



William Smith meeting 2009: *Environment, Pollution and Human Health*
21 - 23 September 2009
Burlington House, London

Monday 21 September		Speaker	Title
08:30	Registration & coffee		
Chair	Éva Valsami-Jones		
09:30	Welcome & Introduction	Éva Valsami-Jones Natural History Museum	
09:40	Keynote	Paul Nathanail University of Nottingham & Land Quality Management Ltd	The role of regulatory science human health risk assessment of potentially contaminated land
10:20		Anna Bogush Siberian Branch, Russian Academy of Sciences	Natural and modified materials for mine waste treatment
10:40		Brigid O'Dochartaigh British Geological Survey	Groundwater And Soil Pollutants (GRASP): a screening tool applying soil geochemical data to assess threats to shallow groundwater quality in Glasgow, UK.
11:00	coffee & posters		
Chair	Karen Hudson-Edwards		
11:30		Kevin Leahy Environmental Resources Management Ltd	Environmental Risk to Groundwater from a Long-Lived Contaminant Source Area in the Context of Monitored Natural Attenuation
11:50		Steve Robertson Durham University	ROBUST - Regeneration Of Brownfield Using Sustainable Technologies
12:10		Joanna Wragg British Geological Survey	The fate of diffuse Pb pollution in urban soil; a case study from Sheffield, UK
12:30		Amy Barsby Queen's University, Belfast	Trace Element Abundance and Human Epidemiology in Northern Ireland - the Tellus Case Study
12:50	lunch		
Chair	Karen Hudson-Edwards		
14:00	Keynote	Philippe Van Cappellen Georgia Institute of Technology	Representing geomicrobial processes in environmental reactive transport models

14:40		Doug Stewart University of Leeds	Microbially mediated chromate reduction in hyperalkaline conditions
Chair	Éva Valsami-Jones		
15:00		Karen Hudson-Edwards University College London	Interaction of Flat and Stepped Jarosite Surfaces with Cd, Cu and Zn: A Computer Simulation Study
15:20	tea & posters		
16:00	William Smith lecture	Michael Hochella Virginia Tech	New Hidden Earth: Nanoparticles, and their Global Role in the Environment, Pollution, and Human Health
17:00	Conclusions, general discussion		
17:30	End of discussion		
	Conference dinner		

Tuesday 22 September		Speaker	Title
Chair	William Burgess		
09:00	Keynote	David Polya University of Manchester	Probabilistic risk assessment of groundwater arsenic in southern Asia – key uncertainties
09:40		Dragos Zaharescu Vigo University	Natural enrichment with arsenic in a high mountain cirque in the Pyrenees
Chair	David Polya		
10:00		William Burgess University College London	Deep 'arsenic-safe' groundwater in southern Bangladesh: vulnerability to arsenic invasion
10:20		David Alderton Royal Holloway (University of London)	Arsenic and antimony pollution from metal mining activities in FYR Macedonia
10:40		Bethan Hallett University College London	The mineralogy of fluorine in Granitic gneissic aquifers of Andhra Pradesh, India
11:00	coffee & posters		
11:30		Ciara Fitzpatrick University College London	Catchment Scale Bromate Contamination of the Hertfordshire Chalk Aquifer
11:50		Sally Homoncik Mountain Environments	Manganese concentrations in Scottish groundwater
12:10	public lecture	Patricia Bobeck Geotechnical Translation, Austin Texas	The Public Fountains of the City of Dijon
12:50	lunch		
Chair	David Polya		
14:00	Keynote	Mike Edmunds	Groundwater -the sweet water of life

		Oxford University	
14:40		Cathy Scheib British Geological Survey	Natural and anthropogenic radioactivity of Northern Ireland; variation in gamma dose rate
15:00	tea & posters		
15:40	Keynote	Jane Plant Imperial College London	The Anthropocene and Chemicals in the Environment
16:40	Conclusions, general discussion		
17:00	End of discussion		

Wednesday 23 September		Speaker	Title
Chair	Vala Ragnarsdottir		
	Keynote	Tim Jones Cardiff University	Assessing the bioreactivity of respirable volcanic ash by adsorption of biological macromolecules: a new geo-biology method
09:00		Lata Koshy Cardiff University	Geo-genomics of air and water pollution from landfills
09:40		Ann Power Edge Hill University	Historical trends of atmospheric particulate pollution deposition in northwest England: 200-year pollution archives reconstructed from urban ponds
10:00		Ana Valdés Université Paul Sabatier-Toulouse	Characterisation of the breathable particulate material present in the air of Santiago (Chile) by analyzing its mineralogical and geochemical components: impact on public health
10:20		Sylvaine Goix Université de Toulouse	Trace Metals Atmospheric Survey in the Mining Region of the Bolivian Altiplano
10:40			
11:00	coffee & posters		
11:30		Jennifer Le Blond University of Cambridge	Crystalline silica exposure during the burning of silica-rich biomass
11:50		Claire Horwell Durham University	Cristobalite in a rhyolitic lava dome: Evolution of ash hazard
		Mark Cave British Geological Survey	Assessment of the soil contribution to atmospheric particulates in the UK - Source apportionment monitoring over days years and decades
12:10		David Pyle University of Oxford	Mercury, metal and particulate emissions from volcanoes
12:30			
12:50	lunch		
Chair	Jane Plant		

14:00	Keynote	Jamie Lead University of Birmingham	Environmental behaviour and effects of manufactured nanoparticles
14:40		Deborah Berhanu Natural History Museum	Adapting characterisation and cell culture studies for nanotoxicity: The case of carbon nanotubes
15:00	tea & posters		
15:30		Pakatip Ruenraroengsak Imperial College London	Impact of surface chemistry and size on the reactivity and toxicity of latex nanoparticles on human lung alveolar epithelium in vitro
16:10		Andrew Thorley Imperial College London	The mechanisms of uptake of nanoparticles by human lung alveolar epithelium in vitro critically depends on surface chemistry and nano-size
16:30		Teresa Fernandes Napier University	Interspecies assessment reveals patterns of toxicity and uptake of Ag and CeO ₂ nanoparticles
16:50		Vala Ragnarsdottir University of Iceland	Earth Sciences Education for the 21st Century
17:10	Conclusions, general discussion		
17:30	Closing remarks, programme end		

POSTERS

Karen Hudson-Edwards	Soil Cd, Cu, Pb and Zn contaminants around Mount Isa city, Queensland, Australia: potential sources and risks to human health
Peinan He	Geochemical characteristics of heavy metal elements in the farm soil in Yibin area
Mohammed Isah	The Role of Environmental Impact Assessment in the Management of Nigeria's Oil and Gas Industry
Patrick Brown	Factors influencing the toxicity of fly ash from coal combustion
Hsiao-Chi Chuang	Bioreactivity of combustion-derived particulate matter
Samantha Walker	Sound science and policy development: a case study of pharmaceuticals in aquatic environments
Ana Valdés	Chemical and Mineralogical characterization of the River Huasco (Norte Chico, Chile)

Heather Price	The collection of airborne particulate matter to facilitate toxicological assessments
Heather Harrison	Studies of the impact of microbes in subsurface environments and their effects on the transport of contaminants
Anna Bogush	Behaviour of heavy metals in technogenic streams
Agnieszka Dybowska	Isotopic modification of ZnO nanoparticles for ecotoxicity testing
Superb Misra	Role of size, shape and chemistry in nanoparticle behaviour
Sinbad Sweeney	Differential reactivity of TiO ₂ with human lung alveolar epithelium in vitro: importance of physicochemistry
Tanja Radu	Mapping soil pollution using portable X-ray fluorescence (XRF) analyzer
Claire Horwell	A network for the study of the properties and respiratory health effects of natural mineral dust
Nere Ruiz	Impact of urbanization of heavy metals in soils
Sabina Michnowicz	The occupational and environmental health hazard of quarried volcanic deposits
Neil Breward	Environmental aspects and applications of regional geochemistry in eastern England
Debapriya Mondal	Comparison of arsenic-attributable risks from exposure through water and rice and water-borne pathogen-attributable risks after arsenic mitigation in West Bengal
Seema Khattak	Human exposure to groundwater arsenic in Allama Iqbal Town , Lahore, Punjab, Pakistan