

ISO-TOPICS: THE FIRMS NETWORK NEWSLETTER

September 2018

ABOUT US

The Forensic Isotope Ratio Mass Spectrometry (FIRMS) Network was founded to develop the scope of stable isotope techniques in forensic applications.

FIRMS brings together chemists, physicists, materials scientists, and life scientists who employ isotopic analysis in their respective fields. FIRMS is helping to focus collective knowledge and expertise on improving methods for crime detection and reduction.



We hope to see you at the 7th FIRMS Network Conference in San Michele all'Adige, Italy – September 2019!

WELCOME

Welcome to the FIRMS September 2018 newsletter. In this issue we present updates from around the FIRMS community, highlight recent and upcoming events, and provide a summary of the current year's papers of interest.

DISCLAIMER

Reference to or mention of any commercial product or process by specific trademark or manufacturer within this newsletter does not necessarily represent an endorsement by the FIRMS Network.

UPDATES FROM THE STEERING GROUP

The **7th FIRMS Network Conference will take place 16 to 19 September 2019** and will be hosted by the Fondazione Edmund Mach (FEM) in San Michele all'Adige, northern Italy. Please save the date. We look forward to learning about your novel research into, development of, or use of isotopic analysis for forensic application.

We hope you will help us spread the word about next year's conference

Material for advertising the 7th FIRMS Network Conference is available to download from the website. Following the conference, we also hope you will consider publishing in a special issue of the journal *Forensic Chemistry*.

The FIRMS Steering Group currently consists of: Phil Dunn (Director & Chair; LGC), Jim Carter (Director; Queensland Health Forensic and Scientific Services), Sean Doyle (Director, Quality Manager & Secretary; Linked Forensic Consultants Ltd), Federica Camin (FEM), Lesley Chesson (Communications Officer; PAE), Max Coleman (NASA Jet Propulsion Laboratory, Caltech), John Howa (IsoForensics, Inc.), Kylie Jones (Membership Secretary; Australian Federal Police); Gerard van der Peijl (Netherlands Forensic Institute); Rob Posey (Food Forensics); Helen Salouros (National Measurement Institute, Australia), Thomas Schaefer (Bundeskriminalamt), Libby Stern (FBI), David Widory (University of Quebec in Montreal), and Wee Chuan Yeo (Health Sciences Authority, Singapore).

The Steering Group—with hard work especially on the part of Directors Phil Dunn and Jim Carter—**this year published the second edition of the FIRMS Good Practice Guide to Isotope Ratio Mass Spectrometry.**

Copies of the latest edition of the Good Practice Guide are available to download from the website

If you or your colleagues find the good practice guide useful, we ask that you please consider making a small monetary donation to FIRMS via the donate button online. Please do not hesitate to contact us with any questions, concerns, or suggested edits to the good practice guide.

Additionally, the Steering Group will soon publish a separate **guide for forensic interpretation of isotopic results.** The guide is meant to provide general guidance on presenting opinions and conclusions that arise from examinations and will consider fundamental principles in evaluating isotopic results: information received, questions asked, and limitations.

You can join the [FIRMS Network LinkedIn Group](#) to stay informed with the latest news from the FIRMS community. A password-protected **digital repository of publications is available to members of FIRMS** via the website. The repository is designed to hold preprint copies of works published by FIRMS members that support the aim of the organization to raise awareness of the relevance and importance of isotopic analysis in forensic science, crime detection and reduction. If you would like to contribute a publication to the repository, please email news@forensic-isotopes.org.

NEWS AND NOTICES

FIRMS has completed transition and certification to the international quality standard ISO 9001:2015. Particular kudos are due to Director and Quality Manager Sean Doyle for overseeing the process.

*The FIRMS Network is currently the **only** organization in the world offering approval of forensic practitioners in the field of isotope forensics*

More information about the approval process for forensic practitioners through the FIRMS Network is available on the website. Note that the benefits of individual membership include eligibility to seek approval as a Lead Practitioner.

The **AGU 2018 Fall Meeting** will take place 10-14 December 2018 in Washington, D.C. Registration opens 5 September 2018 and abstracts on late-breaking topics will be accepted through 15 September 2018.

The **EGU General Assembly 2019** is scheduled for 7-12 April 2019 in Vienna, Austria. Abstract submission will open in October 2018 and close 10 January 2019.

Isotope applications were recently highlighted in stories about chemical forensics and forensic anthropology. A [news article](#) published 3 April 2018 by *Nature* described the utility of stable isotope ratios to investigate components used in the manufacture of chemical agents. In May, *Chemical & Engineering News* published a [podcast](#) on how isotopes recorded in tissues can help reveal the past lives of skeletal remains.

Finally, Professor Niamh Nic Daeid of the University of Dundee was recently named the recipient of the European Network of Forensic Science Institutes (ENFSI) Distinguished Forensic Scientist Award. Professor Nic Daeid has published several articles on forensic isotope applications to physical evidence, including plastic bags, wooden safety matches, and illicit drugs. Congratulations to her!

HIGHLIGHTED PUBLICATIONS

The virtual special issue of *Science & Justice* published following the 6th FIRMS Conference is now complete. Topics covered a honey inter-laboratory comparison, surveys of isotope variability in polyethylene and plastic cable ties, cocaine isoscapes, and palm oil authentication.

FIRMS Director and Quality Manager Sean Doyle will soon publish a stand-alone volume on *Quality Management in Forensic Science* (Elsevier Academic Press). Don't forget to add it to your wish list for Santa!

The journal *Oecologia* recently published a special issue honoring the career of Professor James R. Ehleringer (Volume 187, Issue 4). Professor Ehleringer has had a significant impact on the development of forensic isotope applications, particularly in the Americas, as highlighted in a review article within the special issue. Congratulations to him!

Two recent publications presented guidance for reporting isotope data in archaeological investigations: Szpak et al. 2017; Roberts et al. 2018. Together with an earlier publication on reporting stable-isotope ratios in ecological investigations (Bond and Hobson 2012), these papers should provide members with guidance when both writing and reviewing manuscripts.

PUBLICATIONS LIST

Disclaimer: This section contains a non-comprehensive list of recent publications that may be of interest to members. Inclusion does not necessarily mean that the FIRMS Network approves the content. You are encouraged to consider critically whether (i) the experimental work complies with SI guidelines and the Good Practice Guide; and (ii) the conclusions drawn are based on sound scientific background information.

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