

### http://meteoriticalsociety.org

### **2023 INCOMING PRESIDENT ADDRESS**



It is a great honor and a pleasure to become President of the Meteoritical Society. I want to thank Past-President Brigitte Zanda for her term and for continuing to bring that experience to the Council to guide our society for the next two years. I'm also looking forward to beginning to work with Guy Consolmagno as the new Meteoritical Society Vice President. The role of Meteoritical Society Treasurer is crucial to the

functioning of our society, and I'm delighted that Tasha Dunn will be continuing in this position. A lot of responsibility for running our society falls to the Meteoritical Society Secretary, and I want to thank Munir Humayun for giving his time and effort to serve in this position for the last four years and to thank Jutta Zipfel for taking on this role. I'm excited about the team we have to lead the Meteoritical Society for the next two years, and we look forward to serving our community.

The Meteoritical Society has been a part of my professional life from the start of my scientific career. It was the first professional society that I joined, and the meeting in Berlin in 1996 was my second scientific conference. In many ways, I feel lucky to have stumbled my way into studying meteorites. As a graduate student at the University of Arizona, I entered with a physics degree and an interest in space science. During my second year, I started on a small project related to trace element partitioning in iron meteorites working with Mike Drake. It was my first experience with any geochemistry and lab work, but I was quickly hooked by the opportunities with meteorites as space science research that was so close that you could hold it in your hand.

Since that first introduction to the field, I've valued the many career experiences that have followed. Working at NASA Johnson Space Center with Carl Agee and John Jones expanded my experimental lab work, and at Case Western Reserve University with Ralph Harvey, it was a privilege to work on the Antarctic Search for Meteorites (ANSMET) project. My five ANSMET seasons also let me share field season experiences with many members of the Meteoritical Society, creating timeless memories and lasting friendships that I greatly value. For the last 18 years, I've been at the Johns Hopkins University Applied Physics Laboratory, where I've continued my meteorite research as well as had the opportunity to broaden into working on active space missions. From being on the MESSENGER team for the first orbital exploration of the planet Mercury to being on the DART team for the first demonstration of asteroid deflection, it has been a joy and a privilege to contribute to these exploration efforts. I'm honored and thrilled to be involved in the upcoming exploration by the MMX and BepiColombo missions. Each of these opportunities brings new science and discoveries on its own, though a common component to these missions is that they are accomplished by teams. It takes many people working together for years to accomplish these exploration advancements, and I find contributing to that larger effort to be immensely rewarding.

Similarly, bringing people together is at the core of the Meteoritical Society. One of the aspects that makes the Meteoritical Society a premier international organization is its truly international nature. A number of initiatives by the society have made an impact by creating and supporting opportunities for participation by scientists from across the globe. Continuing to build on those efforts to promote collaborative science internationally is an important aspect of our society. We are also living in a very exciting time for extraterrestrial samples, where spacecraft missions are positioned to increase the number and diversity of samples brought to Earth, and the analysis of meteorites and that knowledge provides the foundation for these sample return efforts. Recently returned samples from the *Hayabusa2* mission have

revealed new insights into primitive asteroids, and the delivery of samples from the *OSIRIS-REx* mission are highly anticipated for later this year. Meanwhile, samples are being cached on the surface of Mars, plans are underway for collecting samples from our Moon as well as on the Martian moon Phobos, and mission concepts are working toward acquiring samples from comets, the asteroid Ceres, and other bodies in the future. I find it inspiring that the expertise of Meteoritical Society members is shaping and leading these future scientific priorities for international space science exploration. The future of our field is clearly filled with fascinating possibilities, and by supporting early-career members of the Meteoritical Society to become future leaders of our field, I'm excited about our future and what our field, and our society, can accomplish together.

### Nancy L. Chabot

Johns Hopkins University Applied Physics Laboratory

### **OFFICERS AND COUNCIL MEMBERS**

The Meteoritical Society will consist of a number of new officers this year. Nancy Chabot (Johns Hopkins Applied Physics Lab, USA, see above) will be transitioning from Vice President to President, and Guy Consolmagno (Vatican Observatory, Vatican City State) will be the incoming Vice President. Jutta Zipfel (Senckenberg Naturmuseum and Forschungsinstitut, Germany) will serve as our new Secretary, and Tasha Dunn (Colby College, USA) will continue as our Treasurer. Brigitte Zanda (Muséum National d'Histoire Naturelle, France) will continue to serve, albeit in her new capacity as Past President. We thank this new slate of officers in advance for their efforts to lead the Meteoritical Society through the next two years.







Guy Consolmagno Jutta Zipfel

Tasha Dunn

Brigitte Zanda

The Meteoritical Society Council for 2023–2024 will consist of Henner Busemann (ETH Zürich, Switzerland), Byeon-Gak Choi (Seoul National University, South Korea), Alvaro Crosta (State University of Campinas, Brazil), Sarah Crowther (University of Manchester, UK), Elena Dobrica (University of Hawaii, USA), Denton Ebel (American Museum of Natural History, USA), Marina Ivanova (Vernadsky Institute, Russia), and Ann Nguyen (NASA Johnson Space Center, USA).

We would like to take this opportunity to sincerely thank Mini Wadhwa who is rotating off of the council after six years as an officer (as Vice President, President, and Past President), Munir Humayun who is rotating off of the council after three years as the society's Secretary, and Chris Herd, Kuljeet Marhas, and Takashi Mikouchi who are rotating off as councilors, for their years of dedicated service keeping the Meteoritical Society operating smoothly!

### STUDENT AWARD WINNERS FROM THE 2022 MEETING IN GLASGOW, SCOTLAND

The GORDON McKAY AWARD is given each year to the student who gives the best oral presentation at the annual meeting of the society. The award honors the memory of Gordon A. McKay and is supported by the McKay Fund, which was established in 2008 as a part of the Meteoritical Society's endowment. The McKay Award for the 85<sup>th</sup> Annual Meeting



FEBRUARY 2023

of the Meteoritical Society in Glasgow goes to Kaitlyn McCain (University of California, Los Angeles, USA) for the talk entitled "Early fluid activity on the Ryugu parent asteroid inferred from <sup>53</sup>Mn-<sup>53</sup>Cr ages of Ryugu carbonate." The award comes with a prize of US\$1,000 and a certificate.



The WILEY-BLACKWELL AWARD is presented for outstanding presentations by students at the annual meeting of the society. Wiley-Blackwell are the publishers of Meteoritics and Planetary Science and,

Kaitlyn McCain

Daniel Sheikh

for the 85<sup>th</sup> meeting in Glasgow, they sponsored five awards of US\$500 each. The winners for 2022 include Ishita Pal (University of Louisiana at Lafavette, USA) for the presentation "P-Nuclide enrichments in presolar graphite grains," Randolph Röhlen (Museum für Näturkunde Berlin, Germany) for the presentation "Core or mantle? Breakup of asteroid cores during impact in the late accretion phase," Daniel Sheikh (Portland State University, USA) for the presentation "Dunite clast in lunar meteorite Northwest Africa (NWA) 14900: Mantle derived?", Haoxuan Sun (Institut de Physique de Globe de Paris, France) for the presentation "Triple silicon isotopic fractionation between silicates and metal in enstatite chondrites," and Zoe Wilbur (University of Arizona, USA) for the presentation "Volcanic histories of lunar basalts revealed via 3D visualization."



Ishita Pal



Haoxuan Sun





Zoe Wilbur

### **ANNUAL MEETING SCHEDULE**

2023	13–18 August, Los Angeles, California, USA	
2024	28 July-2 August, Brussels, Belgium (EU)	
2025	13–18 July, Perth, Australia	
2026	Dates TBD, Frankfurt, Germany (EU)	

### **NEW METEORITICAL SOCIETY FELLOWS**



lean-Alix Barrat









Steve Desch

Kazuhide Nagashima





Eric Quirico

Maria Schönbächler

### THE BARRINGER FAMILY FUND FOR METEORITE **IMPACT RESEARCH**

The Barringer Crater Company has established a special fund to support field work by eligible students interested in the study of impact cratering processes. The Barringer Family Fund for Meteorite Impact Research will provide a number of competitive grants in the range of \$2,500 to \$5,000 for support of field research at known or suspected impact sites worldwide. Grant funds may be used to assist with travel and subsistence costs, as well as laboratory and computer analysis of research samples and findings. Masters, doctoral, and postdoctoral students enrolled in formal university programs are eligible. Application to the fund will be due by 7 April 2023, with notification of grant awards by 9 June 2023.

Additional details about the fund and its application process can be found at: www.lpi.usra.edu/science/kring/Awards/Barringer Fund.

### **RENEW YOUR MEMBERSHIP NOW!**

Please renew by 31 March 2023; after that date, a \$15 late fee will be assessed. You can easily renew online at meteoritical.org/ membership/join.

\* Note that this is a new website for membership renewal.









### http://meteoriticalsociety.org

### THANKS TO OUR SOCIETY'S COMMITTEE MEMBERS

The Meteoritical Society would like to extend its sincere thanks to all those members who are serving on society committees this year. We have listed their names below, with the names of the committee chairs in bold. Without the generous help of these members, the Met Soc could not function. We greatly appreciate their help!

Officers and Council			
Elected Officers and Co	ouncilors of the Society		
Nancy Chabot Guy Consolmagno Brigitte Zanda	President Vice President Past President		
lutta Zinfel	Secretary		
Tasha Dunn	Treasurer		
Candace Kohl	Deputy Treasurer		
Henner Busemann	Councilor		
Byeon-Gak Choi	Councilor		
Álvaro Crósta	Councilor		
Sarah Crowther	Councilor		
Elena Dobrică	Councilor		
Denton Ebel	Councilor		
Marina Ivanova	Councilor		
Ann Nguyen	Councilor		
Editorial	Personnel		
Editors of the Sec	inty's publications		
Tim lull	Editor of Mataoritics		
Thin Juli	and Planetary Science		
leff Catalano	Executive Editor		
Jen Catalano	of Geochimica et		
	Cosmochimica Acta		
Cari Corrigan	Editor of the		
	Meteoritical Society		
	contributions to		
Elements			
Leonard Med	al Committee		
Recommends candidate Nier Prize, and e	s for the Leonard Medal, lection of Fellows		
Zita Martins	2023		
Jeff Cuzzi (chair)	2024		
Alexander N. Krot	2025		
Larry R. Nittler	2026		
Audrey Bouvier	2027		
Barringer Awa	ard Committee		
Recommends candidate	s for the Barringer Award		
for outstanding worl crat	( in the field of impact ering		
Roger Gibson (chair)	2023		
Thomas Kenkmann	2024		
Ludovic Ferrière	2025		
Hasnaa Chennaoui	2026		
Aouajenane			
Publications Committee			
Oversight for the Sec	aty's journal Mataorities		

Oversight for the Societ	y's journal Meteoritics	
and Planeta	ry Science	
Janice Bishop	2023	
Mikhail Zolotov	2023	
lan Lyon	2023	
Susanne Schwenzer (chair) 2024		
Wataru Fujiya	2025	
Rhiannon Mayne	2025	
Ex officio member: Society Treasurer, Tasha Dunn		

Joint Publicati	ons Committee
Oversight of the jo	urnal Geochimica et
Cosmochi	imica Acta
Jon Friedrich (MS)	2023
Caroline Peacock (GS)	2023
<b>Conel Alexander (MS) (ch</b>	air) <b>2024</b>
Fang-Zhen Teng (GS)	2024
Matthew Fantle (GS)	2025
Maria Schönbächler (MS)	2025

### Endowment Committee

Oversees the Society	's investment fund
Dennis Harries	2024
Gary Huss	2024
Drew Barringer (co-chair)	2025
Rhian Jones (co-chair)	2025
Candace Kohl	2025
Ex officio member: Treasurer Society, Tasha Dunn	of the Meteoritical

Audit Committee		
Produces an audit of the T	reasurer's annual report	
for each fi	scal year	
Katherine Bermingham	2023	
Andrew Beck	2024	
Dominik Hezel (chair)	2025	

#### **Nomenclature Committee**

Defines guidelines for the naming of meteorites, and approves new names; publication of the *Meteoritical Bulletin* Database.

Cyrena Goodrich	2023	
Ansgar Greshake	2023	
Juliane Gross	2023	
Katherine Joy	2024	
Francis McCubbin (chair)	2024	
Bingkui Miao	2024	
Camille Cartier	2025	
Devin Schrader	2025	
Bidong Zhang	2025	
Ex officio members: Vice-President of the Society		
(Guy Consolmagno) and the Editors of the		
Mataaritical Pullatin (Jaroma C	attaccaca) and the	

Meteoritical Bulletin (Jerome Gattacceca) and the Meteoritical Bulletin Database (Jeff Grossman).

### **Pellas-Ryder Award Committee**

Recommends candidates for the Pellas-Ryder Award for the Best Student Paper in Planetary Sciences Marisa Palucis (GSA) 2023 Steven B. Simon (MS) 2023 (chair) Sam Birch (GSA) 2024 Aki Takigawa (MS) 2024 Ashley King (MS) 2025 Jen Piatek (GSA) 2025

### **Ethics ad hoc Committee**

Drafts Ethics Guide	elines for the Society
Natalia Artemieva	2023
Frevor Ireland (chair)	2023
Fracy Rushmer	2023

#### **Membership Committee**

Recruits and retains members;advises the Council on membership issues and<br/>the Service Award recipientBeda Hofmann2023Christian Koeberl2023Shigekazu Yoneda2023Shigekazu Amedia2024

Natasha Almeida	2024
Gretchen Benedix	2024
Romy Hanna (chair)	2025

#### McKay Award Committee

Nominates candidates for the best student<br/>presentation at the annual meetingAlex Ruzicka (chair)2023Ming-Chang Liu (vice-chair)2023

Jessberger Award Committee	
Recommends candidat mid-career female isot for the Jessberg	es of outstanding cope geochemists ger Award
Noriko Kita (vice-chair)	2023
Zita Martins (Leonard Medal	2023
Committee liaison)	
Sara Russell	2023
Thomas Stephan	2023
Mario Trieloff (chair) 2023	

#### **Outreach ad hoc Committee**

Publicizes the Society's content to the broader

scientific	community	
Adriana Araujo	2023	
Soukaina Arif	2023	
Sophie Benaroya	2023	
Philippe Claeys	2023	
Cari Corrigan	2023	
Dustin Dickens	2023	
Ania Losiak	2023	
Hayley Lowe	2023	
Gordon Osinski (chair	) 2025	
lan Sanders (Ed Scott	2023	
Lectures Lead)		
Petanki Soro	2023	
lason Williams	2023	

#### Nominating Committee

Responsible for nominations of the Society's Officers and Councilors

2023–2024 Committee Tim Swindle (chair) Tim Fagan Kuljeet Marhas Caroline Smith Myriam Telus Kai Wünnemann

#### **Impact Cratering Committee**

Defines criteria for the identification of impact craters/structures; publication of a terrestrial impact crater database

Sanna Alwmark	2023
Thomas Kenkmann	2023
Natalia Hauser	2024
Christian Koeberl	2024
Gordon Osiniski	2024
David Baratoux	2025
Aaron Cavosie (chair)	2025
Anne-Marie Pickersgill	2025
Ex officio mombors: Cuiv Co	nsolmagno (Vico Prosido

Ex officio members: Guy Consolmagno (Vice-President) and Ludovic Ferriere (Database Editor, 2026)



# **Swiss Geological Society**

### https://geolsoc.ch

The annual Swiss Geoscience meeting was held in Lausanne on November 18–19, 2022. During the meeting, the "Best Master's Thesis Award" from the Swiss Geological Society and the "Paul Niggli Medal" were presented. Since the 100<sup>th</sup> birthday of Paul Niggli in 1988, the medal has been awarded by the Paul Niggli Foundation. This medal is Switzerland's most prestigious "young scientist award" in Earth Sciences; it is open to researchers that are up to 35 years old or have received their doctorate in the last six years and work in the field of mineralogy, geochemistry, petrology, resource geology, or solid-Earth geophysics. For further information see the awards page on the SGS website at https://geolsoc.ch/en/awards/.

Below are short citations of the awardees. The committees of the two awards are looking forward to again receiving nominations of outstanding young scientists for these prizes.

With best wishes,

Jörg Hermann (President of the Swiss Geological Society)

### JULIANA TROCH RECEIVES THE 2022 PAUL NIGGLI MEDAL



The Board of the Paul Niggli Foundation decided, in their session on June 2, 2022, to award the Paul Niggli Medal for 2022 to **Dr. Juliana Troch** in recognition of her innovative research combining field work, experimental petrology, and modelling to understand the evolution of fluids in magmatic systems.

**Maria Schönbächler** (ETH Zürich) On behalf of the Foundation Council of the Paul Niggli Stiftung

The Paul Niggli Medal is Switzerland's most prestigious award for young Earth scientists who have made outstanding contributions in the research fields of mineralogy, geochemistry, petrology, resource geology, or solid-Earth geophysics. The Paul Niggli Medal honours and supports young ambassadors of Swiss geoscience, who are either Swiss citizens or obtained at least two of their academic degrees in the Swiss university system (BSc or MSc and usually their PhD).

The laudatio from Prof. Dr. Peter Ulmer and response of Dr. Juliana Troch can be found in the Swiss Journal of Geosciences volume 115, article 28, and is freely available at https://sjg.springeropen.com/ articles/10.1186/s00015-022-00428-7.

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# METEORITICAL SOCIETY ANNUAL MEETING SCHEDULE

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2024	28 July–2 August, Brussels, Belgium (EU)
2025	13–18 July, Perth, Australia
2026	Dates TBD, Frankfurt, Germany (EU)

### **RENEW YOUR MEMBERSHIP NOW!**

Don't forget to renew your society membership! You can renew online at: https://meteoritical.org/membership/join

### **2022 BEST THESIS AWARD**



The winner of the 2022 Best Thesis Award from the Swiss Geological Society is **Kim Lemke** from the University Bern, now at the University of Lausanne for the work:

### "Ophiolitic Relicts in the Cima-Lunga Unit and Adula Nappe (Central Alps): Timing the Transition from High-Pressure Melting to Amphibolite Facies."

Kim studied high-grade metamorphic rocks

from the Central Alps, focussing on petrography and petrology combined with trace element geochemistry and particularly the dating of metamorphic zircon and rutile. The jury was particularly impressed by Kim's data-rich thesis. The following are some citations from the nomination letter of supervisor Daniela Rubatto.

"The topic of the thesis is one of the 'holy grails' of Swiss Alpine geology and the work of Kim delivered new results. The outcome of the thesis is the geochemical proof of the oceanic setting for the protolith of the high-pressure rocks, the reconstruction of their metamorphic conditions, including new evidence for melting at depth, and the surprisingly tight timing of the subduction and collisional stages. The conclusions are novel and add significant constraints to the geology of the Central Alps in particular, and subduction processes in general.

Kim demonstrated a strong aptitude for research, driven by curiosity and interest; she was always ready to go the extra mile to achieve a better outcome, and she understood that research sometimes has to deal with setbacks and change of plans. The final thesis is excellent, in content and presentation."

> Jörg Hermann (SGS president) Daniela Rubatto (University of Berne)



### http://meteoriticalsociety.org

# REPORT OF THE METEORITE NOMENCLATURE COMMITTEE



The Nomenclature Committee (NomCom) continues to receive submissions at an increasing rate each year, so we are happy to report that Earth's supply of meteorites continues to grow. During the past year, the discovery of new meteorites continued, although some meteorite-collecting efforts have been postponed or paused since the start of the COVID-19 pandemic (e.g., ANSMET).

The work of the NomCom would be impossible if not for the dedication of many individuals, including all the NomCom members, meteorite finders and classifiers, and repository curators. In addition, I want to acknowledge the efforts of research scientists who have endeavored to automate and otherwise streamline the process of finding meteorites and/or figuring out where to find meteorites. These individuals develop excellent ideas and altruistically share them with the public to make hunting for meteorites a global activity in which almost anyone can participate. I would like to thank everyone mentioned above for their assiduous efforts to make the global inventory of meteorites a growing resource available for scientific study. I also want to acknowledge the global community of meteorite collectors because their interest and resources help to drive the demand to find new meteorites, and the scientific community continues to reap benefits from those efforts. Finally, we wish to welcome three new members of NomCom in January: Camille Cartier (Université de Lorraine, France), Bidong Zhang (UCLA, USA), and Guy Consolmagno (MetSoc Vice President ex-officio member; Vatican Observatory). We are very happy to have them on the NomCom!

NomCom is currently composed of nine appointed members: Francis McCubbin (Chair; NASA JSC, USA), Camille Cartier (Université de Lorraine, France), Cyrena Goodrich (Lunar and Planetary Institute, USA), Ansgar Greshake (Museum für Naturkunde, Germany), Juliane Gross (Rutgers University, USA), Katherine Joy (The University of Manchester, UK), Bengkui Miao (Guilin University of Technology, China), Devin Schrader (Deputy Editor, Arizona State University, USA), and Bidong Zhang (UCLA, USA); and three ex-officio NomCom members: Jérôme Gattacceca (MetBull Editor; CEREGE, France), Jeff Grossman (Database Editor, NASA, USA) and Guy Consolmagno (MetSoc Vice President; Vatican Observatory).

NomCom is a committee of The Meteoritical Society. The purpose of NomCom is to approve new meteorite names and classifications, and to establish guidelines and make decisions regarding the naming and classification of meteorites. New meteorites, dense collection areas, type-specimen repository collections, and revisions are published through the Meteoritical Bulletin and the Meteoritical Bulletin Database (MBDB) (https://www.lpi.usra.edu/meteor/).

As of this writing, there are 71,633 approved meteorites in the Meteoritical Bulletin Database, including 14,611 with a classification description.

*Meteorites and Dense Collection Areas:* The 2021 entries of the MBDB, totaling 2802 meteorites, have been published in the Meteorite Bulletin, No. 110 by Gattacceca et al. (2022). The full write-ups of 1532 non-Antarctic meteorites and supplementary tables can be found online as Supporting Information and in the MBDB archive. The MB 110 includes 10 approved falls as well as 38 new DCAs. Meteoritical Bulletin No. 111, containing new meteorites, dense collection areas, and type-specimen repositories approved in 2022, is in preparation and will be submitted later this year to *Meteoritics & Planetary Science*.

**Meteorite naming:** Remember to send your write-ups for new and provisional names to NomCom at least four weeks before submitting your conference abstract or manuscript to journals to avoid potential issues with naming and classification, which can delay publication. The release of the write-up to the database may be held on request if there is an embargo from publishers.

Finally, please do not hesitate to contact us with questions or concerns about the NomCom, especially with suggestions for improvement (metbulleditor@gmail.com).

#### **Francis McCubbin**

Chair of the Nomenclature Committee NASA Johnson Space Center

### REFERENCE

Gattacceca J and 11 coauthors (2022) The Meteoritical Bulletin, No. 110. Meteoritics & Planetary Science 57, 2102-2105, doi: 10.1111/maps.13918

### PAUL PELLAS / GRAHAM RYDER AWARD WINNER

The Pellas-Ryder Award for the best student paper in planetary sciences is jointly sponsored by the Meteoritical Society and the Planetary Geology Division of the Geological Society of America. It is awarded to an undergraduate or graduate student who is first author of the best planetary science paper published in a peer-reviewed scientific journal during the year prior to the award. The award has been given since 2001 and honors the memories of meteoriticist Paul Pellas and lunar scientist Graham Ryder.



**Hui Ching Jupiter Cheng**, who obtained a PhD in 2023 from the University of Georgia, Athens, GA, USA, is a co-winner of the 2023 Pellas-Ryder Award for the paper entitled "Structural relationships in and around the Rheasilvia basin on Vesta," published in the Journal of Structural Geology in 2022. Jupiter performed a thorough, detailed structural analysis of the basin, and found, contrary to previous interpretations, that the Divalia Fossae cross-cut the basin and are not

concentric around the basin center, therefore forming after it and are not directly related to the impact that formed the basin. This work is likely to inspire follow-up studies, leading to re-examination of the formation of the Rheasilvia basin and improvement of our understanding of Vesta.



**C. Adeene Denton**, who obtained a PhD in 2022 from Purdue University, West Lafayette, IN, USA, is a co-winner of the 2023 Pellas-Ryder Award for the paper entitled "Tracking the evolution of an ocean within Mimas using the Herschel impact basin," published in Geophysical Research Letters in 2022. Adeene modeled impacts into an icy moon with an ice shell and underlying ocean of varying thicknesses to understand the formation of the Herschel basin on the Saturnian moon

Mimas. The results place constraints on the thickness of the ice shell at the time of impact and have implications for the evolution of Mimas' shell and its ocean post-impact, and for our understanding of icy moons in general.

Congratulations to the 2023 co-winners for this highly deserved honor and for leading these impressive studies! We also thank everyone who submitted nomination packages and the Pellas-Ryder Award Committee for their work to make this award possible.

### IN MEMORIAM: DIETER STÖFFLER (1939–2023)

It is with profound sadness that we report that our dear friend, mentor, and colleague, Dieter Stöffler, passed away on 5 April 2023. Dieter's name is synonymous with "Ries impact crater, shock metamorphism, lunar science, meteoritics, and litho-panspermia." During his successful career, Dieter was Professor of Petrography and Economic Geology at the Westfälische Wilhelms-Universität in Münster, Germany (1974–1987), then the founding Director of the Institute of Planetology and Professor of Cosmic Mineralogy. In 1993, he transferred to the Museum für Naturkunde in Berlin as Professor of Mineralogy and Petrography at Humboldt Universität zu Berlin (HUB). He was Director of the Museum until 1999, and of the HUB Institute of Mineralogy until 2004, when he retired and became Professor Emeritus



(though he remained active until 2018). He supervised more than 20 diploma/MSc and 30 doctoral projects, published extensively, and provided funding for a host of prestigious research projects.

Dieter's legacy was built on the application of four lines of research: crater geological, petrographic, shock experimental, and numerical modeling studies. Foremost is his seminal work on shock metamorphism. He and Wolf von Engelhardt established the concept of progressive shock metamorphism at the Ries crater, followed by many petrographic and shock studies on terrestrial impactites, lunar breccias, and meteorites. His shock classifications for major rock-forming minerals are still being put to use. His petrographic findings were calibrated by shock recovery experiments, and numerical modeling was widely employed by his group in cratering and shock studies.

Over five decades, Dieter, with numerous students, postdocs, and colleagues, completed numerous projects. These included crater studies of Sudbury, Haughton, West Clearwater, and a suite of Scandinavian craters. Dieter was the PI of the ICDP's Yaxcopoil-1 Drilling Consortium at Chicxulub. He was involved with pilot studies regarding asteroid and comet sampling missions with ESA and NASA

### **GIFTS AND GRANTS GUIDELINES**

The stated mission of the Meteoritical Society is "to promote research and education in planetary science with emphasis on studies of meteorites and other extraterrestrial materials that further our understanding of the origin and history of the solar system." Besides the Society's publications, the annual scientific meetings, establishing official names for newly found meteorites, and the awards sponsored by the Society, there are other ways by which we work toward furthering our mission. This includes supporting student travel to conferences and workshops, supporting student research, assisting scientists from economically disadvantaged countries, supporting classes or field schools, especially those that bring meteoritics and planetary science to developing countries, compiling oral histories from prominent members of the Society, and supporting outreach to the broader public community on meteoritics and planetary science.

To support these activities, the Society has created an Endowment Fund. The majority of the Endowment consists of the *General Fund*, which can support one-time activities that are not part of the normal Society business. The Endowment Fund also has named funds, the *Nier Fund*, the *McKay Fund*, and the *TIM Fund*, which were established for specific purposes. Details about activities supported by all of these Funds can be found under: Activities Supported on the society website.

committees, including the Rosetta mission to comet 67P/Churyumov-Gerasimenko. With scientists from the DLR (Deutsches Institut für Luft- und Raumfahrt) and Ernst-Mach-Institut für Kurzzeit-Dynamik, Dieter developed a test program for the Lithopanspermia hypothesis that suggested that primitive lifeforms could sustain high shock conditions, a fundamental requirement for transfer of life between planetary bodies. Dieter was also dedicated to public outreach and education, spearheaded the establishment of the first-class planetary science museum in the Ries crater in Nördlingen, and developed the ZERIN (Zentrum for Ries-Krater-Forschung in Nördlingen) facility. These institutions were the foundation for the creation of the Global Geopark Ries. Dieter took the helm of the

Museum für Naturkunde Berlin in 1993 and initiated a reawakening of this formidable institution after its slumber during East German times.

Dieter Stöffler was awarded national/international recognition for his achievements, including the Gottfried-Wilhelm-Leibniz Prize, the naming of asteroid 4283 (1988) "Stöffler", the Barringer Medal for Impact Cratering Research, Fellowship in the Meteoritical Society, Membership in the Berlin-Brandenburg Academy of Sciences, Membership in the German National Academy of Sciences Leopoldina, and the Ries Cultural Award. Dieter served the Meteoritical Society for many years, organizing the Annual Meeting in Berlin (1996) and as Society President (1997–1998).

Dieter is survived by his partner, Heide Schmidt-Schubert, his two sons, Dirk and Bernd, and granddaughter, Luca.

### Wolf Uwe Reimold, Natasha Artemieva, Lutz Hecht, Thomas Kenkmann, Falko Langenhorst, Kai Wuennemann

\* For the full version of this tribute to Dieter, please see the Society website.

For those who wish to assist in this mission, donations can be made to the General Fund or to any of the specific Funds (see Ways to Contribute on the society website).

### **ANNUAL MEETING SCHEDULE**

2023	(86 <sup>th</sup> Annual Meeting) August 13–18, Los Angeles, USA
2024	(87 <sup>th</sup> Annual Meeting) July 28–Aug 2, Brussels, Belgium
2025	(88 <sup>th</sup> Annual Meeting) July 14–18, Perth, Australia
2026	(89 <sup>th</sup> Annual Meeting) July/August TBD, Frankfurt, Germany

### **RENEW YOUR MEMBERSHIP NOW!**

Please don't forget to renew your membership for 2023. Students, this is particularly important if you are interested in applying for one of our student presentation awards, as you must be a member to be eligible. You can renew online at https://meteoritical.org/membership/join.



### http://meteoriticalsociety.org

### **2023 METEORITICAL SOCIETY TREASURER'S REPORT**



Tasha Dunn

The Society's finances continue to be on a sound footing and both the Operating Fund and our Investment Fund are currently very healthy. I will present a full report of our finances at the annual meeting in Los Angeles.

This fall, the Endowment Committee, with the support of the Council, elected to transfer management of our investment fund from Merrill Lynch to D. A. Davidson & Co. Though the performance of the investment fund at Merrill Lynch

was satisfactory, the lack of communication and engagement with our investment manager was problematic. The Endowment Committee discussed several options for new investment managers and met with representatives from D. A. Davidson and Morgan Stanley. After these meetings, the endowment committee unanimously agreed to support a move to D. A. Davidson. The Council approved this recommendation at the annual meeting in Glasgow, Scotland.

In November of 2022, the balance of the Merrill Lynch investment fund (\$1,931,972) was transferred to D. A. Davidson. After consulting with our D. A. Davidson fund manager, Andrew Cromwell, the Endowment Committee elected to pursue a moderate risk asset allocation, with 73% invested in equities, 19% in fixed income, 7% in multi-assets, and 1% in cash. Despite a challenging financial market, the investment fund has grown steadily since the transfer to D. A. Davidson. As of April 30, 2023, the balance of the investment fund was \$2,170,354.

The investment fund is distributed across six endowed funds, five of which support our awards (the Nier Prize, the Gordon A. McKay Award, and the Elmar K. Jessberger Award) and member travel to annual meetings. The Travel for International Members (TIM) Fund supports travel for members from low-income countries, while the O. Richard Norton Fund supports travel for early career scientists.

The largest fund is the General Endowment Fund, which supports a variety of outreach projects, research grants, and travel to annual meetings. In accordance with current investing guidelines, 4% of the fund balance is allocated for spending each year. At the end of the last fiscal year (May 31 2022), the balance of the general endowment was \$1,503,605. Thus, \$60,000 was allocated for spending during the 2023 fiscal year (June 1, 2022–May 31, 2023). During this time, the Endowment Committee awarded more than \$36,000 in grants and provided \$16,000 in travel support to the 2022 meeting in Glasgow. Please see the website for a list of recently funded grants: https://meteoritical.org/news/endowment-fund-grants-announced.

This fiscal year (June 1, 2023–May 31, 2024), more than \$63,000 from the general endowment will be available to support member outreach, research, and travel. Requests for funding from the general endowment are considered twice annually, on January 15 and June 15. **Endowment Fund Grants** (open to all members) support activities that further the goals of the Meteoritical Society, and **Research Grants** (open to students and early-career researchers) support collaborative research in the fields of meteoritics and planetary science. More information about these grants can be found on the website: https://meteoritical. org/grants/general-endowment-fund. Proposals for endowment fund grants or research grants should be emailed to the secretary (metsocsecretary@gmail.com). If you have any questions, please contact the chair of the Endowment Committee, Rhian Jones (rhian.jones-2@ manchester.ac.uk). We would like to thank our members, who generously donated more than \$10,000 to the various funds during the 2023 fiscal year. Your generous contributions provide direct support that helps strengthen our international community. It is simple to donate to any of our funds at the same time that you renew your membership. You can also donate at any time using the following link: https://meteoritical.org/membership/donate. Donations made to any of our funds are always allocated only to the specified fund (e.g., donations to the Norton fund are *only* used to support student travel). If you are considering making a donation for the first time, I would encourage you to support the general endowment fund or one of our travel funds as these funds provide the most support for our members.

If you have any questions, or would like to renew your membership with a check, please contact the treasurer (tldunn@colby.edu).

### **2023 MEMBERSHIP REPORT**

Membership in the Meteoritical Society is open to any person interested in meteoritics and related sciences regardless of residence, citizenship, or age. As of June 2023, the Meteoritical Society comprises 493 regular members, 146 students, 74 early career members, 188 retired members, 52 life members, 17 members from developing countries, and 4 complimentary members. This brings us to a grand total of 974 members, an increase of 137 members since 2021. We have members in 55 countries; however, the statistics show that we still have a lot to do to gain members in many countries and to increase the number of student members. To encourage students and early career researchers to join the society, here is a new fee structure for 2023: Early career memberships are only \$40 (which we define as anyone who is within 10 years of completing their PhD) and retiree memberships are also only \$40. Student memberships have been reduced to only \$10 and we continue to subsidize the registration fee for the Meteoritical Society's Annual Meeting. Student members have the opportunity to apply for travel grants and compete for presentation awards. Students can also attend a Student Reception at the Annual Meeting, which provides an excellent chance to interact with their peers and meet senior scientists in the community. Please encourage your students to join! In addition, the Society has a mechanism in place to subsidize annual dues for members in low-income countries. Prior approval is required from the Membership Committee for this rate. Please refer to our website at http://www.meteoriticalsociety.org for more information.

For those wishing to avoid the hassle of paying dues every year, consider a life membership! For more information and details on how to become a member of the Meteoritical Society, please see our Society web page at https://meteoritical.org/membership/join\_

### **MEETING INFO**

2023	13–18 August, Los Angeles, California, USA			
2024	28 July–2 August, Brussels, Belgium (EU)			
2025	14–18 July, Perth, Australia			
2026	July/August TBD, Frankfurt, Germany (EU)			

Country	Compli- mentary	Developing Country	Lifetime	Retired	Standard	Early Career	Student	Totals
Argentina					1	1		2
Australia				4	12	2	3	21
Austria			1	2	5		1	9
Belgium				1	7		4	12
Brazil					3		3	6
Canada			3	12	13	2	7	37
Chile					2	1	1	4
China		2	4	2	15		1	24
Colombia		1						1
Czechia					4		1	5
Denmark				2	1			3
Finland					2	1		3
France			4	8	21	2	5	40
Germany		1	8	15	41	6	5	76
Greece					1		2	3
Holy See					2			2
Hong Kong					1			1
Hungary			1		3			4
India		2			4		4	10
Ireland				1				1
Italy				3	8	1	1	13
Ivory Coast							1	1
Japan				7	67	6	11	91
Korea (the					2		1	3
Republic of)					-			2
Latvia							1	1
Libya					2			2
Lithuania						1		1
Luxembourg				2	1			3
Malaysia		-			1			1
Mauritania		1		-				1
Mexico		2	1	1	1			3
Morocco		3	1	-			1	5
Netherlands		-		1	2			3
Norway		1		1	1	-		3
Oman		1		1	-	1		3
Poland				2	2			4
Portugal		4			1			1
Romania		I			I			2
Russian					8		1	9
Singanoro				1	2			2
Slovakia					2			1
Somalia		2			1			2
South Africa	1	2			1			2
Spain	1			2	8			10
Sweden				1	1	1	2	5
Switzerland			1	5	12	3	8	29
Turkey				5	2	5	1	3
Ukraine					-	1		1
United Arab								
Emirates								1
United Kingdom			2	7	20	13	22	64
United	2		26	107	20.9	32	57	133
America	3		20	107	200	JΖ	57	50F
Uruguay					1		1	1
viet Nam					1		1	1
IN/A		-					1	2
Totals	4	15	52	188	493	74	146	972

### IN MEMORIAM: STEPHEN F. WOLF (1964–2023)

Stephen F. Wolf passed away unexpectedly on April 22, 2023 at the age of 58. Stephen (Steve) was Professor of Chemistry at Indiana State University in Terre Haute, USA. Steve was a highly respected analytical chemist with many interests including analytical method development and the use of



novel multivariate chemometric techniques. He often combined these interests when examining meteorite compositions.

Steve received his BS degree in chemistry from Purdue University, USA in 1987 and his PhD in analytical chemistry from Purdue University in 1993 under the direction of Prof. Michael E. Lipschutz. His thesis was titled "Trace Element Study of H Chondrites: Evidence for Meteoroid Streams." After graduation, Steve worked as a Staff Chemist at Argonne National Laboratory, USA. While there, he worked on the analysis and testing of nuclear waste glasses, applying his expertise to the analysis of actinides and their decay products. For the past 22 years, Steve was in the Department of Chemistry and Physics at Indiana State University, USA. He was a valued educator and was the deserving recipient of numerous teaching awards including the prestigious ISU Caleb Mills Distinguished Teaching Award and the College of Arts & Sciences Educational Excellence Award.

The series of seven scientific papers entitled "Chemical studies of H chondrites" illustrate Steve's use of multivariate statistical methods on trace element data to investigate fundamental properties of a chondrite group. The most controversial, but statistically valid, of these being the idea that there are temporally variable H chondrite sources sampled by the Earth. Steve was able to again combine his interests in analytical chemistry and cosmochemistry between 1999 and 2007 when he was part of a group that wrote a biennial review article entitled "Geochemical and Cosmochemical Materials" for the American Chemical Society *Journal Analytical Chemistry*.

Steve had a passion for music and a wonderful dry sense of humor. He is greatly missed as both a friend and colleague. Steve is survived by his wife, Heather Wilson Wolf, his parents, Robert F. and Joyce Wolf, and his brother, Jeffrey Wolf.

> Jon Friedrich Mike Lipschutz



### http://meteoriticalsociety.org

### **2024 ANNUAL MEETING INVITATION - BRUSSELS. AT THE HEART OF EUROPE**

You are cordially invited to attend the 86<sup>th</sup> annual meeting of The Meteoritical Society, which will take place from July 28 through August 2, 2024, at the Palace of the Academies in Brussels, Belgium. The meeting is hosted by the Université libre de Bruxelles, the Vrije Universiteit Brussel, and the Royal Belgian Institute of Natural Sciences.



Although hosting the European parliament at the heart of Europe, Brussels remains a captivating medium-sized city where all major sites can be reached by foot or public transportation. Brussels is easily accessible from Brussels Airport (BRU), but also from Brussels South Charleroi Airport (CRL), Paris Charles de Gaulle Airport (CDG), or Schiphol Amsterdam Airport (AMS), and is connected by direct highspeed trains from several large European cities, such as London and Cologne, to the Brussels-Midi train station. Because Brussels is a highly touristic vet relatively inexpensive city, no rooms will be booked in advance. All information to prepare your visit can be found at https:// www.visit.brussels/en/visitors.

Oral, poster, and plenary sessions will be hosted at the Palace of the Academies, Located next to the Royal Palace, the Palace of the Academies was built between 1823 and 1825 for the Prince of Orange and became the residence of the Royal Academy of Sciences and Art and the Royal Academy of Medicine in 1876. The Barringer lecture will take place at the Plaza Hotel, famous for its charming Belle Epoque decorated theater. The banquet will be organized as a walking dinner at the Royal Museum for Natural Sciences, where you will be able to enjoy tasty Belgian cuisine in the largest dinosaur gallery of Europe, known for its spectacular Iguanodon fossil skeletons. Field trips on Wednesday afternoon include a visit to the Atomium, a landmark modernist building constructed for the 1958 World Fair that represents a unit cell of an iron crystal magnified 165 billion times; as well as to the European Parliament, the battlefield of Waterloo where the fate of Europe was tragically determined, or the city of Ghent, labeled Belgium's best kept secret by Lonely Planet founder Tony Wheeler in 2023. Post-conference tours include a tour of the WWI and WWII battlefields located in Belgium, and a visit to some of the world-renowned Trappist beer abbeys.

We plan to host special sessions on asteroid sample-return missions, as we expect to celebrate the arrival of OSIRIS-Rex. Emphasis will also be placed on micrometeorites and the curation of extraterrestrial samples through the organization of a workshop at the RBINS. More information concerning the scientific program will be provided soon on the website https://metsoc2024.brussels. As the worldwide COVID-19 crisis has continuously improved, we plan for an in-person meeting only, with no option for remote access, to keep costs low and the meeting accessible to all.

The weather is an uncertain factor in Belgium, so do prepare for both rain and heat waves. Food is always there to enjoy, with chocolates, waffles, beers, and fries, and plenty of options for any dietary requirements! We are looking forward to welcoming you in Brussels!

Vinciane Debaille (vinciane.debaille@ulb.be), Steven Goderis, Sophie Decrée, and Philippe Claeys

### **2023 ANNUAL MEETING TRAVEL AWARDS**

On behalf of the Meteoritical Society, we would like to thank the organizations whose generous sponsorships provided student travel grants, postdoc travel grants, and travel grants for scientists from countries with limited financial resources. These sponsoring organizations, and the recipients of the travel awards, are listed below.

This year, 61 travel grants were given to students and researchers who attended the annual meeting of the Society in Los Angeles, California, USA. Student travel grants and travel grants for scientists from countries with limited financial resources are generously sponsored by the Barringer Crater Company, Elsevier Publishing, the Meteoritical Society, Meteorite Times Magazine and the International Mineral Collectors Association (Brian Mason Award), the Maine Mineral and Gem Museum, the O. Richard Norton Fund, NASA (Planetary Sciences Division), the Planetary Studies Foundation, and the Darryl Pitt/Macovich Meteorite Collection.

### **BARRINGER CRATER COMPANY TRAVEL AWARDS**

C. L. Bays M. R. Boyd C. S. Harrison A. K. Herbst I. M. Johnson P. Lavak A. Madera N. Matsuda L. E. Melendez S. Ramsev D. Sheikh H. Thakur S. Iannini Lelarge A. Kurokawa K. Ogiya

### **ELSEVIER TRAVEL AWARDS**

N. Bott D. S. Grewal I. Kerraouch M. Zhang

### **BRAIN MASON AWARDS**

V Di T. Shisseh

### **MAINE MINERAL AND GEM MUSEUM AWARD**

N. S. Chinchalkar

#### **METEORITICAL SOCIETY EARLY CAREER TRAVEL AWARDS**

N. D. Garroni S. Griffin G. A. Pinto P. M. Reger

# A. C. Stadermann

**METEORITICAL SOCIETY TIM** FUND AWARDS

H. Chennaoui Aoudjehane A. A. Hussein

#### NASA STUDENT TRAVEL **GRANT AWARDS**

E. G. Alevy J. A. Barranco M. C. Benner L. Flores-Andrada M. L. Grav K. Ishimaru M. Iskakova N. A. Kerrison J. K. Kirk N. G. Linbaugh J. A. McFadden I. J. Ong A. S. Peter B. S. Prince A. M. Richards M. Ronac Giannone L. Shteynman R. C. Sims L. R. Smith Z. E. Wilbur

### **O. RICHARD NORTON FUND TRAVEL AWARDS**

- T. Burke
- L. M. Eckart
- C. J. Floyd
- R. L. Haller S. Sridhar
- S. Sugawara
- Y. Tobimatsu

### **PLANETARY SCIENCE FOUNDATION AWARDS**

S. P. Alpert C. Fudge

### **DARRYL PITT / MACOVICH COLLECTION AWARDS**

G. M. Andreosatos R Saini

ELEMENTS

**O**CTOBER 2023

### **CALL FOR AWARD NOMINATIONS**

Please consider nominating a colleague for one of the Society's awards. Nominations should be sent to Secretary Munir Humayun (metsocsec@gmail.com) by January 15 (January 31 for the Service Award and the Pellas-Ryder Award). For more information and details on how to submit a nomination for any of these awards, please see the latest Newsletter on the Society website or email the secretary.

The Society gives a number awards each year. The **Leonard Medal** honors outstanding contributions to the science of meteoritics and closely allied fields. The **Barringer Medal and Award** recognize outstanding work in the field of impact cratering and/or work that has led to a better understanding of impact phenomena. The **Nier Prize** recognizes outstanding research in meteoritics and closely allied fields by young scientists. The **Service Award** honors members who have advanced the goals of the Meteoritical Society to promote research and education in meteoritics and planetary science in ways other than by conducting scientific research. The **Paul Pellas – Graham Ryder Award** is given for the best student paper in planetary science and is awarded jointly by the Meteoritical Society and the Planetary Geology Division of the Geological Society of America. The newest society award, the **Elmar Jessberger Award**, will be given to a mid-career female scientist in the field of isotope cosmochemistry.

This year, 45 travel grants were given to students and researchers who attended the annual meeting of the Society in Sapporo, Hokkaido, Japan. Student travel grants and travel grants for scientists from countries with limited financial resources are generously sponsored by the Barringer Crater Company, Elsevier Publishing, O. Richard Norton Fund, NASA (Planetary Sciences Division), the Meteoritical Society (TIM Fund and Endowment Fund), Meteorite Times Magazine and the International Mineral Collectors Association (Brian Mason Award), the Maine Mineral and Gem Museum, the Planetary Studies Foundation, and the Darryl Pitt/Macovich Meteorite Collection.

# RECENT GRANTS AWARDED BY THE METEORITICAL SOCIETY

### Meteoritical Society Research Grants

We are happy to announce the first recipients of the newly created Meteoritical Society Research Grants! The Meteoritical Society Research Grant is exclusively directed to students and early career researchers who are members of the Meteoritical Society. The grants aim to promote collaborative research in the fields of meteoritics and planetary sciences, and provide funding to aid novel and interdisciplinary research ideas not yet funded elsewhere. We appreciate the many strong applications received for this opportunity, and we thank the Endowment Committee for their work creating this new initiative and for leading the selection process.



**Laura Garcia**, Institute of Astronomical, Earth and Space Sciences (National Scientific and Technical Research Council – National University of San Juan), Argentina: Cliftonites formation in IAB iron meteorites as a means to understanding the genesis of non-magmatic meteorites







**Robin Haller**, *University of Glasgow, UK*: Laboratory experiments on terrestrial alteration of CM chondrites

**Megan Hammett**, University of Manchester, UK: Exploring the oxygen isotope heterogeneity of melted calcium-aluminium-rich inclusions in CV carbonaceous chondrites: a combined petrologic-experimental approach

**Carine Sadaka**, *Centre Européen de Recherche et d'Enseignement en Géosciences de l'Environnement (CEREGE), France*: Constraining the meteorite flux on Earth during the last 2 Myr



**Marian Selorm Sapah**, *University of Ghana*, *Ghana*: (U-Th)/He thermochronology of the Bosumtwi impact crater

The **next application deadline will be January 15, 2024**. Details about scope, eligibility, funding, and the application form can be found on the Endowment page of the website.

### Meteoritical Society Endowment Grants

The Meteoritical Society Endowment Fund also supports a variety of activities through grants that are made twice a year. We are very pleased to announce that three grants were recently selected for funding in the summer of 2023. Thank you to the Endowment Committee for their efforts leading this opportunity. More information can be found on each project on the Society Website.

- Planetary and Space Science Outreach for Senior High Schools in Ghana, LEAD: Marian Selorm Sapah
- Bay Area Planetary Science Conference and Development of a Field Course to Explore a Potential Impact Structure, LEAD: Myriam Telus
- Workshop on Planetary Impacts During the Total Solar Eclipse, LEADS: Kai Wünnemann and Miki Nakajima

The Meteoritical Society is delighted to be able to support these worthwhile international projects that further the Society's goals to promote research and education in planetary science. The next application deadline for Endowment Fund requests is January 15, 2024. Guidelines for submitting your requests can be found on the Society website Grants page.



### http://meteoriticalsociety.org

### **2023 ANNUAL MEETING REPORT**

The 85<sup>th</sup> Annual Meeting of the Meteoritical Society was held in August 2023 on the campus of the University of California – Los Angeles (UCLA) in Westwood, California, USA. MetSoc2023 was the fifth time

the Society has met at UCLA, the most recent prior meeting being in 2002.





Zoom; there were also two in-person poster sessions held on Tuesday and Thursday evenings. There were 332 scientific contributions, approximately equally split between talks and posters. A very large majority (~94%) of the 342 meeting attendees made the trip to Los Angeles, and most were housed on campus (at the Luskin Hotel, the UCLA Guest House, or student dormitories). All events during the conference were hosted on the UCLA campus including a welcome party at the Sculpture Garden; the annual banquet, held outdoors in front of Royce Hall; and the Barringer Invitational Lecture, held at the Fowler Museum on Monday evening. Amy Mainzer of the University of Arizona, USA presented the Barringer Lecture to an attentive audience of conference attendees and the public; her talk was entitled "Earth-Approaching Asteroids and Comets: Opportunity and Risk." A pre-conference town-hall was organized by the Impact Cratering Committee of the Meteoritical Society to discuss "Goals, Perspectives, and Challenges" in Earth-based crater research. Conference attendees also had opportunity to learn about the Astromaterials Data System at a luncheon and town-hall.

As usual, Wednesday morning witnessed the presentation of Society Awards and distinguished lectures. The Leonard Medal Lecture, "Pallasites to Presolar Grains: Looking Inside Asteroids, the Solar Nebula, and Stars with Isotopes and Trace Elements," was given by Andy Davis; and the Barringer Medal Lecture, "Spinels in Sediments and the Astronomical Perspective on Earth's History - What Can 20 Tons of Rock and 40,000 Litres of Hydrochloric Acid Tell Us?" was presented by Birger Schmitz. In lieu of the semi-traditional Wednesday afternoon "boat trip" (or equivalent local cultural exploration), the conference organizers collaborated with the UCLA SPACE Institute to sponsor a plenary symposium about current and planned exploration missions and sample return from inner Solar System bodies. Excellent talks and discussions were presented by planetary scientists leading these efforts, including Laurie Leshin, Nancy Chabot, Linda Elkins-Tanton, Hal Levison, Shogo Tachibana, Lindsay Keller, Tomohiro Usui, and Meenakshi Wadhwa. UCLA's Dean of Physical Sciences, Miguel Garcia-Garibay, welcomed the public to the event, which was followed by a garden reception and, soon afterward, the banquet. Guests enjoyed a lovely SoCal evening, so typical for this time of year that meeting organizers had earlier confidently quipped that "we have arranged for it to not rain." Those same folks (i.e., us) were simultaneously sobered and amused when five days later, tropical storm Hillary soaked LA, the first such storm to hit Los Angeles in 84 years! And, in case you're wondering, there really was no "plan B" for the banquet (but perhaps Frederick Leonard was looking out for us?). With the conference ending at noon on Friday, a few dozen folks stayed around to take advantage of some post-meeting excursions: to the Jet Propulsion Laboratory (courtesy of Director Leshin), to the Getty Museum, and to the Hollywood Bowl for the "Tchaikovsky Spectacular with Fireworks."

The meeting was hosted by UCLA's Department of Earth, Planetary, and Space Sciences (EPSS) and by the Lawrence Livermore National Lab (LLNL). The local organizing committee included Gerardo Dominguez

(CSSM), Yang Liu (JPL), Chi Ma (CIT), Alan Rubin (UCLA), Paul Warren (UCLA), François Tissot (CIT), Frank Kyte (UCLA), Nozomi Matsuda (UCLA), Ed Young (UCLA), and Bidong Zhang (UCLA). Ed Young chaired the program committee, which included James Day, Steve Desch, Philipp Heck, Devin Schrader, Quinn Shollenberger, and Myriam Tellus in addition to members of the local organizing committee. Gerardo Dominguez and François Tissot ably chaired the committee, which allocated nearly \$80k in travel awards. We are very grateful to those institutions who provided financial support, especially the Barringer Crater Company, Elsevier, Planetary Studies Foundation, O. Richard Norton Fund, The Macovich Meteorite Collection, The David B. Gheesling Trust, The Maine Mineral and Gem Museum, International Meteorite Collectors Association, JPL, the Meteoritical Society, NASA PSD, CAMECA Instruments, and the UCLA Division of Physical Sciences. This meeting would not have been possible without the professional support from the LPI staff. We also greatly appreciate help from student (and postdoc) and UCLA Meteorite Gallery volunteers, as well as the support of the EPSS department staff and the Meteoritical Society leadership.

### Ming-Chang Liu and Kevin McKeegan

Co-chairs of the MetSoc2023 Local Organization Committee

### **SOCIETY AWARD WINNERS**

The Society gives five major awards each year. For more information on individual awards, please see the Call for Nominations and the Society webpage. Congratulations to the highly deserving awardees, and thank you to all our members who took the time to nominate your colleagues for consideration and who serve on award committees.



The Leonard Medal is given to individuals who have made outstanding original contributions to the science of meteoritics or closely allied fields. The Meteoritical Society presents the 2023 Leonard Medal to **Andrew M. Davis** for his profound contributions to deciphering early Solar System processes by improving the chronology, constraining the differentiation of planetesimals, exploring diffusion and condensation/evapora-

tion processes, and revealing stellar nucleosynthetic pathways; and for advancing the chemical and isotopic microanalysis of meteoritic materials. *Full citation: https://doi.org/10.1111/maps.14044* 



The Barringer Medal is given for outstanding work in the field of impact cratering and/or work that has led to a better understanding of impact phenomena. The Meteoritical Society presents the 2023 Barringer Medal to **Birger Schmitz** for his groundbreaking use of micrometeorites in the sedimentary record to discern the history of impact processes; and to understanding the effects of impact bombardments on Earth's systems. *Full* 

citation: https://doi.org/10.1111/maps.14037



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The Nier Prize is given for significant research in the field of meteoritics and closely related fields by an early career scientist under the age of 35 or whose PhD was awarded <7 years ago. The Meteoritical Society presents the 2023 Alfred O. Nier Prize for a distinguished young scientist to **Jessica Barnes** for her contributions to volatiles in astromaterials and their use in advancing understanding of the inventory, origin, and



# International Association of GeoChemistry

evolution of volatiles in the inner solar system; and for developing advanced NanoSIMS methods for analysis. *Full citation: https://doi.org/10.1111/maps.14038* 



The Service Award honors members who have advanced the goals of the Society to promote research and education in meteoritics and planetary science in ways other than by conducting scientific research. The Meteoritical Society presents the 2023 Service Award to **Hasnaa Chennaoui Aoudjehane** for her initiatives in support and promotion of meteoritics and planetary science in African and Arabic countries; for

her untiring mentoring of students; and for her service to the Meteoritical Society, scientific community, and public outreach efforts. *Full citation: https://doi.org/10.1111/maps.14029* 



The Jessberger Award is given for outstanding research in the field of isotope cosmochemistry by a female scientist in the middle of her career who has received her doctorate at least 10 years and not more than 20 years before. The Meteoritical Society presents the 2023 Elmar K. Jessberger Award to **Jamie E. Elsila** for her influential role and strong leadership in isotope cosmochemistry; and for determining compound-

stable isotopes of organic compounds in meteorites and lunar rocks. *Full citation: https://doi.org/10.1111/maps.14039* 

The GORDON MCKAY AWARD and WILEY-BLACKWELL AWARDS from the 2022 meeting in Glasgow will be announced in a later issue of *Elements*.

### **CALL FOR AWARD NOMINATIONS**

Please consider nominating a colleague for one of the Society's awards. Nominations should be sent to the society secretary at (metsocsec@ gmail.com) by 15 January (31 January for the Pellas-Ryder Award and the Service Award). For more information and details on how to submit a nomination for any of these awards, please see the latest Newsletter at the Society website or email the secretary.

### **UPDATED ANNUAL MEETING CALENDAR**

2024	(86 <sup>th</sup> Annual Meeting) 28 July–2 August Brussels, Belgium (EU)			
2025	(87 <sup>th</sup> Annual Meeting) 14–18 July Perth, Australia			
2026	(88 <sup>th</sup> Annual Meeting) July/August TBD Frankfurt, Germany (EU)			
2027	(89 <sup>th</sup> Annual Meeting) July/August TBD Flagstaff, Arizona, USA			

### **RENEW YOUR MEMBERSHIP NOW!**

Please renew by 31 March 2024; after that date, a \$15 late fee will be assessed. You can renew online at https://meteoritical.org/society/ membership.

www.iagc-society.org

### THE IAGC INTERNATIONAL CONFERENCE

The 2<sup>nd</sup> IAGC International Conference took place on August 17–22, 2023 in Sendai, Japan. The conference was a success! Participants enjoyed a series of great scientific talks including the Jin Jingfu Lecture presented by **Yuan Mei** (CSIRO, Australia) and the Ingerson Lecture presented by **Martine Savard** (Geological Survey of Canada).



The 2nd International Association of Geochemistry (IAGC) Conference

# Water-Rock Interaction WRI-17 Applied Isotope Geochemistry AIG-14 in SENDAI 2023

The IAGC also presented 2020–2022 awards in person. Award presentations included the Vernadsky Medal (2020) to **Yousif Kharaka**, the Ebelmen Award (2020) to **Zimeng Wang**, the IAGC Fellow Award (2021) to **Yanxin Wang**, and the Harmon Distinguished Service Award (2022) to **Neus Otero**. The IAGC would like to thank Secretary General **Noriyoshi Tsuchiya** (Tohoku University, Japan) and the local organizing committee for hosting the joint WRI-17 and AIG-14 meeting!

We are also excited to announce that the **3<sup>rd</sup> IAGC International Conference** will be held in Cagliari, Italy in June 2025. This conference will be hosted by **Giovanni De Giudici** at the University of Cagliari, Italy. More information about the joint Water-Rock Interaction (WRI-18) and Applied Isotope Geochemistry (AIG-15) meeting will be available in 2024.