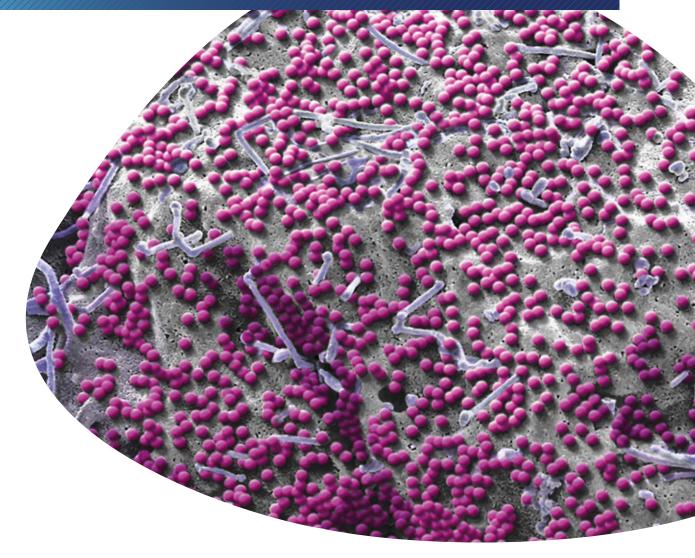


MICROBIOLOGY SOCIETY ANNUAL REPORT 2019



Microbiology Society (Limited by guarantee)

Report and financial statements 31 December 2019

MEMBERS OF COUNCIL Directors of the limited company and Trustees of the registered charity *outgoing December 2019 [†]incoming January 2020

Professor Judith Armitage Professor Maggie Smith Professor Ian Roberts Professor Mark Harris[†] Professor Jodi Lindsay Professor Mick Tuite* Professor Stephen Smith[†] Dr Tadhg Ó Cróinín Professor Paul Kellam Professor Nicola Stonehouse* Dr Chloe James[†] Dr Amy Pickering Professor George Salmond Professor David Blackbourn Professor Tracy Palmer Professor Deirdre Devine Professor Charles Dorman Professor John Morrissey

SENIOR STAFF Dr Peter Cotgreave (Chief Executive and Company Secretary)

Sarah Buckman (Director of Strategy and Members' Programmes, on maternity leave until September 2019)

Tony McBride (Interim Director of Strategy and Members' Programmes, until September 2019)

Tasha Mellins-Cohen (Director of Publishing)

Joanne Morley (Chief Operations Officer)

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REGISTERED NUMBER 1039582

REGISTERED CHARITY NUMBERS England and Wales 264017 Scotland SC039250

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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.

relationships and gain access to new communities, unlocking the potential for knowledge exchange.

joined the Microbiology Society for similar reasons as the ones that triggered me to organise this first GAS UK meeting: my curiosity to meet other researchers from similar but diverse backgrounds and to learn from their expertise. The Society and our meeting both give us the unique opportunity to bring people together that establish new opportunities to network and exchange knowledge.

I am very grateful for the funding we have received from the Microbiology Society and New England Biolabs – as well as additional funding from the MRC - to organise and run this first of hopefully many GAS focus research meetings in the UK.

Dr Helge Dorfmueller, member and organiser of the inaugural Group A Streptococcus (GAS) UK meeting, was hosted at the London School of Hygiene and Tropical Medicine (LSHTM) in October 2019

Our strategic objectives

We will enable our members to strengthen their existing

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.

> We set up and facilitated two exciting hands-on activities themed 'DNA and Diversity.' I couldn't be more excited to be getting support from both the lab and the Microbiology Society to do what I love the most; sharing my work and the world of microbiology with youngsters.

> In line with my passion for making science accessible to everyone, the aim of the event was to introduce the girls to the world of Microbiology and inspire them towards science careers by stimulating their interest through hands-on science-based activities. The presence of other young and early career female scientists besides myself served to inspire as role models. This makes a huge impression on the girls, teachers and parents alike.

> As part of Biology Week in 2019, Member and Microbiology Society Champion Dr Linda Oyama taught primary school girls about DNA along with a team of female scientists from Queen's University, Belfast

Our strategic objectives

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

> I felt that the application process for the Harry Smith Vacation Studentship was a really valuable experience as it asked me to provide the background and justification for my research proposal in a similar way to how a larger grant application would. The application process also gave me the experience of really planning a project and the methodology out so that it would be clear not only to the reviewing committee but also clear for the student to understand and refer to throughout their time in the lab. Additionally, this studentship allowed me to follow up on an idea related to my current project, which I wouldn't have had time to do myself, whilst offering a student the opportunity to work in a research laboratory.

Following the award, I was able to see first hand how to manage a grant and it also gave me the chance to mentor and supervise a highly motivated and talented undergraduate student. Overall, I feel this studentship has helped me develop some of the skills that I will need to further my career in the future.

Member and Microbiology Society Champion Winnie Lee attended the Federation of European Microbiological Societies (FEMS) Congress in Glasgow in July 2019, with over 2,700 delegates from 90 countries in attendance, and London School of Hygiene and Tropical Medicine (LSHTM) in October 2019

Introduction from the President and Chief Executive

In 2019 we built on the foundations of our strategy 2018-2022 and looked towards the 75th anniversary of the Microbiology Society in 2020, embarking on a programme to demonstrate the impact of microbiologists - past, present and future.

Our principal goal is to develop, expand and strengthen the networks available to our members so that they can generate new knowledge about microbes and ensure that is shared with other communities. In the second year of our strategy we worked to bring together and empower the communities that shape the future of microbiology via our flagship Annual Conference held in Belfast, and our Focused Meeting programme, and by hosting the Federation of Infection Societies (FIS) Conference 2019.

Hosting FIS gave us a unique insight into developing our community to better represent the needs of clinicians and health-related microbiologists. One of our values is that we are welcoming – our reputation as a friendly, nurturing and approachable community, driven by the experience of a diverse set of members, is extremely important to us. Our growing meeting programme and the collaborations we are involved in with like-minded organisations helps us connect microbiologists to share successes and research, discuss challenges, and identify new and exciting opportunities.

Our Early Career Microbiologists' (ECM) Forum has continued to flourish, holding its second Summer Conference in Dublin in June. This group, which places our early career members at the heart of Society activities, continues to grow. To support it in expanding its reach, we established the ECM Forum LinkedIn group to allow greater digital networking for our early career members.

We are a strong voice for our membership and the wider microbiology community, and we value the participation of our members across the UK and Ireland. During 2019, Science Foundation Ireland (SFI), the largest single funder of scientific research in the Republic of Ireland, consulted on its strategy to launch its new five-year plan in early 2020. We surveyed our Irish members, drafted a discussion paper to stimulate debate and held a series of workshops with members in Ireland. The level of engagement from members has been extremely high, and we are developing a position statement for release in 2020. This will consider what further steps we can take in the future to ensure that the wider issues of funding microbiology are given sufficient attention.

In 2019 we launched Access Microbiology, a new service to members of our community allowing the publication of replication studies, negative or null results, research proposals, data management plans, additions to established methods, and interdisciplinary work. The new journal has enjoyed unprecedented success, attracting more than double the budgeted number of submissions for the year.

In pursuit of a more open future, during the year we announced transitional open access agreements - 'Publish and Read' deals allowing researchers at participating institutions to publish an unlimited number of open access articles and access the Society's full journals portfolio.

Our role in support of, and as a voice for, our community of members has never been so important to us as we work towards delivering our programme of activities to champion the contribution made by microbiologists in addressing global challenges, in a highly unusual vear.

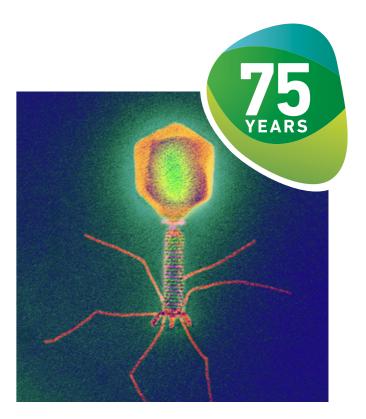
Professor Judith Armitage President

Dr Peter Cotgreave Chief Executive

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

In 2020 we will celebrate 75 years since our founding with a programme of projects and activities designed to demonstrate the impact of microbiologists - past, present and future. The world is facing indisputable challenges, from climate change to antimicrobial resistance. The opportunity for us to adapt and do more for our membership and community has never been greater.

During our 75th anniversary we will shine a light on the role of and value provided by microbiologists working to resolve these global issues – generating new content based on their work, delivering new meetings to connect communities and bringing together microbiologists at all career stages.



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

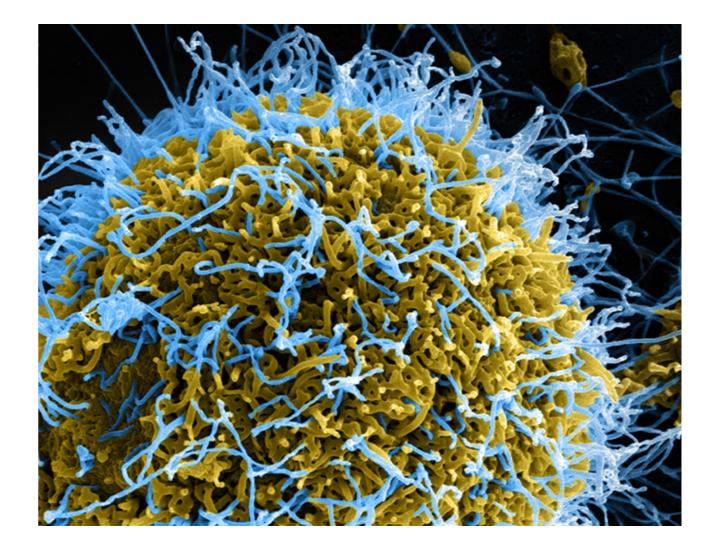
We are now in the third year of our strategy, underpinned by our principal goal to develop, expand and strengthen the networks available to our members so that they can generate new knowledge about microbes and ensure it is shared with other communities. Throughout 2019, we have delivered opportunities to open our community to new groups of microbiologists.

We engaged with the microbiology community in Ireland, putting their views at the heart of our position statement, *Science for Ireland: Propelling Research and Innovation Success*, in response to the launch of the new five-year plan from Science Foundation Ireland in 2020. We hosted the Federation of Infection Societies Annual Congress, bringing together those with interests in different aspects of infectious diseases, clinical microbiology, biomedical science and infection control which provided a great opportunity to find out about the latest developments and to connect with key contacts and networks.

We signed transitional open access agreements in new 'Publish and Read' deals, allowing researchers at participating institutions to publish an unlimited number of open access articles and access the Society's full portfolio.







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.



Strategic plan 2018–2022

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.

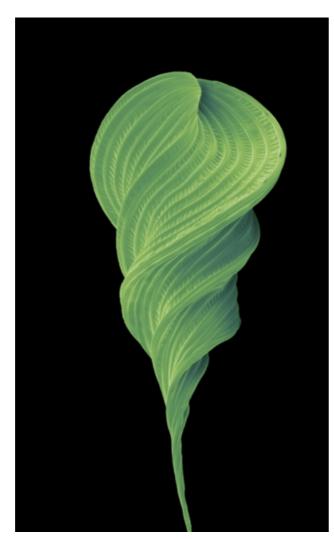
We are **dedicated** to our charitable aims. We are not for profit and strive to ensure that all our resources are applied optimally to furthering the science of microbiology and its application.

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.



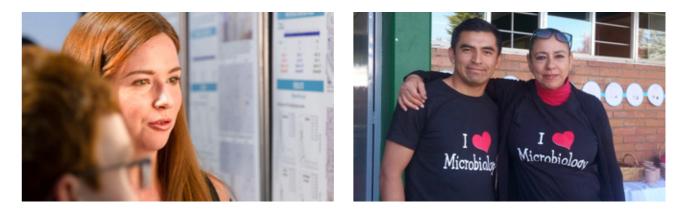
We will enable our members to strengthen their existing relationships and gain access to new communities, unlocking the potential for knowledge exchange.

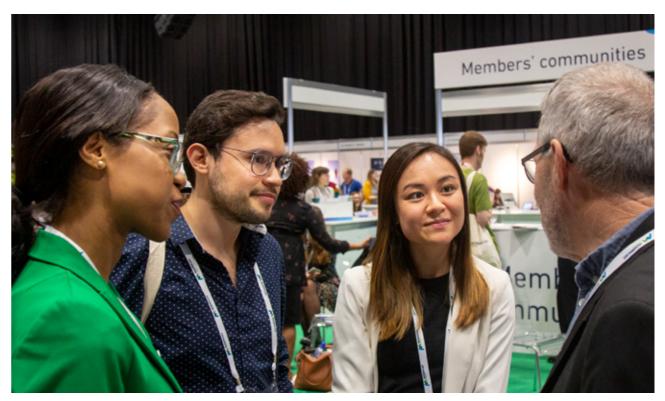






The Society will maximise national and international networking opportunities for our members among existing and new communities.





Building communities through our events programme

Annual Conference 2019 key statistics

Over 2019 we have innovated within our conferences programme to make sure our events provide opportunities for our members to strengthen their existing relationships and gain access to new communities.

Our 2019 Annual Conference took place 8–11 April and for the first time was held at the Belfast International Convention Centre (ICC). In total, this year's event secured 1,350 delegates comprised 35 conference sessions taking place over the four days.



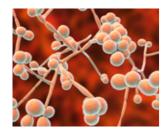
1,350 attendees 19 symposia **6** virology workshops 4 eukaryotic and prokaryotic forums **6** Essential Skills sessions 138 invited speakers **2** Hot Topic Lectures **4** Prize Lectures **292** offered talks 498 posters **334** grants awarded to support members to attend **25** exhibitors **3** sponsors

Focused Meetings 2019

The Antimicrobial Drug Discovery from Traditional and Historical Medicine Focused Meeting enabled us to trial a new event format of a shorter oneday workshop that focused on networking and



Anaerobe 2019: Changing perceptions of anaerobic bacteria; from pathogen to the normal microbiota and back. 13-14 June 2019 Cardiff, UK



British Yeast Group 2019. 26-28 June 2019 Newcastle, UK

IMAV 2019: International Meeting on Arboviruses

and their Vectors. 5-6 September 2019

Glasgow, UK



with.

bringing together researchers from diverse fields.

This was also an experiment for the organisers,

who aimed to start to build a new community of

researchers who share this interest to collaborate

Antimicrobial drug discovery from traditional and historical medicine. 29 October 2019 Oxford. UK

Microbes in medicine.

24-25 October 2019

Dublin, Ireland

"In Europe, approaches to natural product discovery for drug development have largely focused on microbial secondary metabolites. The plants, plant products and other natural materials used to treat infection in traditional and historical pharmacopeias represent a further potential database of antimicrobial compounds. Extensive efforts to mine traditional medicines from Asia, South America and the Indian subcontinent for novel compounds are being made by local microbiologists and chemists and have led to drug development (e.g. the antimalarial compound artemisinin from Artemisia spp., developed after study of a historical Chinese medical text).

A concerted effort to characterise, assess and exploit the extensive written and oral record of natural products used in pre-modern European medicine has not been made. This is despite the presence in pre-modern European medical texts



The meeting was very close to some of my recent research, so I was fascinated by it all. Also the format was great, small, relaxed and informal. This provided an opportunity to meet some of the speakers in an unpressurised environment." Delegate

Delegate

Delegate

Focused Meetings key stats 2019









Objective 1

of natural products known to be effective in vivo (e.g. Artemisia spp. were used to treat malaria in medieval England) or shown to possess antimicrobial and/or immunomodulatory qualities in vitro (e.g. Allium spp., Plantago spp. and Urtica spp.). Given rising antimicrobial resistance and a stalled R&D pipeline for compounds to treat and prevent infection, a thorough scientific evaluation of European ethnopharmacology is overdue.

The main barrier to successful exploitation of the natural compounds database represented by traditional European medicine is the lack a cohesive network for researchers. This focused meeting will bring together researchers from diverse fields, including microbiology, chemistry, botany and the history of medicine, along with industry contacts, to reveal the current state of the art of the field and define areas for collaboration, methods development and translational research."

"I like the format of the short talks, it helped to give a quick overview of everyone and made networking a lot easier."

"I have a much better overview of who is doing this type of research (which is extremely useful). I now have a list of potential collaborators. I felt that this meeting may lead to the foundation of a new field which previously did not exist."

Making our meetings happen with our members and partners

In planning our programme we continue to work with our membership to produce our Annual Conference content and to decide on our full programme of events. In 2019 we collaborated with six other organisations and partners. In terms of success, organising the *Anaerobe 19*

Focused Meeting in collaboration with the Society for Anaerobic Microbiology and the Welsh Microbiological Association was such a positive experience and a great first step in re-engaging the community with our members that we have been asked to work together again for *Anaerobe 21*.



We have also continued to be as inclusive as possible to all our delegates by providing facilities and opportunities that ensure our conference and events programme is welcoming to all.

• We again provided our participants with access to a free crèche facility delivered by our professional childcare provider, Nipperbout. This facility welcomed delegates to book in advance or drop in during the event and ensured that those who had childcare requirements could access Annual Conference with little compromise.

We also awarded 11 carer grants to support families with carers' costs, and guaranteed a safe and comfortable space for nursing mothers at Annual Conference.

• Our Society website continues to maintain a high standard for content and visuals that are



The Microbiology Society had a creche at its recent Annual Conference in Belfast. A very good idea that can really make a difference." *Alain Kohl, Deputy Editor-in-Chief, Journal of General Virology*

Objective 1

accessible to all. We take this into consideration when producing our printed programme guide and plan to continue this when producing future printed materials.

• We strive to work with partners who are considerate to the needs of our delegates, and Belfast Waterfront provided delegates with access to spaces from all levels, including access via ramps, lifts, toilets and seating that is suitable for wheelchair use or for those who need support with mobility. We continue to promote this, and request that delegates declare any accessibility requirements so that we are able to meet their needs during our events. However, we are also aware that unknown and undeclared needs arise, and we will go further to address these throughout our future events.

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

Key outcomes from FIS 2019

Building new communities

It is understood that there are approximately 10,000 healthcare scientists throughout the NHS working in microbiology-related roles, and the Society was keen to explore how to best serve this community and to connect with new and existing members. To start proceedings and to ensure full consideration had been made, a working group comprising of clinical- and health-related members met in February 2019. The meeting identified several opportunities to engage with microbiologists working in clinical and health-related areas throughout the year and beyond.

One of the key outcomes from this meeting included an understanding that the Society remained a host society for the FIS Annual

Conference. In November 2019 the Microbiology Society hosted FIS at the Edinburgh International Conference Centre. This meeting brought together several organisations working to support those with interests in different aspects of infectious diseases, clinical microbiology, biomedical science and infection. This was the first time that the Society delivered FIS in-house, allowing us to capitalise on this opportunity to reach underrepresented members. The event welcomed over 550 attendees involved in every aspect of infection prevention and control, providing a platform to foster collaborations during the numerous networking opportunities, and gave an opportunity for trainee and early career scientists to present on an international stage.



During FIS 2019 we took the opportunity to survey delegates at the conference to help us understand how we can better represent healthcare scientists working in microbiology-related roles in clinical settings. A total of 78 surveys were completed and we will be using these responses along with feedback from the event itself and other activities to assess whether our current programmes are suitable, and if not to help design future activities that appeal to and support the clinical - and healthrelated community.

For the first time, FIS 2019 hosted a day of sessions dedicated to early career and trainee scientists, allowing us to spotlight their achievements within the programme. We provided a dedicated session for trainees undertaking their Royal College of Pathologists examination to demystify its requirements. We also held the first round of the Infection Science Award exchange bursary, where selected trainee scientists presenting at FIS won bursaries to attend the Microbiology Society Annual Conference. This bursary exchange scheme will continue in 2020 with early career presenters from Annual Conference attending FIS 2020. By facilitating the exchange of early career and trainee scientists between the two meetings we hope to encourage the exchange of ideas and create opportunities for collaborations to be built.

Following successful interactions with the British Infection Association (BIA) and the British Paediatric Allergy, Immunity and Infection Group (BPAIIG), we were invited to collaborate on a one-day event in January 2020 called the Infection Dilemmas Meeting in Manchester, which included a speaker from the UK Anaerobe Reference Unit, Sarah Kuehne, who planned to present on *Fusobacterium* and Lemierre's syndrome.

As part of FIS 2019 programme, Norman Fry, the Co-Editor-in-Chief of *Journal of Medical Microbiology*, and one of the Society's Journal Development Editors, delivered a successful session on How to get your work published. This session guided delegates through the entire process of writing and publishing in scientific journals, including choosing a suitable journal, writing the paper and submitting it, what happens after submission, responding to reviewer comments, and promoting your work once it is published.

We continued our collaboration with the Society for Anaerobic Microbiology (SAM) and agreed in October to once again deliver a joint session at FIS 2020. The session will be titled Updates in *Anaerobic Infections.*

In November 2019 we collaborated with the Healthcare Infection Society (HIS) to host a meeting for members of both societies in London, entitled Bridging the Clinical–Research Gap. This workshop-style event brought academic and clinical microbiologists together to find ways to collaborate meaningfully, with the aim of improving the translation of research into advances in infection prevention and control. The meeting was led by Dr Karen Robinson, University of Nottingham and Microbiology

Society, and Dr James Price, Imperial College NHS Trust and HIS. The programme was deliberately planned to maximise the amount of time available for discussion in the hope that attendees would find areas of mutual interest and potential collaborations.

To stimulate conversation, invited speakers presented their experience of setting up crossdisciplinary collaborations and funders gave advice on applying to their collaborative schemes.



Survey respondent

application to current practice." Survey respondent

"Met old colleagues and new ones. Learnt from some basic science some potential applications. Updated myself in several areas pertinent to my day to day clinical practice." Survey respondent

"I don't think I have ever been to a conference or event where the whole room was filled with such warm, welcoming and open people with so much that they are willing to give." Survey respondent

would support additional events." Survey respondent

"Yesterday was fantastic. It was a great opportunity to see how others work with clinical samples, the successful ways of working as well as sharing that it's not just me that who experiences 'issues' when trying to do clinical microbiology research." Survey respondent

Objective 1

Inspired by the talks that I attended. Excellent opportunity to network."

"Very good content relevant to my practice. Discovery of new insights. Discovery of new research ideas. Update existing guidelines and

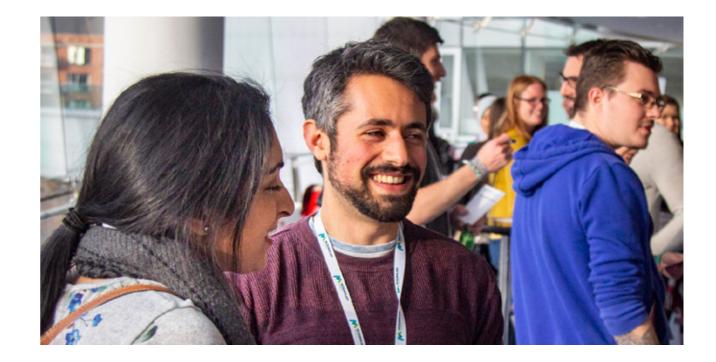
"I have never attended an event like this and it was a great idea and well executed. The feedback from the audience was very positive, and I

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

Using digital technology to connect our communities

Enabling our members and other microbiologists to gain access to new communities and to exchange knowledge is at the heart of our work. In 2019 we identified that the LinkedIn platform allows us to target and connect people with a professional interest in microbiology directly, irrespective of their career stage or whether they are based in academia or industry. It allows our content to reach the community in the right context – we are not competing in a social space but highlighting opportunities to an active, professional community with an interest in the discipline. Importantly, many of those following us are not yet members, but through engagement on the platform we have a strong chance of converting their interest into membership and an active role within the microbiology community. In 2019 we gained 17,000 followers on this platform. Following success with our main LinkedIn group, we launched a new group on the platform in February 2019 to provide enhanced support for the ECM Forum Executive Committee and its wider membership.

Established to help early career members to share news, events, networking opportunities and jobs of interest, it has 94 members. They are active on the site discussing responses and shared solutions to issues raised, often based on an individual's own experience. They also direct others to support resources on the Society's website. Our goal for 2020 is to support the group to continue to build engagement across the platform and provide community building opportunities in addition to physical events.



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.





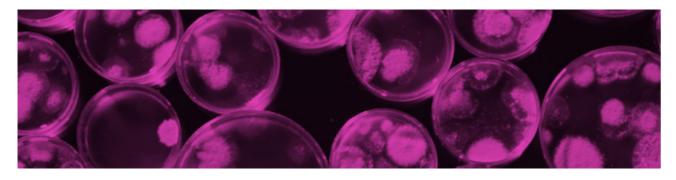
Promoting and communicating microbiology for impact within and beyond the community

After opening for submissions in 2018, *Access Microbiology* was officially launched when it published its first articles as well as hundreds of abstracts and posters from Annual Conference in April 2019. Designed to meet the needs of members, the journal has outperformed the original business case across the board since launch. To take just two examples, the journal attracted more than double the anticipated number of article submissions in its first year and achieved inclusion in PubMed Central, a key marker of quality, within six months of launch.

One of the aspects of *Access Microbiology* that makes it unique is the Editorial Board; early career researchers who want to develop editorial skills are paired with experienced editors who they can go to for queries and advice on editorial matters. The Editor Mentee role provides an opportunity to manage the peer review process and ensure that articles meet the ethical standards of the Society, as well as being in line with the editorial strategy of the journal, while being supported by highly experienced Editor Mentors to help them learn the ropes. Editorial roles are usually closed to early career researchers, being seen as an indicator of seniority, but the Society's Council and Publishing Committee were 100% behind the idea of opening up the process as part of our commitment to professional development.

So far, I have genuinely had a brilliant experience. It's very different being on the other side of the publishing process but it's great, and a privilege, to be able to read such a wide variety of microbiology, especially before it's out there for everyone else to enjoy too! Additionally, my mentor is a monumental source of knowledge and advice whenever I need it!"

Dr Helina Marshall, our first Editor Mentee



With a very broad initial scope and a mandate to
publish all scientifically rigorous microbiology
and virology, Access Microbiology found new
ways to meet members' needs in 2019. The first
such change was only days after launch, when
the Teaching Microbiology in Higher Educationteachers of microbiology are experimenting with
new ways of educating students, but that there is
limited opportunity for them to share the results
of this work. We recruited Dr Nicola Crewe as
Editor Mentee with a particular responsibility for
pedagogy papers, and encouraged all attendees
to submit their work to the journal.

We asked attendees how the Society could support them, and publishing their pedagogy papers was high on the agenda; it is fantastic that we can be responsive to the community and provide a forum for continuing to share best practices outside of the physical meeting." Dr Tadhg O Croinin, Chair of the Professional Development Committee

Access Microbiology in numbers

14 members of the Editorial Board, of whom 5 are Editor Mentees and 4 are Editor Mentors

204 articles submitted

87 articles published

21 articles cited in the year of publication

Published posters and abstracts from **6** events, including Annual Conference and FIS

19,558 full-text downloads

419,313 DOI resolutions

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

Social media

Communicating microbiology and our members' work for impact

Our role is to increase capacity and opportunities for our members to communicate microbiology and their work. In 2019 we produced more digital content featuring the voices of our members than ever before. The result was a sustained increase throughout the year in the number of people following the Society and engaging with our content across all digital channels.



The view from Twitter

By December 2019 we had more than 40,000 followers on Twitter, up 35% year on year. Popular and frequently shared content included the success stories of our members, particularly





Objective 2

in terms of outreach work, awards and media coverage. Our events and the opportunity to network, as well as the history of microbiology, also engaged the community.

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Social media

The view from LinkedIn

This is our fastest growing channel, and in 2019 our followers increased to over 22,000, an upturn of 200% year on year. High levels of engagement on this platform focused on content from our blog, *Microbe Post*, sharing our members' research on global issues, including antimicrobial resistance and new breakthroughs in the fight against cancer. Research from our journals is also popular on this platform, with followers regular sharing the latest advances in microbiology.

Top posts included:

Research has found that the composition of the intestinal microbiome – the complex community of bacteria and other microbes that reside in the gut – can influence an individual's chances of developing cancer in the bowel. In today's blog we learn more.

To promote Antibiotic Awareness Week, we will be publishing a series of blogs that focus on New Antibiotics Needed. We start with the bacterium *Acinetobacter baumannii* which is typically prevalent in hospital environments.

In today's blog we learn more about the research history of *Streptococcus pneumoniae* – how vaccines have the potential to fight against growing antibiotic resistance and how genomic surveillance has been vital in understanding their impact.

• Our website had the most page views in its history, reaching a milestone million views in 2019, up 100% year on year.

• Our blog, *Microbe Post* – more than 50% of which is written by our members – received a record-breaking 80,000 views.

• Our podcast, *Microbe Talk*, regularly achieved 5,000 downloads per episode: each podcast features our members in conversation about their work.

• Our members are logging into the members area of the website, Mi Society, more frequently and in higher numbers than ever before, with usage up 100% year-on-year.

• Members opened more emails in 2019 than ever before, reaching a 32% open rate, the highest ever recorded.

• We strengthened our reach via the media. In March 2019, a press release highlighting research on show at Annual Conference on the possible human transmission of canine 'flu was covered across 75 UK and international digital and print media outlets and translated into eight languages.

Social media

Being passionate about microbiology being taught in schools meant Society Champion Rachel Exley was the perfect volunteer to represent the Society on the Microbiology in Schools Advisory Committee (MiSAC), which has a long association with the Society, MiSAC promotes the teaching of microbiology in schools and colleges and consists of experts who work voluntarily as representatives of the wide range of educational and scientific organisations that sponsor its activities.

In January 2019, as our MiSAC representative, Rachel was invited to attend a meeting in London celebrating the 10th anniversary of e-Bug, an educational resource consisting of lesson plans, online games and activity packs that aim to raise understanding and awareness of micro-organisms and the spread, prevention and treatment of infection. Aside from being a very enjoyable and informative meeting, Rachel's attendance led to an exciting new e-Bug partnership with Ukraine in November 2019. The e-Bug team shared their plans to extend e-Bug further and encouraged anyone with an interest in launching e-Bug in new countries to get in touch. Having realised Ukraine was not an existing partner country, Rachel discussed the idea of bringing e-Bug to Ukraine with her colleague and fellow Society member, Mariya Lobanovska. Mariya had previously organised an exhibition in her hometown of Kharkiv in Eastern Ukraine that was attended by hundreds of schoolchildren from there and neighbouring cities. Mariya presented the idea of bringing e-Bug to Ukraine to her colleagues in Kharkiv and to the e-Bug UK team. The proposal was supported and in May 2019 Mariya, along with Victoria Kruglova of the Landau Centre and a team of volunteers from the Departments of Biology, English and Ukrainian Language at Kharkiv National University, began to translate all of the materials, including the young adult materials – making Ukraine the first partner country to translate the young adult resource.





The launch event took place in November 2019. It began with a symposium for teachers at Kharkiv National University, who were welcomed with a presentation from Victoria Kruglova, who introduced e-Bug and shared the objectives of this project with the participants. For the rest of the day, volunteers from the Department of Biology and Medicine gave overviews of the junior, senior and young adult materials, ran workshops on how the teachers, parents and children can use the website, and gave practical demonstrations of some of the materials. The symposium ended with a networking session allowing the participants to discuss ideas and, importantly, to begin to form a network of e-Bug users. I was invited to record a short video for the symposium, giving me the opportunity to share my own experiences of teaching children about microbes and hygiene and to explain why, as an academic with an interest in infectious diseases and bacterial pathogenesis, I think it is important that children grasp the importance of microbiology from an early age.

More than 100 teachers from Kharkiv and the Kharkiv region attended the symposium and the following day over 120 teachers joined a live webinar, which enabled the e-Bug team to raise awareness of the e-Bug resources and activities among teachers from 15 different regions of Ukraine. The launch event received positive feedback and resulted in invites to many schools who were keen to learn more about the project.

After only three weeks more than 20 schools across Ukraine had already used e-Bug resources, which shows there is enthusiasm among teachers for this exciting new project. Since then, a dedicated Twitter page and a new Facebook page have been launched to help spread the word, and the feedback indicates that the materials are going to be a great resource for teachers and students. I was delighted to have had the opportunity to contribute to the launch event and look forward to e-Bug being used as widely as possible across Ukraine." *Communications Committee and Microbiology in Schools Advisory Committee representative, Dr Rachel Exley*

The Society will raise the profile of microbiology, our members, and increase the influence of the Society with the public, policy-makers and other stakeholders

Promoting and communicating microbiology to influence our audiences

The evolution of the science of microbiology is intimately connected to incessantly changing societal needs in fluctuating political climates. By combining our members' knowledge with innovative evidence-based policy engagement, we endeavour to share our excitement for the profoundly positive effects that microbes have on the wider society. Microbiology gave humankind life-saving drugs and processes to clean up pollution and produce foods and drinks. Our policy work continues to advocate for the importance of microbiology to help improve rational debate among policy-makers and the public.

This year saw the launch of our position statement, *Science for Ireland: Propelling Research and Innovation Success*; a compelling case to secure an uplift in public funding for scientific research, in line with the Irish Government's target to increase R&D intensity to 2.5% of gross national product. Bringing together the disparate views of hundreds of members in the Republic of Ireland and Northern Ireland, we set out recommendations to ensure that both nations remain at the vanguard of international science at a time when the cross-border relationship is being threatened by the UK's withdrawal from the European Union. These recommendations include creating a vision with a plan and a budget for the 2.5% target, growing R&D capability by investing in talent and infrastructure, encouraging diversity and creativity across the full breadth of scientific discipline, and strengthening research and innovation schemes between the Republic of Ireland and Northern Ireland, and the Republic of Ireland and the UK.

Throughout this project the level of engagement from members has been extremely high, with hundreds having contributed to surveys, workshops and one-to-one interviews from December 2018 to November 2019, sharing their concerns, hopes and ideas for the future of their discipline and providing crucial input for the position statement.

We are a membership organisation first and foremost; as such, seeing the trust these members have put in us to amplify their voice in conversations with advocates across and outside the research sector has been overwhelmingly exciting. It is now incumbent on us to consider what further steps we can take in the future to ensure that the wider issues of funding microbiology in Ireland are given sufficient attention.

Science for Ireland statement



We are overwhelmed by the level of engagement and the insights provided by our members in the Republic of Ireland in response to our policy activity for the *Science for Ireland* statement. This really does show the power of working with our membership to deliver a report of considerable importance. This statement consolidates the ideas and strength of feeling of the microbiology community in Ireland and should contribute to the ongoing science funding debate within Dáil Éireann. This would not have been possible without the dedication and hard work of our staff in Meredith Street." *Paul Kellam, Chair of the Microbiology Society Policy Committee*

"Thank you very much for all the effort that you have put into this position statement – it is very much appreciated by me and by each of my colleagues in Ireland with whom I have discussed it." *Elected member of Council, Charles Dorman*

"You've really done a great work. It's brilliant to have the support of the Microbiology Society over here." *Member, Stephen Lalor*

"The statement is fantastic. The Microbiology Society have done a great service for us and it is much appreciated." *Member, Alastair Fleming*

Promoting and communicating microbiology to influence our audiences

Our members continue to make significant personal contributions to the current global challenges, raising awareness of microbiology and the contribution it can make in helping solve them. These contributions cover a range of activities – from the more traditional through to the more creative.

Here are four very different examples of initiatives conceived and delivered in 2019, by Society Champions – members who have volunteered to do that little bit more for us in their local areas. Member Dr Thiru Vanniasinkam is a microbiologist based at Charles Sturt Hospital, NSW, Australia. In conjunction with several colleagues, he helped put on an Antimicrobial resistance (AMR) / infection control workshop for early career nurses from local regional hospitals. Meeting together for the first time in one of the university's laboratories, the workshop covered healthcare-associated infections (HAI's) and antibiotic resistance. It was conducted as part of the nurses, continuing professional development and participants found the workshop and opportunity to engage closely with microbiologists very instructive.

We found the workshop very relevant, in particular the information presented on pathology lab processing will help us, we hope you will be able to run similar workshops again."

Regional hospital nurse delegate



Promoting and communicating microbiology to influence our audiences

Earlier in the year, Dr Arindam Mitra, a Champion based at Adamas University, Kolkata, India, helped organise and run a one-day national seminar on the Interface of Microbiology and Medicine. More specifically, this sought to explore challenges in the management of visceral leishmaniasis (kala-azar) with a focus on the diagnosis of the disease, probiotics and human health, and antimicrobial resistance. This was very much a collaborative effort, with support being received from more than 150 students and staff of the School of Life Science and Biotechnology at Adamas University, as well as students from neighbouring Kalyani Public School. The impact was clear, as student's feedback revealed: "We have learnt a lot about antimicrobial resistance and its impact on society."





A very different event was put on by member Dr Eliza Wolfson, a Champion based in Bristol in the UK. Eliza has considerable lab research as well as microbiological expertise, but is now a full-time scientific illustrator. Eliza opened her house as part of a local arts trail event in which people got hands-on with coloured ink pads and pre-carved bacteria-shaped stamps to create microbiomeinspired masterpieces!



Objective 2

"I was the only sci-artist showcasing work in this local arts trail, and it was a great opportunity to tuck a little bit of microbiology into people's lives where they weren't expecting it. Over the course of the weekend, my living room, dining room and downstairs hallway were filled with ~300 people looking at, discussing and asking about some of my science illustrations and what lay behind them."

Promoting and communicating microbiology to influence our audiences

In November 2019, Society Champions Amy Sterling and Chris Proctor took over the University of Ulster's Twitter account to support World Antibiotics Awareness Week. The campaign was aimed at all ages and consisted of daily tweets featuring eye-catching infographics and links to further information on antibiotics and antibiotic resistance.

To encourage more people to get involved, they also ran a competition in the form of a quiz to see how much people know about antibiotics and antibiotic resistance.

We really wanted to help improve awareness and the understanding of antibiotic and antibiotic resistance with this campaign and we are so thankful to the Microbiology Society for sponsoring the competition prizes.

We were pleased both our campaign and quiz attracted a wide audience; we even had some participants as young as 13 years old! At the end of the week we were able to offer 11 individuals prizes, including Amazon vouchers, giant microbes and copies of microbiology non-fiction books. Most of the winners were UK based, but we had one winner in Ontario and another in Chicago – the power of social media!" *Amy Sterling and Chris Proctor, Members and Microbiology Society Champions*



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.

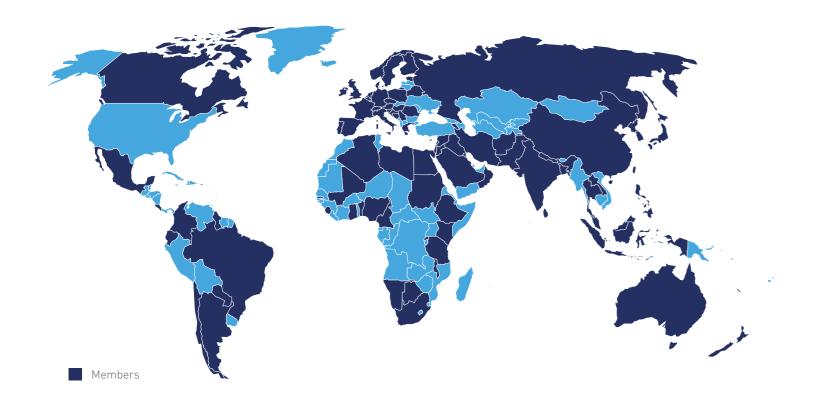


Growing future leaders for the future of the Society and the microbiology community

The Society's membership continues to grow. Membership stood at 5,345 to the end of December 2019 – an increase from the 4,873 of the previous year.

Our breadth of reach continues to grow, too, with members now represented in 112 countries. In 2019 we honed our plans for supporting mid-career members, ready for full roll-out of

an enhanced programme in 2020. As well as continuing our support for Editor Mentees with Access Microbiology, and support for teachingactive members via the Teaching in Higher Education symposium, we looked at the wealth of ways that the Society supports its members, regardless of career stage, ensuring that existing opportunities that mid-career members asked for were better communicated.



Afghanistan Hungary Algeria India Argentina Indonesia Armenia Iran Australia Iraq Austria Ireland Bahrain Israel Bangladesh Italy Barbados Japan Belarus Jordan Belgium Kenya Benin Bosnia-Herzegovina Republic of) Botswana Korea (Republic of) Brazil Kuwait Cameroon Laos Canada Lebanon Chile Libya China Luxembourg Colombia Macau Costa Rica Malawi Croatia Malaysia Cyprus Mali Czech Republic Malta Denmark Mauritius Ecuador Mexico Egypt Namibia Estonia Nepal Ethiopia Netherlands Finland New Caledonia France New Zealand Gambia Nigeria Germany Northern Ireland Ghana Norway Greece Oman Guyana Pakistan Hong Kong Palestinian Territory

Objective 3

	Paraguay
	Philippines
	Poland
	Portugal
	Puerto Rico
	Romania
	Russian Federation
	Rwanda
	Saudi Arabia
	Serbia
	Sierra Leone
ople's	Singapore
	Slovenia
	South Africa
	Spain
	Sri Lanka
	Sudan
	Sweden
	Switzerland
	Syrian Arab Republic
	Taiwan
	Tanzania
	Thailand
	Tunisia
	Turkey
	Turkmenistan
	Uganda
	UK
	Ukraine
	United Arab Emirates
	United States Minor Outlying
	Islands
	United States Of America
	Uruguay
	Vietnam
	Virgin Islands (British)
	Yemen
	Zimbabwe

Korea (Democratic Peo

Growing future leaders for the future of the Society and the microbiology community

I was delighted to be invited as a speaker and chair of the workshop, and it was an absolute privilege for me to represent the Society in this way. The audience was made up of fairly equal numbers of clinical and non-clinical researchers who were keen to engage in the discussions and asked questions throughout the day, making it a lively and interesting meeting for all involved.

Working alongside my excellent Co-Chair, Dr James Price (Consultant Microbiologist, Imperial College Healthcare NHS Trust), we gave an introductory overview of our research, our networks of collaborators and our successes and failures. We also discussed some of the main benefits of collaborations between clinical and non-clinical researchers. For non-clinical microbiologists, these included working with strains from the 'real world', as type culture strains have often been grown in labs for many years and become adapted to grow on plates. It is also a real advantage to gain a better grasp of clinical guidelines and practices, as this enables researchers to work out where research is actually needed, and how innovations can be applied. Benefits to clinicians include developing skills in research techniques, opportunities to supervise PhD students and experience of different specialties and research cultures."

Dr Karen Robinson, Member and event organiser

We reviewed our *Essential Skills* sessions, making sure we included sessions of relevance to mid-career researchers: Managing a Research Laboratory and Staying Resilient in your Career showcased members' experience of management and setbacks and brought in expert trainers to equip delegates with the skills required for navigating their career paths. We also held a CV workshop to help members seeking their next role, in academia or other sectors.

We reviewed our website so that in 2020 midcareer members could visit one place to see those opportunities, and be signposted to other opportunities that will prompt them to think about and take steps to reach the next steps on their career paths, regardless of sector.

Objective 3

We held the Bridging the Clinical–Research Gap meeting, an opportunity for mid-career members to meet clinical collaborators and find out about funding opportunities to support potential collaborations and to expand their portfolio of work.

During 2019 we carefully planned a programme that will bring together a group of microbiologists from across the breadth of microbiology to dedicate time to thinking and writing and learning about the key elements of grant applications.

Our first grant writing retreat was planned for 2020, but has been postponed to 2021 due to the COVID-19 pandemic.

Celebrating the Young Microbiologist of the Year

Davis Laundon, from the Marine Biological Association, University of East Anglia, won our 2019 Sir Howard Dalton Young Microbiologist of the Year competition, which recognises and rewards excellence in science communication by a Society member who is a postgraduate student or postdoctoral researcher, having gained their PhD in the last two years.

Davis is currently studying for his PhD in Marine Biology and was awarded the prize for his talk, Shining New Lights on Chytrid Cell Biology: Quantitative Live Cell Imaging of Rhizoid Development in an Early-Diverging Fungus. He said, "The competition was absolutely amazing this year. I thought every presentation was excellent and incredibly well communicated. To be awarded the prize amongst those presentations was a really huge honour and incredibly flattering."

The second prize was awarded to Sarah Worsley, also from the University of East Anglia, for her talk on The chemical ecology of protective microbiomes.

Third prize was awarded to Michaela Conley from the University of Glasgow for her talk ,Assembly of a portal-like structure in feline calicivirus following receptor engagement.



Roadshows to connect our members around the UK and Ireland: part of our ongoing commitment to expand and strengthen the vast networks and opportunities available to our members

In January 2019, we launched a programme of events around the UK and Ireland led by our President, Professor Judith Armitage. During the first half of these two-hour events, delegates heard from the President, Chief Executive Peter Cotgreave, and Society Champions about what the Society meant to them. The second half of the event provided a platform for delegates to connect with local like-minded individuals and engage with the President and Society staff, while most importantly, it was an opportunity to find out how they could get more involved in the Society, locally as well as nationally.

We visited Leeds, Newcastle, Dublin, Plymouth and Reading during 2019.

Great opportunity to talk to other microbiologists present, and to learn more about how to get involved with the Society." *Attendee, Leeds Roadshow*

"This is the first time that microbiologists across the north east have got together in this way...good networking and several people told me they are now aware of the society and what it could do for them." *Attendee, Newcastle Roadshow*

"The event was very informative regarding the role of the society. All of the members were extremely welcoming and approachable. It was reassuring to know that they all started out as students like myself and have worked hard to get to where they are now." *Attendee, Dublin Roadshow*

"Great to get interested people together in the same room! Thank you so much for coming as it helps to promote the society and raise its visibility. It was great to see and hear from Judith in particular her story." *Attendee, Plymouth Roadshow* Through 2019 we met over 250 delegates, unlocked potential and enabled new collaborations, gained new members and Society Champions where we had previously had little or no activity in the local area, witnessed an increase in the number of people wanting to get more involved with the Society and successfully raised our profile.



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

Building the future of the Society for our community

In response to a new Open Access (OA) policy initiative called Plan S that was launched in 2018 by multiple European national funding bodies, including UK Research and Innovation and Science Foundation Ireland, and will have a big impact on the publishing landscape, we have been working hard to secure our objectives and introduced a new business model in 2019. Badged as 'Publish and Read', and being piloted in subscription years 2020 and 2021, this new model is designed to do two things: support members and other microbiologists across the world who are subject to Plan S by giving them a compliant venue for publishing their work, and ensure the long-term financial sustainability of the Society by reducing our dependence on traditional journal subscription revenues.

We started by assessing the geographical diversity of our author and subscriber bases; trends in article numbers, article costs and revenues; the administrative complexity of various business models under consideration; and the reputational and financial risks to the Society associated with those models. After extensive work, including market research, Finance and Operations Committee and Council members were consulted on and approved the proposed model. They further approved the

publication of an article in a library- and funderfocused journal as a sign of our commitment to transparency.

Publish and Read was designed to offer a frictionless experience for authors and maximum value for institutions, and to provide an alternative to both subscriptions and article processing charges . Institutions that buy a Publish and Read package are offered:

• Unlimited Open Access: any article published in Society journals where the corresponding author is from a Publish and Read institution will be OA by default.

• Unlimited usage: any user associated with a Publish and Read institution can access the entire archive of Society content, back to 1947, for reading and for text and data mining.

• By the end of 2019, Publish and Read had already generated more orders than our original estimate of 15–25 institutions. We had two national consortia deals for Publish and Read with Jisc in the UK and CAUL in Australia/New Zealand – and had signed up eleven institutions outside of those consortia across Europe and North America.

The Society has also taken steps to ensure that its income continues to grow alongside its membership. For an organisation like ours, relying heavily on the income generated from scientific publishing, maintaining a diversity of income streams is a sound and prudent strategy to sustain our ability to support our members. To this end the Society appointed a new staff member in late 2019 to lead on the development of a fundraising initiative. This fundraising



Fantastic news that we are able to publish OA in the Microbiology Society journals for free. Thanks very much!" Dr Erin Price, University of the Sunshine Coast, Australia, and the first author to be eligible for fee-free OA under a Publish and Read deal

"Publishing is stressful enough without the added demands of not knowing where the money to publish is going to come from. At least now (with Publish and Read) we have a way to help ECRs trying to get a foot in the door." Dr Helen Brown, Editor Mentee on Access Microbiology

Objective 3

initiative could support the professional development and personal growth of qualifying members. During 2020 we will see the research and development of a fundraising initiative to support the career development of our members. Our 75th anniversary is an opportune time to develop innovative approaches to secure the sustainability of our professional development programme, continuing our legacy of member support in the next 75 years.

The Society will increase opportunities for generating income

Ensuring our sustainability

In 2018 Council took the decision to sell its freehold offices at Charles Darwin House, which it co-owned with five other biological societies, and in 2019 purchased new self-contained premises nearby.

This has enabled the Society to take control of its premises costs and make its own decisions in relation to these to benefit both the staff and members.

We were all so involved in the creation of the building we feel like it is ours."

Hebba Beech, Journal Development Editor, Society staff member.

"The Microbiology Society is all about people. We emphasise words like communities, society, networks, sharing, engagement and relationships. These are just different ways of describing groups of people and positive interactions among them. The first of our core values uses the words welcoming, friendly, nurturing and approachable to emphasise our view of how best to optimise these relationships. We found an office space that best represents these values, so that staff can enjoy coming to work and can better deliver on the Society's strategic objectives." Professor Judith Armitage, President





75th Anniversary forward look

In 2020 the Microbiology Society celebrates the 75th anniversary of its founding with a programme of events and activities designed to demonstrate the impact of microbiologists' past, present and future.

Our founding members wanted to bring together scientists working in different areas of

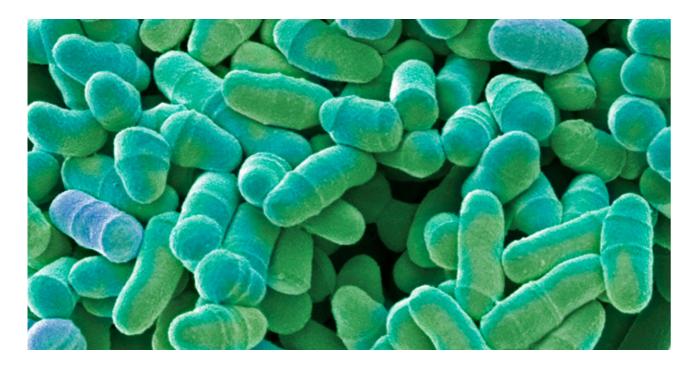
microbiology to form a Society that would provide microbiologists with a common meeting ground. 75 years later, this aim remains central to our purpose. Our anniversary brings an opportunity to do even more to bring together and empower communities that help shape the future of microbiology.

Why Microbiology Matters

This was the first of our anniversary activities to launch, in November 2018, with a call to the community to nominate the discovery or event that best showcases why microbiology matters, and how it affects almost all aspects of our lives. It closed to nominations in April 2019.

We are designing a series of new collections of digital content under themes submitted by the community, to curate resources and member stories on some of the most significant areas of microbiology, collated in one place for the first time.

The digital hubs will be promoted across channels during our anniversary year and continue to live on our website, where they will be updated with new content and grow beyond the anniversary year, to help foster understanding of how microbiology addresses global challenges and reinforce the importance of the discipline in 2020 and beyond.



Fleming Showcase

We will host a celebration of outstanding science in recognition of the legacy of past Fleming Prize winners and demonstrating the impact of both established and up-and-coming scientists in addressing important challenges. It will be attended by Fleming Prize winners, including Sir Paul Nurse FRS, as well as early career scientists and speakers recognised as world-leading in their fields.

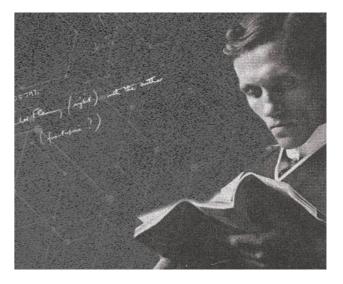
This event was originally due to be held on the first day of Annual Conference 2020, but because of the COVID-19 pandemic it has been postponed until 2021.

Archival research

As part of research into our founding President, Sir Alexander Fleming FRS, we have undertaken several visits to our archives at the Wellcome Trust and commissioned a digitisation project of items including photos, letters and other artefacts to help illustrate our content and to provide a better visual record of the early period of the Society's 75-year history.

A Sustainable Future

Our membership-focused policy project will demonstrate the value and raise the profile of microbiology in addressing the world's biggest challenges via the United Nations Sustainable Development Goals (UN SDGs). Focusing on three core areas, soil health, antimicrobial resistance and the circular economy, we will gather evidence from our membership and look to new partnerships with like-minded organisations to support knowledge exchange and champion the importance of microbiology in sustainable development.







75th Anniversary forward look

Risk management

A vital element of 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.

Council established a new Audit, Risk and Evaluation Committee, which launched in 2019 and includes External Members and two Members of Council with responsibility for the detailed examination of risk. One of its duties is to consider the major risks that Council needs to consider. Following two workshops, which sought input from managers on the Society's staff, the Committee developed an improved critical risk register in 2019 to be launched in 2020, with ten broad categories of risk rather than a long list of more specific challenges.

The principal risks that Council has identified as follows:

People

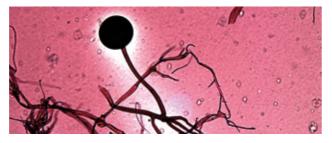
Members and staff form the core resource of the Society, without which it could not achieve its objectives. The loss of corporate knowledge or skills and the operational impacts of losing key staff are major risks. This is particularly true in a small organisation with several different activities, which inevitably leads to reliance on one or two key individuals for some important functions.

In 2019 the Society experienced lower-thanaverage staff turnover. Most leavers progressed to promotions in other organisations and the risk mitigation plan described above has ensured that there was no decline in performance. Equally, the loss of members to competing groups if the Society fails to keep pace with the external environment is a major risk.

Council mitigates the risks by: (i) ensuring robust recruitment procedures for staff or nomination procedures for the Society's governance activities; (ii) investing in staff development; (iii) reviewing the ways the Society is governed; and (iv) implementing strong HR policies.

Microbiology Images

We have invited the community to submit images related to the microbiological world to help highlight how microbiology answers big questions by giving us knowledge of very small things. Images will be highlighted via a digital gallery during 2020 and we will showcase them across digital platforms throughout our anniversary year.



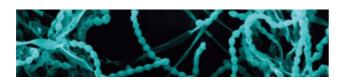
Microbiology Book Club

Inspired by Professor Jo Verran's Bad Bugs Book Club, to coincide with World Book Day on 5 March 2020, the Society will launch digital guidance and support to encourage members of the microbiology community to get together and discuss microbiology in literature and how the way science is portrayed in literature affects public understanding, through their own book clubs.



Preserving our journals content

Throughout 2020 we will convert our complete journal archive into the modern format, improving the visibility and reusability of our archive, and preserving our content for the long term.



Income and expenditure

The Society continues to be highly dependent on its peer-reviewed journal subscriptions for its main source of income. In 2019, Council continued to mitigate this risk by taking action to: (i) invest in the future of its publishing business; (ii) maximise its income from other existing sources; (iii) review costs regularly; and (iv) seek new and diverse sources of income.

During 2019 the Society set to work to develop a new business model in response to the release of Plan S by a coalition of funding bodies, which could have had a significant impact on Society journal subscription revenues. We worked to mitigate this risk by: (i) ensuring that our Open Access policies are compliant with even the most stringent funder mandates; (ii) developing a new Open Access business model that is suitable for both single institutions and consortia purchasers, called Publish and Read; and (iii) engaging with the Open Access policy community to influence the development of pragmatic guidelines around an open publishing future.

The trustees have considered the risks and uncertainties associated with the impact of the COVID-19 pandemic on its projected income and expenditure for 2020 and beyond. The organisation is largely sheltered from the expected effects of this, as its major income stream is from its journals, which are published online and typically tied up in institutional licensing deals The Society has already received 91% of its 2020 income (as at the end of April 2020), so continues to operate mostly business as usual despite the pandemic. However, all events the Society had planned to deliver in 2020 have either been postponed or cancelled, including our flagship annual conference. The loss of income from this event coupled with the costs incurred from cancelling such an event at short notice will have an impact on the 2020 outturn. However the Society has significant reserves to enable it to absorb this loss.

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 science and of education.

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), six elected members and the Chairs of six strategic committees: Communications, Policy, Professional Development, Publishing, Scientific Conferences and the Early Career Microbiologists' Forum Executive Committee. The Treasurer is the Chair of the Finance and Operations Committee. In 2019 the new sub-Committee for Audit, Risk

Council Members

and Evaluation was launched, with an external independent Chair.

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 a nominations panel, composed 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 with respect to those candidates considered suitable by the nominations panel. In the case of Elected Members of Council, nominations are also sought from the membership and candidates are elected via open election. The Chair of the Early Career Microbiologists' Forum is elected by the members of the Forum.

Presider	President (Chair)		Treasurer (Chair of Finance and Operations Committee)		Secretary
Chair of Communications Committee	Chair of ECM Forum Executive Committee	Chair of Policy Committee	Chair of Publishing Committee	Chair of Professional Development Committee	Chair of Scientific Conferences Committee
Six Elected Members					

Professor Judith Armitage took office as President on 1 January 2019. Professor Ian Roberts took office as Treasurer on 1 January 2018 and continued as Treasurer throughout 2019. Professor Maggie Smith stepped down as General Secretary on 31 December 2019 and Professor Mark Harris takes office on 1 January 2020.

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 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 2019 met in March, July, September and December.

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 requirements. All members of Committees sign a Memorandum of Understanding to clarify roles and expectations before undertaking positions. The Scientific Conferences Committee is supported by the Divisions of the Society 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 Virology. The Society also has an Irish Division to oversee its activities in Ireland.

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.

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 2019 there were three directors, covering Members' Programmes and Strategy; Publishing; and a Chief Operations Officer. The Society employs over 40 staff; staff names, job titles and key contact details can be found on the Society website. 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 and Operations Committee. It is the aim of the Society to attract highly talented individuals who are motivated to work in the charity and scientific sectors.

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 72, 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 to the Society's publications, investment income, membership subscriptions, event registration fees and exhibitor and sponsorship fees. The Society has continued expenditure on journal publishing, scientific conferences, grants, policy and member engagement. Throughout 2019, the Society has developed membership engagement activities, including delivering a series of President's roadshows and planning for these to continue throughout 2020, as well as developing several member resources on the MiSociety area of the website.

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 2019 with a small surplus against the main operating budget of £20,107. However, following a review of the Society's reserves in 2018, a plan was agreed to spend down £1,783,573 of reserves, which commenced in 2018. The expenditure in 2019 included investment in the Society's technology and Customer Relationship Management (CRM) system, fundraising activities, member engagement, the Society's 75th Anniversary in 2020 and staffing to support these. The overall outturn for 2019 therefore is -£647,000.

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 current reserves policy has a target reserves figure of £8,342,000. Actual free reserves are £15,148,000. The target minimum reserves level is equal to 2 year's operating costs for publishing operations plus 1-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 reserve may also be used for one-time, nonrecurring opportunities that will build long-term capacity, such as research and development, investment in infrastructure, or collaboration opportunities. We are investing our reserves in the following activities which span 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 external pressure to provide all content as open access, remains a significant risk, and the target reserves level was developed to take into consideration the fact that a radical change to the current publishing model would take time to take effect and would require additional investment. The target amount will be calculated each year after approval of the annual budget, reported to the Finance and Operations Committee and Council. The Council of the Microbiology Society will carry out a full review of this policy every 3 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.

Investment policy and objectives

Following the development of an explicit Investment Policy document in 2014 and the appointment of Waverton as investment managers, the Society's assets are now invested primarily in a portfolio of good-quality companies worldwide that are chosen for both the longterm 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. In addition, during 2014, the Society appointed Asset Risk Consultants (ARC) to assist in reviewing the Society's current investment management and assist in appointing new managers if appropriate. ARC attend the quarterly Finance and Operations Committee meetings to review the performance of the investments and Waverton Investment Managers attend each meeting. Finance and Operations Committee examined the relationship with its investment managers in 2019 and Council took the decision to transfer the Society's portfolio to Tilney Investment Managers. This transfer will be carried out in early 2020.

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 with similar objectives 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.

Independent auditor's report to the members of Microbiology Society

Opinion

We have audited the financial statements of Microbiology Society ('the company') for the year ended 31 December 2019, which comprise the Statement of Financial Activities, the Balance Sheet, the Cash Flow Statement and notes to the financial statements, including a summary of 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 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 2019 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; and

• have been prepared in accordance with the requirements of the Companies Act 2006.

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 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

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

• the trustees' use of the going-concern basis of accounting in the preparation of the financial statements is not appropriate; or

• the trustees have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the company's ability to continue to adopt the goingconcern basis of accounting for a period of at least 12 months from the date when the financial statements are authorised for issue.

Other information

The other information comprises the information included in the Annual Report, other than the financial statements and our auditor's report thereon. The trustees are responsible for the other information. 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.

In connection with our audit of the financial statements, 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 audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. 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.

Independent auditor's report to the members of Microbiology Society

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 for the financial year for which the financial statements are prepared is consistent with the financial statements; and

• the trustees' Annual 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 company and its environment obtained in the course of the audit, we have not identified material misstatements in the trustees' Annual Report.

We have nothing to report in respect of the following matters where the Companies Act 2006 requires 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; or

• the trustees were not entitled to prepare the financial statements in accordance with the small companies regime and take advantage of the small companies exemption in preparing the Trustees' Annual Report and in preparing a Strategic Report.

Responsibilities of trustees

As explained more fully in the trustees' responsibilities statement, 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

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 aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. As part of an audit in accordance with ISAs (UK) we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

• Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

• Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purposes of expressing an opinion on the effectiveness of the charitable company's internal control.

• Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the trustees.

• Conclude on the appropriateness of the trustees' use of the going-concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the charitable company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the charitable company to cease to continue as a going concern.

• Evaluate the overall presentation, structure and

content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation. We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

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. Our audit work has been undertaken so that we might state to the 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 any party other than the charitable company and charitable company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Signed: Moore Kingston Sulla LLP

Date: 3 July 2020

Andrew Stickland (Senior Statutory Auditor) for and on behalf of Moore Kingston Smith LLP, Statutory Auditor Devonshire House 60 Goswell Road London EC1M 7AD

Statement of financial activities (incorporating the income and expenditure account) For the year ended 31 December 2019

Balance sheet As at 31 December 2019

	Notes	2019 total £'000	2018 total £'000
Income from:			
Charitable activities			
Publishing		3,452	3,476
Professional development (includes membership)		225	183
Scientific conferences		779	505
Other income		42	88
		4,498	4,252
Investments		270	206
Other income: Profit on disposal of fixed assets	10	1,477	
Total income		6,245	4,458

Expenditure on:

Charitable activities			
Publishing		1,868	1,814
Members' programmes		2,196	1,720
Grants and awards	2	244	247
Raising awareness and influencing policy		1,040	651
		5,348	4,432
Raising funds			
Investment management costs		67	72
Total expenditure	6	5,415	4,504
Net income/(expenditure) before net gains (losses) on investments		830	(46)
Net gains/(losses) on investments	11	1,041	(1,283)
Net income/(expenditure) and movement in funds for the year		1,871	(1,329)
Fund balances brought forward		13,277	14,606
Fund balances carried forward		15,148	13,277

All the above results relate to continuing activities.

The charity had no restricted income or expenditure in the year or the previous year.

	Notes	2019 total £'000	2018 total £'000
Fixed assets			
Intangible assets	9	334	413
Tangible assets	10	4,602	1,992
Investments	11	9,745	10,882
		14,681	13,287
Current assets			
Debtors	12	530	430
Cash at bank and in hand (including deposit	s)	2,445	2,075
		2,975	2,505
Creditors: amounts falling due within one ye	ear		
Trade creditors		315	244
Sundry creditors		203	120
Other taxation and social security		47	39
Publication income received in advance	13	1,943	2,112
		2,508	2,515
Net current assets/(liabilities)		476	(10)
Net assets		15,148	13,277
Unrestricted funds			
General	15	15,148	13,277
Total funds		15,148	13,277

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 3 July 2020 and signed on behalf of Council.

Date: 3 July 2020



Professor Judith Armitage	Pro
President	Tre

The annexed notes form part of these financial statements

Company Registration Number: 1039582

The annexed notes form part of these financial statements Company Registration Number: 1039582

Signed:

rofessor lan Roberts

Treasurer

Statement of cash flows For the year ended 31 December 2019

	2019 £'000	2018 £'000
Cash flows from operating activities:		
Net income/((expenditure) for the year before net gains/losses on investments		
(as per the statement of financial activities)	830	(46)
Adjustments for:		
Amortisation charges	116	107
Depreciation charges	40	26
Dividends and interest from investments	(270)	(206)
(Increase) in debtors	(78)	(85)
Profit on the sale of fixed assets	(1,477)	_
(Increase)/decrease in debtors	(100)	5
(Decrease) in creditors	(7)	(127)
Net cash (used in) operating activities	(868)	(241)
Cash flows from investing activities:		
Dividends and interest from investments	270	206
Purchase of intangible assets	(37)	(42)
Purchase of fixed assets	(4,633)	_
Proceeds from sale of fixed assets	3,460	_
Net purchases of investments	2,178	436
Net cash (used in)/provided by investing activities	1,238	600
Change in cash and cash equivalents in the year	370	359
Cash and cash equivalents at the beginning of the year	2,075	1,716
Cash and cash equivalents at the end of the year	2,445	2,075

Notes to the financial statements Year ended 31 December 2019

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.

Going Concern

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 the effects of the Covid-19 outbreak, which occurred before these financial statements were signed. The organisation is largely sheltered from the expected effects of this, as its major income stream is from its journals, which are published online and typically tied up in institutional licensing deals. The Society has already received 91% of its 2020 income (as at the end of April 2020), so continues to operate mostly business as usual despite the pandemic. However, all events the Society had planned to deliver in 2020 have either been postponed or cancelled, including our flagship annual conference. The loss of income from this event coupled with the costs incurred from cancelling such an event at short notice will have an impact on the 2020 out-turn. However the Society has significant reserves to enable it to absorb this loss.

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 $\pm 1,000$.

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.

The annexed notes form part of these financial statements Company Registration Number: 1039582

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.

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.

Notes to the financial statements Year ended 31 December 2019

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 25% or 20% p.a. on a straight line basis
- Motor vehicles 25% p.a on a straight line basis • Freehold property – building 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 fixedinterest stocks.

Investment property

Investment property is carried at fair value. No depreciation is provided. Changes in fair value are recognised in the Statement of Financial Activities.

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. Income

from membership and publication subscriptions is included in the statement of financial activities in the period to which it relates. 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 and in particular the number of employees involved in each area.

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.

Stock

Stock is valued at the lower of cost and net realisable value.

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

Institutional grants

Harry Smith Vacation Studentships (28 grants, 2018: 38) Education and Outreach Grants (7 grants to fund microbiology pro ECM Forum Event Fund (6 grants, 2018: 2) International Development Fund (3 grants to fund microbiology training in developing countries, 20 **Total institutional grants**

Individual grants

Research Visit Grants (9 grants for research visits, 2018: 8) Society Conference Grants (380 grants for travel and accommodation at Society meetings, 20 Travel Grants (91 grants, 2018: 102) Microbiology in Society Award (1 grant, 2018: 1)

Total grants to individuals

Grants approved in the prior year not taken up

Total grants

3. Turnover

At 31 December 2019, Included within publication Income and Membership fees is overseas income amounting to 80% of the total income generated from these activities.

4. Expenditure

Costs include:

Auditor's remuneration: audit fees Amortisation Depreciation

5. Expenses reimbursed to members of Council

13 (2018: 8) members of Council were reimbursed expenses of £10,426 (2018: £5,978) relating to travel and subsistence.

	2019 £'000	2018 £'000
	51	69
omotion, 2018: 12)	5	10
	3	1
)18:1)	15	5
	74	85
	28	23
018: 401)	91	89
	49	62
	5	5
	173	179
	(3)	(17)
	244	247

2019 £'000	2018 £'000
17	17
116	107
40	26

6. Total expenditure

CURRENT YEAR

Total expenditure	1,995	3,420	_	5,415	4,504
Support	524	1,259	(1,783)	-	_
Investment management	_	67	_	67	72
Careers and promotion	372	217	451	1,040	651
Grants and awards	-	244	_	244	247
Members' programmes	538	* 1006	652	2,196	1,720
Publication costs	561	627	680	1,868	1,814
	Staff costs £'000	Other costs £'000	Support allocation £'000	2019 £'000	2018 £'000

PRIOR YEAR

	Staff costs £'000	Other costs £'000	Support allocation £'000	2018 £'000
Publication costs	588	660	566	1,814
Members' programmes	531	678	511	1,720
Grants and awards	_	247	_	247
Careers and promotion	254	153	244	651
Investment management	_	72	_	72
Support	373	948	(1,321)	-
Total expenditure	1,746	2,758	_	4,504

Support costs are apportioned to direct activities based on the direct staff costs allocated to those activities. * The increase in expenditure in 2019 under members' programmes relates to activities carried out to invest in the Society's future, following a review of the Society's reserves policy in 2018. Please see page 66 for further details.

7. Support costs

Total	1,783	1,321
Staff costs	524	373
Depreciation and charges	193	218
Professional and legal	285	122
Information technology	160	173
Premises and general office	425	286
Human resources	98	98
Other support costs:		
	98	51
Audit fees	15	17
Council and committee meetings and events	83	34
Governance costs		
	2019 £'000	2018 £'000
	0010	0040

Notes to the financial statements Year ended 31 December 2019

8. Staff costs

Salaries		
Social security costs		
Other pension costs		
Total		

The average monthly number of persons employed by the Society during the year was 44 (2018: 38).

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:

£70,000 - £80,000 £80,000 - £90,000 £100,000 - £110,000 £110,000 - £120,000

Contributions to the pension scheme on behalf of the employees noted above amounted to $\pounds 64,214$ (2018: $\pounds 54,318$).

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 £473,335 (2018: £464,633)

9. Intangible assets – CRM and Website

At 31 December 2018

	1,995	1,746
14	228	194
	158	130
	1,609	1,422
Notes	2019 £'000	2018 £'000

1 1	1
1	_
1	1
1	2
)18 No.

Total
£'000
547
37
37
584
134
116
-
250
334
413

Notes to the financial statements Year ended 31 December 2019

10. Tangible fixed assets

	Freehold land and buildings £'000	Office equipment, fixtures and fittings £'000	Total £'000
Cost or valuation			
At 1 January 2019	2,115	5	2,120
Additions	4,436	197	4,633
Disposals	(2,115)	-	(2,115)
At 31 December 2019	4,436	202	4,638
Depreciation			
At 1 January 2019	124	4	128
Provided during the year	25	15	40
Released on disposal	(132)	-	(132)
At 31 December 2019	17	19	36
Net book value			
At 31 December 2019	4,419	183	4,602
At 31 December 2018	1,991	1	1,992

The charity holds a part share of Charles Darwin House Limited who, at the start of the year, owned two properties on trust for the co-owners. The Co-owners were the biological focused charities that occupied one of the properties (12 Roger Street).

12 Roger Street was used as the charity's headquarters for the first part of the year, and its share of the building was included in freehold land and buildings. The property was sold in 2019 giving rise to a gain on disposal of fixed assets of £1,454,000.

107 Grays Inn Road was accounted for as a mixed use property as it was partly used by the charity for meeting room space with the remainder let out. The investment property component was included within investments at the Trustees estimate of its fair value. The property was sold in 2019 giving rise to a gain on disposal of fixed assets of £23,000 and a loss on disposal of investment property of £10,000.

11. Investments

Fixed asset investments	
Investment property	
Total	
(a) Fixed asset investments	
Market value at 1 January	
Additions at cost	
Sales proceeds	
Net gain/(loss) on revaluation	
Net movement in cash	
Market value at 31 December	
Equities	

			2019	2018
			£'000	£'000
Fixed asset investments			9,745	9,502
Investment property			_	1,380
Total			9,745	10,882
(a) Fixed asset investments				
			2019	2018
			£'000	£'000
Market value at 1 January			9,502	10,617
Additions at cost			2.474	4,576
Sales proceeds			(3,158)	(4,533)
Net gain/(loss) on revaluation			1,051	(679)
Net movement in cash			(124)	(479)
Market value at 31 December			9,745	9,502
		_		
		Cost		irket value
	2019 £'000	2018 £'000	2019 £'000	2018 £'000
Equities	4,912	5,471	6,245	6,007
Bonds	1,454	1,674	1,490	1,631
Alternatives	1,857	1,526	1,468	742
Cash	542	710	542	710
	8,765	9,381	9,745	9,502

All investments held are listed on the London Stock Exchange.

Included in the above is an investment in Waverton Sterling Bond Fund (Class A GBP) valued at £755,000 and representing 7.8% of the investment portfolio at the year end. There were no individual investments valued at over 5% of the total investment portfolio at the year end.

(b) Investment property

Market value at 1 January Sales proceeds Net gain on revaluation Market value at 31 December

2018	2019
£'000	£'000
1,984	1,380
-	(1,370)
(604)	(10)
1,380	-

Notes to the financial statements Year ended 31 December 2019

12. Debtors

	2019 £'000	2018 £'000
Other debtors	173	96
Prepayments and accrued income	357	334
Total	530	430

13. Publication income received in advance

Balance at 31 December 2017	1,943	2,112
Amount deferred in the year	1,943	2,112
Amount released to income	(2,112)	(2, 180)
Balance at 1 January	2,112	2,180
Total	1,943	2,112
Members' subscriptions in advance	61	56
Institutional sales of publications in advance	1,882	2,056
	2019 £'000	2018 £'000

14. 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 $\pm 228K$ (2018 – $\pm 194k$). At 31 December 2019, the amounts payable to the pension fund amounted to $\pm 20kl$ (2018 – $\pm Nil$).

15. Unrestricted fund – General

	2019 £'000	2018 £'000
Balance at 1 January	13,277	14,606
Net income/(expenditure) before net gains on investments	830	(46)
Net gains on revaluation of investment assets	1,041	(1,283)
Balance at 31 December	15,148	13,277

16. 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:

Financial assets measured at fair value Financial assets measured at amortised cost Financial liabilities measured at amortised cost

17. Related party transactions

There were no related party transactions in the year (2018: none).

2019	2018
£'000	£'000
£ 000	E 000
9,745	9,502
129	72
203	120

Image credits

Cover: HIV infected 293T cell, SEM – Steve Gschmeissner/ Science Photo Library

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Page 14: Participants at Annual Conference 2019 – Ian Atherton

Page 14: Leaf infiltration of Agrobacterium in Kenya for AfriPlantSci19 – Danny Ward

Page 15: Participants at Annual Conference 2019 – Ian Atherton

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Page 24: Bridging the clinical–research gap, in collaboration with Healthcare Infection Society (HIS)

Page 27: Participants at the Early Microbiologists Forum, Annual Conference 2019 – Ian Atherton

Page 28: Mix of bacteria colonies in petri dish, blood agar including chocolate agar, MacConkey agar – arun011/iStock

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Page 41: Participants at Antimicrobial resistance (AMR) / infection control workshop

Page 46: Young seedling growing out of soil inside light bulb with copy space. – ronniechua/iStock

Page 53: Participants at the 2019 Sir Howard Dalton Young Microbiologist of the Year competition

Page 55: Trinity College, Dublin, Ireland – Marc Lechanteur/ iStock

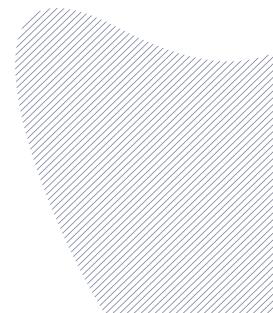
Page 60 : Dividing yeast cells, SEM – Steve Gschmeissner/ Science Photo Library

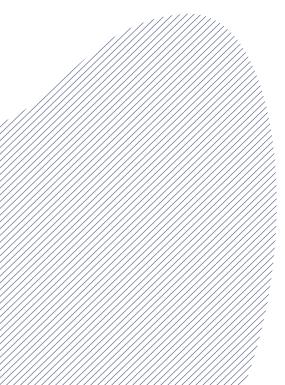
Page 61 : UN.org/sustainabledevelopment

Page 62: Mucorales species – Philip Lewis White

Page 62: Book stack in the library room and blurred trees on street. – Volodymyr Rozumii/iStock

Page 62: *Mould, hyphae* and *sporangia* (*Penicillium sp.*), SEM – Dennis Kunkel Microscopy/Science Photo Library







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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.