



SCMMMS News

February 2023

Following on from the success of 2022, we have planned a series of exciting and interesting events for 2023 that includes an online workshop, local heat for IOM3 young persons' lecturer competition and monthly technical webinars focusing on advanced electron microscopy, battery materials, graphene, non-destructive testing, Raman spectroscopy etc.

As always, the SCMMMS Committee would like to hear from you if you have any thoughts on future themes we could cover, or if you wish to volunteer for a presentation. Please contact us using the details at the end. We look forward to welcome you for the forthcoming events.



IOM3 Award – The Local Society of the year 2022

Southern Counties Materials Minerals and Mining Society (SCMMMS) was presented the IOM3 **Local Society of the Year 2022** award at the Premier Awards Dinner, held at IOM3 headquarters in London. The award was received by Nilmini Dissanayake (Chair of SCMMMS), Ana Robador (The Secretary), Jasmine Bone (Social Media Manager) and Phil Duke (Industrial Representative - Defense) from the IOM3 President Neil Glover. SCMMMS also received a cash prize of £1000.

SCMMMS would like to thank IOM3 Awards Committee for the recognition.



1 - The award was presented at the IOM3 Premier Award Christmas Dinner

(From left - IOM3 President Neil Glover, Ana Robador, Nilmini Dissanayake, Phil Duke and Jasmine Bone)



2 - Award Winners 2022 *(Photo credit to MLR PHOTO/IOM3)*

Upcoming SCMMMS Events

How to write a scientific abstract

Thursday 2 February - 16:00 to 17:30



Southern Counties
Materials, Minerals
& Mining Society

Affiliated with **I-M3**

A short online workshop

HOW TO WRITE A SCIENTIFIC ABSTRACT

Delivered by **Dr. Carmen M. López** – National Physical Laboratory

2 February 2023 | 16:00 – 17:30 (GMT)

Writing abstracts is required in almost any STEM (Science, Technology, Engineering, and Mathematics) career path, regardless of whether it is industrial or academic. However, this important skill is rarely taught formally during formative years; the know-how is usually acquired by trial and error when a person is asked to provide an abstract for a publication, a competition, or even as a personal summary when applying for a job. Although there are many kinds of abstracts, there is some consensus on what parts must be included in a scientific one. In this short workshop, we will provide a formal explanation of these, study real examples, and practice writing an abstract. At the end of the workshop, the participants will be familiar with what is considered a good scientific abstract and have increased confidence when writing and evaluating it.

This online workshop is open to everybody, but it is aimed mainly at university students and young professionals in the early stages of their careers.



About the presenter
Dr. Carmen M. López is a senior scientist with more than 25 years of professional experience, including 12 + years in electrochemistry and Lithium-based batteries. She has initiated research programs in the USA, Spain, and Qatar, and is currently a part of a team of scientists developing standards and best practices for battery metrology in the UK, at the National Physical Laboratory (NPL). Dr. López has trained post-doctoral, Ph.D., and master's students in several countries and had taught chemistry at the University level in the United States.

Organised by the: Southern Counties Materials Minerals and Mining Society
IOM3 Local Society of the Year 2022
Contact: southerncountiesmmms@gmail.com


I-M3  **Approved for CPD 2023**

Registration link (FREE): [Online workshop - How to write a scientific abstract](#)

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Advanced electron microscopy for infectious disease control and clinical diagnostics

Thursday 9 February - 12:00 to 13:30




Southern Counties
Materials, Minerals
& Mining Society

Affiliated with **I-M3**

FREE EVENT

Advanced electron microscopy for infectious disease control and clinical diagnostics


9th February 2023 | 12:00 – 13:30 (GMT)



Chair: Dr. Ibolya E Kepiro *National Physical Laboratory, UK*

Challenges in healthcare and the route towards standardization

A challenge is to provide reproducible and quantitative measurements across different laboratories in experimental scientific work. This is critical in diagnostics and the pharmaceutical industry when consistent results are required in validation of procedures. We will show case studies in electron microscopy diagnostics with complementary imaging techniques characterizing samples from biopsy. During the webinar we will discuss working models and recent advances in standardization when reference materials are used to aid traceability in measurements as examples to implement in preclinical research and development.



The importance of standardization in laboratory medicine

Prof. Ian Young *Clinical professor, Queen's University, Belfast, UK and JCTLM*

Laboratory Medicine plays a central role in clinical decision making, guiding up to 70% of significant clinical decisions. In particular, biomarker derived clinical decision limits may be important in determining prognosis, making a diagnosis, and monitoring response to treatment in a range of settings. In this context, clinicians and patients expect laboratory results to be comparable across different laboratories, and consistent in relation to both time and place. While this has been achieved internationally for some analytes, for others significant between method differences persist which may lead to poor and inconsistent clinical decision making.


A range of international organisations collaborate to prioritize measurands for standardization and to promote standardization internationally, including the Joint Committee for Traceability in Laboratory Medicine (JCTLM), National Metrology Institutes, the International Consortium for the Harmonization of Clinical Laboratory Results (ICHCLR), and the International Federation for Clinical Chemistry and Laboratory Medicine (IFCC). Achieving measurement accuracy more widely will contribute to consistent decisions by clinicians, consistent decisions for patients, equitable implementation for policy makers, value for money for funders and easier adoption of emerging evidence and best practice.



Primary membranous glomerulonephritis (MGN) diagnosis in renal biopsies using correlative light and electron microscopy (CLEM)

Prof. Murray C Killinworth, YF Ng and T Cohen-Hyams
Correlative Microscopy and Nanopathology, NSW Health Pathology, Australia

The presence of PLA2R in glomerular deposits is assessed as part of the criteria used to establish a diagnosis of primary versus secondary membranous glomerulonephritis (MGN). This is usually done with immunohistochemistry and electron microscopy using two separate samples. A CLEM approach derives the same information from a single sample and provides enhanced information on the pathogenesis of MGN.




Clinical Pathology case studies using advanced imaging

Dr Patricia Goggin *Head of Biomedical imaging Unit, University Hospital Southampton, UK*

The Biomedical Imaging Unit is a joint NHS and University facility for light, X-ray and electron imaging. Our clinical samples include renal, neuro and respiratory samples for the diagnosis of Primary Ciliary Dyskinesia (PCD). I will cover some recent cases where the application of non-traditional TEM has been useful. These will include the use of TEM tomography to diagnose PCD, the application of SEM to foreign body identification and the use of X-ray computed tomography in lung granulomas.

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I-M3  **Approved for CPD 2023**

Registration link (FREE): [Advanced Electron Microscopy](#)


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Young Persons' Lecture Competition

Thursday 9 March - 16:00



2023 Young Persons' Lecture Competition
SCMMMS Local Heat
9 March 2023 | 4:00 PM (online)

**LOCAL HEATS**

SCMMMS invites abstracts from students and early career professionals **up to the age of 28** (on 1 June 2023) to deliver a short lecture (**12-15 minutes**) on materials, minerals, mining, packaging, clay technology and wood science and engineering related subjects. Open to members and non-members of IOM3.

The winner of the SCMMMS local heats will receive £250 as prize money and the opportunity to progress to the next stage* in the competition.

Interested entrants need to fill in the Entry Form accessible from the link below.

Deadline for entries: 17 February 2023

2023 YPLC Entry Form
(Select SCMMMS as your local society)

*Candidates compete in a series of heats organised by IOM3 Local Societies, from which regional finalists are selected to compete in the national final. The winner goes on to represent the UK in the Young Persons' World Lecture Competition.

For enquiries please contact – Carmen M. López (carmen.lopez@npl.co.uk)
Ana Robador (ana.robador@npl.co.uk)

Organised by the: Southern Counties Materials Minerals and Mining Society
Contact: southerncountiesmmms@gmail.com

Registration (FREE): [SCMMMS Local Heat YPLC 2023](#)

(Deadline for entries 17 Feb 2023)

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Membership of SCMMMS

If you are an existing member of IOM3, you can manage your profile to set SCMMMS as one of your preferred networks. This will help us keep you updated of our activities.

The committee is also trying to appoint **representatives in the universities** within the region to act as coordinators either to promote or organise the events. We are keen to hear your views on how best SCMMMS can support to act as a valuable network for students and practising researchers.

If you would like to support in the activities of the society, including interest in joining the committee, please email SCMMMS at southerncountiesmmms@gmail.com

Contact Us

Nilmini Dissanayake (Chair) / Ana Robador (Secretary)

southerncountiesmmms@gmail.com

