



BRITISH  
PHARMACOLOGICAL  
SOCIETY



**ANNUAL  
REVIEW  
2021**

TODAY'S  
SCIENCE  
TOMORROW'S  
MEDICINES



## Contents

|  |    |
|--|----|
| Message from President and Chief Executive | 3  |
| Our 2021                                   | 4  |
| Our year in numbers                        | 6  |
| Meetings and events                        | 8  |
| Journals and publications                  | 10 |
| Employee wellbeing and development         | 12 |
| Equity, diversity, and inclusion           | 14 |
| Education and training                     | 16 |
| Clinical pharmacology                      | 18 |
| Careers and engagement                     | 20 |
| Policy                                     | 22 |
| UK Prescribing Safety Assessment           | 24 |
| BPS Assessment                             | 25 |
| Committees and groups                      | 26 |
| Sponsors, donors, and meeting partners     | 27 |
| Recognising achievements                   | 28 |
| Financials                                 | 34 |
| Looking ahead                              | 36 |

## About the society

**The British Pharmacological Society is a membership charity with a mission to promote and advance all disciplines of pharmacology in the discovery, development and use of medicines. We are an inclusive, nurturing, and professional global community with more than 4,500 members from more than 60 countries.**

Our approach is bold – the discipline of pharmacology is evolving, and it is our responsibility to define, redefine, and advance the discipline.

In 2021, the Society's team, with continued and valuable support of its members, worked towards four key objectives, as set out by Council:

- Strengthen the voice of our members in all that we do.
- Live the values of, and communicate and implement, our Vision for Equality, Diversity and Inclusion in pharmacology.
- Co-create stable, diverse and ethical income streams that support the Society's position as a charity with a mission to promote and advance the whole spectrum of pharmacology.
- Review and improve how we communicate impact and champion excellence in pharmacology, underpinned by robust technologies and procedures.

## Message from the President and Chief Executive



Professor Sir Munir Pirmohamed  
President (2020 - 2021)

During 2021, the Society has continually delivered results and achievements that fulfil the needs of our members and of wider society, despite the ongoing challenges brought about by COVID-19 around the world. We are proud of our work with, and for, our members in 2021 – the year in which we celebrated 90 years since the Society's foundation. This milestone anniversary was a chance for us to reflect on our history, consider our current position, and look forward to our future – keeping our members and the wider pharmacology community at the heart of everything we offer. We are delighted to share this Annual Report, which outlines the activities and improvements that we undertook in 2021 to meet our vision and objectives.

The constant thread throughout all our lives in 2021, the COVID-19 pandemic, was indeed demanding and difficult, yet it allowed us to highlight the importance of pharmacology in human and animal health. Many of our

members actively contributed to the remarkable achievements that have had such a positive impact on saving lives and reducing the effects of COVID-19. We would like to thank all those who have been working tirelessly during this time and who have continued to contribute to the Society's work.

Our Council agreed to review and refresh the strategy a year early, taking account of the effects of the pandemic, changes to working patterns, and leadership in the previous year. Throughout 2021 we embarked on discussions with Council, our committees and members and key stakeholders to identify what was working well, what we could improve and how a new strategy could build on the visibility of pharmacology over 2020 and 2021 to showcase the importance of pharmacology to tackle to challenges facing human and animal health. We worked hard to develop a new strategy with a flexible framework that would allow us to emerge stronger and more relevant than ever before. The details of our new strategy, built on our values of bold, nurturing, professional, and inclusive, can be found in the 'looking ahead' section of this review.

With COVID-19 restrictions still in place for much of 2021, it proved to be another period of transformation and evolution for our meetings and events. The majority of these were held online, and we were delighted to be able to restart our training programme. Engagement was strong

across the board, such as in monthly educators' webinars and our BPS Live webinars on topics including Natural Products and drug discovery. Further, our annual conference, Pharmacology 21, was successfully held online, with new collaboration and meeting innovations, new platforms, and new strategies for digital engagement.

Throughout the year and in all our activity, we also continued to embed the principles of equity, diversity, and inclusion, and we are pleased to share, in this report, the progress that we have made against our objectives. We acknowledge however that there is still work to be done and our new strategy will continue this work.

We closed the year with a celebration of the Society's 90th Anniversary and 75 years of the *British Journal of Pharmacology*. This was a rewarding and positive way to end the year and reminded us of the gratitude we owe to all our partners, volunteers and members, now and throughout our history.

On that note, we would like to extend our heartfelt thanks to all those who have contributed to the Society's achievements this year, in particularly our departing Trustees and committee members. Without your support, we would not have laid such strong foundations for our 2022-2024 strategy, which will see us go from strength to strength as we focus on raising even greater awareness of the impact of our discipline.



Rachel Lambert-Forsyth  
Chief Executive Officer

### A note of thanks to our outgoing President, Professor Sir Munir Pirmohamed from Rachel Lambert-Forsyth, CEO

I would like to thank Munir for his unfailing commitment during these past two years. Munir served his term throughout the pandemic, providing important leadership in a time of great uncertainty, alongside also personally contributing significantly to the global response and management of COVID-19 as Chair of the Commission on Human Medicines. Further, his work with the Clinical Pharmacology Skills Alliance to ensure that the development and growth of clinical pharmacology is considered a priority for the UK, has been pivotal this year. The Society's members and staff, remain indebted to Munir and the impact of his work in pharmacology and beyond.

# Our 2021



## JANUARY

The Society welcomes the announcement that Wiley, the publisher of our journals, has updated its policy regarding author name changes with the aim of supporting the trans and non-binary academic community, and contributing to an inclusive research environment.



## JULY

Findings of 2021 member survey shared with members.



## FEBRUARY

PSA made available to international candidates:  
<https://www.bpsassessment.com/news/prescribing-safety-assessment-for-international-candidates/>



## AUGUST

The announcement of the new UKRI Open Access (OA) policy.



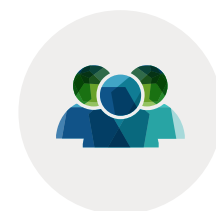
## MARCH

Start of education workshops programme with Pharmacogenomics in Drug Discovery.



## SEPTEMBER

Pharmacology 21 Annual Conference is held virtually and *British Journal of Clinical Pharmacology* publishes a joint editorial calling for urgent action to tackle the global environmental crisis, in partnership with leading health journals worldwide.



## APRIL

Society opened applications for new Inclusive Pharmacology Education Steering Group.



## OCTOBER

Concise Guide to PHARMCOLOGY 2021/2022 published in the *British Journal of Pharmacology*.



## MAY

Prize winners announced, including second EDI Prize.



## NOVEMBER

Society launches antimicrobial prescribing resource with the British Society for Antimicrobial Chemotherapy.



## JUNE

Cheltenham Science Festival and Members recognised in 2021 Queen's Birthday Honours including our Industry Trustee.



## DECEMBER

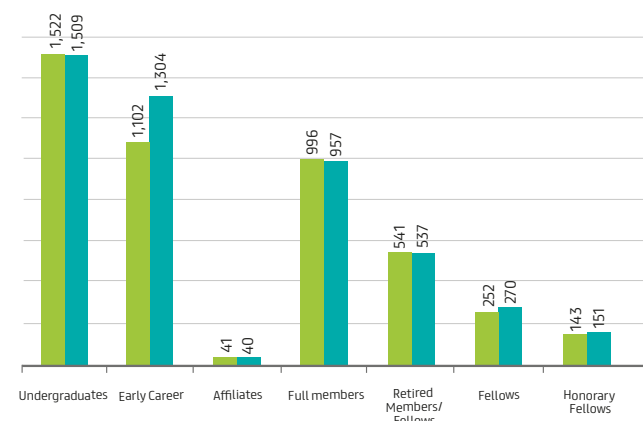
BPS 90th Anniversary and 75th birthday of the *British Journal of Pharmacology* celebration event.



# Our year in numbers

## Member numbers

The total membership on 31 December 2021 was 4,768, representing an increase of 4% in the space of a year and the Society's highest ever number of members. The Society was sad to report the deaths of 17 members.



■ 2020 – 4,597 members in total ■ 2021 – 4,768 members in total



## Of those 4,768 members:

**59%**

were early career pharmacologists  
(2020: 57%)

**27%**

were international  
(2020: 25%)

**36%**

Of the 2,532 who provided us with this data:  
identified as female  
(2020: 38%)

**31%**

Of the 1,664 who provided us with this data:  
31% identified as minority ethnic origin  
(2020: 30%)

## Website:



Page views:

**1,027,798**

2% decrease compared to previous year



Sessions:

**196,066**

3% increase compared to previous year



Users:

**142,646**

5% increase compared to previous year

## Measuring our progress in diversity, equity and inclusion

We are committed to holding ourselves to account on our diversity, equity and inclusion objectives, and have been actively reviewing how and why we diversity collect data and where it is reported. Our strategy is evolving and we will refine how we report on data in future annual reports.



## Social media

The Society saw enormous increases in the number of users viewing and engaging with our Facebook content in 2021, which is fantastic to see. Equally on YouTube, a much larger number of users viewed our content, and viewed it for longer periods than in recent years. We also gained a much larger number of subscribers than in 2020. Due to the pandemic, we have been hosting most of our events either online-only or hybrid, and we made the decision to upload the recordings of meetings on our YouTube channel, so that the content is more widely accessible. It is fantastic to see that so many users are watching this content and finding it useful. The Society's Twitter account saw a slight dip in the number of users viewing and engaging with content, however while this isn't of any immediate concern, this is something we are continuing to monitor.

### British Pharmacological Society Facebook



Engagement:  
**21.7K**  
(305% increase compared to previous year)



Reach:  
**1.2M**  
(6805% increase compared to previous year)

### British Pharmacological Society Twitter



Engagement:  
**24K**  
(18% decrease compared to previous year)



Reach:  
**1.2M**  
(6% decrease compared to previous year)

### British Pharmacological Society LinkedIn



Followers:  
**9.4K**  
(as of 31 December 2021)

### British Pharmacological Society Youtube



Subscribers:  
**3.7K**  
(as of 31 Dec 2021) (42% increase compared to previous year)



Views:  
**161.1K**  
(21% increase compared to previous year)



Watch time (hours):  
**3.9K**  
(18% increase compared to previous year)



## Awards

**£179,382**

was awarded through prizes, grants and awards  
(2020: £299,680)

**94**

applications were received  
(2020: 99)

**62%**

of applications were for female candidates  
(2020: 62%)

**93**

prizes were awarded  
(2020: 118)



## UK PSA figures:

**9295**

individual UK PSA sittings

**9073**

medical students in UK

**222**

foundation sittings in UK



## Pharmacology 2021

**600**

virtual registrations

**44**

Countries

**1179**

total unique viewers on Day 1

Including:

**194**

undergraduate members

**153**

early career members



## 4.

## Meetings and events

As highlighted in the President's message, the continued COVID-19 restrictions in place around the world and within the UK led to another challenging year for the events industry.

However, thanks to the experience that we gained in 2020, our meetings team provided a vibrant series of virtual and hybrid events for members.

## 90th Anniversary Celebration event

The Society celebrated its 90th anniversary with its first ever hybrid meeting on 1 December 2021.

The programme celebrated the history and global impact that pharmacology has had since 1931 and looked to the future of pharmacology and therapeutics in a rapidly changing world. The meeting celebrated the significant contributions to clinical pharmacology of two pioneers, Sir Colin Dollery and Sir Alasdair Breckenridge. We were also delighted to celebrate the impact the *British Journal of Pharmacology* has had over its 75-year history.

A total of 282 delegates registered for the event, with 98 attendees joining us in-person at the Royal College of Physicians in London, and 184 people joining us online. The in-person programme also included a drinks reception and dinner, giving the opportunity to attendees to network in-person after two years of virtual events. The Society also offered free in-person registration through a ballot system for 30 Early Career Researcher Members.



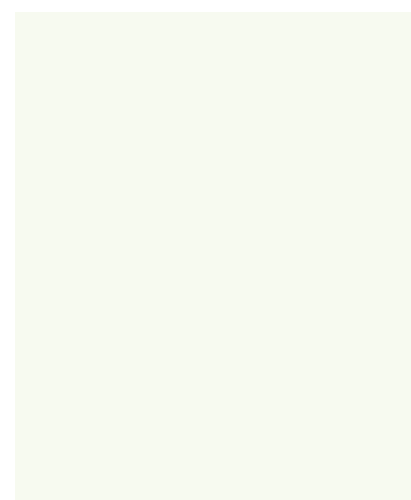
Delegates at the Society's 90th anniversary event

## Annual meeting: Pharmacology 2021

Pharmacology 2021 took place over three days in September with delegates using our innovative online platform to join sessions, watch speakers, and present their research.

We were honoured that Professor Dame Sarah Gilbert, who led the development of the Oxford University-AstraZeneca COVID-19 vaccine, joined us to deliver the closing plenary on development of the ChAdOx1 vaccine platform and its use against SARS-CoV-2.

As with 2020, we used our online member Community site to host networking and informal sessions, including an education symposium, talks on equity, diversity, and inclusion, and updates from Society Ambassadors around the world. Attendees participated in our social event, 'Musical Bingo Extravaganza', where many prizes were won.



Musical bingo

## World Congress of Basic and Clinical Pharmacology: milestones in 2021

In 2021, planning continued for the 19th World Congress of Basic and Clinical Pharmacology (WCP2023).



## BPS Live webinars:

## BPS LIVE - #CLINPHARMWEEK WEBINARS -

- 540 registrations
- 301 unique viewers
- 46 countries

## BPS LIVE - NATURAL PRODUCTS WEBINAR -

- 394 registrations
- 57 unique viewers
- 34 countries

## BPS LIVE - PRIZE WINNING WEBINAR -

- 60 registrations
- 20 unique viewers
- 19 countries

At the start of the year, the WCP Executive Group and BPS Management Group began discussing the risks surrounding COVID-19 and the pandemic's potential impact on the event, which was due to be held in July 2022 with more than 3000 international attendees. Following a robust review, and after consultation with the International Union of Basic and Clinical Pharmacology (IUPHAR), we took the decision to move the Congress from 2022 to 2-7 July 2023.

At the heart of our decision was the safety and wellbeing of everyone involved, as well as accessibility. Several countries around the world had begun to implement vaccination programmes to tackle the spread of COVID-19, and ultimately to bring the pandemic to an end. We were determined that there should be as few barriers as possible to delegates joining us in Glasgow and were keen to allow vaccination programmes to take their course, so that as many people as possible would be able to attend in 2023.



A great deal of work has gone into selecting our programme, so there should be innovative world class science to suit all interests. Alongside our symposia and keynote lectures we have a packed schedule of abstract presentation, networking opportunities and of course the all-important social programme, to catch up with, and make new friends from across the globe.

Professor David Webb,  
WCP2023 President

In October, we launched the scientific programme for WCP2023 which focuses on collaboration, innovation, and discovery – all of which are underpinned by outstanding science. The Scientific Organising Committee selected a fantastic line-up of around 500 speakers and chairs, from more than 35 countries and six continents, who are renowned for their expertise and leadership in pharmacology. We also launched 63 symposia, 23 keynote lectures, 18 workshops and three debates across 10 major content themes.

## Programme of events

In addition to our annual conference, the Society also hosted a series of successful webinars and online focused events in 2021, which were well attended by members across the world:



## Our focused events:

## BPS &amp; THE LABORATORY ANIMAL SCIENCE ASSOCIATION (LASA) JOINT MEETING:

Exploring the status of animal models of psychiatric disorders – their validity and scope for successful translation

24 February 2021

- 92 registrations
- 17 countries
- 87 unique viewers

## BPS &amp; THE SOCIETY FOR MEDICINES RESEARCH (SMR) JOINT MEETING:

Current Trends in Drug Discovery

09-10 June 2021

- 69 registrations
- 13 countries
- 70 unique viewers

## BPS &amp; ELRIG JOINT MEETING:

Translating Ideas in Therapy

28-29 June 2021

- 968 registrations
- 64 countries
- 279 unique viewers

## POLYPHARMACY WORKSHOP:

09-10 November 2021

- 29 registrations
- 12 countries
- 38 unique viewers



## 5.

## Journals and publications

## 75 Years of the British Journal of Pharmacology

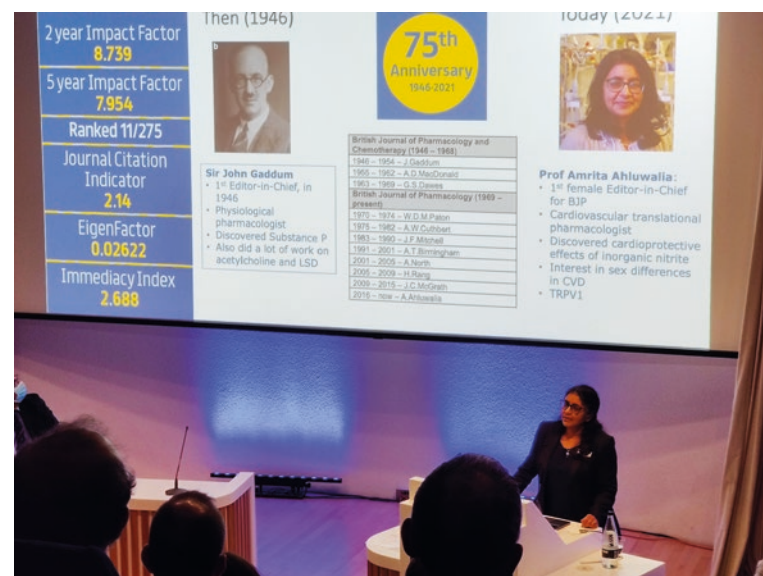
In 2021, the *British Journal of Pharmacology* (BJP) celebrated its 75th birthday, marking more than seven decades of leadership in experimental pharmacology.

For the occasion, the Journal held two webinars about its contributions to reproducibility and transparency, one of which was organised in partnership with the Brazilian Society of Pharmacology and Experimental Therapeutics (SBFTE).

The BJP concluded its celebratory year with a lecture given by its Editor-in-Chief, Professor Amrita Ahluwalia, at the Society's 90th Anniversary celebration event. In her lecture, Professor Ahluwalia discussed the Journal's work through 75 years, characterising it as "the mouthpiece of the international pharmacological community".

In this anniversary year, the BJP continued to demonstrate its leadership through several initiatives, including:

- release of the latest edition of the Concise Guide to Pharmacology 2021/2022
- development of guidelines on the citation of preprints
- inviting Dame Sarah Gilbert to give the plenary lecture at Pharmacology 2021
- publication of eight themed issues



Professor Amrita Ahluwalia, Editor-in-Chief of the *British Journal of Pharmacology* speaking about the journal's history and impact

## Growing presence of our journals

In 2021, our Editorial Boards, with members from 30 different countries, worked consistently to consolidate the journals' global reach, and to ensure their relevance and accessibility to pharmacologists across the world. For example, the *British Journal of Clinical Pharmacology* (BJCP) has translated some of its key commentaries from recent years for re-publication in Chinese journals. Both BJP and BJCP commissioned and highlighted important topics from authors in specific regions, such as the BJP's themed issue on 'Neurochemistry in Japan'.

Similarly, the journals have focused on growing their coverage of all areas of the discipline. Initiatives include the launch of BJCP's 'Pro/Con' debates in clinical toxicology,

guided by the incoming Senior Editor, Professor James Dear, and *Pharmacology Research & Perspectives* (PR&P)'s successful new series on pharmacology innovation.

Finally, the BJCP has taken the lead on addressing the responsibilities of pharmacology in the climate crisis. Together with a statement from the Society, the journal published two editorials calling for action on the environment and started a new series on 'sustainable medicines development and use'.

## Changing publishing landscape

The announcement of the new UKRI Open Access (OA) policy in August of 2021 occasioned a revisit of how the Society responded to

the consultation for the policy back in May 2020, and a review of subsequent changes to the landscape since that time.

In 2021, there was a marked increase in the number of OA articles published within the Society's journals. The proportion of OA articles within the BJP and BJCP has increased, from one in 10 back in 2017, to more than one in three in 2021. Together with the increase in size of PR&P, our fully open access journal, this means that the Society's publishing portfolio is, for the majority, completely free to read.

## Pharmacology Matters

In 2021, the *Pharmacology Matters* Editorial Board grew in number and breadth, adding twelve new members who bring a wide range of interests and perspectives to the magazine.

Across the year, we published several interviews and articles covering all aspects of pharmacology, careers and activities at the Society. This year, the publication once again ran its Junior Science Writing competition, which received over 120 wonderful entries from children aged 7-11. The articles from the winner and two runners-up will be published in 2022.

In September, the magazine highlighted its contribution to the Society with a dedicated session at Pharmacology 2021, entitled 'What can Pharmacology Matters do for you?', which covered all aspects of its activities. The session heard from existing contributors who shared their positive experiences of working for and with the magazine.



## 2021 Journal Stats for BJP, BJCP and PR&amp;P

Submissions to our journals:



3,480

Articles published online:



1,000

Downloads from the journals' websites:



5.51m

## 2021 Individual Journal Stats

| BJP<br>British Journal of Pharmacology           | Social media        | Articles published online | Downloads |
|--|---------------------|---------------------------|-----------|
| Submissions<br>1.51k                             | 4992 5561 followers | 350                       | 2.89m     |
| BJCP<br>British Journal of Clinical Pharmacology | Social media        | Articles published        | Downloads |
| Submissions<br>1.36k                             | 2814 796 followers  | 456                       | 2.21m     |
| PRP<br>Pharmacology Research & Perspectives      | Social media        | Articles published        | Downloads |
| Submissions<br>604                               | 1861 715 followers  | 199                       | 0.40m     |





## 6.

## Employee Wellbeing and Development

### Creating an agile working environment to help our employees thrive

In 2021, as with each year, we continued to review our employment practices to ensure that we have a high-functioning team who can deliver the Society's strategy and serve our members.

Following the disruptions brought by COVID-19 in 2020, we launched an Agile Working Policy which trusts employees with autonomy over how they can best work in a hybrid manner to be productive in their roles. As part of this, we no longer require that employees must be employed for a significant period before they can make a flexible working request. Colleagues can

now ask for this from their first day onwards, and further, all employees can apply for flexible working.

### Employee wellbeing remains a priority

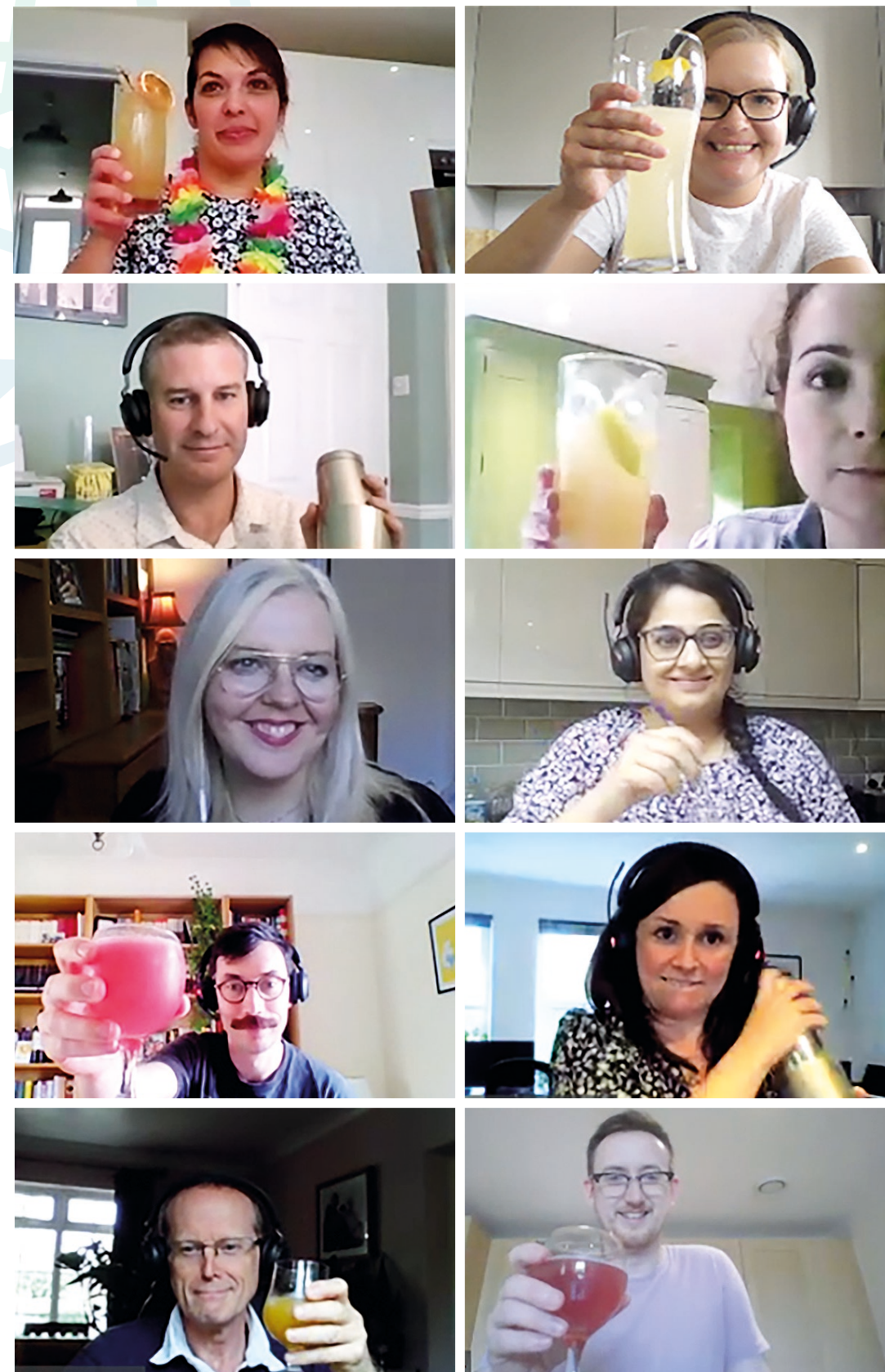
We are committed to nurturing a healthy, happy, and well-supported team. To support that aim in 2021, we implemented the following new wellbeing initiatives:

- **Able Futures:** a Government funded programme offering support for employees whose circumstances or mental health may affect their wellbeing or work performance.
- **Mental Health First Aiders:** two employees were trained to be Mental Health First Aiders.

### Diversity, equity and inclusion

Our new Agile Working policy and all-staff Mental Health Awareness training both reflect our commitment to an inclusive approach among our staff.

Further, through our continued membership of EDIS Group, we have also been able to offer places for Race Reflections training.



Cocktail making



Society staff enjoying in-person social time when the BPS office reopened in 2021



## 7.

## Equity, diversity, and inclusion

Following the launch of the Society's Vision for Inclusive Pharmacology in October 2020, we made excellent progress on inclusivity objectives in 2021, spanning our role in pharmacology as an organisation and as an employer. We carried out several impactful initiatives, designed to place equity, diversity and inclusion at the heart of pharmacology, whether in terms of the opportunity for a successful career or in benefitting from pharmacology research.



Dr Catriona Waitt

### Meetings and Events

Also at Pharmacology 2021, we heard a lecture from Dr Catriona Waitt, who earlier in the year became the second-ever winner of the BPS Equality, Diversity and Inclusion Prize.

"There is a danger [of reducing] equality, diversity and inclusion to certain individual characteristics because as we all know, you may have two individuals who look the same on paper but who have entirely different perspectives and life stories to tell. I believe each one of us is actually a complex



**A challenged world is an alert world and from challenge comes change. So let's all choose to challenge. How will you help forge a gender equal world? Celebrate women's achievement. Raise awareness against bias. Take action for equality.**



International Women's Day  
#ChooseTo Challenge  
#IWD2021

mixture of all the stories that we have, they make us who we are. Each one of us can bring something into society and the workplace that nobody else can bring." Excerpt from Dr Catriona Waitt's Prize winning lecture.

We also built on our experience running accessible online events, reinstating our programme of training workshops and expanding our webinar series to improve accessibility and reach. We have also changed our overall approach to meetings, with in-person events moving to a hybrid format.

### Education

The Society established an Inclusive Pharmacology Education Steering Group to inform a full review of our undergraduate pharmacology curriculum, and to advise on its inclusive implementation. We funded an education grant for 'a

simple student-generated resource to initiate conversations about decolonising the pharmacology curriculum' and sponsored the EDIS Group 2021 Symposium, which included a talk on inclusive pharmacokinetics.

### Policy

In 2021, we continued to embed inclusivity into our policy work. For example, we submitted evidence to the government's Women's Health Strategy consultation, and we sponsored the All-Party Parliamentary Group on Diversity in STEM, submitting evidence to its inquiry on 'Equity in the STEM Workforce' and welcoming the report on its publication.

We marked International Women's Day with a news article and video content highlighting work tackling the continued bias towards the male sex in pre-clinical research, and the

under-representation of women, and pregnant women, in clinical research.

We also launched a new essay series aiming to explore the role of pharmacology in addressing unmet health needs and health inequalities.

### Society and Staff

To monitor our own progress in inclusivity, the Society has been progressing a review of its diversity monitoring data collection and reporting and developing a new data strategy to inform the next stage of work.

Further, we are also building on our new code of conduct with a specific focus on our committees and journal editors, and additional guidance on inclusive chairing.

## 8.

## Education and Training

## Society training workshops

The Society plays an important role in supporting and providing training for early career pharmacologists in all career paths, clinical, industry and academic.

In 2021, following the disruptions of 2020, we were able to re-introduce our full programme of training workshops via a mixture of online and in-person meetings.

We established monthly online training for those in the clinical specialty of 'Clinical Pharmacology and Therapeutics' and delivered new industry-relevant content.

The following popular and successful training workshops were delivered in 2021, attracting up to 30 delegates per course:

- **Pharmacogenomics in Drug Discovery** – March 2021 (online)
- **Pharmacokinetic and Pharmacodynamics (PKPD)** – September 2021 (Liverpool)
- **Pharmacology and Drug Discovery** – October 2021 (online)
- **Experimental Medicine** – October 2021 (online)
- **AI and Computational Drug Discovery** – November 2021 (online)

Whilst they were mainly delivered virtually, we managed the core learning objective by utilising pre-course learning and breakout



groups during the training to facilitate discussion and networking. Online delivery of these workshops prompted increased international attendance, and our focus for 2022 is on introducing new topics based on this successful format.

**“I wanted to feed back how much I enjoyed and gained from the PKPD training workshop. It was a great example of pharmacological skills training.”**

Industry Scientist, PKPD training workshop attendee

**“Really informative talks, and the workshops made it very interactive and engaging. The most engaging online event I have attended this year!”**

Industry Scientist, Experimental Medicine training workshop attendee

**“The workshop had a perfect balance of talks, breakout sessions, and breaks. Getting to interact with the speakers in small groups and apply our knowledge in the workshop sessions was great.”**

Post-doctoral student from UEA, AI and Computational Drug Discovery training workshop attendee

## Educator Networking Webinar Meetings

Our community of pharmacology educators met monthly in 2021 taking part in planned one-hour online 'Educator Networking Meetings'. These meetings typically have a short talk from an expert on a topic relevant to the teaching of pharmacology, such as drug regulation or artificial intelligence, and we also welcomed speakers from Advance HE and OneHE. The talks from most of our Educator Networking Meetings are available to watch back via the Society's YouTube channel.



## Curriculum Review

The Society's educator networking meetings have provided an ideal platform to gather feedback on the use of the Society's undergraduate pharmacology core curriculum, as part of our curriculum review.

This process is due to complete in 2022 and will provide better support for teaching all the elements of knowledge, skills and attitudes identified in the curriculum. The work is focusing on the needs of educators and will provide:

- An inclusive approach to teaching pharmacology (via resources and language)
- Learning Objectives to support educators
- Examples, resources and templates against each core attribute

Through feedback in 2021, we also identified gaps that we need to address, either via future elearning or content such as videos or experiment templates.

## Research Animal Sciences Education Scheme (RASES)

We have previously recognised *in vivo* pharmacology as a critical education priority for the Society.



# RASES

Research Animal Sciences Education Scheme



The Research Animal Sciences Education Scheme (RASES) is a key project for this goal, and seeks to improve the quality and consistency of undergraduate and taught masters programmes by providing expert educator support and resources. In 2021, a year when academic staff changed delivery of courses to a blend of direct (in-person) and online teaching with only very limited "hands on" practicals, our RASES team directly interacted with eight educators.

As a result of this interaction in a changing landscape, we identified the need for a 'menu of resources' for use in both online and directly delivered formats; core areas might include Ethics, Legislation, Models of Disease and Experimental design. This discovery will be a leading focus for 2022.

## Online experiment benefits:

**“I took the time to actually go through all the steps of the experiment and understand why we do each step. Honestly, if I hadn't, I wouldn't have been as confident doing this experiment in person at all.”**

## On the value of live in-person practicals:

**“I think just knowing how the mice behave was super beneficial because there's only so much written words and videos can give you. There's just some things you have to experience yourself in person.”**

Undergraduate pharmacology students' feedback - pros and cons of online and in-person experiments



TODAY'S  
SCIENCE  
TOMORROW'S  
MEDICINES

## Undergraduate Pharmacology core curriculum

Having successfully completed an undergraduate degree Pharmacology, graduates will be able to integrate and apply the knowledge, skills and attitudes in this core curriculum.



## 9.

## Clinical pharmacology



Clockwise from top left: Dr Franz Mir, Professor Simon Maxwell? (not actually sure it's him - just checking with Meetings team), Professor Jamie Coleman, and Professor Rupert Payne

## Clinical Pharmacology Week 2021

During Clinical Pharmacology Week this year, which took place from 10-16 October, the Society hosted a series of webinars, to showcase the many ways in which this small but growing specialty is making an impact for healthcare outcomes and patients. These included:

**Safe Prescribing**

This is a topic very close to the Society's heart. The session, chaired by Professor Simon Maxwell, Medical Director of the Prescribing Safety Assessment (PSA), covered crucial areas including polypharmacy, pharmacovigilance and the

interpretation of evidence and its application to practical prescribing.

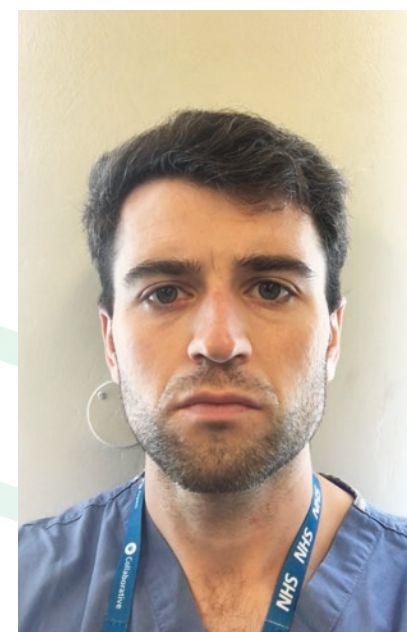
**Clinical Trials**

This webinar focused on innovation in clinical trials and delivering studies that are agile and informative. It was chaired by Dr Daniel Marks of University College London Hospitals NHS Foundation Trust and AstraZeneca, and Dr James Fullerton from the University of Oxford. This topic was especially timely considering the pivotal role agile clinical trial design has played in developing vaccines and treatments for COVID-19.

The three sessions included an exploration of smarter trials for better health, the story of the journey undertaken by the Oxford and AstraZeneca teams in developing a global vaccine against COVID-19, and a review of how to reduce the bureaucracy surrounding clinical trials.

**Pharmacogenomics**

The final webinar focused on pharmacogenomics and its implementation in the NHS. The session was chaired by Society President and clinical pharmacologist, Professor Sir



Early career abstract competition winners  
Max Berrill and Nurulamin Noor



Munir Pirmohamed. It provided an excellent overview of the current state of pharmacogenomics adult and child health, and the gaps in education and training. (This skills gap is the focus of a joint working party between the Society and the Royal College of Physicians.) Discussions included the use of pharmacogenomics in paediatrics and the importance of forming international consortia to generate robust evidence, and the need to recognise that pharmacogenomics education and training needs are not confined to only one specialism or one profession.

To discover more about clinical pharmacology, visit our careers pages or follow the hashtag **#ClinPharmWeek** on twitter.

**Early career abstract competition 2021**

This competition encourages doctors and pharmacists at the start of their careers to consider specialising in clinical pharmacology. The finalists, who presented at Pharmacology 2021 in the Digital Networking Hub, were Anna Wakelin, Chloe Doan, Emily Crehan, Lucy Reville, Max Berrill, Nurulamin Noor, Owez Madhani, Paul McKendrick, Rebekah Hewitt and Yathorshan Shanthakumaran. The judges awarded the winning prize to two entrants, Max Berrill and Nurulamin Noor, because their scores could not be split.

Clinical Pharmacology Week  
**OCTOBER**  
10-16 October 2021

**#ClinPharmWeek**





## Careers and Engagement



Dr Lauren Walker speaking as part of the 'How to age well' event held at Cheltenham Science Festival in 2021

### Careers

In 2021, the Society launched multiple digital and print careers resources for a range of audiences. These resources, found on our website, can be used to inform careers fairs, schools, university departments or event stands. We look forward to the materials being shared at future careers events. <https://www.bps.ac.uk/ambassadors/resources-for-promoting-careers>

### Engagement

Despite continued COVID-19 disruption in 2021, the Society, its ambassadors and members successfully delivered engagement activities at over 20 careers fairs and virtual events, raising awareness of pharmacology for all.

One of the year's highlights was our collaboration with the Cheltenham Science Festival, resulting in a debate on the theme of 'How to age well' at their hybrid event.

This event was a perfect home for the Society, because many clinical pharmacologists lead polypharmacy clinics around the country.

### Engagement in 2021 – our key activities:

- **June 2021** 'How to age well' Cheltenham Science Festival, June 2021 (Chair, Society member Dr Lauren Walker)
- **June 2021** ELRIG/BPS Early Careers Scientists Webinar, Careers in Industry Webinars (Speaker, Society member Dr Amanda Kennedy – MSD)
- **Sep 2021** Glasgow Science Festival, Medicine Makers (Speaker, Society Ambassador Dr Yvonne Dempsie)
- **Nov 2021** Bioscience Careers Day (Session Chair, Society member Emily Hobson)
- **Nov 2021** RSB Connect Online Engagement Conference (Keynote Speaker, Society Vice President Engagement Dr Sarah Bailey)

We would like to recognise the efforts of many members and ambassadors who led school engagement activities, science fairs and careers events throughout the year. A number of these were held virtually, so can be watched back online and will therefore continue to reach new audiences.

### Planning for future engagement

During 2021, the Society's Engagement Committee supported our staff in creating plans to future-proof and prioritise our engagement activities.

At our virtual annual meeting, Pharmacology 2021, the Committee led a session to gather feedback on the 'who, how and why' of our engagement with others.



**A key priority for the future is to support and build a community of 'pharmacology engagers' across the BPS membership. In our future engagement plans we aim to:**

- **Train members in effective engagement**
- **Reach diverse public audiences**
- **Use inclusive resources**
- **Evaluate activities across a range of events to assess impact.**

Dr Sarah Bailey  
Vice President – Engagement



### Member networking

Another great success from 2021 was the growth of the digital Undergraduate Network in the BPS Community platform. Driven by a small team of effective and enthusiastic leads, this network reached over 100 members in 2021.

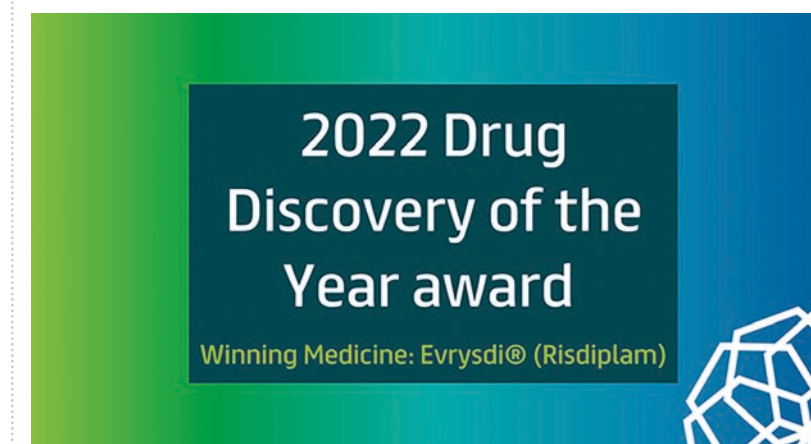
The network leads organised two online meetings, principally to meet each other and share experiences, but also to remind new pharmacology undergraduates to join both the Society and the BPS Community network for free.

One of the original Network leads, Alina Zorn has since been appointed the new Early Career Trustee on our Council. Additionally, we had our first undergraduate Engagement Committee member join this year.

### Drug Discovery of the Year

Each year our Industry Sub-Committee awards the prestigious 'Drug Discovery of the Year award' to recognise the achievements of pharmacologists and scientists who work together in drug discovery and development to launch innovative new medicines.

In 2021 the Sub-Committee reviewed 70 new approved drugs, and chose to recognise the team of scientists who developed Evrysdi® (risdiplam) – an oral treatment for Spinal Muscular Atrophy (SMA). This drug was developed by Roche in collaboration with PTC Therapeutics and the SMA Foundation. The Society welcomes this collaborative approach to drug discovery.





## 11.

## Policy

In 2021, the Society's policy team continued its vital work in advocating for the critical role of clinical pharmacology, particularly in addressing the challenges and opportunities of the next decade.

Working with our partners in the Clinical Pharmacology Skills Alliance (CPSA), we made a representation to the Spending Review, seeking investment in a ten-year workforce strategy for clinical pharmacology, which proposes doubling the number of clinical pharmacologists in the NHS by 2031. This investment would help enhance the UK's capacity to deliver clinical research in partnership with the NHS, strengthen the UK as a development base for new therapeutics and support patient care through the safe and effective use of medicines.

In a meeting with Sir David Behan (Chair, Health Education England) and Sir Andrew Morris (Acting Chair, NHS Improvement) we discussed the important role of clinical pharmacology in helping the UK to recover, grow and respond to priority health challenges, and won their support to 'think big' about a strategic approach.

This work led to collaboration with NHS Improvement and Health Education England to develop a vision for a multi-professional medicines service network embedded in all Integrated Care Systems and across devolved nations; this aims to address multi-morbidity and polypharmacy, pharmacogenomics, and precision medicine, and improve NHS research capability.



**This proposal for a medicines service ... rightly identifies that we need to make investments in clinical pharmacology and clinical genetics now, because these are some of the critical skills we will need for the future – we cannot delay.**

**I fully support the proposed investments - and am keen that the NHS and the wider sector grasp the opportunity to come together and think bigger as we develop this work.**

Sir Andrew Morris  
Acting Chair of NHS Improvement

The UK government's Spending Review also provided an opportunity for the Society to continue to support cross-sector calls for investment in research and development.

Our policy efforts in 2021 also included public support for two related government strategies: the UK Life Sciences Vision and Future of Clinical Research Delivery that aim to "create an environment in which industry can grow and succeed in the UK, and patients and the NHS can receive a real benefit" and embed clinical research into care. We were pleased to see that cross-sector advocacy and evidence submissions to the Care Quality Commission led



to an increase in prominence of research in their new strategy.

Further, during the year, the Society published a series of case studies on the contributions of clinical pharmacology, particularly during the COVID-19 pandemic, that demonstrate how the discipline can help deliver ambitions for research and patient care. We complemented this work with a cross-sector evidence submission and advocacy to inform the Health and Social Care Bill, calling for a strengthened mandate on research delivery, and with continued campaigning on the role of clinical pharmacology in supporting healthy ageing – including at the Cheltenham Science Festival event. We were also pleased to see that in response to our evidence submission, the Scottish Heart Action Plan highlighted the role of clinical pharmacologists in delivering for heart disease patients.

The Society published a statement on the climate crisis and sustainable pharmacology, aligned to a joint editorial with leading health journals and accompanying editorial published in the British Journal of Clinical Pharmacology – as highlighted above. Further, we signed a letter published in The Times in support of MBR Acres – a laboratory in Cambridge that is experiencing friction from protesters about the use of dogs in research.

As a member of the Inequalities in Health Alliance, the Society signed a letter to the Prime Minister calling on government to create a cross-government strategy on health inequalities.



**Investing in a multi-professional medicines service network in Integrated Care Systems and across devolved nations is a progressive step and will ensure we get the best value and outcomes from medicines.**

**Investments in clinical pharmacology and clinical genetics alongside the continued support for pharmacy will enable the delivery of this vision.**

Sir David Behan  
Chair of Health Education England (HEE)

We continued working with our members to ensure pharmacology expertise was communicated through relevant inquiries, responding to thirteen in total on a range of topics including Women's Health, barriers to legitimate research on controlled drugs, the sustainable use of pesticides, health technology evaluation and the reproducibility and integrity of research.



**Enabling industry, regulators, academia, and the NHS to work together is the only way we will tackle big health challenges. COVID-19 has demonstrated this powerfully, and it is now received wisdom that we need to learn these lessons as we move through recovery and towards growth.**

**The new Life Sciences Vision sets an ambition to develop a strong talent pool with the variety of skills that are needed to drive better health outcomes and build on the UK's scientific excellence and attractiveness to industry. Clinical pharmacology is one of these critical areas and investing in this workforce proposal will go a long way in addressing this long-standing skills gap.**

Professor Sir John Bell  
Regius Professor of Medicine at Oxford University and Chair of the Life Sciences Industrial Strategy Implementation Board



## 12.

## UK PSA

**Prescribing Safety Assessment (PSA):**

The Society's PSA team, alongside partners Medical Schools Council (MSC) once again faced the challenge of delivering significant national online medical assessments during a pandemic.

However, despite COVID-19 disruption, the PSA was successfully delivered to 9,295 candidates, made up of 9,073 medical students and 222 foundation level candidates.

As with 2020, remote sittings were a feature of the assessment, because many medical school facilities were unavailable, and some candidates were invigilated in their own homes.

The process of item peer review, Assessment Boards and Standard Setting was also undertaken remotely, to ensure that the item bank was replenished and ready for 2022.

The continued participation in the PSA by the Irish and Maltese medical schools was welcomed.

The Society's PSA team is extremely grateful to our authors, reviewers, and medical school staff, who showed remarkable commitment and flexibility in 2021. The same applies to all candidates around the world, who embraced the challenges faced.



**The Prescribing Safety Assessment (PSA) has been delivered seamlessly throughout the pandemic, with many students sitting remotely due to social distancing requirements. We are enormously indebted to everyone involved for continuing to support the PSA, particularly given the additional pressures that many staff and students have faced in their NHS and university roles during this period. We are looking forward to welcoming everyone back to face-to-face meetings and assessment events in 2022 and beyond.**

**Dr Lynne Bollington**  
Lead Consultant, Prescribing Safety Assessment

## 13.

## BPS Assessment (BPSA)

Finance Committee to reconfirm underpinning financial support for BPSA for two further years, with clear targets for sales set. Despite challenges in the market, the basis for solid growth in 2022 was laid with the launch of new products and services aimed at further supporting our UK and international business activities. Our international reach was greatly expanded by partnering with representative agencies covering Southeast Asia, Australia and New Zealand, the Middle East and Turkey which will further drive growth in sales.

We built and launched a new shop interface which has allowed us to expand our training resources in the UK which we can now offer directly to the customer.

We also developed a set of eLearning sessions, accessible via the new shop, which are targeted at UK medical students sitting the Prescribing Safety Assessment (PSA). PSA Prep consists of a collection of nine eLearning sessions that provide a detailed outline of each of the question styles found in the exam, tackling areas commonly found difficult by students.

To accompany PSA Prep, new Prescribing Practice Papers were also launched consisting of 120 questions split across three papers, including one full two-hour practice exam. All three papers were written by UK experts and have been aligned to the British National Formulary. We hope that these practice papers, alongside PSA Prep, will form the perfect revision materials for final year medical students within the UK who are preparing to sit the PSA.

For summative assessments, we continued to provide options for remote invigilation.

**A Global Business**

We continued to build our sales pipeline among medical and pharmacy schools, Royal Colleges and hospitals worldwide, responding to growth in demand for distance learning and online assessment. Throughout the year we worked with customers in fourteen countries to successfully deliver 145 exam sittings involving almost 6,000 students.

**International PSA**

For the first time, an international standard-set assessment was launched for summative use. The International PSA (IPSA), which is equivalent to the UK PSA, began gaining traction in the Middle East in 2021, as well as among UK Trusts. While principally aimed at supporting the financial sustainability of the UK PSA, this product nevertheless extends BPS Assessment's portfolio across summative and formative assessments and will form a component of new packages underpinning new sales opportunities.

**Platform development**

The platform has been updated to support the sale of our products to individual students, including the ability to display items as courses and provide discounts for multiple purchases. We continue to refine our metadata and other back-end improvements, which will ultimately enable our content to be made available with more flexibility and to more customers.



The global pandemic continued to have a major impact on customer budgets. 2021 sales closed at £196,692, against a requirement of £301,000 for BPSA to be on target to reach breakeven by the close of 2023. A thorough costing exercise for various sales scenarios was undertaken during the year which enabled the Society's



## 14.

## Governance and committees

## Committees and groups

During the year, the Society's committees and groups continued to hold meetings online due to disruption and restrictions brought about by COVID-19.

The following committees and advisory groups operated during the year:

- Finance Committee
- Engagement Committee and Industry sub-committee
- Education and Training Committee
- Clinical Committee and StR sub-committee
- Meetings Committee
- Early Career Pharmacologist Advisory Group
- International Advisory Group

## Trustees during 2021:

The following Trustees commenced their term at the start of 2021:

- Professor Jamie Coleman, Clinical Trustee
- Professor Ana Alfirevic, Senior Academic Leadership Trustee
- Professor Steve Watson, Research Dissemination Trustee

## The following Trustees demitted at the end of 2021:

- Professor Sir Munir Pirmohamed, President
- Dr Laura Ajram, Early Career Trustee

Treasurer Elect and Honorary Treasurer  
Term of Office

The Society's 2021 Annual General Meeting approved changes to the term of office for the following positions to better fit in with other officer roles:

- Treasurer Elect, from two to one year
- Honorary Treasurer, from four to three years.

## Annual General Meeting (AGM)

The Society's Annual General (AGM) meeting took place as a hybrid event, both online and in-person, on 30 November at The British Library in London. This was the first time

in many years that the AGM has taken place as a standalone event. It usually takes place in December as part of the Society's Annual Meeting, which was held in September on this occasion.

The event included an additional session titled, 'In conversation with Professor Sir Munir Pirmohamed'. This informal conversation moderated by Professor Reecha Sofat, incoming Vice President, Clinical covered Sir Munir's work in clinical pharmacology, his personal career lessons and leadership approach, tackling not only the changing landscape of pharmacology but the human story behind his extraordinary career to date.

## 15.

## Sponsors, donors and meeting partners

## Focused meeting partners

10x Genomics  
ACS Pharmacology & Translational Science  
Actual Analytics  
Aelian Biotechnology  
AstraZeneca  
bit.bio  
Collaborative Drug Discovery  
Elsevier  
GSK  
Instem plc  
Laboratory Animal Science Association  
Liverpool ChiroChem  
Miltentyi Biotec  
Nuvisan  
Society for Medicines Research  
The Psychiatry Consortium  
WuXi AppTec

## WEBINAR meeting Partners

- BPS Live – Natural Products in July - with BJP & BJCP
- BPS Live – ECR prize winning research in Nov – with BJP & BJCP

## Sponsors

Abcam plc (P21 Partner)  
ACS Pharmacology & Translational Science (P21 Partner)  
Actual Analytics  
AstraZeneca (P21 Partner)  
Actual Analytics  
BMG Labtech Ltd (P21 Partner)  
Elsevier Limited (P21 Partner)  
Instem plc  
J Wiley & Sons Limited (P21 Partner)  
MDPI Pharmaceuticals (P21 Partner)

## Society Donors

Medical Research Council  
The Physiological Society  
The Royal Society





16.

Recognising achievements

# Our 2021 award winners are detailed below – many congratulations to all of them:

## Prizes

### BJP Prize for Early Career Researchers

Dr Liliana Raimundo, University of Porto

### BJP Editors' Performance Award

Dr Mark Dallas, University of Reading  
Dr Stephen Harmer, University of Bristol  
Professor Claudio Mauro, University of Birmingham

### BJCP Prize

Dr Franca Morselli, King's College London  
Dr Thomas Buters, Centre for Human Drug Research

### BJCP Editors' Performance Award

Dr Rob ter Heine, Radboud University Medical Center

### BPS Equality, Diversity and Inclusion Prize, sponsored by AstraZeneca

Dr Catriona Waitt, University of Liverpool

### The Dunlop Prize Lectureship

Dr Richard Turner, University of Liverpool

### Drug Discovery of the Year

The team of scientists at Roche, PTC Therapeutics and the SMA Foundation who discovered and developed Evrysdi® (risdiplam)

### Lilly Prize

Professor Tom MacDonald, University of Dundee

### Rang Prize (clinical)

Dr S. Niru Nirthanam, Griffith University

### Rang Prize (non-clinical)

Dr Aidan Seeley, University of Swansea

### Sir James Black Award for contributions to Drug Discovery

Dr Daren Austin, GlaxoSmithKline

### Student Choice Award for Excellence in Pharmacology Teaching

Dr Martin Hawes, University of Surrey

### Vane Medal

Professor Csaba Szabo, University of Fribourg

### Vogt Prize

Dr Chloe Peach, New York University

### Wellcome Gold Medal

Professor Julia Buckingham, Brunel University

### Zaimis Prize

Dr Dave Lewis, University of Leeds

## Pharmacology 2021 prizes

### Best oral communication prize winners

Nikita Patel, Queen Mary University of London  
Jade Vince, St Georges, University of London  
Shireen Mohammad, Queen Mary University of London

### Best clinical oral communication prize winner

Dr James Curneen, Galway University Hospitals

### Best education oral communication prize winner

Dr Anne Burke-Gaffney, Imperial College London

### Best international oral communication prize winner

Dr James Curneen, Galway University Hospitals

### Flash poster prize winners

Dr Laura Lemel, University of Nottingham  
Eleanor Dixon, University of Edinburgh  
Justine O'Brien, University College Dublin

### Top 3 Undergraduate Poster Prize winners

Melisa Akinkunmi, St George's University of London  
Charlotte Thomas, St Georges, University of London  
Carys Roberts, University of Bath

### Top 3 Early Career Poster Prize winners:

Nokomis Ramos-Gonzalez, University of Bristol  
Norah Alhosan, University of Bristol  
Eleanor Dixon, University of Liverpool

### Education poster prize winner

Dr Martin Hawes, University of Surrey

### Clinical poster prize winner

Virada Ravindran, St George's, University of London

### International poster prize winner

Professor Michael Spedding, Spedding Research Solutions

### Late breaking poster prize winners

Aali Alqarni, University of Nottingham  
Dr David Ryan, St George's, University of London  
Charles Lay, University of Nottingham



### Dom Spina Prize for Experimental Design and Analysis winner

Karla Miroslava Tejada-Gutiérrez, Instituto Nacional de Pediatría

### Early Career clinical abstract competition winners

Dr Maz Berrill, St George's University of London

Dr Nurulamin Noor, University College London

## Study awards

### AJ Clark Studentship

Maria-Cristina Ardelean, University College London

### BPS & ASCEPT Outstanding Young Investigator Award

Dr Harriet Allan, Queen Mary University of London

Dr Nicholas Hunt, University of Sydney

### Pickford Award

Dr Samantha Cooper, University of Nottingham

### Schachter Award

Rebecca Budgett, University of Glasgow

Justine O'Brien, University College Dublin

### Vacation Studentship

Ruth Alexis Goh, Imperial College London

Olivia Lucianno, Queen Mary University of London

Chloe McCormack, Dublin City University

Kenzo Motohashi, University of Oxford

Euan Purdie, Glasgow Caledonian University

Selina Trory, University of Nottingham

Sophie Truman, King's College London

Ayla Yetkin, Brunel University London

Georgia Walsh, Durham University

## Lectureships

### ASCEPT Lecture

Jennifer Martin, University of Newcastle

### BPS keynote lecture at ASCEPT 2021

Professor Andrew Tobin, University of Glasgow

## Grants

### Education grants

Dr Anne Burke-Gaffney, Imperial College London

Dr Christine Edmead, University of Bath

Dr Nicolas Freestone, Kingston University

Professor Kang Nee Ting, University of Nottingham Malaysia

## Student prizes

### Clinical Undergraduate Prize

UK Medical students, including intercalating students, are recognised for their performance in examination, the Prescribing Safety Assessment, or their work on a pharmacology research project or special study module.

Muhammad Aadil Bin Noorany Aubdool, Queen Mary, University of London

Rami Abbass, Imperial College London

Sophie Abraham, University of East Anglia

Laith Al Azawi, University of Dublin

Matthew Bartlett, University of East Anglia

Erin Boyle, University of Edinburgh

Laura Docherty, University of Glasgow

Orla Fanthorpe, Queen's University Belfast

Chloe Fear, University of Leicester

Gemma Grier, University of Edinburgh

Ian Hywel-Sayers, Newcastle University

Hui Li Askvik, University College Cork

Joseph Massias, University of Liverpool

Adarsh Menon, University of Cambridge

Jason Niblett, University of Birmingham

Tran Quoc Bao Tran, University of Glasgow

Savitha Rajendran, University of Nottingham

Isthar Redman, Royal College of Surgeons in Ireland

Shane Roy, University of Exeter

Lily Scourfield, Cardiff University

Jennifer Tew, Queen Mary, University of London

Kimberley Turner, University of Leicester

Divyen Vanniasegaram, Imperial College London

Madeleine Wigmore-Sykes, University College London

Milosz Wojtowicz, St George's, University of London

## Undergraduate Pharmacology Prize

UK Students are nominated by UK universities and are recognised for their performance in the final year of their degree, which includes a pharmacology research project.

Abhinav Sundriyal, University of Westminster

Annabel Cardno, University of Cambridge

Beth Newby, Newcastle University

Charlotte Ellison, University of Leeds

Courtney Hillman, University of Portsmouth

Elena Perticucci, University of Oxford

Elizabeth Forrester, St George's University of London

Emily Forrest, Cardiff University

Eryn Burns, University of Huddersfield

Isabelle Bailey, University College Dublin

Katie Lui, King's College London

Nicholas Willetts, University of Aberdeen

Rustam Aryoobi, University of Hertfordshire

Sophie Rouvray, Swansea University

Thaddeus Thukha, University of Dundee

Torben Meier-Klodt, University of Central Lancashire

Victoria Kamperi, University of East Anglia

Yuxing Xue, University of Strathclyde

## Student Contribution to Pharmacology

The following UK Students are recognised for their efforts to promote the discipline of pharmacology:

Jak Eades, Newcastle University

Ellie Hyde, University of East Anglia

Sophie Inthinathan, Queen Mary, University of London

Aerin Loe, King's College London

Romessa Mahmood, University of Swansea

Sarah Nichol, University of Glasgow

Finley Reilly, University of Dundee

Hannah Roughley, University of Leeds

Thanucha Sooriapatham, University of Westminster

Alina Zorn, University of Aberdeen

## Honorary Fellowships and Fellowships

In 2021, we announced 14 new Honorary Fellows and 26 new Fellows.

Honorary Fellows are elected for life in recognition of sustained excellence and leadership in science, healthcare, and public service.

Fellows have demonstrated distinction and peer recognition in pharmacology, through their work, publication and presentation of research, leadership, and contribution to Society life.

Our Fellows and Honorary Fellows play an incredibly important role in the Society. Through their work, they further all disciplines

of pharmacology in the discovery, development and use of medicines. And through their leadership, and contribution to Society life, they inspire and support members at earlier stages of their career or study.

### Honorary Fellowships

• **Dame Kate Bingham**, SV Health Investors LLP

• **Jonathan Bruun**, Royal College of Anaesthetists

• **Professor Brenda Costall**, Formerly University of Bradford

• **Dr Clive Dix**, C4X Discovery Plc

• **Dame Sarah Gilbert**, University of Oxford

• **Professor Roland Jones**, University of Bath

• **Dr Melanie Lee**, LifeArc

• **Professor Ian McFadzean**, King's College London

• **Professor Graeme Milligan**, University of Glasgow

• **Professor Jane Mitchell**, Imperial College London

• **Sir Mene Pangalos**, AstraZeneca

• **Professor Robin Plevin**, University of Strathclyde

• **Professor Anthony Smith**, University of Newcastle

• **Professor Susan Wonnacott**, University of Bath

### Fellowships

• **Dr Dorothy Aidulis**, STEM Scotland Ltd

• **Dr Sarah Bailey**, University of Bath

• **Professor Victoria Chapman**, University of Nottingham

• **Dr Brian Cox**, Uniformed Services University

• **Professor Sven-Erik Dahlén**, Karolinska Institute

• **Professor Colin Davidson**, University of Central Lancashire

• **Dr Colin Dourish**, P1vital

• **Dr Ahmed El-Hashim**, Kuwait University

• **Dr Jane Escott**, AstraZeneca

• **Professor Samuel Fountain**, University of East Anglia

• **Dr Andrew Hitchings**, St George's, University of London

• **Dr Vanessa Ho**, St George's, University of London

• **Dr Simon Hollingsworth**, AstraZeneca

• **Dr Niall Hyland**, University College Cork and APC Microbiome Ireland

• **Dr Phil Jeffrey**, Bicycle Therapeutics

• **Dr Emma Kidd**, Cardiff University

• **Professor Vincenzo Libri**, University College London

• **Dr Selvanayagam (Niru) Nirthanan**, Griffith University

• **Dr Esther O'Shea**, Universidad Complutense de Madrid

• **Professor Kevin Pflieger**, Harry Perkins Institute of Medical Research

• **Dr Sarah Pontefract**, University of Birmingham

• **Professor Mike Rieder**, University of Western Ontario

• **Dr Matthias Schwab**, Dr Margarete Fischer Bosch Institute for Clinical Pharmacology

• **Dr James Paul Spiers**, University of Nottingham

• **Dr Fiona Thomson**, Glasgow University

• **Dr Derek Trezise**, Sartorius





# Recognising achievement



Welcome Gold Medal winner, Professor Julia Buckingham and Professor Sir Munir Pirmohamed



Rang Prize (non-clinical) winner, Dr Aidan Seeley



BPS EDI Prize winner, Dr Catriona Waitt



Lilly Prize winner, Professor Tom MacDonald



Zaimis Prize winner, Dr Dave Lewis



AJ Clark winner, Maria Cristina Ardlean



Vane Medal Winner, Professor Csaba Szabo



Honorary Fellow, Professor Ian McFadzean and Professor Sir Munir Pirmohamed



Rang Prize (clinical) winner Dr S. Niru Nirthanen

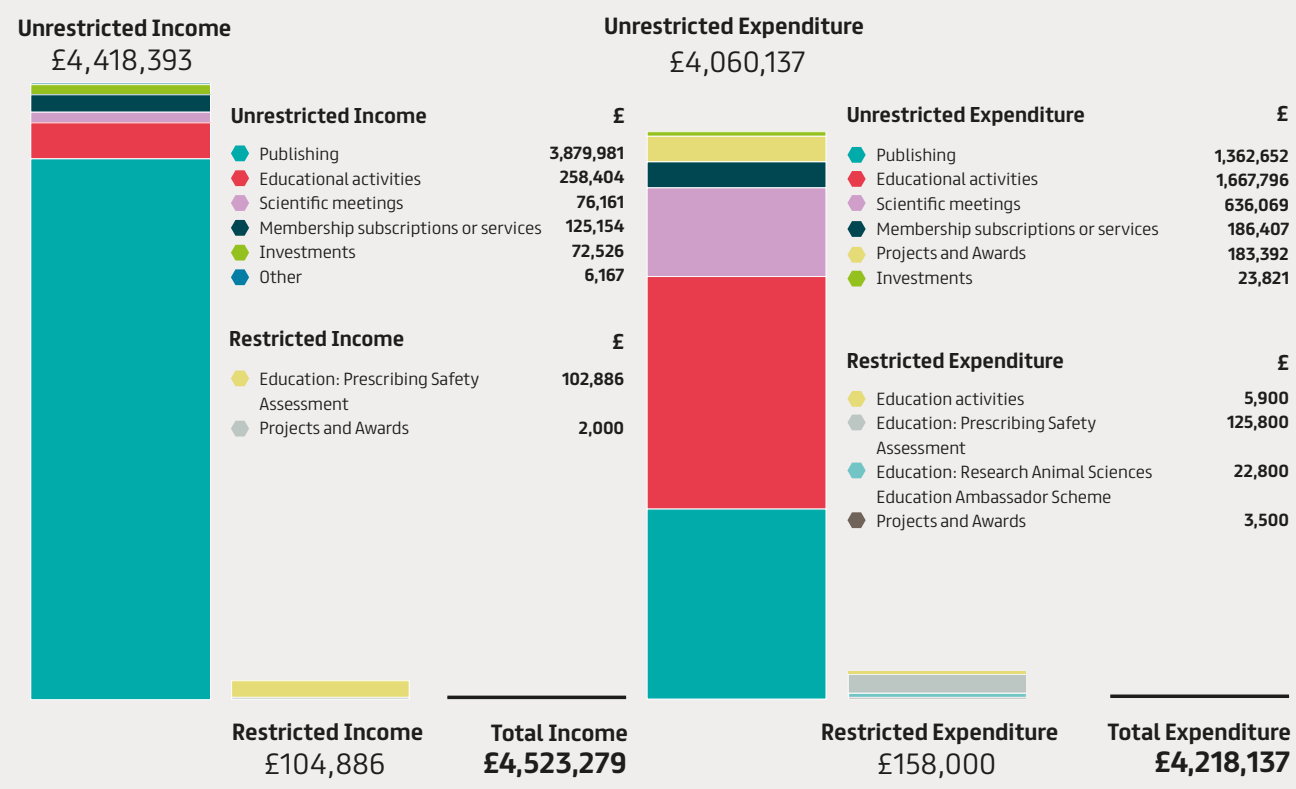


Honorary Fellow Dame Kate Bingham with Professor Sir Munir Pirmohamed



## Financials

### Income and Expenditure for 2021



You can download a PDF of the Society's financial statements for the year ended 31 December 2021 from the website, available under the "What we do" section of [www.bps.ac.uk/about](http://www.bps.ac.uk/about) The financial statements include the Financial Review, Statement of Financial Activities and Balance Sheet, together with the Notes to the Accounts. They show the overall financial performance of the Society and provide an analysis of the incoming resources and how they were applied in the performance of the Society's objectives.

### Total Funds

The financial performance reported here is of the "Group", which means the Society together with its trading subsidiary, BPS Assessment Limited.

The total funds increased by £664,610 and the resulting balance of total funds at 31 December 2021 amounted to £6,675,815 of which £6,357,984 is unrestricted funds.

### Income

- Income for the year totalled £4,523,279 which is an increase of 2.4% over 2020.
- Importantly, charitable activity income from journal publishing, which is the Society's main income source, increased by 2.2% to £3,879,981 mainly because of income from the journal publishers on completion of a new agreement.
- Member numbers increased by 3.7% to 4,768 and membership subscription income increased by 2.8% to £125,154. This is primarily attributable to the increase in the number of Early Career Members who pay a lower subscription than other paying members. The overall improvement in membership reflects the Society's longer-term approach to strengthening and growing the discipline of pharmacology.
- Scientific meetings income increased by £25,485 to £76,161 as the easing of COVID-19 restrictions meant that some additional meetings and events could be held after the cancellations and postponements in 2020 due to the pandemic. Pharmacology 2021 was again held as an online event with lower fees charged to reflect the virtual format.
- Voluntary income totalled £35,000 and is mostly for educational activities.
- Investment income was £4,758 lower at £72,526 due to the impact of COVID-19 on the markets.
- In addition, there were net gains on investments totalling £359,468.

### Expenditure

- Expenditure on charitable activities totalled £4,194,316 which is a 0.1% decrease of £4,194.
- Journal publishing costs decreased by £85,167 to £1,362,652 as in-person reflecting reducer publisher costs and careful control of other direct costs.
- Expenditure on educational activities at £1,822,296 was a 1.3% decrease of £24,868 over the previous year.
- Projects and awards expenditure at £186,892 was a 0.7% decrease of £1,359 over the previous year.
- Scientific meetings expenditure at £636,069 was a 29.1% increase of £143,512 over the previous year.
- Capital expenditure totalled £58,352 which is all for the development cost of the online platform that began supporting online assessment services in 2017.

### Financial effect of COVID-19 in 2022

The financial effects of the COVID-19 outbreak are expected to depress the Society's potential income in 2022 as universities worldwide in particular are expected to have less funding available for the Society's established published content and emerging educational content delivered by BPS Assessment Limited. In the short term these adverse income effects are expected to be offset by cost reductions associated with conducting scientific meetings and other activities online. The Society is therefore redoubling its efforts to develop and diversify sustainable ethical income streams.



## 18.

## Looking ahead

With 2021 marking the end of our delivery of the Society's 2018-2022 strategy, we are well-prepared and ready to embark upon a new and exciting set of plans for the next three years. The strategy for 2022 to 2024 aims to raise even greater awareness of the impact of pharmacology, particularly in the wake of COVID-19, as well as bringing pharmacologists more closely together, and supporting and celebrating pharmacologists' scientific advances for the health of humans and animals.

The strategy comprises three pillars, which are underpinned by our values of bold, nurturing, professional and inclusive.

## 1.

## Progressing our pharmacology priorities

## What we will achieve:

- We will advance the discipline of pharmacology, communicating its beneficial impact on animal and human health.
- We will bring pharmacologists together to make advances in priority research areas.
- We will work with our community and stakeholders to make progress on issues that matter.

## How we will get there:

- By supporting training, workforce development, and multi-professional partnerships.
- By driving an innovative programme of commissioned and member-led content.
- By curating, and where necessary expanding, content into thematic priorities, which are joined up across policy, publishing, education, training, and meetings.
- By leveraging our strengths in the production and delivery of quality content, to disseminate cutting-edge science worldwide.

## 2.

## Celebrating and connecting our community

## What we will achieve:

- We will foster and celebrate a diverse pharmacological community, flexing our provision to meet its changing needs.
- We will anticipate the changing needs of the pharmacological community, recognising and supporting all individuals, at all stages of their careers.
- We will dismantle barriers to inclusion if we identify any within the Society.

## How we will get there:

- By harmonising our education, training, and engagement projects in collaboration with our community across all settings by aligning them to our thematic priorities.
- By focusing on removing barriers to inclusion and building equity throughout the Society.
- By inspiring the new generation with stories that articulate the breadth and depth of pharmacology.
- By embracing digital opportunities to grow membership and expand engagement.

## 3.

## Sustaining our society

## What we will achieve:

- We will secure our future, to support the next generation of pharmacologists, and to continue to champion the importance of the discipline.
- We will build our financial and structural resilience with sustainable decision frameworks, diversified funding streams and robust governance.

## How we will get there:

- By developing and adapting our publishing portfolio, ensuring we provide a place to publish for all pharmacology researchers.
- By building BPS Assessment Ltd into the premier assessment and learning business for prescribing skills.
- By adopting best practice environmental, social and governance policies and practices.
- By pursuing ethical income opportunities and developing targets to reach Net Zero.







## ABOUT THE BRITISH PHARMACOLOGICAL SOCIETY

The Society is a charity with a mission to promote and advance the whole spectrum of pharmacology, and leads the way in the research and application of pharmacology around the world. Connecting over 4,500 members from more than 60 countries, it is a global community at the heart of pharmacology.

### British Pharmacological Society

The Schild Plot, 16 Angel Gate,  
City Road, London EC1V 2PT  
info@bps.ac.uk  
+44 (0)20 7239 0171

**[www.bps.ac.uk](http://www.bps.ac.uk)**

