

## 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 degradation 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