Welcome, Young Investigators!
27 group leaders join the programme

Contract replaces stipend
EMBO Postdoctoral Fellowships receive an update

Marking ten years
EMBO Molecular Medicine celebrates anniversary

Nine group leaders selected
Meet the first EMBO Global Investigators

Accelerating scientific publishing
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Editorial

EMBO was founded by scientists for scientists. This philosophy remains at the heart of our organization until today. EMBO Members are vital in the running of our programmes and activities: they screen applications, interview candidates, decide on funding, and provide strategic direction. On pages 8–9 four members describe why they chose to dedicate their time to an EMBO Committee and what they took away from the experience.

When EMBO was created, the focus lay specifically on fostering cross-border interactions between molecular biologists across Europe. Today, we focus on supporting and connecting the life sciences community worldwide. It is therefore a particular pleasure to announce in this issue our 27 new Young Investigators as well as the first nine Global Investigators.

With the aim of driving positive change for the life science community, we recently announced two initiatives in scientific publishing. In October we made our journals’ finances public to provide transparency about what it costs to publish in high quality, selective journals (pages 10–11). In December we launched Review Commons, which will offer independent and high-quality peer review before journal submission (page 5).

Would you consider submitting your manuscript to Review Commons? Once you tried it, what was your experience with it? As always, we are very interested in engaging in discussion about our activities. I look forward to your feedback.

Maria Leptin, Director, EMBO

Accelerating scientific publishing

EMBO and ASAPbio announced pre-journal portable review platform

I

n December 2019, EMBO, in partnership with ASAPbio, launched Review Commons, a multi-publisher partnership which aims to streamline scientific publishing by peer-reviewing research manuscripts in the life sciences before they are submitted to a journal.

Papers submitted to Review Commons will be assessed by expert referees without regard to any journal to which they might ultimately be submitted, and will be judged exclusively for their scientific rigour and merit. Review Commons will enable authors to publicly post the reviews and their own response to them on the preprint server bioRxiv and to submit their reviewed manuscript to one of the journals affiliated with Review Commons.

Avoiding wasted reviews

In the traditional scholarly publishing process, reviewers evaluate manuscripts after submission to a journal. Beyond the requirement for technical rigour, editors and reviewers tend to be most concerned about whether the work meets the subjective criteria of the journal. If the paper is rejected, the peer reviews are typically not reused by another journal. In this way, journal rejections could expand to include additional partners, both journals and preprint servers.

“Review Commons has the potential to demonstrate a path toward a more open, time- and resource-efficient future for scholarly communication, as well as being compatible with the existing journals’ publishing system,” said EMBO Associate Member and ASAPbio President Ron Vale.

17 journals on board

Review Commons will manage the transfer of the manuscript, reviews, and responses to affiliated journals. A consortium of seventeen journals across six publishers (see box) have joined the project by committing to use the Review Commons referee reports for their independent editorial decisions, and to seek only minimal additional expert input. If the editors decide to reject the work, the authors can reuse the peer review evaluation for submission to another journal. In this way, Review Commons reduces re-reviewing at multiple journals and accelerates publishing.

“We are pleased to have such a strong group of community-minded academic journals joining this ambitious project,” said Maria Leptin, Director of EMBO. “We all share the desire to work with scientists to address important issues in peer review: transparency, objectivity, and efficiency.”

Looking to the future

Review Commons is supported by a grant to ASAPbio from The Leona M. and Harry B. Helmsley Charitable Trust and is operated by EMBO Press. During an initial evaluation period, the partners will monitor the efficacy of the service and share results with the community in an effort to promote broader improvements to peer review. After this period, and as warranted by the evaluation outcomes, Review Commons could expand to include additional partners, both journals and preprint servers.

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www.reviewcommons.org

Welcomeing the Young Investigators of 2019
27 life scientists join the EMBO Young Investigator Network

EMBO congratulates 27 life scientists on their selection as new EMBO Young Investigators. They join a network of 129 current and 340 former Young Investigators. During their four-year programme tenure EMBO will provide financial and practical support, as well as training and networking opportunities.

“Each of the new Young Investigators has demonstrated their ability to carry out research at the highest level, and it is a pleasure to welcome them to the EMBO community,” says EMBO Director Maria Leptin. “The first years as an independent researcher can be a particularly challenging time in a scientist’s career, and we look forward to supporting these twenty-seven researchers in establishing their independent careers.”

This year’s Young Investigators are based in 13 countries and represent 15 different nationalities from Europe and beyond. Compared with previous years, the female: male ratio among the successful applicants is unfortunately lower this year. We are always looking at ways to encourage more women to apply in order to better balance the gender ratio among both applicants and successful candidates.

The programme offers Young Investigators a range of benefits. For more details see ‘The programme at a glance’.

The programme at a glance
During their four-year tenure, EMBO Young Investigators receive a range of benefits:
Support for Young Investigators
➔ 15,000 euros award
➔ Up to 10,000 euros additional funding
➔ Childcare support
➔ EMBO Research Leadership course
Support for their labs and lab members
➔ Young Investigator PhD course and local courses
➔ Meeting grants and Nobel laureate meeting
➔ Visits to other labs
➔ Access to EMBO core facilities
➔ Lab retreat and creativity facilitation
➔ Listing of job vacancies

Networking opportunities
➔ Annual Young Investigator meeting
➔ Sectoral meetings
➔ Institute visits
➔ Support for European networks of junior PIs
➔ Joint group meetings

Helping the Young Investigators get noticed
➔ Lecture grants
➔ Conference support for organisers
➔ Listing of awards and publications in print and on social media
➔ Inclusion in the EMBO directory and an online database
➔ EMBO Press publishing fees covered

More information: embo.org/funding-awards/young-investigators
Welcome to the first Global Investigators

Nine life scientists join the new EMBO Programme in its first year

EMBO has selected the first nine life scientists to join the Global Investigator Network, which launched in 2019. These scientists, who are in the early stages of establishing independent laboratories, will receive support from EMBO to access career-enhancing training and networking opportunities.

“We are delighted to welcome the first EMBO Global Investigators to our community,” says EMBO Director Maria Leptin. “Through the network we want to enable these researchers to develop and maintain strong connections with the life science community in Europe and beyond.”

The Global Investigator Programme supports life scientists who have, within the last six years, started their own laboratory in an EMBC Associate Member State (currently India and Singapore) or in a country or territory covered by a cooperation agreement with EMBC (currently Chile and Taiwan). The nine Global Investigators selected this year are distributed across all four of these countries or territories.

The benefits of the Global Investigator Network include training in leadership and research integrity, small grants, for example for making visits to Europe to start or continue collaborations, or for attending or organizing regional or international scientific meetings, and financial support for joint lab meetings and lab retreats, publications or childcare.

The emphasis of the programme is on creating a network of young group leaders and strengthening cross-continental connections with scientists in Europe, in particular the EMBO Young Investigators and Installation Grantees. To this end, the Global Investigators will be invited to attend the biennial Global Investigator Meeting, together with other members of the EMBO community.

This first group of Global Investigators will begin the programme in January 2020 and receive support from EMBO for a total of four years.

www.embo.org/funding-awards/global-investigators

EMBO Fellows receive an update

Contracts replace stipends in the new EMBO Postdoctoral Fellowship scheme

In October 2019, EMBO announced an update of its Long-Term Fellowship Programme. The programme’s aim of fostering excellent postdoctoral researchers on their path to an independent research position remains unchanged. However, in the updated EMBO Postdoctoral Fellowship scheme fellows’ stipends are replaced with two-year salary-based contracts from their host organisations. These contracts will include social security payments as required by national and local laws and regulations.

“By making this change to the Fellowship Programme we meet young scientists’ increasing need for social security, while continuing to give them scientific independence,” says EMBO Director Maria Leptin. In addition to benefiting from the freedom to explore and establish an independent line of research, EMBO Postdoctoral Fellows receive training in laboratory management and leadership as well as the opportunity to tap into the extensive community of other EMBO Fellows to establish their own scientific network. EMBO also supports the international mobility of its fellows and their families through relocation grants and childcare allowances.

The current EMBO Long-Term Fellows as well as applicants wishing to conduct their postdoctoral work in countries which are not an EMBO Member or Associate Member State will remain in the stipend-based scheme. Future successful applicants to the new EMBO Postdoctoral Fellowship will receive a salary based on an employment contract. Applications are accepted on a rolling basis throughout the year. Evaluation of the applications takes place twice a year, once in February and once in August.

www.embo.org/funding-awards/fellowships/postdoctoral-fellowships

What makes EMBO Fellowships stand out?

Five Fellows comment on how the programme benefitted them and their careers

The opportunity to meet with other fellows and to discuss work across a broad range of sub-disciplines within biology has been really influential. Focus is, of course, important, but sometimes we have the tendency to think too narrowly, and it is good to have exposure that broadens our perspective again.

Bonnie Murphy Max Planck Institute for Biophysics, Frankfurt, Germany

The EMBO Fellowship definitely gave me some prestige among my peers and the whole process of the interview and the application increased my confidence for doing independent research in the host lab.

Rudra Nayan Das Waksman Institute of Science, Rutgers, Israel

For me the best thing about the EMBO Fellowship is being part of such an excellent network of scientists. For sure it has helped me – in getting to be part of this network, and in developing side skills such as leadership skills, which are not part of the normal training of scientists.

Anat Arzi Weizmann Institute of Science, Rehovot, Israel

The application process was very smooth, and the flexibility is very much appreciated, as well as the opportunity for maternity leave, and for a pension. EMBO has an understanding that we are not only scientists but also human beings.

Maria Zauri CNIO, Madrid, Spain

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EMBO Members constitute the heart of European science, but how does the organisation ensure that all those who deserve the accolade are considered? Every year, existing EMBO Members vote on a list of nominations, and those names garnering the most votes are automatically elected. The EMBO Membership Committee, says one of its members Peter Scheiffele, is there to look at all the remaining nominees: “Some scientists who are just as deserving of membership may not get many votes because they work in regions or institutes that do not have such a high density of or activity in life science research,” he points out. “One has to calibrate that, and cut through to find the true quality of their science. The power of EMBO is that its member states are connected; we cannot connect them if we don’t include them in our community; so this is actually really important.”

Scheiffele, who works at the University of Basel in Switzerland, goes on to highlight the importance of consensus, and that the committee’s mandate is to fund meetings and courses in as many emerging fields and techniques as possible. “I’m a neuroscientist, as having a plant biologist who says ‘this is really the most exciting thing for us right now’ really helps you target your attention.”

Scheiffele adds that his fellow committee members are also a definite plus point: “There are lots of people you’ve heard of but never met because you don’t go to the same conferences, and that’s another element of why I like it.” But in the end, he says, it comes back to the science: “The committee is run in a way where there are no politics, and it means there’s a purity about the scientific discussion. That’s what really makes it worthwhile.”

A glimpse behind the scenes of EMBO Committees

EMBO Members are instrumental in the running of the organization’s programmes. Here, four members talk about why they agreed to be part of an EMBO Committee and what they personally gained from it.

By Kathy Weston

EMBO Courses and Workshops offer scientists the opportunity to meet and share their expertise and ideas. For Zoi Lygerou, the incoming chair of the Course Committee – which picks which meetings are given the green light – the courses and workshops are the epitome of EMBO’s commitment to its scientific community: “It’s not a large amount of money, but it’s well spent, and I’m really happy to be part of the process that funds them,” she says.

Sitting on a committee allows you to have a say in how science is going, and how things operated in different places, it really opened my mind. So you can really concentrate on the science.”

What makes a good proposal? “We put a lot of emphasis not just on the quality of the science, which should of course be excellent, but also on the networking aspect,” Lygerou says. “We want to give young scientists the opportunity to interact very closely with all scientists in their fields, so they can find their next step.” She adds that amongst the speakers, gender balance is obligatory, and the committee also looks for a good mix of junior and senior scientists, from a spread of geographical locations.

Lygerou enjoys the committee meetings for a number of reasons. “Interacting with the other members is very rewarding, as they’re really interesting people, and we all want to find the best applications,” she says. “And I find it very satisfying looking into emerging fields. There have been a number of times we’ve got topics that I hadn’t realised were becoming so trendy, and I’ve been introduced to some very, very interesting science.”

Committee work is time-consuming, Lygerou admits, but she wholeheartedly recommends it. “You need to commit to doing the job properly, but you get a lot back. If you get the chance to do something like this, you should definitely take it!”

EMBO NEWS

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EMBO NEWS
The publishing costs at EMBO

EMBO and EMBO Press made their journals’ finances public to provide transparency and clarity about what it costs to publish articles in high quality, selective journals, writes EMBO Director Maria Leptin.

An open discussion of what it costs to run and maintain high quality, selective journals, and who should pay, is only possible on the basis of real data. EMBO, with its mission to serve the scientific community, has a profound interest in what makes up the costs for publishing.

We at EMBO and EMBO Press are therefore making our journals’ finances public to provide transparency and clarity about the costs of publishing articles. All numbers shown below are for the year 2017, for which all transactions are complete.

Looking at improvements to peer review

Though peer review has been widely accepted as the main method of assessing scientific funding applications for the last seventy years, it is not infallible. A new EMBO Reports article by EMBO Science Policy Officer Sandra Bendiscioli explores its weaknesses and potential alternatives.

The limitations of peer review include the potential for unconscious bias to influence decision making, the inherent conservatism that tends to limit support for unconventional ideas, and, increasingly, the problem of reviewer fatigue.

Some funding bodies have begun to experiment with alternatives to address one or more of these issues. The article looks at some of these trials, which include anonymizing applications to reduce the influence of bias and asking reviewers to focus on applicants’ past performance rather than project proposals to give unconventional ideas a better chance. Another concept discussed is partial randomization to select from a subset of already peer-reviewed applications that are difficult to differentiate between, in order to avoid a forced selection that might be arbitrary and therefore susceptible to bias and conservatism. Including non-expert reviewers is also considered, with the argument that the public is the main funder of research and should therefore be involved in deciding where their money is spent.

The article also discusses modifications that could improve the peer review process more generally and may be relatively simple to implement, such as clearly defining the goals of the funding body and training reviewers in the evaluation criteria. These trials are all in their early stages, and the article calls for willingness to experiment further and share results, thus facilitating refinements to this critical process which seeks to ensure that the best scientific research is supported.

Read the full article in EMBO Reports: DOI: 10.15252/embr.201949472

Figure 2: Publishing cost breakdown | All figures for 2017

The cost of publishing

The largest component of the EMBO Press costs of €2.704 Mio. are staff-related. Staff working at the four EMBO Press journals include 17 scientific editors (including those with managerial responsibilities), four editorial assistants, a data integrity analyst, a project and marketing manager, and a designer. Salaries and employer costs (including pension contributions, health insurance, maternity cover, etc.) make up €1.2 Mio. Office expenses, recruitment costs, conference fees, travel and other items add another €540,000 (see Fig. 2). Adding the costs at EMBO Press, for Wiley’s publishing services and for technical infrastructure and production, the total cost of publishing in 2017 was €4.476 Mio.

Many discussions have focused on what it costs to publish a research article. Because the EMBO Press journals publish reviews, editorials and other ‘front matter’ in addition to research articles, the precise cost per research article cannot immediately be extracted from the figures shown without complex analysis. We can, however calculate what EMBO Press would need to charge per paper on average in order to cover the publishing costs of €4.476 Mio.

If the annual cost of €4.476 Mio. is spread across all 706 articles, the cost per article amounts to €6,340. We strongly support the idea of making the final, published versions of all scientific papers openly available immediately. But the money for this must come from somewhere. Because EMBO Press publishes both research papers and other articles, the above numbers can only indicate the order of magnitude of the cost of publishing a paper in high quality, selective journals. What is clear, however, is that our current APCs between €3,300 and €4,700 would not be sufficient to cover our costs. It is also important to note that these figures are based on raw costs. Thus financing the journals exclusively through APCs would only cover the pure publishing costs and forego the surplus for supporting EMBO activities.

In working towards an OA future, the challenge remains to identify ways to fund high quality, selective publishing in an open and sustainable way. We are interested in engaging in further conversation on this subject.

Figure 1: EMBO Press revenue flow | green = revenue, red = cost | All figures for 2017

The revenue flow

Subscriptions: €3,902,000
APCs and page charges: €1,761,000
Outsourced services: €1,870,000
Total revenue: €8,573,000

The cost breakdown

EMBO Press office: €2,704,000
EMBO surplus: €1,330,000
Total cost to EMBO: €4,476,000

In 2017, the four EMBO journals published 706 articles, of which 495 were primary research papers and 29 were reviews. The remaining 182 articles were opinion pieces, editorials and News & Views articles, and the annual cost of €4.476 Mio. is spread across all 706 articles, the cost per article amounts to €6,340.

We are therefore making our journals’ finances public to provide transparency and clarity about the costs of publishing articles.

EMBO Press working principles

EMBO Press publishes five journals. EMBO Molecular Medicine (EMM) and Molecular Systems Biology (MSB) are fully OA, The EMBO Journal and EMBO Reports are subscription-based, and all are OA options for authors. Our fifth journal, Life Science Alliance, is an OA journal published in partnership with Rockefeller University Press and Cold Spring Harbor Press since 2018, and is not included in this analysis.

The APCs for OA articles in 2017 were €4,700 per article at The EMBO Journal and EMBO Reports, and €3,300 at EMM and MSB. These APCs are not sufficient to cover the costs of the two OA journals, EMM and MSB, nor the OA papers at The EMBO Journal and EMBO Reports. OA publishing at EMBO Press therefore relies in part on the income from subscriptions.
New Chief Editor for Molecular Systems Biology

Molecular Systems Biology is one of five journals published by EMBO Press. It is a peer-reviewed journal dedicated to the integrative discipline of systems biology. Founded in 2008, the journal offers scientists in the field of systems biology, synthetic biology and systems medicine global visibility with Open Access publication of influential research.

As a member of the EMBO Press family of journals, Molecular Systems Biology applies transparency policies, including the publication of referee comments alongside editorial and author exchanges, referee-cross commenting, scooping protection and open data publication. EMBO Press pioneered the transparent editorial process in order to provide a rapid, fair and efficient publication process. Through developing and employing source data tools, EMBO Press works towards improving data transparency, reuse and discoverability. Through dedicated data integrity checks, it ensures the publication of reliable data. All submitted manuscripts are subject to ‘scooping protection’, which extends to manuscripts published on preprint servers. As a founding partner and co-signatory of the San Francisco Declaration for Research Assessment, EMBO Press is an advocate for moving away from impact factors as a mechanism for research assessment.

More information about the journal is available at mmb.emboypress.org

Molecular Systems Biology

EMBO Press encourages communication between basic biological research and the clinical field. EMM is concerned with the discovery and investigation of genetic mutations involved in breast cancer (DOI: 10.1002/emmm.200900041) and has accrued 400 citations to date. This is just one of many highly cited articles published in EMM which demonstrate its high quality among scientific publications.

Top Open Access journal in experimental medicine

EMM was switched from a subscription model to Open Access in March 2012, less than three years after it was established. After becoming an Open Access journal, EMM was and remains the top Open Access journal in the experimental medicine category (ISI-Reuters) to make the switch. EMM’s core values include transparency and accessibility, and publishing all articles Open Access means that the research published in EMM is freely and widely available to all readers, including patients and clinicians.

Covers a wide range of fields

EMM straddles the boundary between clinical research and molecular medicine and includes research in a diverse range of fields within its scope. Research published in EMM addresses a wide array of topics, including (but not limited to) metabolic, cardiovascular, aging-related and immune diseases, as well as infectious diseases, neurodegeneration and cancer.

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New EMBO Members welcomed at 2019 meeting

73 members attended the annual event in Heidelberg

The annual EMBO Members’ Meeting took place from 29-31 October 2019 in Heidelberg, Germany, and welcomed 73 recently elected members, who presented their work in talks and were able to meet each other and find out more about EMBO. Other members also attended, including many of the new members’ proposers.

At the meeting EMBO presented an updated ‘members carpet’ that shows a ‘map’ of all EMBO Members. The first edition was created for EMBO’s 50th anniversary in 2014. The new version includes all members elected since then.

Each EMBO Member is represented by a circle whose colour and placement reflect the main themes of their research.

“I feel incredibly honoured,” said newly elected member Nicole Dubilier, head of the Max Planck Institute for Marine Biology in Bremen, about her election to the organization. “I just found my circle on the rug and I’m surrounded by people whose names I know and think highly of. I’m grateful that Colin Murrell proposed me for election.”

A global community

Although largely European, the EMBO Membership is a global community that extends beyond Europe. Frédéric de Sauvage, who is originally from Belgium but has been based at Genentech in the USA for most of his career, is one of eight new Associate Members elected in 2019. “EMBO is the representation of molecular biology in Europe so, as a European at heart, it’s a great honour to be a part of it.” While de Sauvage has stayed in touch with the European life science community, often speaking at EMBO workshops, for example, he is looking forward to becoming more involved as an Associate Member. “I’ve seen the courses advertised and I know that they’re very well attended, and that people really enjoy them, so I’m looking forward to more of these types of opportunities.”

On the other hand, Dubilier, who is based in Germany, finds EMBO’s global activities particularly fascinating, having joined EMBO Director Maria Leptin and several EMBO Members on a visit to Chile in 2018. “It’s extremely exciting to reach out to researchers working on other continents that are doing excellent research and discuss possible collaborations.”

Members’ contributions to EMBO

Members make essential contributions to EMBO by joining committees that help to run the programmes. Ana-Maria Lennon-Duménil, who was elected in 2018 and leads a lab studying immune cell biology at the Curie Institut in Paris, recently joined the Young Investigators Committee. She took part in her first committee meeting in October 2019, where she was impressed by the calibre of the candidates. “It was fantastic. It was an incredibly competitive call. The applicants were just outstanding, and they were really into the science. The way the interviews were organised was to promote the scientific interactions between the committee members and the applicants.”

Lennon-Duménil believes the programme is very valuable for life scientists in the early stages of independent research. “The value for these scientists is being introduced to the community of molecular cell biologists in Europe very early on and being able to receive all the support from EMBO for their students and themselves.”

Janusz Bujnicki, a recently elected member, who studies the structures and mechanisms of action of molecular systems involving RNA at IMCB in Warsaw, Poland, is himself a former EMBO Young Investigator. “It was great to be a part of the Young Investigator network as a junior PI and to receive support from EMBO. I believe that EMBO Membership will give me a chance to pass the favour forward to the next generation of junior PIs.”

Bujnicki, who is also a member of the science advice mechanism at the European Commission, has been invited to join the committee for EMBO Courses and Workshops. “High-quality science is, among other things, the bedrock of science-for-policy advice. EMBO Courses and Workshops are renowned for their very high level and good quality of science and this is extremely important as an element of educating and training junior scientists.

Diverse and evolving membership

Bujnicki leads an interdisciplinary research team, and said he particularly enjoyed the way the EMBO Members’ Meeting fosters interdisciplinarity by bringing people from a wide range of subdisciplines together. “The meeting is very intense. I like the diversity of talks, which demonstrates how broad and interesting the field of molecular biology is.”

This diversity has increased as the field of molecular biology has grown and evolved, and is reflected by the membership. Dubilier, who researches the symbioses between marine animals and chemosynthetic bacteria, has also noticed this. “In the last five to ten years EMBO has started to expand more strongly beyond classical molecular biology and more into the environmental sciences. It’s the perfect time because the methods are now available for environmental researchers to be able to use molecular tools to understand organisms. It’s exciting to see that change.”
A decade of transparent peer review
Fifth Peer Review Week focused on quality in peer review

Peer Review Week is a series of events to highlight the essential role of peer review in scientific publishing. In 2019 the focus was on quality in peer review, offering an opportunity for EMBO Press to celebrate a decade of transparent peer review.

When The EMBO Journal introduced its transparent peer review process in 2009 (under, at the time, Executive Editor Fernell Ranft), it was one of the first journals to publish reviewer comments alongside its research articles. The other EMBO Press journals, EMBO Reports, EMBO Molecular Medicine and Molecular Systems Biology, followed suit a year later. What was at the time a pioneering move is now becoming a standard in scientific publishing. At EMBO Press, transparent peer review has become a matter of course over the last decade, with more than 95% of research articles being published together with the reviewers’ comments, author replies and editorial decision letters.

Transparency for quality
Transparent peer review is one of the ways in which EMBO Press encourages and maintains peer review quality. By making the files open for everyone to see and cite, reviewers are encouraged to provide critical but fair and constructive comments. For full transparency about how reviews are considered, the editorial decision letters and author rebuttals are also included in the published review files. Because EMBO Press does not allow confidential referee comments, the published files include the entire correspondence between author, reviewer and editor. All EMBO Press journals also invite reviewers to comment on each other’s reports before an editorial decision is made to ensure authors get balanced, clear advice on how to improve their paper. Often, the authors are invited to comment on the referee reports and their revision proposal before an editorial decision is made.

An opportunity for training
Another way in which the transparent peer review process at EMBO Press drives quality in peer review is through the aspect of training. Early-career researchers who are new to review papers can train themselves to review optically by analyzing the editorial process on published papers in their area of research. EMBO Press journals also encourage co-referring as part of training and mentorship, meaning that any co-reviewer, such as a senior postdoc in the lab, should be disclosed to the handling editor as part of the process and the senior referee takes responsibility to guide the process. This not only helps to train early-career researchers in reviewing process; it also means they receive credit for the work they do.

More information: http://www.embo.org

I regularly review papers because it is a service to the community and I understand that I am also dependent on my peers reviewing my manuscripts. Besides, it gives me great insight into research, including work to which I would otherwise not be exposed. I try to approach manuscripts objectively without bias, and to provide my review in a timely manner. My aim is to be constructive with my critique and not to ask for experiments that are not doable or not possible within a reasonable time.

Quality in review means being constructive. When this is the case, the manuscript will be improved significantly during revision, which is then a great experience for everyone involved. This also increases confidence, for example for early-career researchers, in the whole review process. A good review provides a short summary of the key messages, the strengths and weaknesses and groups the assessment into major and minor points. It may also contain advice on how to improve the manuscript.

I find the transparent process at EMBO Press extremely valuable as it provides a quality check when writing a review. It deters reviewers from making vague or derogatory comments that cannot be appropriately addressed by the authors. In addition, it helps to understand potential issues with a paper and areas that are worth further investigation.

If you are a reviewer, I can contribute to the quality of science that is published in my field of research, and teach my lab members good values for reviewing. I expect reviewers to be objective and open minded, and to restrict their comments to their expertise. A real challenge is often the assessment of the most innovative research. This requires reviewers with enough expertise, especially in an increasingly multidisciplinary environment.

A good review will clearly identify the weaker points in a manuscript and explicitly state how they have to be corrected. The points should be clearly indicated in a non-judgmental style. Importantly, the expected line of action to successfully answer the criticism should be indicated, avoiding blaming colleagues towards the authors.

A good review should also consider the impact of the publication on its field. I am fan of transparent peer review – it especially serves authors that wish to publish work that may challenge the status quo, or in fields that are ever-competitive and the chances of finding a new idea low. Changing the perception that the review may end up published forces the reviewer to stay closer to ethical principles.

Being a reviewer is a privilege because it allows you a sneak preview of exciting advances in your field. I consider reviewing papers as a normal responsibility of scientists. While I find that meeting deadlines adds to the relentless demands, it is a fantastic opportunity to engage with the field. Particularly for junior principal investigators, reviewing papers is an important part of understanding the science and networking with editors and loading researchers.

I think that quality in peer review means highlighting the strengths of the work, while considering what aspects of data and text lack clarity, accuracy or novelty. It is important to be mindful that the aim is to think about necessary improvements to the overall work, rather than unfair criticism. Maintaining quality and fairness is crucial because it will inspire and encourage colleagues to adopt the same approach.

Although I suspect that no one particularly reads referees’ comments and relying on the review process of their work online, I feel that preserving the unbridled comments in conjunction with a manuscript does promote quality in peer review. Resulting published articles might be considered more rigorous. EMBO Press is renowned and respected for its transparent peer review process, outlining a model for other publishers to learn from.

I consider it a privilege to participate in the peer review process that helps improve, consistence, and considerate. After all, the peer review process should be designed to help authors publish better science. Timeliness is another important aspect.

The transparent peer review process employed at EMBO Press, which includes the chance to cross-comment on reviewer comments and author replies, is valuable in that it strengthens the rigour of reviews for objectivity and fairness, and it helps authors to have confidence in the review process.

Meet the reviewers
Jürgen Götz
The University of Queensland, Brisbane, Australia

Lena Claesson-Welsh
Uppsala University, Sweden

Kweon-Sik Park
University of Virginia, Charlottesville, United States

Helen Rowe
University College London, UK

Ana Pombo
Max Delbrück Center for Molecular Medicine, Berlin, Germany
Tel Aviv hosts new centre for Parkinson’s disease research

Tel Aviv hosts a new centre for Parkinson’s disease research, which will serve as a hub for innovative translational research in Parkinson’s disease. The centre supports cutting-edge research towards better treatment and prevention, or slowing down, of Parkinson’s disease (PD) progression through a grant programme and activities such as regular seminars, annual international symposia and student exchange programmes.

The research at the APPD will encompass the entire drug development cycle from basic research through commercialisation with a focus on expanding the understanding of the molecular basis and biological mechanisms of PD, the identification of PD biomarkers, and the development of technologies and drug candidates for pre-clinical and clinical evaluation. In addition, the aim is to promote the exchange of ideas among researchers, clinical staff, physicians and those working in industry.

New Greek Institute for Bioinnovation

The Biomedical Sciences Research Centre (BSRC) ‘Alexander Fleming’, in Athens, Greece, recently inaugurated a new institute. The Institute for Bioinnovation was established with the goal of developing translational research and innovative therapies, explains EMBO Member and BSRC Director George Kollias.

The BSRC is an integral part of the National Center for Research and Technology (either). It is a major research infrastructure in Greece that attracts high-level research teams, and it offers students and researchers the opportunity to work with cutting-edge technology.

EMBO Member George A. Carias is coordinating two new Innovative Training Networks (ITNs) launched earlier this year. The ITNs are part of the H2020-Marie Skłodowska-Curie Actions aimed at training early-stage researchers, and receive a sum of €8 million euros from the European Commission for the period 2019-2023.

aDDRess aims to dissect the functional relevance of genome maintenance pathways to fundamental cellular processes during development or with disease onset. HealthAge focuses on mechanisms that regulate lifespan or healthspan and underlie a wide range of age-related diseases, including metabolic defects, endocrine abnormalities, immune disorders and cancer.

The complementarity of the programmes leaves plenty of scope for joint activities, including workshops, seminars, student exchanges and collaborations between participating labs. Carias said “We hope that both programmes will train the next generation of young scientists on DNA damage and ageing, enable multiple research labs across Europe to build stronger and productive research collaborations and generate new knowledge over a wide range of age-related diseases.”

Towards microbiology literacy in society

In March this year, a group of life scientists including EMBO Members Kenneth Timmis, Victor de Vreugd, Willem de Bruijn and Anton Danchin published an editorial on ‘The Urgent Need for Microbiology Literacy in Society’ (DOI: 10.1111/1462-9290.14611), launching a major educational initiative.

Although discoveries about microbiomes have recently raised their profile, microbiophobias and a lack of understanding among the general public and policy makers remain problematic. Since we all make microbiologically relevant decisions, the editorial makes the case that “microbiology literacy must become part of the world citizen description.”

The authors propose a ‘microbiology literacy framework’, a set of topics to be introduced into the core curriculum starting from pre-school to empower individuals to make informed decisions and support evidence-based policy. This framework, which will soon become freely available online, approaches topics in an experience-centred way, starting with simple questions about everyday life to emphasise their practical relevance.

The resource includes suggestions for experiment and excursions to make microbial education fun and engaging. It is intended that microbes be generally depicted positively, not only are they important in our daily lives, they might even be harnessed to tackle major challenges like climate change and to reach the UN Sustainable Development Goals. The authors also propose a public service providing education for those who were not instructed in school updates based on new research.

Other EMBO Members, including Richard Losick, have been involved in the next stage of the initiative, and all microbiologists are invited to participate. The editors also encourage microbiologists to join the effort to educate educators and politicians of the crucial need for microbiology literacy in society.
The tension between the two careers seemed a major scientific theme of the book: how forms, which is initiated in the story. Via Jessie, Rørth “and of scientific editors even less so. New perspective to the publishing process and the two main characters, Jessie, Rørth brings a microbiome, displayed for the public in Luxembourg, presented by a different Luxembourgish artist for which the book is named. Another theme explored in the novel is the question of having or not having children. Hitch further discusses the use of narrative in science (Springer International Publishing | 2018) ISBN 978-3-319-97363-0

EMBO COMMUNITY

Embracing the biology textbook

Breakthrough Prize 2020
Jeffrey M. Friedman, Rockefeller University and Howard Hughes Medical Institute, and Yuh-Nung Jan, Harvard University receive the Breakthrough Prize in Life Sciences. Friedman receives the award for discovering the molecular pathways that regulate body weight in mammals. Wyss Institute at Harvard University, a center for academic and industrial research, which strives to洲上 blood circulation. Rørth, an expert in molecular biology, receives the prize for his pioneering work on synthetic biology and stochastic fluctuations. He shares the award with UK-based artist, Tummler, and in Luxembourg, a different artist.

In this novel, another page turner by the author of Raw Data: A Novel About Life In Science, Jessie Aitkin, the long-time Editor-in-Chief of a leading life sciences journal, receives a major scientific theme of the book: how forms, which is initiated in the story. Via Jessie, Rørth “and of scientific editors even less so. New perspective to the publishing process and the two main characters, Jessie, Rørth brings a microbiome, displayed for the public in Luxembourg, presented by a different Luxembourgish artist for which the book is named. Another theme explored in the novel is the question of having or not having children. Hitch further discusses the use of narrative in science (Springer International Publishing | 2018) ISBN 978-3-319-97363-0

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Have you considered submitting or transferring your work to LSA journal?

I like very much that the original review is taken as basis for further decision making, this really helps to make the whole publication process more efficient.

Bart de Strooper
VIB-KU Leuven, Belgium; UCL London, UK

"The Life Science Alliance team made publishing seamless and painless! The process felt like a collaboration rather than a battle.

Maria Kavallaris
UNSW Sydney, Australia

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