

16 SEPTEMBER

Workshop

- 9.00 Transfer Trento → San Michele
- 9.30 – 10.00 Registration
- 10.00 – 11.00 GOOD PRACTICE IN IRMS ANALYSIS (part I), Speakers: Philip Dunn, Rebecca Kraft
- 11.00 – 11.15 Coffee break
- 11.15 – 13.10 GOOD PRACTICE IN IRMS ANALYSIS (part II) Speakers: Philip Dunn, Rebecca Kraft
13.10 – 14.00 Lunch
- 14.00 – 15.30 ISOSCAPE (part I), Speakers: Jason West, Gabriel Bowen, Stefano Larsen
- 15.30 – 15.45 Coffee break
- 15.45 – 17.00 ISOSCAPE (part II), Speakers: Jason West, Gabriel Bowen, Stefano Larsen
- 17.30 – 19.00 ICE BREAKING: Visit of the Ancient Wine Cellar & Wine Tasting
- 19.00/19.30 Transfer San Michele → Trento

7th Conference of the Forensic Isotope Ratio Mass Spectrometry Network

Programme

17 SEPTEMBER

- 8.30 Transfer Trento → San Michele
- 9.00 - 9.30 Registration and Poster installation
- 9:30 - 10.00 Welcome address
- Session 1: Isoscape/origin traceability chairs Philip Dunn, Jim Ehleringer**
- 10.00 - 11.00 *Jason West* (Department of Ecosystem Science and Management, Texas A&M University)
Progress and opportunities for the use of isoscapes in forensic science
- 11.00 - 11.30 Coffee break
- 11.30 - 11.50 *Sarah Magozzi* (Department of Geology and Geophysics, University of Utah)
Combining models of environment, behavior, and physiology to predict tissue hydrogen and oxygen isotope variance among individuals
- 11.50 - 12.10 *Fábio Costa* (Brazilian Federal Police)
Pinpointing timber origin with assignment tests using foliar isoscapes of Amazonian trees
- 12.10 - 12.30 *Florian Cueni* (University of Basel, DUW – Botany)

Predicting the Geographic Origin of Berries Using Mechanistic Oxygen and Hydrogen Stable Isotope Models

12.30 - 12.50 *Gabriel Bowen* (Department of Geology & Geophysics and Global Change and Sustainability Center; University of Utah)

Groundwater isoscapes for the contiguous USA

12.50 - 13.10 Discussion

13.10 - 14.00 Lunch

Session 2: Human Remains chairs *John Howa, Jeson West*

14.00 - 14.40 *Clement P. Bataille* (University of Ottawa)

Sulphur Isotopes in Human Hair: Diet vs. Provenance

14.40 – 15.00 *Lesley A. Chesson* (PAE, DPAA Laboratory, Joint Base Pearl Harbor-Hickam)

Development of the DPAA's isotope testing program for unidentified human remains

15.00 – 15.20 *Gregory E. Berg* (DPAA Laboratory, Joint Base Pearl Harbor-Hickam)

Classification(s) of Isotope Signatures in Unidentified Human Remains

15.20 - 15.40 *Christy J. Mancuso* (Department of Biology, University of New Mexico)

Using Amino Acid Specific Stable Isotope Ratios in Human Scalp Hair for Residency Determination

15.40 - 16.10 Coffee break

16.10 - 16.30 *Melanie M. Beasley* (Department of Anthropology, Purdue University)

Using $\delta^{15}\text{N}$ from Soldier Fly Larvae for Postmortem Interval (PMI) Estimation

16.30 - 16.50 *Gabriela B. Nardoto* (Department of Ecology, University of Brasília)

New perspectives in human forensic anthropology: linking social dimensions and diet through the stable isotopes in fingernails

16.50 - 17.10 *Tiffany B. Saul* (Forensic Institute for Research and Education, Middle Tennessee State University)

Postmortem Preservation of Isotope Ratios of Human Hair

17.10 - 17.30 Discussion

17.30 Poster session and Aperitiv

19.30 Transfer San Michele → Trento

18 SEPTEMBER

8.00 Transfer Trento → San Michele

Session 3: Food chairs *Federica Camin, Kylie Jones*

8.30 - 9.00 Registration

9.00 - 9.40 *Laura Gambino* (Department of Central Quality Inspection and Fraud Repression of Agri-Food Products (ICQRF) Italian Ministry of Agricultural, Food, Forestry and Tourism Policies (MIPAAFT) Laboratory of Catania)

Forensic application of stable isotope ratios analysis in official food control: Activity carried out by the ICQRF-Laboratory

9.40-10.00 *Pavel A. Solovyev* (Department of Food Quality and Nutrition, Research and Innovation Centre, Fondazione Edmund Mach)

IRMS, SNIF-NMR and Proton NMR in Wine Analysis

10.00 - 10.20 *Doris Potočnik* (Department of Environmental Sciences, Jožef Stefan Institute)

Development of new food matrix reference materials for stable isotope analysis

10.20 – 10.40 *Andreas Zitek* (FFoQSI GmbH - Austrian Competence Centre for Feed and Food Quality, Safety & Innovation, Technopark, Tulln)

Establishing a $^{87}\text{Sr}/^{86}\text{Sr}$ isotope ratio landscape of Austria for food provenancing

10.40 - 11.10 Coffee break

11.10 - 11.30 *Jose M. Moreno-Rojas* (Department of Food Science and Health. Andalusian Institute of Agricultural and Fisheries Research and Training, IFAPA)

The use of stable isotope ratios for the authentication of agrifood industry products in Andalusia

11.30 - 11.50 *Syahidah Akmal Muhammad* (Environmental Technology Division, School of Industrial Technology, Universiti Sains Malaysia)

Addressing the unfulfilled codex standard for honey for stingless bee honey through dehumidifying process

11.50 – 12.10 Discussion

12.10 - 13.00 Visit of the lab

13.00 – 14.00 Lunch

Session 4: QC method/sponsors chairs *Clement P. Bataille, Laura Gambino*

14.00 - 14.40 *Kylie Jones* (Forensics, Specialist Operations, Australian Federal Police)

Isotopic Databases for Operational Forensic Casework - Current Focus, Casework Examples and Future Plans for IRMS within the Australian Federal Police Laboratory

14.40 - 15.00 *Philip J. H. Dunn* (National Measurement Laboratory, LGC Ltd)

The FIRMS PT Scheme: What can be learned about inter-laboratory performance?

- 15.00 - 15.20 *Gwyneth Gordon* (School of Earth & Space Exploration, Arizona State University)
From hydrogen to uranium and back: QA/QC and reporting for radiogenic and heavy mass-dependent isotopes
- 15.20 - 15.40 *Jim Ehleringer* (School of Biological Sciences, University of Utah)
Stable isotope evidence introduced into U.S. courts
- 15.40 - 16.10 Coffee break
- 16.10 - 16.30 *Mario Tuthorn* (Thermo Fisher Scientific)
Advances in multi-element isotopic bulk analysis for forensic applications
- 16.30-16.50 *Mike Seed* (Elementar UK Ltd)
Introducing new quality control features for stable isotope laboratories using Elementar instruments and software
- 16.50 - 17.10 Discussion
- 17.45 Transfer for TheSocial Dinner
- 18.00 Social dinner at Cantine Rotari Mezzocorona
- 22.00/22.30 Transfer Cantine Rotari → Trento

19 SEPTEMBER

8.00 Transfer Trento → San Michele

Session 5: Drugs /environmental contamination chairs Lesley Chesson, Gabriel Bowen

8.30 - 9.00 Registration

9.00 - 9.20 *Frank Hülsemann* (German Sport University Cologne, Institute for Biochemistry)

Atypical $\delta^{13}\text{C}$ values of urinary norandrosterone in doping control analysis

9.20 - 9.40 *Loredana Iannella* (Laboratorio Antidoping, Federazione Medico Sportiva Italiana)

The IRMS anti-doping analysis: applications and current challenges

9.40 - 10.00 *Carlos Eduardo Souto de Oliveira* (EFS Pesquisa e Inovação, Brasil)

Application of traditional (Pb, Sr, Nd, C) and non-traditional (Zn, Cu, Fe, Cl) isotopes to discriminate and investigate pollutant sources in environmental contamination

10.00 - 10.20 *Thomas P. Doherty* (Picarro Inc)

A Spectral Analysis Method to Eliminate Methanol and Ethanol Interference with CRDS Measurements of Water Isotope Ratios

10.20 - 10.50 Coffee break

10.50 - 11.10 *Denis Werner* (Ecole des sciences criminelles (School of criminal justice, University of Lausanne)

Source inference of gasoline traces: implementation of a multiblock method to combine data from MS and IRMS

11.20 - 11.40 *Concetta Pironti* (Department of Chemistry and Biology, University of Salerno)

Biodegradation of commercial surfactants: identification of degradations products by stable isotope carbon composition

11.40 - 12.00 *Lisette M. Kootker* (Geology & Geochemistry cluster, Vrije Universiteit Amsterdam,)

Spatial variations in $^{87}\text{Sr}/^{86}\text{Sr}$ ratios in modern human dental enamel and tap water from the Netherlands: implications for forensic provenance studies

11.50 - 12.10 Discussion and Closing remarks

12.30 – 14.00 Lunch

14.00 Transfer San Michele → Trento