience. His current project is on identifying novel neurotoxicity biomarkers through magnetic resonance imaging and magnetic resonance spectroscopy.



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Das is a research assistant professor in the Advanced Materials Processing and Analysis Center and the Nanoscience Technology Center, University of Central Florida. He obtained his master's degree in biochemistry from the University of Calcutta in 2004 and his PhD degree from the Indian Institute of Technology, Kharagpur, in 2009. His research focuses on the synthesis

and conjugation of biomolecules to rare-earth nanoparticles as targeted therapeutic agents and understanding the interaction mechanism of nanoparticles with cells. He has been awarded the GRC Young Investigator Speaker Award, CSIR Fellowship, Dr. D.S. Kothari Postdoctoral Fellowship, and the UCF 2012 Innovator Award.



Janet M. Dowding
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Dowding works at the Burnett School of Biomedical Science at the University of Central Florida. She earned a BS degree in biological sciences from Northern Illinois University, a MS degree in biological sciences from Illinois State University, and a PhD degree from UCF. Her doctoral research involved understanding how cerium oxide nanoparticles may scavenge the reactive nitrogen species NO• and peroxynitrite.

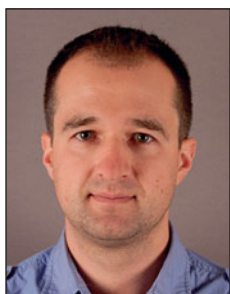
She was a 2012 UCF Innovator, and her research interests include application of nanomaterials to biomedical science and understanding nanoparticles' interaction with biomolecules and free radicals at the molecular level.



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Fadeel is professor of medical inflammation research and head of the Division of Molecular Toxicology, Institute of Environmental Medicine, Karolinska Institutet. He is also an adjunct professor of environmental and occupational health at the University of Pittsburgh. He is the past project coordinator of FP7-NANOMMUNE and is currently engaged in several other nano-

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Farcas is a postdoc and project manager at Karolinska Institutet. He received his PhD degree at the University of Agricultural Sciences and Veterinary Medicine in Romania and has previously worked on alternative methods to animal testing at the European Commission Joint Research Centre. His current research interests include immunotoxicity testing and risk assessment of engineered nanomaterials.



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Giannaccini is a postdoctoral researcher at Scuola Superiore Sant'Anna since 2013. She received her MSc degree in biology from the University of Pisa in 2008. She obtained her PhD degree from Scuola Superiore Sant'Anna in 2012. Her research interests focus on the use of the non-mammalian embryonic model systems to develop new drug nanocarriers.



Gerardo F. Goya
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Goya is a professor at the University of Zaragoza. He completed his PhD degree in 1995 at the University of La Plata, Argentina. Previously, he was an associate professor at the University of São Paulo, Brazil. He joined the Institute of Nanoscience of Aragón in 2005, starting a research line on nanomagnetism and biomedical applications of nanoparticles, mainly magnetic hyperthermia. He has over 120 publications

on nanomagnetism and bioapplications. He has led the design, development, and building of devices for measuring power absorption for magnetic hyperthermia, leading to his co-founding and scientific advisorship of nB Nanoscale Biomagnetics.



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Grafmueller is a doctoral candidate in the Graduate School for Cellular and Biomedical Sciences at the University of Berne. She received her diploma degree in molecular medicine from the University of Freiburg, Germany. Her current research in the Materials-Biology Interactions Laboratory at Empa focuses on the transport of nanomaterials across the human placental barrier.



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Hemmer is currently a postdoctoral researcher in the groups of Profs. Vetrone and Légaré at INRS-EMT. She received her Dipl.-Ing. (2004) and PhD (2008) degrees in materials science from Saarland University, Germany, under the mentorship of Sanjay Mathur. During her doctoral studies, she gained insight into the preparation and potential applications of lanthanide-containing

inorganic nanomaterials. She was a postdoctoral researcher with Kohei Soga at Tokyo University of Science, Japan. She focuses on lanthanide-based fluoride nanoparticles for bioimaging applications.



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Ibarra is a full professor at the University of Zaragoza since 1995. He obtained his PhD degree in physics in 1983. His research focuses on magnetism and magnetic materials, with a concentration on the magnetic properties of nanostructured materials and the application of nanotechnology in biomedicine. He is the author of more than 300 papers, and he holds several patents. He is the chairman of the European Physical Society and has been awarded

a Doctorate *Honoris Causa* by the AGH University of Science and Technology, Poland.



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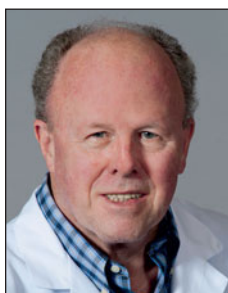
Kahru is the head of the Laboratory of Environmental Toxicology of the National Institute of Chemical Physics and Biophysics. She received her PhD degree in biochemistry from the University of Tartu, Estonia, in 1987. Her team was the first to conduct nanoeotoxicological studies of metal oxide nanoparticles, and she is the world's top 1% most cited scientists in the area of environment/ecology. In 2011, she received

the Estonian State Science Award for uncovering toxicity mechanisms of synthetic nanoparticles. She is also a founder (1997) and the president of the Estonian Society of Toxicology.



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Mattson is chief of the Laboratory of Neurosciences at the National Institute on Aging and a professor in the Department of Neuroscience at The Johns Hopkins University School of Medicine. He leads a research team that applies technologies in research aimed at understanding molecular and cellular mechanisms of brain aging and the pathogenesis of Alzheimer's, Parkinson's, and Huntington's diseases; and stroke. He has published more than 500 research articles.



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McGinnis is a professor in the departments of Cell Biology and Ophthalmology at Oklahoma University Center for Health Sciences, director of the Dean McGee Eye Institute Cell Imaging Core, and associate director of the Oklahoma Center for Neuroscience. His lab uses nanoceria to protect retinal neurons from reactive oxygen species-induced death in multiple animal models

for recessive and dominant forms of inherited retinal degeneration, age-related macular degeneration, diabetic retinopathy, retinoblastoma, and retinopathy of prematurity. Current efforts are focused on the demonstration of molecular mechanisms by which nanoceria function *in vivo*, and the advancement of nanoceria as an FDA-approved Investigational New Drug is safe for use in humans.



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Munusamy is a postdoctoral research fellow at Pacific Northwest National Laboratory. He received his MSc degree in applied polymer science from Martin Luther University, Germany, and his PhD degree from Virginia Tech, USA. His current research is focused on design, synthesis of nanoparticles with well-defined physicochemical properties, and formulation characterization to understand the relationship between nanomaterial properties and biological

effects for toxicology and risk-assessment studies. His other area of research is related to fabrication of silica-based hybrid nanostructures and characterization of adsorption and reactivity of biomolecules on cerium oxide nanoparticle surfaces.



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Petri-Fink is co-chair in BioNanomaterials at the Adolphe Merkle Institute (AMI), University of Fribourg. She received her PhD degree in chemistry from the University of Ulm, Germany, in 1999. After a first postdoc at the University of Gainesville, Florida, she joined the Institute of Materials Science at the École Polytechnique Fédérale de Lausanne, as a postdoc, then becoming a senior scientist. She joined the University of

Fribourg in 2009 and became a full professor at AMI in 2011. Her research focuses on inorganic nanoparticles and their synthesis, surfaces, and interaction with biological cells. She was invited to join Academia Net, a database of excellent women academics, in 2012.



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Podila is an assistant research professor in the Department of Physics and Astronomy and the Clemson Nanomaterials Center at Clemson University. He received his MS degree in physics from the Indian Institute of Technology at Roorkee in 2007 and a PhD degree in physics from Clemson University in 2011. He pursued his postdoctoral training at the Brody School of Medicine, East Carolina University, USA. His

current research is centered on biophysics at the nanoscale, soft condensed matter, and elucidating fundamental properties of nanomaterials through spectroscopy and their use in nanomedicine and energy applications. He is the recipient of Clemson's 2011 Outstanding Researcher Award.



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Raffa is a permanent researcher in the Department of Biology at the University of Pisa and is also an associate professor at the IMSaT Center of the University of Dundee, UK. She received her MSc degree in chemical engineering from the University of Pisa in 2001 and her PhD degree in microsystem from the University 'Tor Vergata' in Rome in 2006. From 2009–2011 she was an assistant professor in molecular biology at the Institute of Life Science of the Scuola

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with a view toward nanomaterial-based device applications in energy generation, storage, sensors, and nanomedicine. He is a recipient of the 2014 SC Governor's Award for Excellence in Research, and is a Fellow of the American Physical Society and the American Association for the Advancement of Science.



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Beatriz Sanz

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Sanz is with the Magnetic Hyperthermia group at the Institute of Nanoscience of Aragón working on the synthesis of magnetic nanoparticles, surface modification, and *in vitro* experiments on magnetic hyperthermia. She obtained her BSc degree in chemistry from the University of Zaragoza in 2010 and worked on pharmaceutical Co-crystals at the University of Edinburgh. She received her MSc degree on nanostructured

materials from the University of Zaragoza working on the synthesis of magnetic nanoparticles for biomedical applications.



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Seal is a UCF Distinguished Professor and Pegasus Professor and interim chair in Materials Science and Engineering, School of Medicine, and director of both the Advanced Materials Processing and Analysis Center and the Nanoscience Technology Center, University of Central Florida. He

is a Fellow of ASM, AVS, IoN, AAAS, NAI, ECS, and AIMBE, and a recipient of the Office of Naval Research Young Investigator Award. His current research involves functional nanoparticles for energy, biomedical and sensor applications, and green manufacturing. He has coauthored more than 300 papers, numerous book chapters, three books on nanotechnology, and has been awarded 38 patents.



William Self

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Self is an associate professor in the Burnett School of Biomedical Science at the University of Central Florida College of Medicine. His doctoral research at the University of Florida spurred his interest in metalloenzymes and the metabolism of molybdenum, and his interests expanded to include selenoproteins during his time as a Research Fellow at NIH. Since building his own group, he has maintained an interest in

metalloenzymes and oxidative stress and expanded his interest into the study of redox active nanomaterials. Current research seeks to define the molecular mechanism by which rare-earth oxides react with reactive oxygen and nitrogen species.

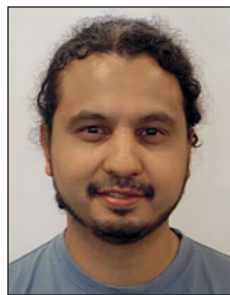


Kohei Soga

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Soga is a professor at Tokyo University of Science. After obtaining his PhD degree (1995) from the University of Tokyo, where he studied rare-earth-doped luminescent materials, he extended his research to photonic applications, focusing on optical communication. He began studying the physical properties of icosahedral cluster solids in 2000. Since 2004, he has been developing a bio-photonic system under NIR-excitation in

collaboration with bio-nanophotonics interdisciplinary research.



T.E. Torres

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Torres is a PhD student working on Cryo-Dual Beam Systems in the Advanced Laboratory of Microscopy at the University of Zaragoza. He received his BSc degree in 2004 from Universidad de Los Andes, Venezuela, and his MS degree in 2008 from the University of Zaragoza. He is working on the synthesis and characterization of magnetic nanoparticles for magnetic hyperthermia applications. He developed new

protocols based in DB for soft materials at low temperatures.



Fiorenzo Vetrone

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Vetrone is a professor of nanobiotechnology at INRS-EMT. He received his PhD degree in chemistry at Concordia University, Canada, followed by postdoctoral fellowships funded by the Natural Science and Engineering Research Council of Canada and the Royal Society (UK). His research activities are focused on near-infrared and multiphoton excited luminescent

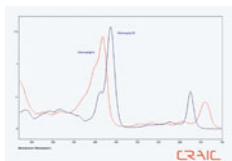
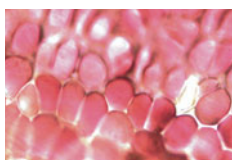
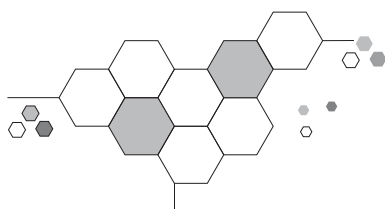
nanoparticles for use in the development of multifunctional nanoplatforms for diagnostics and therapeutics of various diseases.



Peter Wick

Empa, Swiss Federal Laboratories for Material Science and Technology, Switzerland; tel. +41 (58) 765-7684; and email peter.wick@empa.ch. Wick heads the Research Laboratory for Materials-Biology Interactions at Empa. He received his PhD degree in cell and molecular biology at the University of Fribourg, Switzerland. In 2002, he moved to Empa and began his research in nanosafety. His research interest focuses on studying the interactions of nanomaterials with human barrier tissues *in vitro* in order to obtain detailed mechanistic information about their

uptake, transport, and biological effects. He is a board member of the Swiss Action Plan for Synthetic Nanomaterials and an editorial board member of the journal *Nanotoxicology*.



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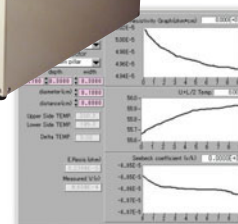
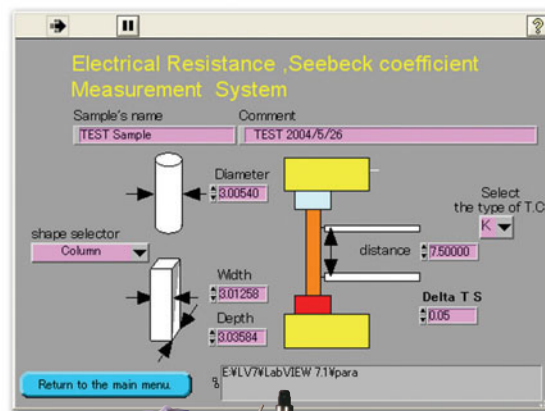
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