The Society for Environmental Geochemistry and Health (SEGH): building for the future


1. Corresponding: Dr Michael Watts, Inorganic Geochemistry, British Geological Survey, UK mwwatts@bgs.ac.uk
2. Prof Taicheng An, School of Environmental Science, & Engineering, Institute of Environmental Health and Pollution Control, Guangdong University of Technology, Guangzhou, China antc99@163.com
3. Dr Ariadne Argyraki, Department of Geology and Geoenvironment, National and Kapodistrian University of Athens, Greece argyraki@geol.uoa.gr
4. Prof Emmanuel Arhin, University for Development Studies, Faculty of Earth and Environmental Sciences, Department of Earth Science, Ghana lordarhin@gmail.com
5. Anthea Brown, SEGH, British Geological Survey, Nottingham, UK. Seghmembership@gmail.com
6. Dr Mark Button, University British Columbia, Kalowna, Canada drmbutton@gmail.com
7. Prof. Jane A Entwistle, Engineering and Environment, Northumbria University, UK jane.entwistle@northumbria.ac.uk
8. Prof Robert Finkelman, University of Texas at Dallas, USA bobf@utdallas.edu
9. Dr Gillian Gibson, Gibson Consulting and Training, UK gillian@gbgibson.com
10. Dr Olivier Humphrey, Inorganic Geochemistry, British Geological Survey, UK bgsvolisi@bgs.ac.uk
11. Prof Xia Huo, Jinan University, Guangzhou, China xhuo@jnu.edu.cn
12. Professor Andrew S Hursthouse, University of the West of Scotland, UK andrew.hursthouse@uws.ac.uk
13. 11.Dr Paula Marinho Reis, Universidade do Minho, Departamento de Ciências da Terra, Escola de Ciências, Campus de Gualtarl, Portugal pmarinho@dct.uminho.pt
14. Dr Kakoma Maseka, Copperbelt University, Kitwe, Zambia kkmaseka@gmail.com
15. Dr Daniel Middleton, International Agency for Research Cancer, WHO, Lyon, France middletond@fellows.iarc.fr
16. Dr Ofelia Morton Bermea, Instituto ed Geofísica, Universidad Nacional Autónoma de México, Mexico City, Mexico omorton@geofisica.unam.mx
17. Dr Ahad Nazarpour, Department of Geology, Ahvaz Branch, Islamic Azad University of Ahvaz, Ahvaz, Iran, ahad.nazarpour@gmail.com
18. Prof Akindam Shadrach Olatunji, Department of Geology, University of Ibadan, Ibadan, Nigeria, as.olatunji@ui.edu.ng or akinademshadrach@yahoo.com
19. Prof Odipo Osano, Department of Environmental Biology and Health, School of Environmental Studies, University of Eldoret, Kenya, odipoosano@gmail.com
20. Dr Sanja Potgieter-Vermaak, Manchester Metropolitan University, Manchester, UK s.potgieter@mmu.ac.uk
21. Sherestha Saini, SpringerNature, USA sherestha.saini@springernature.com
The challenges of sustainable development are ever more pressing, and the skills, interests and capabilities of the SEGH member are well placed to continue to make more meaningful contributions to the environment, society and well-being. We reflect on the historical development of the Society, its response to the dynamic international research landscape and the great opportunities ahead. In 2018, SEGH implemented a new board structure after 2-3 years of consultation, with approval of a new constitution and a new strategy across the large number of international board members. Whilst regions were represented by sections in Europe, Asia/Pacific and the USA, the structure required renewal in order to be more representative of the distribution of members and website traffic that had evolved in preceding years. In addition, the society wanted to improve its position for future growth opportunities across rapidly developing regions.

SEGH has been a welcoming society for early career researchers (ECRs) over the years, providing a supportive and encouraging atmosphere at conferences. However, a formal structure was required to continue to engage and support ECRs as they become established in their careers. In addition, retention and recognition of experienced scientists and practitioners was required for past and on-going contributions to the long-standing success of SEGH since the initial formation in the early 1970’s. The Society for Environmental Geochemistry and Health (SEGH) was first established in the USA to provide a forum for experts to work together in understanding the interaction between the geochemical environment and the health of plants, animals, and humans. Wixson and Davies (2019) recently provided an account of the Society’s formation.

We offer this account of current initiatives and future aspirations to enhance the value that this society can offer to the SEGH community and beyond.
EDITORIAL

90 Mexico for the Americas. Co-opted members enthusiastic to undertake new initiatives for growth
91 in new regions/countries include Canada, Egypt, Ghana, Iran and Panama, with discussions
92 progressing elsewhere.
93
94 In 2018, the first group of 22 ECRs (early career researchers) was established at the SEGH 2018
95 conference with initial plans to develop a programme of mentorship, training activities and
96 interaction over a three-year period. ECR members were connected with appropriate SEGH
97 ‘experienced’ and relevant members as mentors. This grouping is open to new ECRs as we
98 evolve the programme and balance the demographics. The ECRs have been encouraged to
99 establish a community to improve communication through social media and become involved in
100 the peer review process for Environmental Geochemistry and Health (EGAH). The ECRs as a
101 group are ideal for generating and testing new ideas and identifying trends to develop SEGH and
102 potentially grow as individuals for succession management of the international board.
103
104 In 2019, SEGH launched a new Fellowship status for SEGH (FSEGH) encompassing senior
105 researchers who have been engaged with SEGH for a number of years and maintained their
106 membership., as well as demonstrating that they have worked hard in the EG&H field, and
107 supported the society in a variety of ways. The ECR group will have an opportunity to progress
108 through to FSEGH via nomination from SEGH members, as will senior members with continuous
109 scientific engagement and support of SEGH.
110
111 Environmental Geochemistry and Health (EGAH) Journal
112 Environmental Geochemistry and Health is the official journal of SEGH published by Springer
113 Nature, to which all members can subscribe and access the back-catalogue online via
114 www.segh.net. The journal has been refreshing and updating the list of coordinating editors who
115 are essential to the peer review process for articles submitted to EGAH. Candidates for this role
116 who can commit to supporting the peer review process are welcome, particularly where SEGH
117 can improve geographic diversity and coverage for emerging trends across multidisciplinary
118 themes and reinforce the involvement of health practitioners (clinical and public health) /
119 epidemiologists. The journal has experienced continued and solid progress, particularly in recent
120 years, with the Impact Factor progressing steadily (2018: 3.252) and the number of papers
121 submitted increased from 400+ in 2016 to 600+ in 2018, with a 40% acceptance rate.
122
123 Future challenges
124 Various challenges have resulted in a reduced membership in the USA in recent years, (which
125 had been the cornerstone of the society for much of its history) although SEGH is not alone
126 among societies in this experience. Growth in rapidly developing regions has balanced overall
127 SEGH membership numbers. Greater geographical diversity across the Americas is required to
128 ensure management succession, and efforts are on-going to develop hubs to regrow membership
129 in the Americas.
130
131 The peaks and troughs in membership in Asia/Pacific, largely reflected by the well-attended
132 SEGH international conferences in China, are both an opportunity and challenge to manage the
133 membership and require imaginative solutions to retain and stabilise memberships between
134 conferences. Nevertheless, core members from Asia are regular attendees at annual
135 conferences as the conferences rotate between the regions.
136
137 An increase in African membership following on from the 34th International Conference at Victoria
138 Falls-Zambia shows promise for continued engagement with the African science community. The
139 African board members have provided an example to other regions for regular communications,
140 in particular making use of current communication platforms (e.g. WhatsApp and Skype) which
EDITORIAL

have attracted additional senior researchers to online discussions to develop new SEGH hubs in Africa.

Future meetings and conferences

Traditionally, annual international conferences have rotated between regions, with the exception of the USA. Often members have drifted away during the 2-3 year cycles, unless smaller meetings or co-hosted meetings with other societies were organised, which more commonly have occurred in Europe. The SEGH board is backing an initiative on a wider scale to engage with traditional sponsors of our international conferences to support smaller regional meetings on a more frequent basis. Other options may need to be considered such as the use of online webinars and web-streaming of keynote presentations.

Recent and future conferences and meetings include: Slovakia in 2015, Belgium and Ireland in 2016, China in 2017, Zambia in 2018, Greece and UK in 2019. In the run up to the 50th anniversary of SEGH in 2021, we will increase from one to two international conferences a year to be hosted in Eldoret-Kenya and Nanjing-China in 2020, with strong proposals in place for Portugal and Mexico in 2021. Co-badged meetings will become an increasing feature to improve engagement with members, with plans in place for 2020 in the USA and Ireland. Future conferences and meetings will aim to grow interest to attract epidemiologists and health practitioners in both curative and preventive fields, building on growing topics within SEGH in nutrition and agricultural research, which are highly relevant to environmental geochemistry and health.

SEGH and the future

SEGH is at a critical point in its history. The competition for memberships to societies is intense and growing, with financial challenges remaining ever problematic for members. Remaining relevant to current and future trends in scientific development and policy decisions will initially be supported by the recent initiatives, such as the ECRs and new geographical hubs with a fresh ability to review and critique our current position.

The multidisciplinary nature and sense of community within SEGH is as highly relevant now as when it was formed in the early 1970's. SEGH remains an effective platform for members to exchange ideas within their own field of interest. This has been emphasized in the past by SEGH membership that as a forum provides a strong and supportive environment (Stewart et al., 2012), which the board has tried to successfully sustain and grow. Following consultations with members, SEGH is strengthening efforts to better connect the diverse community that is SEGH, to encourage new and practical solutions to environmental geochemistry and health challenges via collaborations. For example, the expansion of SEGH membership into rapidly growing regions (e.g. Africa, South East Asia) will help SEGH to keep up with emerging research challenges. Such a move presents an exciting opportunity to increase international collaborations to tackle increasing environmental pressures from anthropogenic activities (Brown et al., 2019; Kaninga et al., 2019; Olutunji et al., 2019; Rodgers et al. 2019; Stewart et al., 2019) that have an impact on human and animal health (Middleton et al., 2019). SEGH presents a platform for emerging technologies to identify and measure environmental pathways for contaminants via exposure and hazard assessment, in addition to interests in nutrition through deficiency of essential nutrients and transfer pathways from soil-to-plant and onward animal/human health investigations (Watts et al., 2019).

SEGH has strengthened initiatives in recent years to draw in epidemiologists/health professionals; increasing emphasis on emerging contaminants; the role of agriculture and fisheries in ecological health through to food security. As in the early years of the formation of
EDITORIAL

SEGH (Wixson and Davies, 2019), SEGH has a role in connecting increasingly complex and interconnected multidisciplinary studies to better inform stakeholders and policy decision makers.

Summary of Future Aspirations

- Improve engagement with epidemiologists and health practitioners (clinical and Public Health) to improve translation of research into policy.
- Achieve greater editorial balance of EGAH geographically and to strengthen the ‘Health’ component.
- Increase presence of epidemiologists and health practitioners (clinical and Public Health) within the conference programmes.
- Continue to increase regional membership hubs to grow geographical diversity of membership.
- Grow the Early Career Researcher programme for succession management within SEGH and ‘stay on trend’ with latest research.
- Evolve relevancy of SEGH goals to include the United Nations Strategic Development Goals to reinforce relevance to policy impact.
- Increase the membership of business colleagues, in order to encourage research, which is applicable to real-life situations.

References


EDITORIAL
