Annual Report 2022

MICROBIOLOGY SOCIETY

Microbiology Society (Limited by guarantee)
Report and financial statements 31 December 2022

Members of Council
Directors of the limited company and trustees of the registered charity
Professor Gurdyal Besra
Professor Robin May
Professor Mark Harris*
Professor Karen Robinson†
Professor Jose Bengoechea
Professor Laura Bowater
Dr Sharon Brookes
Dr Andrew Edwards
Professor Paul Hoskisson
Dr Chloe James*
Dr Colman O'Cathail*
Dr Sarah Maddocks
Dr David Clarke
Professor Gill Elliott
Dr Tina Joshi
Professor Nigel Brown
Professor Kim Hardie
Professor Alan McNally†
Dr Catrin Moore†
Dr Jo Kite†

*outgoing 31 December 2022
†incoming 1 January 2023

Senior staff
Dr Peter Cotgreave (Chief Executive and Company Secretary)
Sarah Buckman (Chief Programmes and Partnerships Officer)
Joanne Manning (Chief Operations Officer)

Auditor
Sayer Vincent LLP
Invicta House, 108-114 Golden Lane, London, EC1Y 0TL

Bankers
National Westminster Bank Plc
Market Place, Reading, Berkshire RG1 2EP

Solicitors
Weightmans LLP
The Hallmark Building, 105 Fenchurch St, London, EC3M 5JG

Investment managers
Evelyn Partners
17th Floor, 6 New Street Square, New Fetter Lane, London, EC4A 3BF

Registered office
14-16 Meredith Street, London, EC1R 0AB

Registered company number 01039582

Registered charity numbers
England and Wales 264017
Scotland SC039250

Contents

Our principal goal is to develop, expand and strengthen networks available to our members so that they can generate new knowledge about microbes and ensure that it is shared with other communities.

Demonstrating our strategic objectives:

Microbiology Society member and Champion, Charlotte Roughton at Newcastle University UK, wrote a review of our first LGBTQ+ Networking Event organised by Society members and held during Annual Conference 2022 .

"This year was my first time attending an in-person conference – specifically, the Microbiology Society's Annual Conference. I was invited to come and speak about my public engagement work, so was feeling a mixture of nerves and excitement at the opportunity to network in person. As has been the case for many people, the pandemic was a time of self-discovery and acceptance for me, and I came out as bisexual in June 2021. I've been open and proud about my queerness ever since, and was absolutely delighted to see the Microbiology Society was offering an LGBTQ+ networking social at their Conference.

It was by far my favourite event – it had a welcoming atmosphere and I immediately felt at home. I thoroughly enjoyed meeting and networking with fellow queer microbiologists at all different stages of their careers and felt safe and comfortable being my entire authentic self. There was a note at the start of the event to avoid taking and distributing photographs without permission, which was a considerate touch for those who may not necessarily be out to all of their colleagues. Overall, I enjoyed the event and appreciated the Society's acknowledgement of its queer members – I hope to see more like it in the future.

I'm in an incredibly fortunate position where I can now safely be out in my professional life as well as my personal life and have received nothing but love and acceptance for it. I have wonderful in-person and online networks of allies and fellow queer people who I can comfortably be myself around, including a supportive supervisor who provides a platform for me to be my authentic self. I only wish this were a universal experience – it's important to note that I'm in an incredibly privileged position, and not every queer person in STEM can safely be themselves. While improvements are being made, and events like this which celebrate LGBTQ+ scientists are a step in the right direction, there's still so much more to be done. I hope that talking openly about my own experiences to raise awareness can help play a small role in moving us that little bit closer towards universal equality."

Our strategic objectives:

We will enable our members to strengthen their existing relationships and gain access to new communities, unlocking the potential for knowledge exchange.

Demonstrating our strategic objectives:

For the International Day of Women and Girls in Science in February 2022, member and Champion Linda Boniface Oyama at Queen's University Belfast, UK, discussed her experiences as a woman working in microbiology and improving access to science for future generations.

"I'm currently working as a Postdoctoral Research Fellow at Queen's University Belfast and in April, I will take up a new role as Lecturer here. I apply the principles of the One Health Initiative to study microbiomes, with a particular focus on understanding the evolution and dispersal of antimicrobial resistance (AMR). I also prospect microbiome datasets, especially livestock gastrointestinal tract for novel antimicrobial compounds to tackle the AMR problem.

I have championed a campaign to celebrate women in science within Queen's University Belfast as well as across the Microbiology Society Champions platform and the Early Career Microbiologists' Forum. When I moved to Belfast and was looking for schools for my daughter, I noticed there was a lack of emphasis on the sciences at many schools. I decided to start a programme offering an easy-to-follow, hands-on, introduction to the sciences in the girls' schools around Belfast. This year, I opened that up to all schools in Northern Ireland, taking advantage of the virtual world we now live in. My advice to other microbiologists is to go for it! You never know, you may inspire the next Fleming, Marie Curie or Mae Jemison. You have a lot more to give than you know.

We've come some way in supporting women working in science but there is still a lot to be done in this area. I believe we need to start early, first by creating opportunities and providing tools for young girls, to inspire their interest in science and then support them through their work life in adulthood. The idea of women in science is still perceived by many as unattainable or reserved for the smartest and most wilful women. This perception needs to change.

Looking back, joining the Society was one of the best decisions I made in my career. I have stayed a member because of the many benefits and opportunities the Society offers. I became a Champion because I loved the idea of communicating my work with the public. I was always told I was shy (even though I didn't think so myself), so something needed to be done about that, and what better way than to talk about what I love with others."

Our strategic objectives:

We will advance understanding of microbiology and champion the contribution made by microbiology, our members and their work in addressing global challenges.

Demonstrating our strategic objectives:

The Early Career Microbiologists' (ECM) Guest Editing Scheme offers ECMs a chance to work with the Society's journals' Editors. Member and ECM Guest Editor Yinka Somorin at the National University of Ireland Galway, Republic of Ireland, explained his time on the scheme working on a Special Collection for Microbiology.

"The ECM Guest Editing Scheme has given me the opportunity to contribute to the delivery of the Bacterial Cell Envelopes Special Collection to mark the 75th Anniversary of the Society's flagship journal, *Microbiology*. In this role, I have had the privilege of working with Professor Tracy Palmer, the Deputy Editor-in-Chief of *Microbiology*.

Working on the Special Collection gave me the opportunity to learn about the current state of knowledge in bacterial cell surfaces and gain behind-the-scenes insights into the peer-review process. I gained hands-on editorial experience by being actively involved in contacting contributing authors to submit their manuscripts, identifying suitable reviewers, tracking the progress of submissions, making decisions on reviewer's feedback to authors, and liaising with staff at the Society. I feel valued and supported in this role as Professor Palmer seeks my opinion at all stages and provided guidance during communication with authors. As part of the activities celebrating the 75 years of *Microbiology*, I had the privilege of co-chairing the session on "Biofilms and surface adhesion" with Professor Gavin Thomas at the Society's Annual Conference 2022 in Belfast.

I have found my involvement in the Society very helpful in my professional development. Being part of the ECM Forum Executive Committee and representing the ECM Forum on the Building Communities Committee has given me the opportunity to contribute to the impact the Society has on members' careers. On a personal level, my involvement in the Society has helped in building my professional network. I have represented the Microbiology Society on the Northern Ireland All Party Group on STEM and attended meetings at the Northern Ireland Assembly at Stormont, where I gained experience on how researchers can engage with policymakers and influence policy.

The ECM Guest Editing Scheme is a major professional development opportunity for my next career step, as I am better equipped to review and make editorial contributions to journals and it provides evidence of my contribution to the microbiology community. I recently interviewed for a lectureship and a significant part of the leadership and impact I demonstrated were from opportunities provided by the Society. I highly recommend the scheme and encourage greater participation in the activities of the Society by early career researchers."

Our strategic objectives:

We will reinforce the Society's long-term sustainability and resilience by diversifying income streams, increasing efficiency and ensuring robust governance.

Introduction from the President and Chief Executive

During 2022, the Microbiology Society set out to reinvigorate our community after the restrictions of the COVID-19 pandemic, to rebuild connections and establish new ones, and to reopen the fullest range of opportunities to amplify our members' voices.

Perhaps the most visible manifestation of this approach was our first Annual Conference for three years, in Belfast during April. Over 1,300 delegates enjoyed a four-day showcase of microbiology, with 36 Conference sessions, 147 invited speakers and 284 offered talks, over 500 posters, and 339 grants awarded to members to attend. We continued our popular meeting programme throughout the year with nine Focused Meetings all over the UK and Ireland, as well as supporting our first international meeting on 'Beneficial Microbes' in Wisconsin, USA. The President's Roadshows continued in Northumbria and Glasgow – to hear and learn from members in their own communities.

The pandemic has taught us how successful, and useful, online events are in bringing together members throughout our community, whatever their career stage and wherever they are based in the world. Our virtual Scientific Seminar series, focused on our journals portfolio, has brought together over 1,000 delegates worldwide to disseminate high-quality and timely research from authors, editorial board members and researchers. Other online events during the year ranged from how to get involved in the Society's policy work, to the finals of the Sir Howard Dalton Young Microbiologist of the Year competition and 'Queer in microbiology: a conversation', to celebrate the diversity of its community on LGBTQ+ STEM Day in November.

In many different ways, the Society built on developments undertaken during the pandemic to open up new opportunities. We launched our innovative open research platform, which provides completely transparent peer review of the widest possible range of microbiology, including negative results, replication studies, policy and pedagogy. We began the process of converting our oldest journal, *Microbiology*, to full Open Access, which will take place at the beginning of 2023. We made significant strides in living up to our stated value of being welcoming to anyone interested in microbes – beginning a substantial effort to ensure that industrial microbiology is fully represented in the Society's work. We launched the Members Panel, bringing together members who belong to communities that had previously been underrepresented or marginalised. Our President Professor Gurdyal Besra FRS, began his Presidency with a vision for a truly inclusive environment for our members. In his second year we were delighted that the Society was accepted into a coalition of organisations working to improve equality, diversity and inclusion within the science and health research sector (EDIS) – enabling us to access a greater wealth of experience in EDI practices.

As our five year strategy came to an end during 2022, the Council of the Society developed the strategic plan for the period 2023 to 2027, consulting widely with members and looking ahead to the opportunities and challenges of the post-pandemic world.

More than ever before, our ability to advance microbiology in the future will depend on our ability to capture high quality content in the present – in our events programme, our wider communications and, crucially, in our published titles. With our long-standing reputation as a strong community, which did so much to support the world during the two years when microbiology came to the fore on a global scale, and a very successful start during 2022 at rebuilding and reopening following the pandemic, we are looking forward with excitement to the coming years.

Professor Gurdyal Besra FRS, President and Dr Peter Cotgreave, Chief Executive

Strategic Plan 2018–2022

Our vision: a world in which the science of microbiology provides maximum benefit to society.

In 2022 *Microbiology* was 75 years old. Originally named *Journal of General Microbiology*, it has been publishing the latest advances in the field of microbiology since 1947. Today the journal reflects the diversity and importance of microbiology in addressing current global challenges such as food security, environmental sustainability and health, by publishing fundamental and applied research across the breadth of the field. *Microbiology* brings together communities of scientists from all microbiological disciplines and from around the world.

Having maintained its relevance for 75 years, it looks to an Open Access future to continue to represent the breadth of microbiology. The world is entering a new era of open science, challenging the status quo by recognising the value of greater transparency, reproducibility, data management, collaboration and good scientific citizenship. At the Microbiology Society we embrace these changes and recognise the positive impact they represent for our community, for the scientific endeavour and for society's understanding of pressing global challenges.

Our focus at the Society has always been publishing for the community – where the income generated from our journals is returned to support and develop our community through a range of activities. These include our popular and varied programme of events – Annual Conference, our Focused Meetings and our Scientific Seminar series – all of which allow our members to share scientific knowledge, to network and to form new collaborations. We offer a range of grants, enabling our members to attend conferences, to meet collaborators, create new networks and to participate in education and outreach activities. We have a range of professional development support available via initiatives like our Early Career Microbiologists' Forum, as well as opportunities to engage with the media and policy-makers. We award prizes at all career levels, from early career researchers to those who are more established.

"The creation of a journal was a key driver for the founders of the Society, being a new place to publish general (rather than applied) research within the broad area of microbiology. In 2022, we have an exciting series of events linked to the anniversary, illustrating the multivarious ways in which the journal has been the home of important work in many areas of microbiology and to showcase how we plan to keep the journal at the cutting edge of microbiology publishing in the 21st century."
Microbiology Society member and *Microbiology* Editor-in-Chief, Gavin Thomas

Our mission: advancing the understanding and impact of microbiology by connecting and empowering communities worldwide.

In 2021 we launched our first fundraising initiative to support members for a variety of reasons, to help them to progress and to reach their full career potential. This year, we opened the Unlocking Potential Grant from the initial funds raised, which will support the career development of promising early and mid-career microbiologists through the development of their transferrable skills. In addition to mentoring support and expansion of leadership skills, we offer coaching to the recipients of the grant to support their needs, primarily focused on resilience and empowerment.

The Grant would not have been able to open without the support of our campaign donors. Throughout 2022 we shared their stories, illustrating the wide variety of ways the Society has supported its members and why, in turn, they feel compelled to support others. This means that together we can help not only to sustain microbiology but also to develop future leaders, who might in turn one day provide solutions to global challenges.

UNLOCKING POTENTIAL FUND

"The Society really gave me an anchor and its belief in my work supported my development of microbiology teaching as something essential, stimulating and innovative (over and above my laboratory research). Throughout my career, the Society provided professional support, excellent conferences, funding – and a sense of what microbiology is about; not just the science, but the people too. I hope that my donation will support others in their career journey."
Honorary Member of the Microbiology Society, Professor Jo Verran, chose to donate to the Unlocking Potential Fund to continue to support mid-career members working within education.

"The Society is one of the best means of introducing, supporting and promoting microbiology and microbiologists. It does so in so many ways: I had the chance to attend a major conference – the Society's Annual Conference. I left the conference having not just presented my work, but the Society's media team had managed to promote it to media platforms all over the world."
Member Dr Arwyn Edwards at Aberystwyth University and University Centre in Svalbard, Norway, has been involved in Microbiology Society activities since his undergraduate summer project which was funded by the Society. He chose to donate to the Unlocking Potential Fund to help ensure we have the broadest range of talent working on microbes.

"Over the years, so much has been made available for my lab group in terms of grants which has benefitted my students, so I wanted to pay that forward."
Member, President of the Federation of European Microbiological Societies and former President of the Microbiology Society, Professor Hilary Lappin-Scott, hopes to see the Unlocking Potential Grant support early career members to become more active in the community, whether that is with assistance with travel to enhance collaboration or through opportunities at conferences that can help with their career development.

Strategic Plan 2018–2022

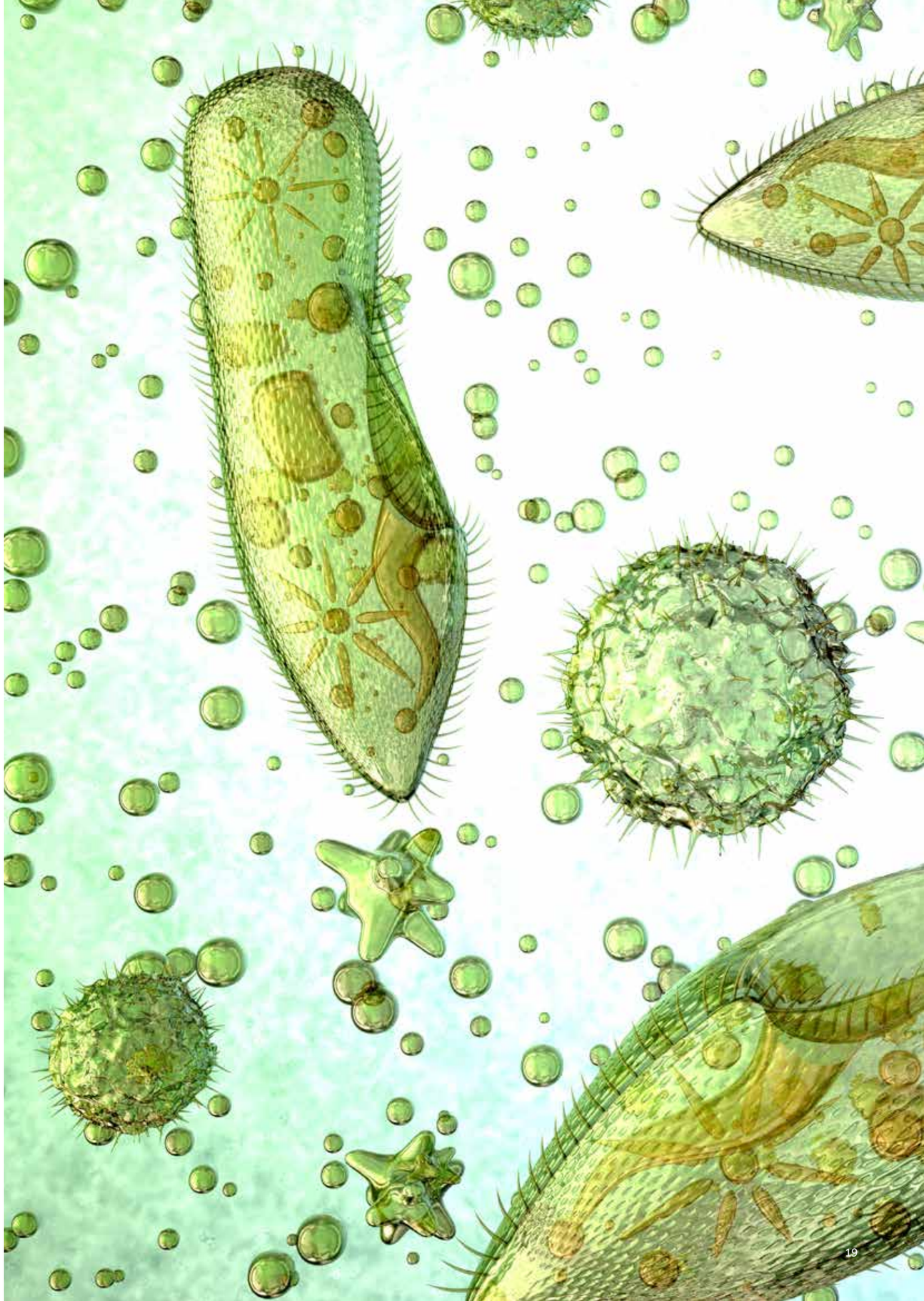
Why microbiology matters

Microbes are everywhere and affect almost all aspects of our lives. We cannot see them, but our world would not function without them. Bacteria, viruses, fungi, protists, archaea, algae, and other microscopic life forms are on us and in us, in the air, soil and water, and in our food. They are in and on the surfaces of everything in our homes, workplaces, and other environments. Most do not harm us, and many are essential for the good health of humans, animals, and the planet. Microbes help keep the planet healthy by recycling waste and supplying nutrients. Agricultural systems would not function without some while others are harmful pests. Industry uses microbial processes to produce foodstuffs and drugs, benefiting society and creating wealth. Microbes are very diverse; they are fascinating and modern imaging techniques show that they can be very beautiful.

The huge variety of microbes and the range of ways in which they affect us mean that microbiology is an enormously varied and constantly changing subject. Reflecting this diversity, microbiology intersects with many other disciplines in the natural and social sciences and is a vital element of studies in a large range of different fields. Basic research in microbiology has led to the development of most of the important molecular techniques that are now used to study organisms from microbes to humans. Biotechnology, synthetic biology, the production of therapeutic proteins and many medical diagnoses are all dependent on these molecular tools.

The study of microbes helps us to understand our world and our place within it. It gives us insights into the complexity of nature and society, which in turn provide many different health, environmental, social, cultural, industrial, and economic benefits. Microbiology answers big questions by giving us knowledge of very small things. Microbiologists are involved in addressing challenges that vary from urgent problems demanding immediate solutions, such as new and emerging diseases, through to long-term issues, like antimicrobial drug resistance, food security and environmental sustainability.

When the discipline of microbiology is strong and intellectually vibrant, we have a better chance of finding solutions to these problems and building a healthier, more sustainable, and more prosperous future.



The Microbiology Society

The Microbiology Society is a membership charity for scientists interested in microbes, their effects, and their practical uses. It is one of the largest microbiology societies in Europe with a worldwide membership based in universities, industry, hospitals, research institutes and schools.

Our members have a unique depth and breadth of knowledge about the discipline. The Society's role is to help unlock and harness the potential of that knowledge. We do this by bringing together and empowering communities that shape the future of microbiology. We generate public benefit by fostering communication both among communities of microbiologists and between microbiologists and other communities who can translate that knowledge in useful ways.

Because of the diverse range of challenges and opportunities our members encounter, the Society works in a variety of modes. In some circumstances, it is a leader, in others it works in partnership with like-minded scientific organisations and in others by convening different communities.

Our core values

We are welcoming to anyone interested in microbes, their effects, and their uses. Our reputation as a friendly, nurturing, and approachable community, driven by the experience of a diverse set of members, is extremely important to us.

We are transparent and professional in everything we do. We believe that decisions should be informed by evidence and expertise, and that scientific methods form a robust and dependable way of developing reliable evidence.

We are dedicated to our charitable aims. We are not for profit and strive to ensure that all our resources are applied optimally to furthering the science of microbiology and its application.

Objective 1

We will enable our members to strengthen their existing relationships and gain access to new communities, unlocking the potential for knowledge exchange.

The Society will maximise national and international networking opportunities for our members among existing and new communities.

The Society will increase the involvement of groups of microbiologists who are not currently well represented in our activities.

The Society will increase engagement and collaboration between our members and other societies, industry, funders, educators, regulators, and decision makers.

Objective 1

Bringing our community together

Events 2022

Our events programme brings together scientists to shape the future of microbiology, strengthen membership networks and enable knowledge exchange. This helps us to achieve our principal goal to develop, expand and strengthen the networks available to our members so that they can generate new knowledge about microbes and ensure that it is shared with other communities.

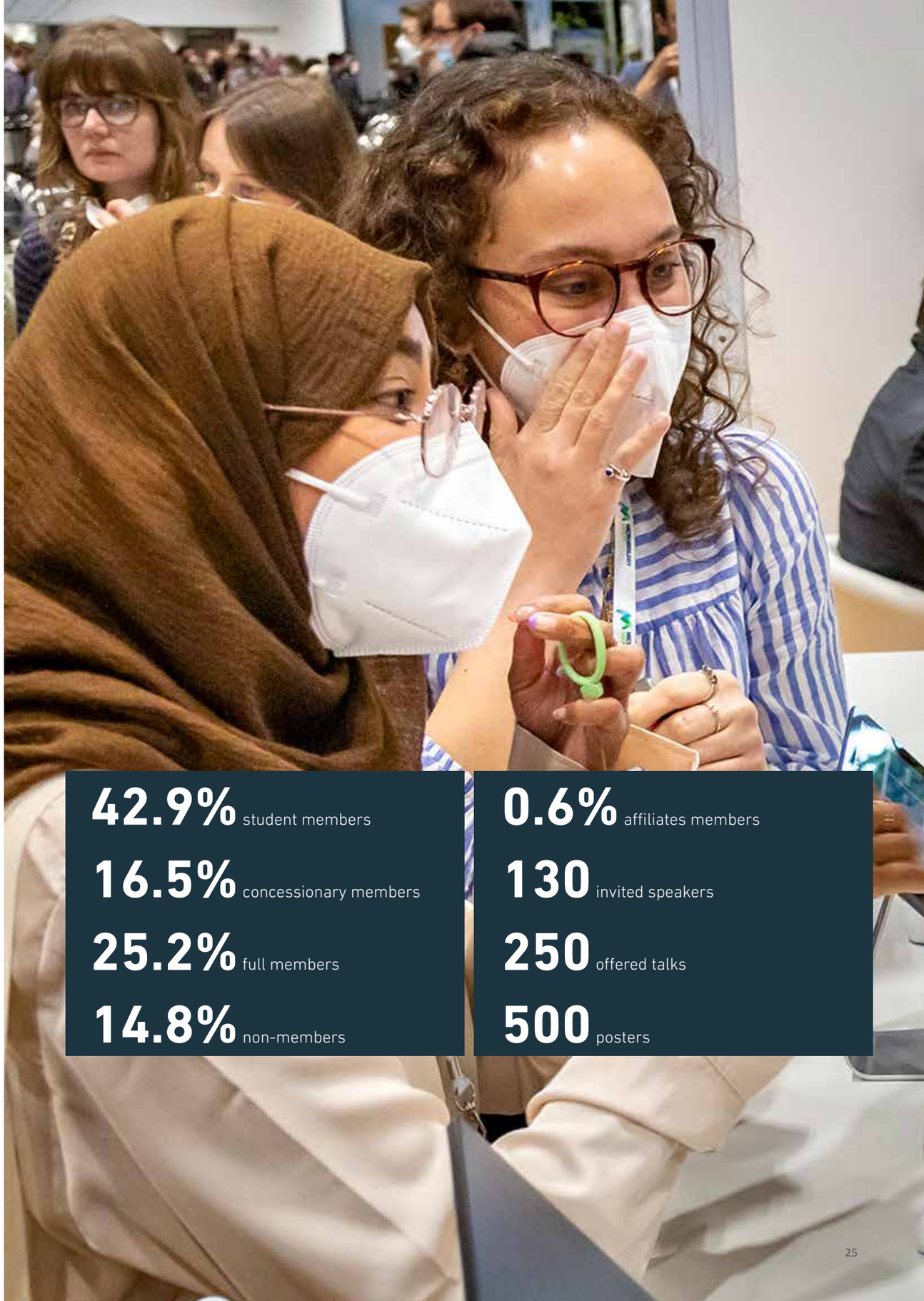
Annual Conference 2022 was the first time we brought our community together in person since 2019, following the cancellation of the 2020 meeting and the transition to our popular Annual Conference Online in 2021. The meeting was held at the ICC Belfast from Monday 4 to Thursday 7 April 2022 and attracted over 1,300 delegates over four days.

"I gained new contacts that will advance my research, create new collaborations, and assist the progress of my career."
Anonymous member feedback from Annual Conference 2022

The majority (59.4%) of attendees were student (42.9%) or concessionary (16.5%) members, with the remainder being full members (25.2%), non-members (14.8%) and affiliates (0.6%). Around 130 invited speakers presented work, alongside over 250 offered talks and 500 posters.

Despite the in-person nature of the event, the pandemic was a major factor in the planning and delivery of Annual Conference 2022. Appropriate mitigations included the availability of tests and masks for all delegates, and monitoring and controlling air quality. Unfortunately some speakers were unable to travel due to the virus itself or the associated travel restrictions, which resulted in around 15 pre-recorded talks featured during the event. Poster boards were distributed throughout the common spaces of the Belfast venue, maximising the space to avoid overcrowding.

The social programme provided a variety of opportunities for community-building, featuring early career and LGBTQ+ networking, *Microbiology's* 75th Anniversary reception, a cultural evening and quiz night.



Objective 1

There were nearly 5,000 tweets related to Annual Conference 2022 – #Microbio22 – from nearly 1,500 contributors and reaching an estimated 2.5 million people.

As part of our popular events programme, we ran nine Focused Meetings across the UK and Ireland in 2022, reaching a total of around 750 delegates and spanning a wide variety of topics with input from all four of the Society's Divisions – Eukaryotic, Prokaryotic, Virus and Irish Divisions.

Compared to Annual Conference 2022, the 2022 Focused Meetings attracted a higher proportion of non-members (35.3%). The split of Society membership grades remained broadly the same in proportion to one another as was seen at Conference.

"[At Europic 2022] I learnt new information that will help develop future experiments. Also discussed potential collaborations. It has provided me with further ideas and suggestions for future areas of research. I now know people from my field outside from my lab members."
Anonymous member feedback from our Europic 2022 Focused Meeting

Objective 1

Advancing understanding through our online Seminar Series

Our online Seminar Series was introduced to increase our reach across the microbiology community – for the dissemination of research in our journals to professional networks via regularly repeated short online meetings.

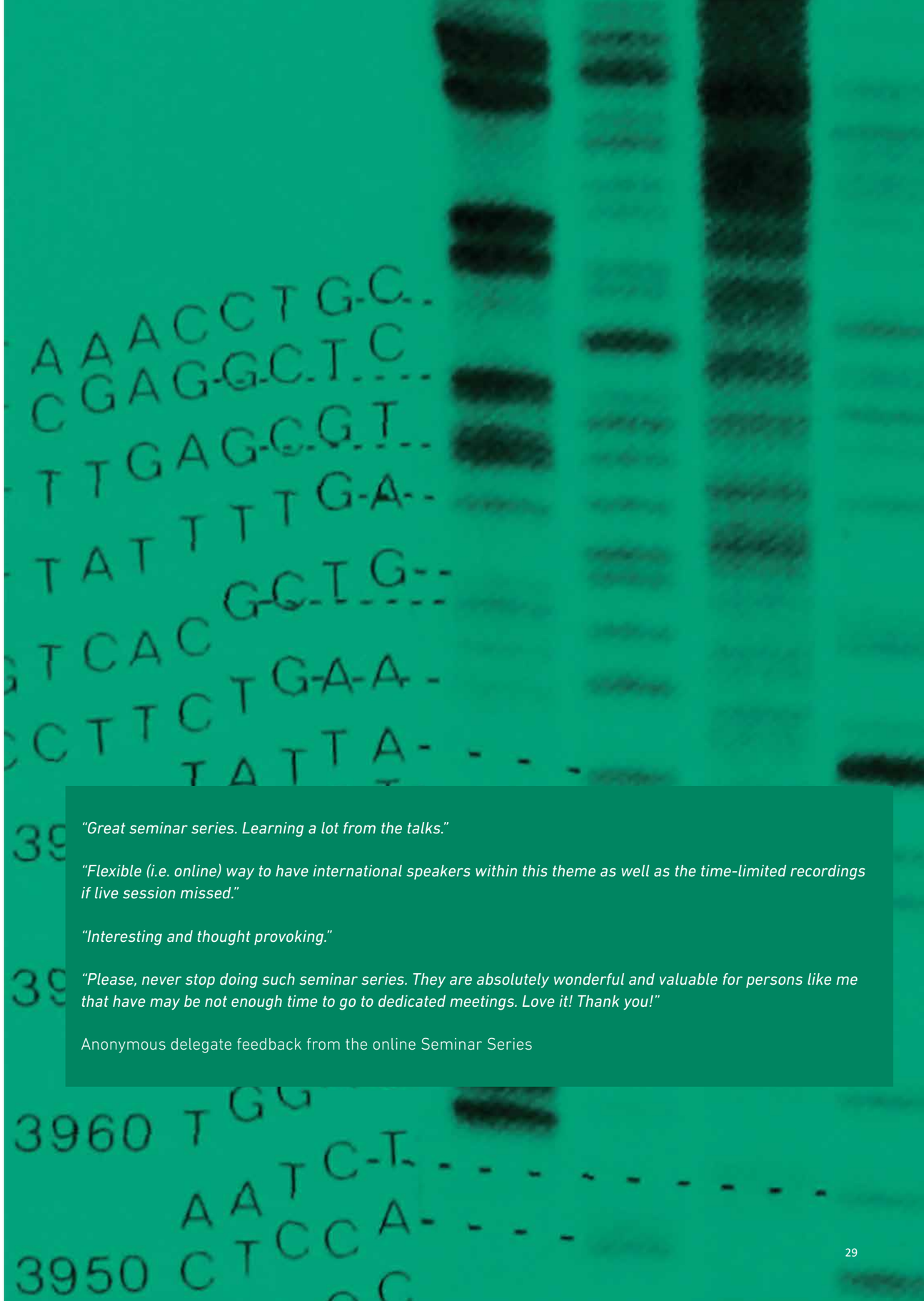
The monthly seminar series from *Microbial Genomics* brought together the community of microbiologists using genomic approaches to discover more about viruses, bacteria, archaea and microbial eukaryotes. Centred around the journal's key section areas, this series highlighted the latest research in Microbial Communities, Pathogens and Epidemiology, Genomic Methodologies, Functional Genomics, Microbe–Niche Interactions and Evolution and Responses to Interventions, and provided a forum for networking and knowledge exchange.

Over the course of the series, the journal reached 1,132 people internationally and feedback has demonstrated the value of these meetings:

- **100%** of respondents felt that the speakers were knowledgeable about their subject.
- **96%** felt that the presentations were either good or excellent.
- **100%** said that they were likely or very likely to attend future seminars in the series.
- **37.5%** said that they heard about the seminar series through Twitter, emphasising the importance of engaging with our community via this channel.

The *Journal of Medical Microbiology (JMM)* monthly seminar series showcased high-quality and timely research from the journal's key authors and Editors. *JMM* welcomes everything from laboratory research to clinical trials, including bacteriology, virology, mycology, and parasitology. The *JMM* seminars reflected this comprehensive scientific content.

Launched in 2021, the seminars covered topics ranging from SARS-CoV-2 vaccines, biofilms, cholera and diphtheria, to professional development talks about effective oral presentations and improving manuscript writing skills. Nine seminars were held in 2022, and by the end of the year we reached 911 active participants in 56 countries and had 1,116 downloads. Recordings are made available to the Society's members via Mi Society, the members area of the Society's website.



"Great seminar series. Learning a lot from the talks."

"Flexible (i.e. online) way to have international speakers within this theme as well as the time-limited recordings if live session missed."

"Interesting and thought provoking."

"Please, never stop doing such seminar series. They are absolutely wonderful and valuable for persons like me that have may be not enough time to go to dedicated meetings. Love it! Thank you!"

Anonymous delegate feedback from the online Seminar Series

Objective 1

Building on our successes for the future

At the February 2022 meeting of Building Communities Committee, a discussion was initiated on the long-term future of Annual Conference and how this could be better aligned with the work already undertaken to establish and better support our prioritised communities, including infection science and industry.

Consultation across the membership obtained views and recommendations from representatives of the Society's governance – Council, Committees, Panels, Divisions and Editorial Boards – as well as Champions and other members. The consultation workshops focused on how the Society uses the scientific programme to maximise opportunities as well as how it ensures that all its members are getting the best experience possible when they attend Annual Conference.

Six actions were prioritised for further exploration ahead of planning Annual Conference 2024:

1. The scientific programme should include more industry-relevant content, to encourage greater participation from those in industrial microbiology settings.
2. Symposia and workshops should offer more opportunities for flash poster presentations in addition to offered orals, as these benefit early career microbiologists.
3. The scientific programme should have broader content, so sessions appeal across the breadth of microbiology.
4. Annual Conference is attracting large numbers of abstract submissions and mechanisms need to be considered for ensuring the best possible experience for those presenting research.
5. Further changes need to be made to bring Editorial Boards and Divisions together in advance of planning the programme, such that the journal content pipeline is established at the outset, and maintained throughout the event.
6. Reconsider the duration of Annual Conference, taking into account its extensive content and ensuring a balance between program quality and cost effectiveness.

Objective 1

Increasing our engagement with new communities

Industrial and applied microbiology community

From 2020-2022 we have undertaken a full consultation process to better understand the current representation of industry and industrial microbiologists within the Society's activities, and to identify ways in which the Society could better serve communities of microbiologists working in industry.

At the end of 2022, the Industry Working Group made recommendations, from which three key actions will be prioritised:

1. To regularly include industrial microbiology content at Annual Conference and more widely across the whole events programme.
2. To explore opportunities for integrating early career microbiologists and industry, for greater understanding of careers within industry settings but also to foster skills for career progression between academia and industry and vice versa.
3. To develop Society communications to be more inclusive of those in industrial and applied microbiology settings, and to use the Society Champions scheme and popular Roadshows model to take the Society to industry.

"As an undergraduate student attending the event, it was beneficial to hear others talk about their research and also what the Microbiology Society has to offer. I wasn't aware of all the funding that was available to students or any of the other opportunities. Networking and chatting to people about their careers and what pathways they took to get where they are now, was also very interesting."
Anonymous delegate feedback

Objective 2

We will advance understanding of microbiology and champion the contribution made by microbiology, our members, and their work in addressing global challenges.

The Society will promote activities for communicating microbiological research across a range of disciplines.

The Society will increase capacity and opportunities for members to communicate microbiology and their work.

The Society will raise the profile of microbiology, our members, and increase the influence of the Society with the public, policymakers, and other stakeholders.

Objective 2

Championing the contribution made by Microbiology Society journals

Microbiology – celebrating 75 years

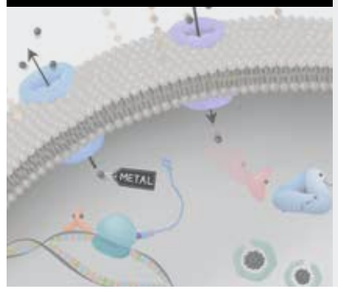
This year the Society celebrated 75 years since *Microbiology*, previously *Journal of General Microbiology*, published its first articles.

In 1947 the Society launched its first journal which aimed to bring together papers across fundamental microbiology and promote the original objective of the Society; to bring microbiologists together into a broad scientific community. This objective continues to be central to our work and our journals, and we are proud of the role that *Microbiology* has had in bringing together microbiologists and advancing the understanding and impact of the discipline worldwide.

The *Microbiology* 75th anniversary campaign was launched with a short film featuring Editor-in-Chief Gavin Thomas and Deputy Editor-in-Chief Tracy Palmer discussing the importance of the journal's future, as well as its distinguished past. It was our most watched film of the year, securing 22,000 views across platforms.

To celebrate the anniversary we explored the history of the journal in articles throughout the year: looking at how the journal has developed; its role in the Society; and the key authors and topics that shaped the early issues. We looked forward to where the field of microbiology is going and the research that is influencing that future. Over *Microbiology's* anniversary year we also launched the following collections:

Metals in Microbiology

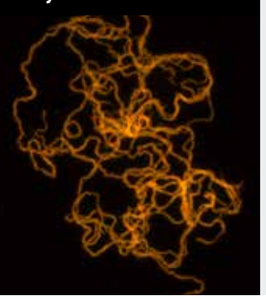


Guest-edited by Dr Jennifer Cavet and Dr Karrera Djoko, this collection of keynote research articles highlights research on metal-microbe interactions, bringing together advances in our understanding of how microbes handle metals, the utilisation of metals in proteins and the importance of metal handling systems in host-pathogen interactions. It also includes research that exploits these systems in industrial processes, the development of metal-related antimicrobials and in metal bioremediation and biorecovery.

Marine Microbiology

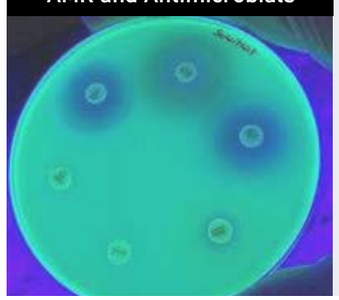
Guest-edited by Dr Katherine Duncan and Dr Alex Chase, this Marine Microbiology special collection highlights key research on marine microorganisms as they underpin the complex processes of our blue planet.

Mycobacteria



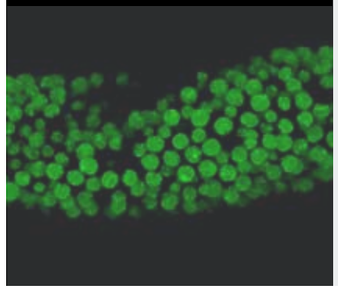
Guest-edited by Dr Riccardo Manganelli, this collection of keynote research articles highlights all aspects of mycobacterial biology, with particular focus on physiological aspects, such as stress response mechanisms, regulatory networks, and metabolic pathways, that might lead to a better understanding of the intriguing aspects of mycobacterial host–pathogen interaction and lead to the design of new strategies to fight these important pathogens.

AMR and Antimicrobials



Guest-edited by Professor Willem van Schaik and Dr Robert Moran, this Antimicrobial Resistance special collection highlights research on the emergence, accumulation and spread of antimicrobial resistance, with a particular focus on opportunistic pathogens and the mobile genetic elements therein.

Symbiosis



Guest-edited by Professor Michael Brockhurst and Dr Rebecca J Hall, this collection features microbe-focused studies of symbiosis, ranging from the molecular mechanisms of host-symbiont interactions, their genetic and genomic diversity, to understanding the impacts of symbioses in natural and manmade ecosystems.

Implications of climate change for terrestrial microbiomes and global cycles

Guest-edited by Drs Michael Macey, Sarah Worsley and Geertje van Keulen, this collection highlights key research investigating the role of soil microbiomes in climate feedback processes, and their response to global change. It also includes articles on the characterisation of biogeochemical cycles and terrestrial microbiomes, and contributions on advances made in affordable and sustainable research methods.

Fungal spotlight

Guest-edited by Professor Corby Kistler, Dr Ferry Hagen, Dr David Fitzpatrick and Dr Daniel Croll, this collection features studies of fungi in host-associated microbiomes, functional analysis of host-fungal or fungal-microbe interactions, the genetic and genomic diversity of host-associated fungi, as well as the impacts of environmental fungi in natural and manmade ecosystems.

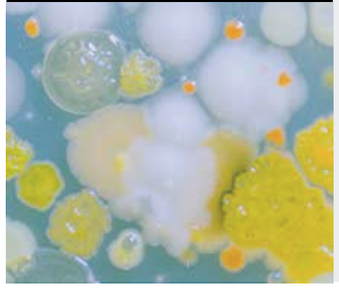
Bacterial Cell Envelopes

Guest-edited by Professor Tracy Palmer and Dr Yinka Somorin, this special collection of reviews is a celebration of the many important findings published in *Microbiology* that have contributed enormously to our understanding of the structure, function and biogenesis of bacterial envelopes. This 75th anniversary collection highlights some of the most important areas of current research in this vibrant research field.

Environmental sensing

Guest-edited by Professor Martin Welch and Dr. Anugraha Mathew, this special anniversary collection for *Microbiology*, timed to coincide with the Focused Meeting on Cell-Cell Communication, is a landmark collection of papers that celebrate the interaction of microbes with their environment and with one another.

Microbial Evolution



Guest-edited by Professor Michael Brockhurst, Dr Jenna Gallie, Dr James Hall and Associate Professor Stineke Van Houte, this collection highlights microbial evolution research papers from the *Microbiology* archives and features new primary research and review articles arising from the "Understanding and Predicting Microbial Evolutionary Dynamics" Focus Meeting held in Manchester 22-23 November 2022.

Having maintained its relevance for 75 years, *Microbiology* looks to an Open Access future to continue to represent the breadth of microbiology and will be the first in the Society's journal portfolio to transition from a hybrid model to fully Open Access in January 2023.

"The future for Microbiology must be a strong journal that people want to publish in and the benefit for that is manifold – both to members of the Society and also the community more generally. That's really what I hope we'll be able to see as we transition to Open Access and lead as an Open Access journal."
Member and *Microbiology* Editor-in-Chief Gavin Thomas

"*Microbiology will be the first journal in the Microbiology Society stable to [change from paywalled to] become fully Open Access and I think to do that in its 75th year sends a really important message to say that we're at the forefront of Open Access and we want everyone to be able to read the articles that are in the journal. For me, the future is Open Access and I think Microbiology offers a really good home for lots of microbiology work.*"
Member and *Microbiology* Deputy Editor-in-Chief Tracy Palmer

Objective 2

Amplifying the voices of our members

Briefing - *Climate Change: Microbes as our Allies*

"Microbes' pervasiveness and sheer abundance on our planet hints at a global-scale role and impact that we have only started to understand. From new species to new bioproducts, results from fundamental and applied microbiology are increasingly revealing microbes as a potential source of new solutions to heal the world."
Impact and Influence Committee member, Professor André Antunes, Senior Lecturer in Microbial Genetics and environmental microbiology researcher from the Macau University of Science and Technology, China

"While the impact of climate change is here with us, microbes are a catalyst to regain our world."
Member Professor Afolake Olanbiwoninu, Lecturer and Researcher from the Ajayi Crowther University, Nigeria

With advice from members André Antunes and Afolake Olanbiwoninu in February 2022 we released the briefing *Climate Change: Microbes as our Allies*, in time for the publication of the latest climate change report of the Intergovernmental Panel on Climate Change. In the briefing, we addressed the following three areas:

- **The importance of microbes for climate change:** Microbes play key roles in biological systems, contribute to our changing environment and are intricately linked with climate change. They exist in our oceans, deep in the soil and as high up as the stratosphere, yet less than 1% have been discovered and their extensive influence on our planet is therefore largely unexplored.

- **The disruption of microbiomes caused by climate change:** Like all living things, microbes are affected by and struggle to cope with the devastating consequences of climate change such as ocean acidification, soil warming and melting of permafrost. Rapidly changing environments have critically jeopardised their ability to survive and are shifting the composition of microbial communities.

- **The potential of microbes to combat climate change:** We can harness the capabilities of microbes to combat climate change. By employing microbes, we can reduce greenhouse gas emissions and transform how we manage waste, produce crops and generate electricity to limit our impact on the environment.

Objective 2

Open Letter - *Science for Ireland: Time for an Ambitious Research and Innovation Strategy*

As a follow-up to our 2020 position statement *Science for Ireland: Propelling Research and Innovation Success*, we collaborated with the Institute of Physics in April 2022 on an open letter to the Irish Government about its new research and innovation strategy, urging the Government to increase investment in research and development, allocate funds along the innovation pipeline, offer competitive career opportunities, promote collaboration across borders and maintain an open dialogue with experts.

We continue to maintain our strong engagement in the country and collaborate with other organisations to empower the Irish scientific community to provide policy advice on the decisions that matter to them.

Consultation responses

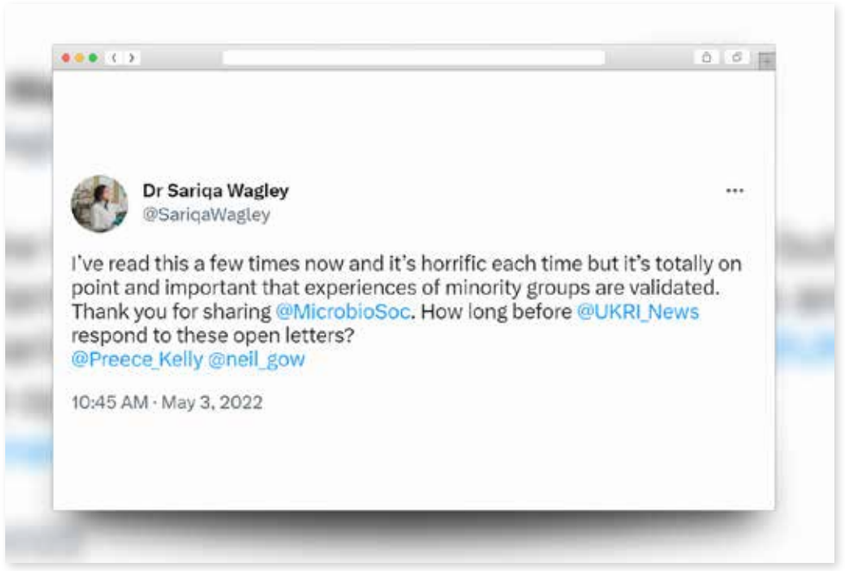
Response to UK Research and Innovation's (UKRI) draft EDI Strategy Consultation

Excerpt: "In its current draft, UKRI's EDI strategy does not set out a truly revolutionary vision to make the sector more equitable overall. In order to achieve 'a research and innovation system by everyone, for everyone', UKRI must play a key role in developing new policies that enact real change. We recognise that UKRI does not hold all of the levers for change, however, institutions are unlikely to embed change without key principles set out by UKRI."

In April 2022, we responded to UKRI's consultation on its new EDI Strategy. Despite a few examples of good practices, our members strongly expressed that UKRI currently fails at fostering an inclusive, equitable, just and diverse research and innovation system.

As well as highlighting some of these shortcomings through quotes and case studies from members who have faced unacceptable challenges when applying for UKRI funding, our response encourages UKRI to not only develop an ambitious EDI strategy but to ensure that significant and permanent changes occur in its very fabric.

"The letter is very strong and I thank you and the writers for articulating such strong points and not holding back. Reading what others have said and hearing others go through similar experiences is very heart-breaking and so the strong letter is much welcomed."
Anonomus quote from a member who shared their experience with us



Objective 2

Response to the Welsh Government's draft Innovation Strategy

In October 2022, we responded to a Welsh Government consultation on its draft Innovation Strategy for a 'stronger, fairer, greener Wales'. Our response called for increased opportunities for collaboration, increased investment in Welsh science, a more balanced allocation of funding along the innovation pipeline from basic research through to commercialisation and more visible pathways to engage the next generation of innovators. We encouraged the Welsh Government to include healthcare and infection science in Wales' areas of strength, to invest in preventative and proactive healthcare for an aging population and to take inspiration from other successful devolved nations.

Summary of views – 'Nature and Us' Survey

"The biggest change we can make, as a generation, is to appreciate how inter-connected with our environment we are and therefore how preservation of it is paramount."
Early Career Member and Champion Eleanor Furness, Aberystwyth University, UK

We have over 140 members in Wales and in May 2022 we coordinated a response to the 'Nature and Us' survey launched by Natural Resources Wales, the principal advisor to the Welsh Government, industry and the wider public about issues relating to the Welsh environment and its natural resources. 'Nature and Us' aimed to get everyone in Wales thinking and talking about the future they wanted for their natural environment, and to consider the changes that need to be made both individually and on a government level.

We compiled a summary of views that reflected the perspectives of those who responded to our call for input, sharing issues that mattered to them. There were themes that came up repeatedly among our respondents, including:

- Renewable energy generation
- Improved public transport infrastructure
- Environmental stewardship
- Support for local farmers
- Improved recycling schemes.

Our response considered the impact of individual actions on the environment, how society's relationship with nature needed to change and the changes that need to be made to secure a sustainable future. In our response, we shared a member's (anonymous contribution) idea to introduce a producer responsibility scheme for the recycling of packaging: "Respondents suggested establishing a legal requirement for all fast-food packaging to be completely recyclable, and the implementation of a sales levy to pay for this recycling. A scheme like this has been implemented successfully in Germany, which operates a producer responsibility model. This means that producers are responsible for the cost of recycling, and waste costs depend on the weight of a product that companies make."

Subsequently, the Welsh Government issued a draft of its new Innovation Strategy and our recommendation has been taken forward. While we were not quoted, and it might be that others gave similar advice, the text is very close to our own: "Improve recycling of packaging, by introducing an Extended Producer Responsibility (EPR) scheme to ensure producers bear the full 'end of life' costs for their packaging and that they report on and meet packaging recycling targets set for Wales."

Objective 3

We will reinforce the Society's long-term sustainability and resilience by diversifying income streams, increasing efficiency and ensuring robust governance.

The Society will increase the emphasis on placing members at the heart of Society activities and growing future leaders.

The Society will increase opportunities for generating income from a range of commercial and philanthropic sources.

The Society will maximise cost savings and efficiencies.

Objective 3

Securing our long-term sustainability

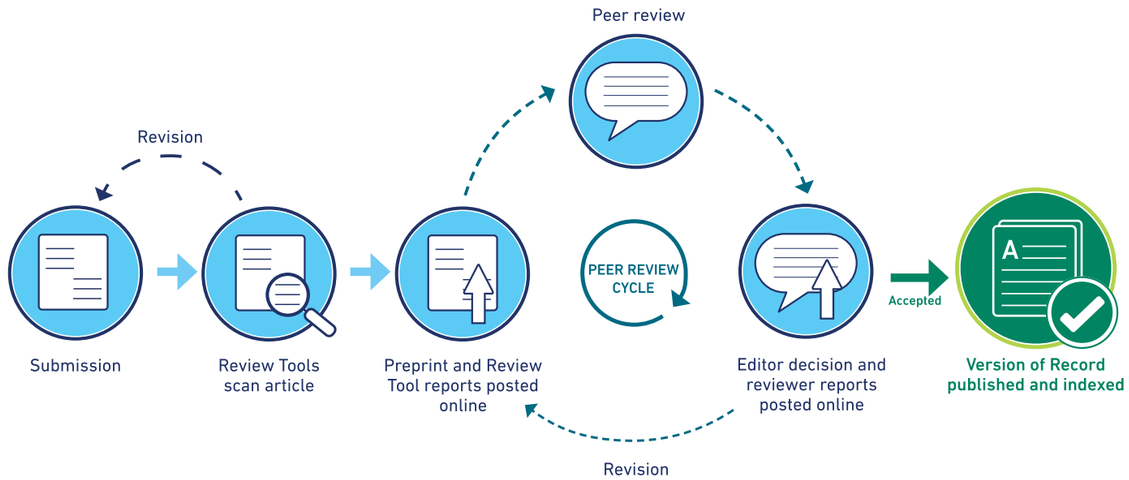
Access Microbiology: an open research platform

Following the Society's successful bid for a Learned Society Curation Award from the Wellcome Trust and Howard Hughes Medical Institute in 2020, this year has seen the successful conversion of our sound science journal *Access Microbiology* into an innovative open research platform, which was launched at the end of May 2022. The platform combines many of the elements of a preprint server with those of an academic journal in an effort to improve the rigour, reproducibility and transparency of the academic record, fast-tracking the communication of valuable research and thus maximising potential for impact and influence.

The sound science scope of the platform ensures that all rigorous research can be published – a critical component in advancing the understanding of microbiology. As well as benefitting the wider microbiology community, it crucially provides our early career microbiologists with an opportunity to publish much of the research that they generate that may otherwise remain unseen because it has not historically been seen as 'worthy of publication'. The launch of the platform is just the beginning of its evolution, and feedback from our community is critical for its success.

"The transformation of Access Microbiology into an open research platform is a significant step in ensuring there is accountability in our research and the peer review process, as well as offering researchers the opportunity to improve their work right from the beginning of the submission process. It is a globally unique platform that has been developed by our community, for our community, and I can't wait to see it embraced."
Member and Chair of Publishing Panel, Professor Paul Hoskisson, University of Strathclyde, UK

Multiple submissions have been received to the platform and from June until the end of 2022, 83 preprints had been posted. Some submissions were submitted directly to the platform, whilst others have been routed via the transfer mechanism from the wider journal portfolio. Of these preprints posted in 2022, 31 have been accepted for publication as a Version of Record, with nine published in 2022. The remainder will be published in 2023.



The changing business model

The Society's Council considered the changing circumstances in the world of publishing over the course of its meetings in 2022, especially the ultimatum by the Plan S coalition of major funders that they would not fund research after 1 January 2025 if it were to be published anywhere that did not meet its definition of Open Access. Council had unanimously agreed to flip *Microbiology* to full Open Access from January 2023 but iin light of external economic factors, it revised the timetable for flipping the *Journal of General Virology* and the *Journal of Medical Microbiology* and agreed to flip these two titles to Open Access in January 2025. This additional time will allow for the further development of the business model, including potential institutional Open Access offerings, with discounted Article Processing Charges for global regions that are unlikely to convert to Publish and Read and which aims to protect revenues when Publish and Read becomes purely 'Publish' in 2025.

Objective 3

Ensuring we are inclusive of all our members

Members Panel and (EDIS) Equality, Diversity and Inclusion in Science and Health

In 2022 our first Members Panel was formed, bringing together a group of microbiologists from historically marginalised communities who convene to bring their perspectives to the Society's efforts to ensure it is welcoming across all its activities.

The Members Panel enables us to expand the diversity of perspectives represented at decision-making level by providing a platform for members from minoritised ethnic and racial groups, members who are disabled, and members from other historically marginalised backgrounds to convene. The Panel's co-Chairs work with the General Secretary's Group to ensure that equality, diversity and inclusion matters continue to be appropriately considered at the highest level of the Society's governance.

For the first three-year tenure of the Members Panel, the following manifesto has been agreed:

1. We will establish a reliable, visible and accessible presence for underrepresented members of the Society. To achieve this, we will ensure the Society increases representation at all levels of its governance structure, and in member- and externally-facing activities such as Annual Conference and outreach activities.
2. We will increase access to role models for members from underrepresented groups. To achieve this, we will develop a peer support network to provide role models and mentorship tailored to members' personal experiences and needs. We will also forge links with external organisations and initiatives to broaden underrepresented members' support networks and help the Society to effect tangible change.
3. We will leverage the Society's position to achieve wider impacts in EDI across the sector. To achieve this, we will make use of the Society's platforms to facilitate the sharing of best practices in EDI, for example at Annual Conference, to support members and institutions in achieving their EDI goals beyond the Society's immediate reach. We also seek to ring fence funding for member-organised outreach activities that target and promote underrepresented groups.

Following the introduction of the Members Panel, the Society was accepted into EDIS, a coalition of organisations working to improve equality, diversity and inclusion within the science and health research sector, in May. By being part of EDIS, the Society has access to a network of experts, opinion, information and speakers across different types of organisations, and the opportunity to share our achievements and develop new ideas, policies and practices as a collective.

Dr Edward Cunningham-Oakes
Co-Chair of the Members Pannel
Postdoctoral Research Associate,
University of Liverpool, UK

"As a Society member from both a working-class background and the Caribbean community, I understand the profound importance of cultural inclusion, both in the Microbiology Society and more widely, in science. One of my main aims as a researcher is to be an advocate for all disadvantaged communities whilst engaging in my research. I joined the Panel to enact this change."

Dr Kevin Maringer
Co-Chair of the Members Pannel
Co-Chair, Group Leader,
The Pirbright Institute, UK

"I am passionate about building more inclusive research environments and over my career have worked across a number of diversity characteristics with a particular focus on the LGBTQ+ community, gender, socioeconomic background and race. Because of my lived experience I have an interest in learning more about and supporting people with invisible diversity characteristics, for example LGBTQ+, neurodiverse and first-in-family-to-university individuals."

"One of the Microbiology Society's core values is that we are welcoming to anyone interested in microbes, their effects, and their uses. We are delighted to be a new member of the EDIS network as we believe fostering and promoting greater diversity and inclusion amongst our membership will ensure we reach the full potential of microbiology research and the impact it has on our current societal issues."
Professor Gurdyal Besra FMedSci FRS, President of the Microbiology Society

Objective 3

EDI activities

A big focus for equality, diversity and inclusion activities in 2022 involved using a calendar of awareness days to publish focused content from members, highlighting challenges faced by members from historically marginalised communities.

The following Q&As, blogs and podcasts were published during 2022:

International Day of Women and Girls in Science
11 February 2022 | Q&A with Champion, Linda Boniface Oyama.

International Women's Day
8 March 2022 | Q&A with member, Petra Fay.

International Day of the Elimination of Racial Discrimination
21 March 2022 | Q&A with Champion, Omololu Fagunwa.

International Transgender Day of Visibility
31 March 2022 | Q&A with Champion, James Oliver.

International Day Against Homophobia, Biphobia and Transphobia
17 May 2022 | Blog from member and attendee, Charlotte Roughton, reviewing the LGBTQ+ Networking Event at Annual Conference 2022.

Refugee Week
20 June–26 June 2022 | Blog from The Council for At-Risk Academics (Cara) about what they do/how to support.

World Refugee Day
20 June 2022 | Q&A with member, Adnan Al-Hindi, who received free membership via a collaboration with Cara.

Black History Month
October 2022 | Blog from Members Panel member, Aliyah Debbonaire, discussing a black scientist who inspired her and how they impacted her life.

LGBTQ+ STEM Day
18 November 2022 | Q&A with member, Rebee Penrice-Randal.

Disability History Month
22 November–22 December 2022 | Podcast with Members Panel member, Kirsty Jones, discussing accessibility in labs.

International Day of Persons with Disabilities
3 December 2022 | Q&A with Members Panel member, Kirsty Jones.

This year we launched our first LGBTQ+ focused event at the Microbiology Society, with the inclusion of the LGBTQ+ Networking Event at Annual Conference 2022. The social event took place on 5 April 2022 and attracted 30 attendees. It was organised by Champions, Bruno Francesco Rodrigues de Oliveira and Daniel Gonçalves-Carneiro with support from Members Panel members, Kevin Maringer and I'ah Donovan Banfield.

Following the success of the event, members organised an event for LGBTQ+ STEM Day. 'Queer in Microbiology': *A Conversation* took place online on 18 November 2022 and attracted 87 attendees. It included a presentation about the Members Panel, a panel discussion with a selection of LGBTQ+ scientists and a Q&A with the audience. The event was also launched during 2022's Pride month to increase visibility on social media.

An ambitious future – Strategy 2023–2027

The Society's five-year strategy expires at the end of 2022 and in order to have a new strategy in place to launch, a full consultation process with staff, Council and Committee members started in 2021 and continued into 2022. This process ensured that the new strategy for the period of 2023–2027 will help to best realise the Society's vision of a "world in which the science of microbiology provides maximum benefit to society".

The consultation process included the following:

- Online surveys with staff and members involved in our governance bodies exploring views on the current strategy and ideas for what the Society could be facing next.
- A Council session to consider what had worked well over the previous four years of the current strategy and to discuss areas of potential challenges and opportunities.
- An All Staff Meeting with the President to workshop three themes highlighted by Council.
    - What the Society wants to achieve in terms of equality, diversity and inclusion (EDI),embedding this within the Society and the wider membership.
    - Internationality, global engagement and wider stakeholder engagement – building on our collaborative efforts and opportunities for greater digital engagement with members (and potential members) outside of the UK and Ireland.
    - Member engagement, maintaining our culture of a member-driven Society, and using this to put microbiology at the centre of wider society.
- Consideration of these themes by the Building Communities Committee, Impact and Influence Committee, and Sustainability Committee in February 2022.

Council received a summary of the All Staff Meeting workshop with the President and the Committee discussions when it met in March 2022 and these ideas were further worked on in order to draft the Society's strategy for 2023–2027.

Council agreed in December 2021 that the new strategy should build on the aims of the current strategy, as these still held true for the Society. Consequently, much of the language of the new strategy remains essentially unchanged. Council agreed, however, that greater focus would be needed on EDI, on broadening and deepening the Society's international reach, and on cementing a member-driven culture.

As with the 2018–2022 strategy, the new strategy captures the ambition, energy, enthusiasm and expertise of our members, providing an organisational plan that:

- Inspires, enthuses, and motivates staff, members and trustees (by clearly expressing the Society's vision, integrity and passion);
- Sets a clear direction for the organisation;
- Provides a framework for strategic decision making and the allocation of resources; and
- Enables the organisation to evaluate progress against objectives.

An ambitious future – Strategy 2023–2027

Principal goal

As a way of creating a simple narrative, concatenating the strategy's objectives into a single principal goal: *In the five years between 2023 and 2027, the Society's principal goal is to strengthen our culture of being a community-driven Society by amplifying our members' voices, wherever they are in the world, and empowering them to embed the benefits of microbiology within wider society.*

By broadening our community to be more inclusive and international, we can combine our members' knowledge and lived experiences with the expertise of our staff to ensure that the Society is instrumental in transforming opportunities to connect microbiologists into impacts. This in turn will drive us towards a world in which the science of microbiology provides maximum benefit to society.

Objectives

The specific objectives set out in the strategy are:

1. Through a better understanding of the diversity of our members, we will enable them to strengthen their existing relationships and gain access to new communities, unlocking the potential for international collaboration and global knowledge exchange.
2. By harnessing local knowledge for worldwide impact, we will advance understanding of microbiology and champion the contribution made by microbiology, our members and their work in addressing global challenges.
3. By recognising global differences in accessing opportunities at the Microbiology Society, we will build on existing strong financial and governance foundations to reinforce long-term sustainability and resilience through diversifying income streams, increasing efficiency and ensuring robust mechanisms for decision-making, monitoring and evaluation.

Monitoring and evaluation

Over this five-year period, the Society will be able to assess its progress and monitor its impact annually by how well we live up to our values and achieve our objectives. At the end of this timeframe, we will also evaluate our strategic impact overall.

Risk management

A vital element to ensuring our sustainability is the diligent and prudent management of risk. Council has identified the specific risks that may be faced by the charity and put in place policies to mitigate them. The Audit, Risk and Evaluation Committee, with an external Chair has responsibility for the detailed examination of risk. One of its duties is to consider the major risks that Council needs to consider. The Committee developed an improved Critical Risk Register which was launched in 2020, with ten broad categories of risk rather than a long list of more specific challenges.

The principal risks which Council has identified are:

- Failure to manage relationships
- Failure to diversify income
- Inertia or unwillingness to change
- Failure to keep pace with the external environment
- Loss of members, authors and /or readers to competing groups
- Failure to manage reputation
- Failure to nurture existing business
- Failure to communicate or implement strategy
- Failure to manage themes of different groups
- Failure to operate effectively and efficiently

Council reviews the Critical Risk Register every six months at its March and September meetings and the Audit, Risk and Evaluation Committee continues to look at risk in detail at its meetings throughout the year. The Committee spent time during 2022 considering the risks and opportunities associated with flipping the journals to Open Access, as well as any risks associated with the new 2023–2027 strategy. It also started work to develop a risk appetite framework and potential statement to consider how much, and what kind of risk to take when making decisions.

Income and expenditure

The Society continues to be highly dependent on its journal subscriptions for its main source of income. The Society's Publish and Read business model continued to gain strength throughout 2022. In return for a fee, institutions get access to our journal content and authors have an unlimited opportunity to publish in our journals. This was launched in 2020 in response to an ever-changing research landscape, which sees the world entering a new era of open science, challenging the status quo by recognising the value of greater transparency, focus on reproducibility, data management, collaboration and good scientific citizenship. There was also a push to Open Access by PlanS – an initiative for Open Access publishing that was launched in September 2018 and supported by international consortium of research funding and performing organisations. We worked to mitigate this risk by ensuring our Open Access policies were compliant with even the most stringent funder mandates and further engaging with the Open Access policy community to influence the development of pragmatic guidelines around an open publishing future. Plans are underway to develop this model further, as the Society's portfolio moves towards becoming fully Open Access by 2025.

Fundraising

In 2022, the Society's Unlocking Potential Fund fundraising campaign continued to raise funds for the Unlocking Potential Grant. The grant itself launched in May 2022 and is aiming to provide support to early and mid-career microbiologists to deal with circumstances that may hold them back from achieving their full potential. £9,000 in donations were received in 2022 and all fundraising was carried out via direct individual giving appeals to the membership, both digitally and by direct postal mailings. Donations were received electronically via our website or via cheques posted directly to the Society's offices. Work to ensure that members could add gift aid to donations was carried out and launched at the end of the year. No fundraising partners were used and no complaints regarding fundraising practices were received in the year. We have not appealed to the general public for donations or sought funds from other sources during the year.

Structure, Governance and Management

The Microbiology Society is a company limited by guarantee, first incorporated in 1972, and a registered charity with the charitable object of advancing the art and science of microbiology. Its governing document comprises the Articles of Association, which incorporates the Memorandum of Association. These documents are all available on the Society's website.

The trustees have given careful consideration to the Charity Commission's public benefit guidance in defining the Society's Vision and Mission statements and in ensuring that the Society continues to achieve the advancement of the art and science of microbiology.

The Society is led by a Council who are the trustees of the charity and the directors of the company. Council is made up of three Executive Officers (President, Treasurer and General Secretary), seven elected members and seven co-Chairs of three strategic committees: Building Communities Committee, Impact and Influence Committee, Sustainability Committee, and the Early Career Microbiologists' Forum Executive Committee. The Treasurer is the Chair of the Finance Committee.

There is also an Audit, Risk and Evaluation Committee with an external independent Chair which reports to Council annually.

The Executive Officers and Chairs of Committees are appointed by Council. The Society continually reviews the process for recruitment for these positions, balancing the need for an open and transparent process, provision for equality, diversity and inclusion and the importance of engaging suitable and motivated individuals. For all Executive Officer posts and Committee Chairs, there is an open call for nominations from the eligible categories of membership. Nominations are then reviewed by an appointments panel, comprised of members of Council, and chaired by the General Secretary. The panel may also approach and invite nominations from potential candidates. The panel brings recommendations to the full Council for consideration before appointment. In the case of the President, a formal, anonymous vote is undertaken by Council of those candidates considered suitable by the appointments panel. In the case of Elected members of Council, nominations are also sought from the membership and candidates elected via open election. The Chair of the Early Career Microbiologists' Forum is elected by the members of the Forum.

Professor Mark Harris stepped down as General Secretary on 31 December 2022.
Dr Karen Robinson took office as General Secretary on 1 January 2023.

Structure, Governance and Management

All newly appointed or elected members of Council receive induction information and are required to complete a declaration that they are not disqualified from serving as company directors and charity trustees. Members of Council also complete a Register of Interests form which is publicly available and abide by the Society's policy on potential conflicts of interest. The Society provides short training sessions to Council members on their duties and responsibilities as trustees and directors, and governance best practice as well as providing access to external governance training courses and supporting Council members to attend these.

Council meets quarterly to transact the business of the Society and in 2022 met in March, July, September, and December. It also held two additional extraordinary meetings in January and March 2022.

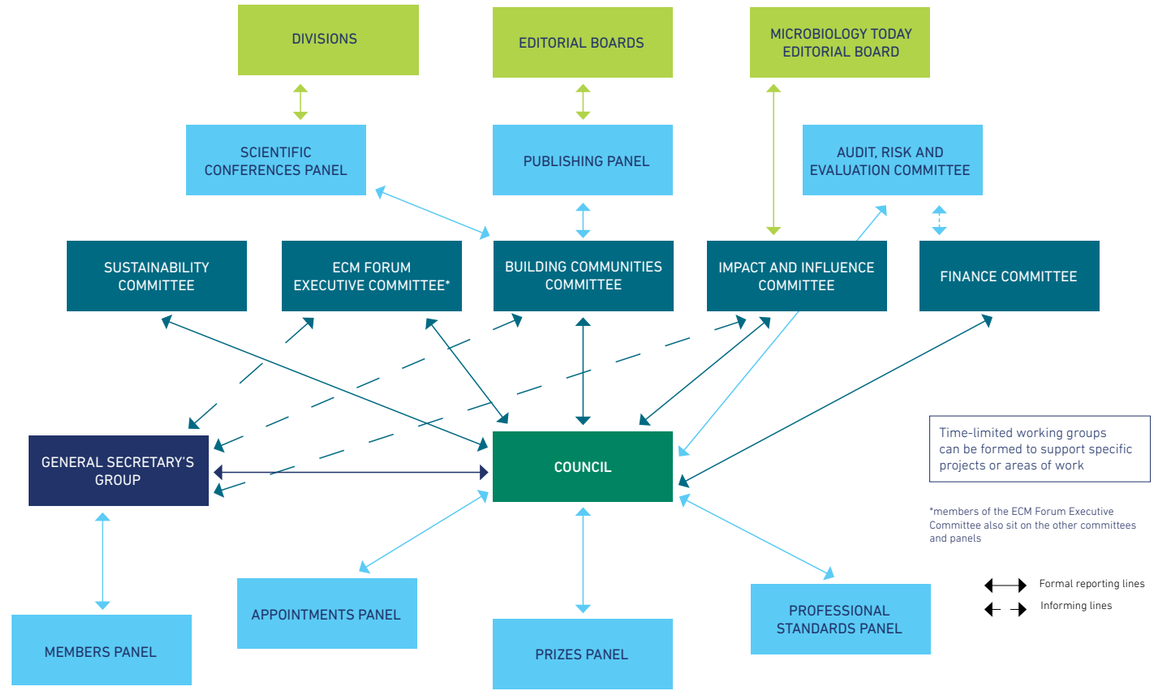
Committee members provide knowledge and expertise to oversee and inform delivery of relevant projects. The Committees are formed of members of the Society who are elected to positions by the full membership. Each Committee also has provision to co-opt members who can be non-members if the Committee identifies particular skills.
The Early Career Microbiologists' Forum Executive Committee is supported by the wider Early Career Microbiologists' Forum to ensure early career members can help shape the future of the Society.

The Divisions of the Society feed into the Building Communities Committee via the Scientific Conferences Panel to ensure coverage from a range of microbiological areas in the meetings programme. Three of these are taxonomically defined, dealing with Eukaryotic microbes, Prokaryotes and Viruses. The Society also has an Irish Division to oversee its activities in Ireland.

The Society's journal Editors-in-Chief and Deputy Editors-in-Chief form the Publishing Panel, which reports into the Building Communities Committee and is responsible for advising on the publishing strategy and overseeing the delivery of the operational aspects of the journals programme.

Members of Council, Committees and Divisions serve on a voluntary basis with no remuneration but claim reimbursement of expenses incurred whilst on Society business.

The day-to-day management of Society business is delegated to the Chief Executive, supported by the Senior Management of the Society. During 2022 there were two directors - a Chief Programmes and Partnerships Officer and a Chief Operations Officer. The Society employs over 50 staff; staff names, job titles and key contact details can be found on the Society's website. In July 2022, staff were offered the opportunity to accept voluntary redundancy to develop a reshaped staff workforce of people suited to the challenges and changes required to deliver the 2023-2027 strategy. All salaries, including those of key management personnel, are reviewed and benchmarked by reference to external agencies as well as being regularly reviewed by the Finance Committee. It is the aim of the Society to attract highly talented individuals who are motivated to work in the charity and scientific sectors. The Society's remuneration policy is the same for all members of staff, including the Chief Executive. Remuneration for staff is reviewed by the Finance Committee in March each year, and if a percentage change is recommended and approved by the Society's Council then this is implemented from April of each year. In deciding on the percentage change, the Finance Committee and Council consider a whole range of factors including affordability and inflation rates.



Financial Review

Results for the year

The Society's results for the year are set out in detail in the statement of financial activities on page 71, which incorporates the income and expenditure account. Council has reviewed the results for the year and the position at the year end and considers them to be satisfactory.

The principal funding sources have continued to be income from sale of subscriptions and Publish and Read access to the Society's publications, investment income and membership subscriptions. In 2022 many Society events returned to being held in person, and several previously postponed events were held, resulting in a significant events programme. Income from event registration fees and exhibitor and sponsorship fees returned to pre-pandemic levels. The Society had continued expenditure on journal publishing, grants, policy, and membership activities. Expenditure for the events programme was significant due to additional travel, accommodation and Covid-19 mitigation costs for these as society came out of the pandemic.

It is the objective of the Society over a period of time to utilise each current year's net income after providing for non-recurring items and, as planned, ended 2022 with a deficit against the main operating budget of £410k. Following a review of the Society's reserves in 2018, a plan was agreed to spend down £1.78m of reserves across the life of the strategy 2018-2022 and expenditure in 2022 included continued investment in Society's technology, *Microbiology's* 75th Anniversary, fundraising activities, journal promotion activities such as additional support from journal agents and staffing to support these. The overall outturn for 2022 therefore was a deficit of £1.86m before accounting for a loss on investments of £1.30m and a foreign exchange gain of £126k.

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Reserves policy

It is the policy of Council to maintain sufficient funds to meet its strategic objectives contained in its 5-year strategic plan 2018–2022. The reserve is intended to provide a source of funds for situations such as a change in circumstances, a sudden increase in expenses, unanticipated loss in funding, or uninsured losses. The reserve may also be used for one-time, non-recurring opportunities that will build long-term capacity, such as research and development, investment in infrastructure or collaboration opportunities.

The target minimum reserves level is equal to two years' operating costs for publishing operations plus one year operating costs for all other activities. The calculation includes all recurring, anticipated expenditure such as salaries and benefits, the programme of current activities and ongoing professional services. The current reserves policy has a target reserves figure of £6.21m. Actual free reserves are £10.10m.

Council has invested reserves in the following activities which spanned the 5 years of the 2018–2022 strategy: 75th Anniversary activities; investments in technology to support the publishing process; investment in physical infrastructure such as IT; and investment in people, both our members, through engagement activities, and staff.

Council modelled scenarios and developed and analysed the Society's long-term financial forecast before carrying out a detailed evaluation of the potential risks to its income, of which 85% comes from journal sales. The changing external environment in this area, including the decision to covert journal titles to fully Open Access by 2025, remains a significant risk and the reserves level, including being in excess of the target, was developed to take into consideration the fact that changes to the current publishing model would take time to take effect and would require significant additional investment in activities such as author marketing, increased engagement with journal sales agents and investment in staff to support these changes.

The target amount will be calculated each year after approval of the annual budget, reported to the Finance Committee and Council. The Council of the Microbiology Society will carry out a full review of this policy every three years or sooner if income changes significantly.

The reserves will be funded with surplus unrestricted operating funds. The Council of the Microbiology Society may from time to time direct that a specific source of revenue be set aside for reserves. Examples may include one-time gifts or donations, special grants, or special appeals.

The Council of the Microbiology Society confirm that there are no material uncertainties in relation to going concern in the foreseeable future.

Investment policy and objectives

Following the development of an explicit Investment Policy document in 2014 and a review of the Society's investment managers in 2019, the Society's assets are now invested primarily in a portfolio of good-quality funds worldwide that are chosen for both the long-term value of their shares and their profitability and their potential to generate dividend income. The objective is to maximise the long-term total return of the fund, subject to certain limitations and restrictions. The trustees discussed the overall performance for 2022 in detail at its meeting in December, noting the fall in the value of the portfolio overall. However the longer term picture was very positive thanks to strong returns in 2020 and 2021. The Society continues to retain Asset Risks Consultants (ARC) to assist in reviewing the Society's current investment management and support in appointing new managers when appropriate. ARC attend the quarterly Finance Committee meetings to review the performance of the investments and Evelyn Partners Investment Managers also attend each meeting.

Restrictions on distribution

The Memorandum of Association prohibits the distribution of income and property of the Society to the members. Upon dissolution or winding up of the Society, the assets shall be given or transferred to some similar institution having objectives similar to those of the Society.

Tax status

The Society is entitled to exemption from taxation on income and capital gains to the extent that its funds are applied for charitable purposes.

Statement of responsibilities of the trustees

The trustees (who are also directors of Microbiology Society for the purposes of company law) are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

Company law requires the trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the charitable company and of the incoming resources and application of resources, including the income and expenditure, of the charitable company for that period. In preparing these financial statements, the trustees are required to:

- Select suitable accounting policies and then apply them consistently.
- Observe the methods and principles in the Charities SORP.
- Make judgements and estimates that are reasonable and prudent.
- State whether applicable UK Accounting Standards and statements of recommended practice have been followed, subject to any material departures disclosed and explained in the financial statements.
- Prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charity will continue in operation.

The trustees are responsible for keeping adequate accounting records that disclose with reasonable accuracy at any time the financial position of the charitable company and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the charitable company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

In so far as the trustees are aware:

- There is no relevant audit information of which the charitable company's auditor is unaware.
- The trustees have taken all steps that they ought to have taken to make themselves aware of any relevant audit information and to establish that the auditor is aware of that information.

The trustees are responsible for the maintenance and integrity of the corporate and financial information included on the charitable company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Auditor

Sayer Vincent LLP was appointed as the charitable company's auditor during the year and has expressed its willingness to continue in that capacity.

The Trustees' Annual Report which includes the strategic report has been prepared in accordance with the special provisions applicable to companies subject to the small companies' regime.

The Trustees' Annual Report has been approved by the Trustees on 7 July 2023 and signed on their behalf by

Name: Professor Gurdyal Besra
Title: President

Name: Professor Robin May
Title: Treasurer

Independent auditor's report to the members of Microbiology Society

Opinion

We have audited the financial statements of Microbiology Society (the 'charitable company') for the year ended 31 December 2022 which comprise the statement of financial activities, balance sheet, statement of cash flows and notes to the financial statements, including significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland (United Kingdom Generally Accepted Accounting Practice).

In our opinion, the financial statements:

- Give a true and fair view of the state of the charitable company's affairs as at 31 December 2022 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended
- Have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice
- Have been prepared in accordance with the requirements of the Companies Act 2006, the Charities and Trustee Investment (Scotland) Act 2005 and regulation 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the charitable company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the trustees' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on Microbiology Society's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the trustees with respect to going concern are described in the relevant sections of this report.

Other Information

The other information comprises the information included in the trustees' Annual Report, including the strategic report, other than the financial statements and our auditor's report thereon. The trustees are responsible for the other information contained within the Annual Report. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon. Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit, or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- The information given in the trustees' Annual Report, including the strategic report, for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- The trustees' Annual Report, including the strategic report, has been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In the light of the knowledge and understanding of the charitable company and its environment obtained in the course of the audit, we have not identified material misstatements in the trustees' Annual Report, including the strategic report.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 and the Charities Accounts (Scotland) Regulations 2006 (as amended) require us to report to you if, in our opinion:

- Adequate accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us; or
- The financial statements are not in agreement with the accounting records and returns; or
- Certain disclosures of trustees' remuneration specified by law are not made; or
- We have not received all the information and explanations we require for our audit.

Responsibilities of trustees

As explained more fully in the statement of trustees' responsibilities set out in the trustees' Annual Report, the trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the charitable company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the charitable company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

We have been appointed as auditor under section 44(1)(c) of the Charities and Trustee Investment (Scotland) Act 2005 and under the Companies Act 2006 and report in accordance with regulations made under those Acts.

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud are set out below.

Capability of the audit in detecting irregularities

In identifying and assessing risks of material misstatement in respect of irregularities, including fraud and non-compliance with laws and regulations, our procedures included the following:

- We enquired of management and the audit, risk and evaluation committee, which included obtaining and reviewing supporting documentation, concerning the charity's policies and procedures relating to:
    - Identifying, evaluating, and complying with laws and regulations and whether they were aware of anyinstances of non-compliance;
    - Detecting and responding to the risks of fraud and whether they have knowledge of any actual, suspected, or alleged fraud;
    - The internal controls established to mitigate risks related to fraud or non-compliance with laws and regulations.
- We inspected the minutes of meetings of those charged with governance.
- We obtained an understanding of the legal and regulatory framework that the charity operates in, focusing on those laws and regulations that had a material effect on the financial statements or that had a fundamental effect on the operations of the charity from our professional and sector experience.
- We communicated applicable laws and regulations throughout the audit team and remained alert to any indications of non-compliance throughout the audit.
- We reviewed any reports made to regulators.
- We reviewed the financial statement disclosures and tested these to supporting documentation to assess compliance with applicable laws and regulations.
- We performed analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud.
- In addressing the risk of fraud through management override of controls, we tested the appropriateness of journal entries and other adjustments, assessed whether the judgements made in making accounting estimates are indicative of a potential bias and tested significant transactions that are unusual or those outside the normal course of business.

Because of the inherent limitations of an audit, there is a risk that we will not detect all irregularities, including those leading to a material misstatement in the financial statements or non-compliance with regulation. This risk increases the more that compliance with a law or regulation is removed from the events and transactions reflected in the financial statements, as we will be less likely to become aware of instances of non-compliance. The risk is also greater regarding irregularities occurring due to fraud rather than error, as fraud involves intentional concealment, forgery, collusion, omission or misrepresentation.

A further description of our responsibilities is available on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Use of our report

This report is made solely to the charitable company's members as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and section 44(1)(c) of the Charities and Trustee Investment (Scotland) Act 2005. Our audit work has been undertaken so that we might state to the charitable company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charitable company and the charitable company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Joanna Pittman (Senior statutory auditor)
Date

for and on behalf of Sayer Vincent LLP, Statutory Auditor
Invicta House, 108-114 Golden Lane, LONDON, EC1Y 0TL

Sayer Vincent LLP is eligible to act as auditor in terms of section 1212 of the Companies Act 2006

Microbiology Society
Statement of financial activities (incorporating the income and expenditure account) For the year ended 31 December 2022

	Notes	**Unrestricted 2022 £'000**	**Restricted 2022 £'000**	**Total 2022 £'000**	Total 2021 £'000
Income from:					
Donations and legacies		-	109	**109**	67
Charitable activities					
Publishing		3,268	-	**3,268**	3,564
Professional development (includes membership)		233	-	**233**	240
Scientific conferences		687	-	**687**	156
Other income		-	-	**-**	-
		4,188	**109**	**4,297**	4,,027
Investments		**72**	-	**72**	75
Total income		**4,260**	**109**	**4,369**	4,102
Expenditure on:					
Charitable activities					
Publishing		**2,165**	**64**	**2,229**	1,641
Members' programmes		**2,330**	**36**	**2,366**	1,403
Grants and awards		**269**	**4**	**273**	69
Raising awareness and influencing policy		**1,309**	-	**1,309**	1,024
		6,073	**104**	**6,177**	4,137
Raising funds					
Investment management costs		**52**	-	**52**	55
Total expenditure	6	**6,125**	**104**	**6,229**	4,192
Net (expenditure) / income before net (losses) / gains on investments		**(1,865)**	**5**	**(1,860)**	(90)
Net gains/(losses) on investments	*11*	**(1,299)**		**(1,299)**	1,663
Other recognised gains: foreign exchange		**126**		**126**	1
Net income/(expenditure) and movement in funds for the year		**(3,038)**	**5**	**(3,033)**	1,574
Fund balances brought forward		17,618	**7**	17,625	16,051
Fund balances carried forward		14,580	**12**	14,592	17,625

All the above results relate to continuing activities.

The annexed notes form part of these financial statements
Company Registration Number: 01039582

Microbiology Society
Balance sheet
(Limited by guarantee no. 1039582)
As at 31 December 2022

	Notes	2022 total £'000	2021 total £'000
Fixed assets			
Intangible assets	*9*	6	112
Tangible assets	*10*	4,476	4,557
Investments	*11*	10,280	12,373
		14,762	17,042
Current assets			
Debtors	*12*	664	540
Cash at bank and in hand (including deposits)		799	2,442
		1,463	2,982
Creditors: amounts falling due within one year	*13*		
		1,633	2,399
Net current assets/(liabilities)		(170)	583
Net assets		14,592	17,625
Funds:			
Restricted funds	*16*	12	
Unrestricted funds: General	*16*	14,580	17,625
Total funds		14,592	17,625

These financial statements have been prepared in accordance with the special provisions for small companies under part 15 of the Companies Act 2006.

Approved and authorised for issue on 7 July 2023 and signed on behalf of Council.

Name: Professor Gurdyal Besra
Title: President

Name: Professor Robin May
Title: Treasurer

The annexed notes form part of these financial statements
Company Registration Number: 01039582

Microbiology Society
Statement of cash flows
For the year ended 31 December 2022

	£	2022 £'000	£	2021 £'000
Cash flows from operating activities:				
Net (expenditure) for the year before net gains on investments (as per the statement of financial activities)	(1,860)		(90)	
Adjustments for:				
Amortisation charges	106		114	
Depreciation charges	104		100	
Dividends and interest from investments	(72)		(75)	
(Increase)/decrease in debtors	(124)		(139)	
(Decrease) in creditors	(766)		251	
Net cash (used in) provided by operating activities		(2,612)		161
Cash flows from investing activities:				
Dividends and interest from investments	72		75	
Purchase of intangible assets	-		(5)	
Purchase of fixed assets	(23)		(57)	
Net sales of investments	794		(8)	
Net cash (used in)/provided by investing activities		843		5
Change in cash and cash equivalents in the year		(1,769)		166
Cash and cash equivalents at the beginning of the year		2,442		2,275
Change in cash and cash equivalents due to exchange rate movements		126		1
Cash and cash equivalents at the end of the year		799		2,442

The annexed notes form part of these financial statements
Company Registration Number: 01039582

Microbiology Society
(Limited by guarantee no. 1039582)
Notes to the financial statements
Year ended 31 December 2022

1. Accounting policies

Basis of accounting
These financial statements have been prepared under the historical cost convention as modified by the revaluation of investment property and fixed asset investments, and are prepared in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102). The Charity is a public benefit entity for the purposes of FRS 102 and therefore has also prepared the financial statements in accordance with the Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (The FRS 102 Charities SORP), the Charities Act 2011, the Charities and Trustee Investment (Scotland) Act 2005 and the Charities Accounts (Scotland) Regulations 2006.

The trustees have assessed whether the use of the going concern basis is appropriate and have considered possible events or conditions that might cast significant doubt on the ability of the Charity to continue as a going concern. The trustees have made this assessment for a period of at least one year from the date of approval of the financial statements.

The trustees have given due consideration to external factors which have resulted in high levels of inflation, slow economic growth and market uncertainty, as well as internal factors such as the Society's move towards Open Access and the changes to its business model.

The Society continues to operate very well despite these factors and journal income for 2023 is in line with expectations. Demand for Society activities remains high with delegate numbers again exceeding expectations for the 2023 Annual Conference and membership growth. However, as the Society is investing for the future, such as increasing Open Access to more journal titles and looking to grow new income streams, the Society has planned to spend from its reserves in 2023.

The trustees have concluded that there is a reasonable expectation that the Charity has adequate resources to continue in operational existence for the foreseeable future. The Charity therefore continues to adopt the going concern basis in preparing its financial statements.

The presentational currency used is British pound sterling, and balances are rounded to the nearest £1,000.

A separate income and expenditure account has not been prepared as the information required by the Companies Act 2006 is given in the statement of financial activities and in the notes to the financial statements.

Critical accounting judgements and key sources of estimation uncertainty
In the application of the charity's accounting policies, trustees are required to make judgements, estimates, and assumptions about the carrying values of assets and liabilities that are not readily apparent from other sources. The estimates and underlying assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an on-going basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects the current and future periods.

The key estimates used in the preparation of these Financial Statements are the depreciation rate and amortisation rate of fixed assets (as detailed later in this note) and the recoverability of trade debtors. In the view of the trustees, there are no other key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

Microbiology Society
Notes to the financial statements
Year ended 31 December 2022

Financial instruments
The company has elected to apply the provisions of Section 11 'Basic Financial Instruments' and Section 12 'Other Financial Instruments Issues' of FRS 102 to all of its financial instruments. Financial instruments are recognised in the company's balance sheet when the company becomes party to the contractual provisions of the instrument. Financial assets and liabilities are offset, with the net amounts presented in the financial statements, when there is a legally enforceable right to set off the recognised amounts and there is an intention to settle on a net basis or to realise the asset and settle the liability simultaneously.

With the exceptions of prepayments and deferred income all other debtor and creditor balances are considered to be basic financial instruments under FRS 102.

Intangible assets
Assets with a cost in excess of £1,000 and which have an expected useful life of over one year are capitalised.

Amortisation is provided on all intangible assets at rates calculated to write off the cost, less the estimated residual value, of each asset over its expected useful life, as follows:
CRM - at 20% p.a. on a straight line basis
Website - at 25% p.a. on a straight line basis

Tangible fixed assets
Assets with a cost in excess of £1,000 and which have an expected useful life of over one year are capitalised.

Depreciation is provided on all fixed assets at rates calculated to write off the cost, less the estimated residual value, of each asset over its expected useful life, as follows:
Office equipment, fixtures and fittings - at 25% or 20% p.a. on a straight line basis
Freehold property:
- Building at 2% p.a. on a straight line basis
- Fit out costs at 5% p.a. on a straight line basis
- Freehold land is not depreciated

Fixed asset investments
The fixed asset investments are carried at market value based on the bid price at the balance sheet date. Unrealised and realised gains are both recognised in the Statement of the Financial Activities.

Investment income includes the appropriate tax deductions and tax credits and interest accrued on all fixed-interest stocks.

Income
Income is recognised in the Statement of Financial Activities in the period in which the Society is entitled to the income, it can be measured reliably and receipt is probable. Subscription receipts in advance are recorded as deferred income. Income from memberships, publications and conferences is recognised in the period to which it relates. Any amount received in advance is deferred. Investment income is recognised on an accruals basis.

Expenditure
All expenditure is accounted for on an accruals basis and has been classified under headings that aggregate all costs related to the category. Grants payable are recognised where the grant has been approved and the recipient has been informed it has been awarded. Where costs cannot directly be attributed to particular headings they have been allocated to activities on a basis consistent with the use of resources. In particular, support costs are apportioned to direct activities based on the direct staff costs allocated to those activities.

Foreign currencies
Transactions in foreign currencies, principally US dollars, are recorded at the rate ruling at the date of the transaction. Assets and liabilities denominated in foreign currencies are converted at the year end exchange rate. All exchange differences are reflected in the income and expenditure account.

Pensions
The Society operates defined contribution pension arrangements, the assets of which are held separately from those of the Society in independently administered funds. Contributions are charged to the income and expenditure account as they become payable.

2. Grants awarded

	2022 £'000	2021 £'000
Harry Smith Vacation Studentships (21 grants, 2021: 19)	54	50
Education and Outreach Grants (7 grants to fund microbiology promotion, 2021: 3)	6	3
International Development Fund (2 grants to fund microbiology training in developing countries, 2021: 2)	7	10
Total institutional grants	**67**	63
Research Visit Grants (8 grants for research visits, 2021: 4)	23	12
Society Conference Grants (see below) (372 grants for travel and accommodation at Society meetings, 2021: 36 grants for attendance at digital Society meetings)	130	1
Travel Grants (90 grants, 2021: 12)	51	2
Microbiology in Society Award (1 grant, 2021: 1)	5	5
Unlocking Potential (Restricted fund) (1 grant, 2021: 0)	4	
Total grants to individuals	**213**	20
Grants approved in the prior year not taken up	(7)	(14)
Total grants	**273**	69

The Society Conference Grant offerings provide a contribution to travel, accommodation, and registrations. In 2021, the Society delivered a digital events programme, and so fewer awards and grant amounts were made than a usual year. In 2022 the society reverted to in-person events.

3. Turnover

At 31 December 2022, Included within Publication Income and Membership fees is overseas income amounting to 86% of the total income generated from these activities.

4. Expenditure

	2022 £'000	2021 £'000
Costs include:		
Auditor's remuneration: audit fees	18	16
Amortisation	106	114
Depreciation	104	100

5. Expenses reimbursed to members of Council

11 (2021: 3) members of Council were reimbursed expenses of £7,498 (2021: £1,393) relating to travel and subsistence.

Microbiology Society
Notes to the financial statements
Year ended 31 December 2022

6. Total expenditure

CURRENT YEAR

	Staff costs £'000	Other direct costs £'000	Support allocation £'000	2022 £'000	2021 £'000
Publishing	905	624	700	**2,229**	1,641
Members' programmes	710	1,106	550	**2,366**	1,403
Grants and awards	–	273	–	**273**	69
Raising awareness and influencing policy	657	143	509	**1,309**	1,024
Investment management	–	52	–	**52**	55
Support	676	1,083	(1,759)	**–**	–
Total expenditure	2,948	3,281	–	**6,229**	4,192

Support costs are apportioned to direct activities based on the direct staff costs allocated to those activities.

PRIOR YEAR

	Staff costs £'000	*Other costs £'000*	*Support allocation £'000*	2021 £'000
Publishing	*548*	*607*	*486*	1,641
Members' programmes	*714*	*56*	*633*	1,403
Grants and awards	–	*69*	–	69
Raising awareness and influencing policy	*496*	*88*	*440*	1024
Investment management	–	*55*	–	55
Support	*649*	*910*	*(1,559)*	–
Total expenditure	*2,407*	*1,785*	–	4,192

Support costs are apportioned to direct activities based on the direct staff costs allocated to those activities.

7. Support costs

	2022 £'000	2021 £'000
Governance costs		
Council and committee meetings and events	62	21
Audit fees	18	16
	80	37
Other support costs:		
Human resources	174	98
Premises and general office	196	147
Information technology	219	218
Professional and legal	139	139
Depreciation and charges	275	271
Staff costs	676	649
Total	**1,759**	1,559

8. Staff costs

	Notes	2022 £'000	2021 £'000
Salaries		2,188	1,934
Social security costs		228	204
Other pension costs	15	293	269
Redundancy		239	–
Total		**2,948**	2,407

The average monthly number of persons employed by the Society during the year were 53 (2021: 50).

No member of Council received any remuneration in respect of their services to the Society.

The number of employees whose emoluments amounted to over £60,000 in the year, not including pension contributions and employer National Insurance contributions, were as follows:

	2022 No.	2021 No.
£60,000 - £70,000	2	1
£70,000 - £80,000	-	-
£80,000 - £90,000	-	1
£90,000 - £100,000	-	1
£100,000 - £110,000	1	-
£110,000 - £120,000	1	-
£120,000 - £130,000	-	1
£130,000 - £140,000	1	1
	5	5

Contributions to the pension scheme on behalf of the employees noted above amounted to £80,965 (2021: £64,623).

The key management personnel of the Charity comprise the trustees, the Chief Executive and Senior Management team. The total employee benefits of the key management personnel, inclusive of employer pension contributions and employer National Insurance contributions, were £449,452 (2021: £404,820).

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9. Intangible assets – CRM and Website

	Total £'000
Cost or valuation	
At 1 January 2022	589
Additions	–
Disposals	–
At 31 December 2022	**589**
Amortisation	
At 1 January 2022	477
Provided during the year	106
Released on disposal	–
At 31 December 2022	**583**
Net book value	
At 31 December 2022	**6**
At 31 December 2021	112

10. Tangible fixed assets

	Freehold land and buildings £'000	Office equipment, fixtures and fittings £'000	Total £'000
Cost or valuation			
At 1 January 2022	**4581**	**209**	**4,790**
Additions	**23**	**–**	**23**
Disposals	**–**	**(5)**	**(5)**
At 31 December 2022	**4,604**	**204**	**4,808**
Depreciation			
At 1 January 2022	**128**	**105**	**223**
Provided during the year	**59**	**45**	**104**
Released on disposal	**–**	**(5)**	**(5)**
At 31 December 2022	**187**	**145**	**332**
Net book value			
At 31 December 2022	**4,417**	**59**	**4,476**
At 31 December 2021	4,453	104	4,557

11. Investments

	2022 £'000	2021 £'000
Market value at 1 January	**12,373**	10,702
Additions at cost	**1,567**	96
Sales proceeds	**(2,188)**	(372)
Net gain/(loss) on revaluation	**(1,299)**	1,663
Net movement in cash	**(173)**	284
Market value at 31 December	**10,280**	12,373

	Cost		**Market value**	
	2022 £'000	2021 £'000	**2022 £'000**	2021 £'000
Equities	**6,924**	6,861	**8,285**	9,765
Bonds	**658**	893	**629**	923
Alternatives	**1,448**	1,569	**1,132**	1,272
Cash	**234**	413	**234**	413
	9,264	9,736	**10,280**	12,373

The following investments held on 31 December 2022 represented over 5% of the total investment portfolio at the year end:

	% of total portfolio holding
TB Evenlode Global Income Fund F Income GBP	8.8%
Fundsmith Sustainable Equity Fund I Inc	8.6%
Magna Umbrella Fund plc - Fiera Atlas Global Companies B GBP Acc	8.4%
Brown Advisory Global Leaders Fund Sterling Class SI Distribution	8,4%
GuardCap Global Equity Fund I GBP Inc	8.4%
Morgan Stanley Investment Funds - Global Sustain Fund ZX	8.3%
Findlay Park American GBP Unhedged	8.1%
Smithson Investment Trust plc	7.5%
Vontobel Fund - TwentyFour Absolute Return Credit Fund AQG GBP	6.1%
TB Evenlode Income D Income	5.8%

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12. Debtors

	2022 £'000	2021 £'000
Other debtors	**89**	32
Prepayments and accrued income	**575**	508
Total	**664**	540

13. Creditors

	2022 £'000	2021 £'000
Trade creditors	**142**	135
Sundry creditors	**168**	152
Other taxation and social security	**60**	66
Income received in advance (see Note 14)	**1,263**	2,046
Total	**1,633**	2,399

14. Income received in advance

	2022 £'000	2021 £'000
Institutional sales of publications in advance	**1,145**	1,919
Conference and meetings income in advance	**37**	46
Members' subscriptions in advance	**81**	81
Total	**1,263**	2,046

Balance at 1 January	**2,046**	1,785
Amount released to income	**(2,046)**	(1,785)
Amount deferred in the year	**1,263**	2,046
Balance at 31 December	1,263	2,046

15. Pensions

The Society operates defined contribution pension arrangements, the assets of which are held separately from those of the Society, in independently administered funds. The pension cost charged represents contributions payable by the Society to the funds amounting to £293K (2021 - £269k). At 31 December 2022, no balance was outstanding to the pension fund (2021 - £Nil).

16. Funds

Current Year	1 January 2022 £'000	Income £'000	Expenditure £'000	Gains £'000	31 December 2022 £'000
Restricted funds:					
Open Research Platform	-	64	(64)	-	-
Europic 2022 Focused Meeting	-	36	(36)	-	-
Unlocking Potential	7	9	(4)	-	12
Total restricted funds	7	109	(104)	-	12
Unrestricted fund	17,618	4,260	(6,125)	(1,173)	14,580
	17,625	4,369	(6,229)	(1,173)	14,592

Current Year	1 January 2021 £'000	Income £'000	Expenditure £'000	Gains £'000	31 December 2021 £'000
Restricted funds:					
Open Research Platform	-	60	(60)	-	-
Unlocking Potential	-	7	-	-	7
Total restricted funds	-	67	(60)	-	7
Unrestricted fund	16,051	4,035	(4,132)	1,664	17,618
	16,051	4,102	(4,192)	1664	17,625

Purposes of restricted funds

Open Research Platform
To help our community get the most out of our journals, we are always looking for new, innovative ways to make sure microbiology research is impactful and accessible to everyone. We are converting our current sound science journal, Access Microbiology, to an open research platform with funding from the Wellcome Trust. On this platform, original research is posted as a preprint, which undergoes full, transparent peer review. Our open research platform safeguards the scientific record, ensuring that the review process is robust, transparent, and fair. On the platform, all peer review materials and previous versions of an article are publicly available, making sure nothing is missing from the story. The platform can be used as a trusted location to share early versions of work and disseminate findings quickly. All work posted in the open research platform is given a DOI and can be shared, cited and receive community feedback straight away.

Europic 2022 Focused Meeting
This fund relates to a grant from The Gates Foundation, in support of the 2022 Europic Conference.

Unlocking Potential
This fund was launched in May 2021 and is a traditional fundraising campaign that will allow us to open a new grant stream, the 'Unlocking Potential Grant' which would fund early and mid-career members who may require support for a variety of reasons, in order to help them to progress and to reach their full career potential. This follows the success of the Society's Early Career Microbiologists Forum and recent focus on microbiologists at the mid-career stage, recognising a need for support in career development across varying levels.

17. Analysis of net assets between funds

Current Year	Fixed assets £'000	Net current assets/(liabilities) £'000	Total
Restricted funds	-	12	12
Unrestricted funds	14,762	(182)	14,580
Total funds	14,762	(170)	14,592

Prior Year	Fixed assets £'000	Net current assets £'000	Total
Restricted funds	-	7	7
Unrestricted funds	17,042	576	17,618
Total funds	17,042	583	17,625

18. Financial Instruments

The year end carrying value of financial assets and financial liabilities (measured at amortised cost, with the exception of investments which are measured at fair value), was as follows:

	2022 £'000	2021 £'000
Financial assets measured at amortised cost	134	133
Financial liabilities measured at amortised cost	310	287

19. Related party transactions

The total amount of donations from trustees recognised in the year was £443. There are no donations from related parties which are outside the normal course of business.

There were no related party transactions in the year (2021: none).

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20. Statement of financial activities - Prior year

	Unrestricted 2021 £'000	Restricted 2021 £'000	Total 2021 £'000
Income from:			
Donations and legacies	-	67	67
Charitable activities			
Publishing	3,564	-	3,564
Professional development (includes membership)	240	-	240
Scientific conferences	156	-	156
Other income	-	-	-
	3960	67	4,,027
Investments	75	-	75
Total income	4,035	67	4,102
Expenditure on:			
Charitable activities			
Publishing	1,581	60	1,641
Members' programmes	1,403	-	1,403
Grants and awards	69	-	69
Raising awareness and influencing policy	1,024	-	1,024
	4,077	60	4,137
Raising funds			
Investment management costs	55	-	55
Total expenditure	4,132	60	4,192
Net (expenditure) / income before net (losses) / gains on investments	(97)	7	(90)
Net gains/(losses) on investments	1,663	-	1,663
Other recognised gains: foreign exchange	1	-	1
Net income/(expenditure) and movement in funds for the year	1,567	7	1,574
Fund balances brought forward	16,051	-	16,051
Fund balances carried forward	17,618	7	17,625

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Transmission electron micrograph of a dividing Citrobacter rodentium cell attached to infected mouse colonic epithelium. Characteristic 'Attaching and Effacing lesions' or raised pedestals can be seen beneath adhered C. rodentium, formed by the accumulation of host cell actin mediated by the bacterial type III protein secretion system. Effacement of the local brush border villi around the site of attachment is also observed. Courtesy of Dr James Connolly (Newcastle University).

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Microbiology Society @microbiosoc @microbiosoc @MicrobiologySocietyOrg1945 Microbiology Society

Microbiology Society, 14–16 Meredith Street, London, EC1R 0AB, UK
+44 (0)20 3034 4870 microbiologysociety.org