

SIMSUG 2009 Wednesday, 14<sup>th</sup> January 2009, Hunter Halls East, University of Glasgow

14:00 Welcome

Session 1: Compound-Specific Isotope Analysis

Chair: Tom Preston

- 14:15-14:45 Keynote 1: James McCullagh, Oxford *"LC-IRMS: Development and application of methods for physiological amino acid isotope analysis"*
- 14:45-14:50 Original Communications (15 + 5 mins):
- 14:50-15:10 OC S1 Andreas Hilkert *"Improvements in Compound Specific Isotope Analysis"*
- 15:10-15:30 OC S2 Daniel Abaye *"Determination of <sup>13</sup>C abundance in underivatized amino acids by strong anion liquid chromatography coupled to IRMS"*
- 15:30-16:00 Tea with sponsors; posters
- 16:05-16:25 OC S3 Jennifer Dungait *"Analysis of lignin and carbohydrate components of soil organic matter using complementary TG-DSC-IRMS and GC-C-IRMS techniques"*
- 16:25-16:45 OC S4 Maanasa Raghavan *"Discerning Paleodiet through Compound-Specific Stable Isotope Analysis of Hair Keratin"*
- 16:45-17:05 OC S5 Rebeca Santamaria-Fernandez *"Precise and traceable absolute <sup>13</sup>C/<sup>12</sup>C isotope amount ratios by multicollector ICP-MS"*

19:00 for 19:30 [SIMSUG 2009 Dinner](#) in the Ferguson Room, University of Glasgow

SIMSUG 2009 Thursday, 15<sup>th</sup> January 2009, Hunter Halls East, University of Glasgow

Session 2: Food, Drugs, Forensics and Environment

Chair:

- 09:00-09:30 Keynote 2: Simon Kelly, IFR  
*"The application of stable isotope analysis to detect the adulteration of food"*
- 09:35-09:55 OC S6 Colin Snape *"Prospecting for drug cheats: a novel approach to carbon isotope ratio measurements of steroids"*
- 09:55-10:15 OC S7 Philippa Ascough *"Isotopic variations during formation of wood charcoal"*
- 10:15-10:35 OC S8 Tim Filley *"Productivity Driven Biopolymer Dynamics in Soil Organic Matter"*
- 10:35-11:05 Coffee with sponsors; posters
- 11:10-11:30 OC S9 Daniel Mayor *"Food quality affects carbon cycling in the deep sea"*
- 11:30-11:50 OC S10 Jens-Arne Subke *"Investigating carbon turnover in the Arctic tundra using a <sup>13</sup>C pulse-chase approach"*
- 11:50-12:10 OC S11 Lorna Street *"Tracking the fate of carbon in Arctic moss communities using <sup>13</sup>C isotope labelling"*
- 12:10-12:30 OC S12 Susan Waldron *"Delineating and quantifying dissolved inorganic carbon loss from peatlands"*
- 12:30- Buffet lunch in the Melville Room; posters

Session 3: Earth, Air and Water

Chair:

- 14:30-15:00 Keynote 3: Melanie Leng, BGS  
*"Combined oxygen and silicon isotope analysis of biogenic silica"*

- 15:05-15:25 OC S13 David Large *"Influence of climate and hydrology on carbon in an early Miocene peatland"*
- 15:25-15:55 Tea with sponsors; posters
- 16:00-16:20 OC S14 George Swann *"A combined oxygen and silicon diatom isotope record of rapid palaeoenvironmental change in Lake El'gygytgyn, North East Siberia"*
- 16:20-16:40 OC S15 Catherine Jex *"Calibration of Speleothem  $\delta^{18}O$  with Instrumental Climate Records from Turkey"*
- 16:40-17:00 Close

### SIMSUG 2009 Posters

- PO B2 Schierbeek *"Simultaneous measurement of both concentration and  $^{13}C$  enrichment of glutathione and glycine in one single run, using Liquid Chromatography Coupled to Isotope Ratio Mass Spectrometry (LC-IRMS)"*
- PO B3 Abaye *"Blood volume and red cell mass in children with moderate and severe malaria measured by chromium-53 dilution and GC/MS analysis"*
- PO B4 Moerdijk *"A versatile method for stable carbon-isotope ( $^{13}C$ ) analysis of carbohydrates by high-performance liquid chromatography – isotope ratio mass spectrometry"*
- PO B5 Barclay *"Stable Isotope Incorporation into Faecal Bacterial RNA Reflects Predictable Changes in Short Chain Fatty Acids"*
- PO B7 Small *"Production of Complex Metaprobes:  $^{13}C$ -Labelled Cereals"*
- PO B8 Preston *"Measuring the Liquid Phase Gastric Emptying Rate of Sip Feeds"*
- PO S1 Mander *"Estimation of Gastric Emptying parameters from the  $^{13}C$ -octanoate breath test using Bayesian hierarchical methods"*
- PO S2 Gamboa Delgado *"Effects of dietary protein supply and quality on  $\delta^{15}N$ ,  $\delta^{13}C$  discrimination in penaeid shrimp and contribution of protein sources to growth"*
- PO S3 Thornton *"Tracing photosynthate carbon from the tree canopy to forest soil micro-organisms"*
- PO S4 Granger *"The hydrological response of heavy clay soils to rainfall as assessed using  $\delta^3H$ "*
- PO S5 Murray *"Movement of newly assimilated carbon in the grass *Lolium perenne* and its incorporation into rhizosphere microbial DNA"*
- PO S6 Murray *"Temporal dynamics of a  $^{13}CO_2$  pulse in grassland mesocosms"*
- PO S7 Barrett *"Configuring a Continuous Flow GC-IRMS (Multi-collector) System for isotopomer Analyses of Nitrous Oxide"*
- PO S8 Dixon *"Nitrification rates and nitric oxide production at two depths of two contrasting soils following the addition of artificial cattle urine"*
- PO S9 Dixon *"Field scale spatial distribution of soil  $\delta^{13}C$  and  $\delta^{15}N$  under permanent grassland"*
- PO S10 Bass *"Temporal and Spatial Variation in  $\delta^{13}C$ -DIC and  $\delta^8O$ -DO: a case study using Loch Lomond, Scotland"*
- PO S11 Mayor *"Food quality affects carbon cycling in the deep sea"*
- PO S12 Price *"Evaluation of a new pyrolysis method for analysis of compound specific stable oxygen isotopes"*