# Lettre de la SFBD janvier 2020

Chères et chers développementalistes et collègues,

LaSFBD vous souhaite une très bonne année 2020!

Vous trouverez dans cette lettre 2020 un éditorial, un récapitulatif des actions de 2019 et une description des rendez-vous importants de 2020.

Bonne lecture!

Le CA de la SFBD.

### **Editorial**

Welcome to the 2020s!

This new decade will probably see profound changes in the way scientific research is conducted and funded, and in the place of scientific knowledge in society. Without a tighter dialogue between scientists and society, humanity is unlikely to meet the challenges imposed by the finite resources of our planet. This editorial will address some of the challenges we will need to take up if we want science to be useful to humanity and how the SFBD could - humbly - contribute to their resolution.

The heart of our work is to increase human knowledge and share it through publications, which ensure that scientific results can be built upon by other scientists and by society at large. Publications are also used to assess the quality of the work produced by a collective of scientists, and hence in the allocation of resources. Finally, they constitute a profitable commercial activity. How to balance these intertwined, sometimes conflicting, purposes is one of the main challenges we are facing.

For publications to efficiently disseminate results both within the scientific community and within society, they should be Open Access. The <u>Plan Sproposal</u>, launched in 2018 by a coalition of funding bodies (including the French ANR), states that results obtained with research grants must, by 2024, be fully and immediately open and cannot be monetised in any way. While this is laudable, it shifts the - sometimes heavy - burden of publication costs from institutions to the authors. Given the state of French research funding, this could turn into a major source of inequalities between labs. Furthermore, results obtained thanks to a grant are often published after the end of this grant, especially when it is short. Institutional plans for open science should make sure that sufficient core funding is provided for this purpose or that institutions directly negotiate fee support programs with publishers. An emerging alternative to classical journals is a combination of preprint repositories, such as <u>bioRxiv</u>, and free independent reviewing and recommendation systems such as <u>preLights</u> (The Company of Biologists, UK), <u>Peer Community In</u> (PCI, France), or <u>Review Commons</u> (EMBO, ASAPbio). The extent to which this alternative will supplant existing journals is unclear but our community should support these initiatives, for example by initiating a Peer Community In Developmental Biology.

The second issue is publication-based evaluation of research quality. Most French research establishments have signed the San Francisco Declaration On Research Assessment ( DORA ), which asserts the "need to assess research on its own merits rather than on the basis of the journal in which the research is published". While there certainly has been a positive shift in the evaluation practices over the past years, journal impact factors are still commonly used, consciously or not. One reason is that the qualitative assessment of the merits of a piece of work takes much more time than the quantitative assessment of the impact of a journal... While we are bombarded with an ever-increasing number of tasks, days stubbornly continue to last for only 24 hours. A qualitative assessment of research can only be achieved if:

- 1. the number of assessments to carry out is reduced. For instance, is it useful to make calls for 10-20k€ grants? Should we keep on publishing many small articles of minor content in peer reviewed journals, rather than building more substantial stories?
- 2. the unnecessary administrative burden on scientists is lifted. For example, does it make sense to insist on co-funding when buying equipment? Or, perhaps more trivial, how about allowing scientists to book hotels or trains without going through the inefficient and expensive public markets?

While signing DORA is nice and easy (The SFBD has just done it), it will take many more efforts to go one step beyond and introduce the necessary structural changes to implement DORA. We should also keep in mind that quality assessment is a difficult, potentially error-prone, exercise in Science that can undervalue path-breaking work. Janni Nusslein-Volhard and Eric Wieshaus did not receive much support at EMBL as they carried out their Nobel prize winning *Drosophila* genetic screen. Faced with strong skepticism, Barbara McClintock stopped publishing her research on gene regulation in the 1950s. We should remember this fundamental uncertainty when we referee articles or grants and adopt a suitably humble and constructive tone.

We should also consider the commercial aspect of publishing. There is a consensus that the large profits made by commercial publishers cannot be justified or accepted. Yet, we continue to submit, referee (for free) or even edit articles in their journals. Learned societies in our field also benefit from their generous sponsoring. We should and can be more consequent by favouring journals published by non-profit organizations including PLoS journals, eLife, Development or Science, to list just a few. Learned societies should also make efforts to move away from sponsoring by major for-profit publishers. This is possible: the company of Biologists, publisher of Development, is a major sponsor of the BSDB in the United Kingdom.

Our practices should also improve beyond publication. I will list two important examples. First, although our field is more gender-balanced than others, there are still meetings or scientific boards where the vast majority of invited speakers/members are men. We should collectively make more efforts to give adequate visibility to women in science, by publicizing initiatives such as " 500 women scientists", to help identifying women scientists by discipline or region. We encourage our female members to sign in. The new website of the SFBD could also be used to identify potential female and minority speakers among our members.

Second, we could pay more attention to the environmental impact of our research. We may think about our carbon footprint when we attend scientific conferences. We however usually forget that our lab activity itself has an energetic cost. A modern -80°C freezer eats up around 9MWh/year of electricity (>1000€...). Our professional emails emit at least 150Kg of CO2/year/person, the equivalent of driving 1000 kms in a small car. It is estimated that around 2 percent of the total global plastic production is used in bio labs. The SFBD is supporting the Labo1point5 consortium, which aims at providing tools for labs to measure and limit their carbon footprint. You can find their website on the environmental impact resource page of the SFBD website. We encourage the SFBD members to join the consortium and implement local initiatives.

Finally, meeting the accumulating social, environmental, ethical and information challenges will be difficult without reinforcing the links between scientists, decision makers and citizens. We should take seriously our collective mission to promote scientific literacy in society and research assessment should take this into account. The new SFBD website lists <u>outreach</u> and <u>teaching</u> resources in our field. This is just a beginning and with your help we will expand these sections.

We are also doing our best to attract sponsors to help us organize outreach events, in particular in suburban and rural areas, where scientists seldom speak.

Efforts by a single society are unlikely to change the global perception of scientific research among decision makers. Over the past year and a half, a few societies including the SFBD have undertaken the task of federating the voices of scientists across all academic disciplines. There is now a website dedicated to this effort, which should culminate this year with the creation of a legal entity. For many societies, this process is

unusual because it is fundamentally political, though non partisan. But there is no other way: we need to educate politicians so that they better understand how and why we work and to convince them that we can help them during decision making. We should not take decisions for them, but help them to better estimate the consequences in the long run of different options.

Of course, one of the first tasks of this collective of societies has been to poll the community and to formulate propositions for the upcoming multi-year law for research. We should soon know the extent to which the community has been listened to and will do our best to continue discussing this law with the government and the parliament. You can follow the recently published press articles related to the current debate on the <a href="law's page">law's</a> page of the societies website. Besides this law, learned societies have also <a href="raised the alarm">raised the alarm</a> about the research budget of Horizon Europe or the science curriculum in high schools.

Many challenges, some emerging solutions...

Patrick Lemaire Président, SFBD

## The SFBD in 2019:

### A new website

The high point of 2019 is a new functional and friendly SFBD website! https://sfbd.fr/

Thanks to Delphine Dauga who created the website and thanks to Glenda Comai and Aude Maugarny-Calès who are doing the hard work of keeping the website up-to-date.

The new website provides links to SFBD member laboratories, the possibility to pay membership fees by credit cards, the possibility for SFBD members to post their own announcements, advertising or job offers. All the procedures to apply for the <a href="SFBD actions">SFBD actions</a>, PhD prize, travel grants and support to manifestations, are now performed on line. Thanks a lot to all scientists who contributed to our beautiful photo Gallery.

## **Exploring the SFBD teams**

To date, there are 489 members, mainly located in 11 towns in France and four other countries. Members address developmental biology questions using a dozen of animal, plant and algae models. Thank you for your support of the society! Thanks to the new website, the SFBD teams can be <u>explored</u> by organism, location or team leader's name.

### PhD Prize

In 2019, we awarded one PhD prize sponsored by ZEISS and one runner-up prize. The PhD prize was awarded to <a href="Meryem-BAGHDADI">Meryem-BAGHDADI</a> (Institut Pasteur, Paris) for her doctoral work on the identification of a Notch-COLV-Calcitonin receptor axis involved in the quiescence of skeletal muscle stem cells in mice. Meryem received a 1000 euros cash prize and was invited to give a talk on her work at the Alicante meeting in October 2019. The runner-up prize (300 euros cash prize) was awarded to <a href="Chooyoung-BAEK">Chooyoung BAEK</a> (IBENS, Paris) for her work on the identification of a new mechanism of Notch activity in neurogenesis in chicken embryos. You can find Meryem's PhD manuscript <a href="here">here</a>.

# Travel grants for young scientists

We distributed 9 travel grants for a total amount of 4100 euros, (using our own funding and the 2000€ subvention received from the ITMO BCDE). The supported young scientists are (alphabetic order), <u>Sandy AL HAYEK</u>, <u>Karine CASIER</u>, <u>Pénélope DARNAT</u>, <u>Joana ESTEVES DE LIMA</u>, <u>Florence GIGER</u>, <u>Hanane KHOURY</u>, <u>Serena PRIGENT-GARCIA</u>, <u>Mélanie ROUSSAT</u> and <u>Eva SEIPELT</u>. Each supported young scientist has written a short report, which you can find on the website by clicking on their names.

Supports to organisation of meetings/workshops/thematic days

We published our first call for support to the organisation of meetings, workshops courses or thematic days, for which we received a high number of applications. We selected to provide support (some funding, advertisement on twitter, diffusion lists and website) to nine 2020 events for a total amount of 5500 euros:

## Meetings and workshops

- EMBO Workshop: Muscle, formation, maintenance, regeneration and pathology (Gouvieux, April 5-10, 2020);
- Mechanics Embryology Meeting (17 Avril 2020, Institut Curie, Paris);
- Colloque AQV: approches quantitatives du vivant 2020.
- Drosophila Development and Genetics in Toulouse; 30 years and beyond (17-18 Septembre 2020, Toulouse):
- French Drosophila Meeting 2020 (FDM 2020, Presqu'île de Giens);

# Thematic days

- Journée Annuelle du Club Développement des Réseaux Neuronaux (DRN) (12 juin 2020, Institut de la Vision, Paris),
- 1st JOINT VIP/DIF-Day ANNUAL SYMPOSIUM (18 Juin 2020, Sorbonne Université);
- VERMidi XXIII (New date: March 13, 2020, Sorbonne Université);

### Courses

 Cours International de Biologie du Développement "From stem cells to morphogenesis" organisé par Sorbonne Université et l'Institut Curie (Septembre/Octobre 2020);

# **SFBD Meetings**

The SFBD co-organized with the SBCF and the ITMO-BCDE a meeting entitled <u>Developmental and Cell Biology of the Future</u> (Paris, March 27-29, 2019). Registration was free. This meeting was unusual in (at least) two respects: Its scientific programme was established by 11 young scientists (PhD students, post doctoral fellows and staff scientists early in their career); and the meeting included several round tables to discuss how our labs and institutions could best support the exciting new recent developments in our discipline. It was attended by more than 100 scientists. The SFBD awarded two prizes: Best selected talk to Léo Guignard (P. Keller's team, Janelia research labs, USA) and Best poster to Julien Leclerq (S. Rétaux's team, NeuroPSI, France). The summary of the round tables can be found here.

The SFBD also participated to the *European Developmental Biology Congress* (Alicante, Spain, October 26-29 2019). Approximately 450 scientists, including around 45 scientists either French or from France, gathered for this very diverse, high-quality meeting in Alicante, where we also held our yearly general assembly, and where Meryem Baghdadi was handed the society's 2019 PhD prize.

# **Twitter account**

The SFBD Twitter account ( <a href="mailto:oserline">oserline</a> biodev ) has now nearly 700 followers! A remarkable increase of more than 400 in one year! If you wish to join the tweeter team permanently or temporarily (e.g. during a meeting you attend) and help us improve our coverage, we are more than welcoming! The account now systematically tweets the announcements posted by members on our website (see below).

## Diffusion lists and announcements on our website

To facilitate communication with SFBD members and within our scientific community, we have set up two email diffusion lists:

 The biodevfr diffusion list provides a link between members of our community, irrespective of their SFBD membership status. This is the list that should be used to post meeting announcements, calls of all sorts, requests, job offers, PhD viva announcements and all things related to the scientific life of

- our discipline. The biodev list currently has 612 subscribers. If you have not yet subscribed, you can do it simply by sending a mail to sympa@groupes.renater.fr with subject "sub biodevfr" (without quotes).
- The *sfbd-membres* diffusion list is only used occasionally to communicate institutional information to SFBD members (e.g. votes, invitation to general assemblies, etc...). As a member, you are automatically in this diffusion list but you cannot post messages.

In addition, SFBD members can also post their announcements directly on the website by following the easy procedure described <a href="here">here</a>. These announcements are systematically posted on the SFBD Twitter account.

# What to expect for 2020?

## Welcome to the renewed SFBD board!

As each year, the board of the society has been partially renewed. Thank you to the two leaving members: Sophie Bel-Vialar, our tresorer and François Parcy who set-up a useful communication system between board members. Your personal investment was a great help. Welcome to the three newly elected members: <a href="François Agnés">François Agnés</a> (Institut des Neurosciences de Paris-Saclay, Paris Sud, Orsay), <a href="Bénedicte Charrier">Bénedicte Charrier</a> (Station Biologique de Roscoff) and <a href="Sophie Jarriault">Sophie Jarriault</a> (IGBMC, Strasbourg). The first board meeting of the 2020 year will take place on March 20 th 2020 in Paris.

#### A historical overview of the SFBD

Jean-Antoine Lepesant and May Penrad are finalizing a historical overview of the SFBD, which will be added to the website.

# Reaching out to expats scientists

We would like to reach out to expatriate members of our community at all levels. If you are working abroad, want to keep track of what is happening in the French Developmental Biology community, or to benefit from the help of the society, you are most welcome to join! This year we will start writing to expats (One of our board members, Julien Vermot, is now a UK expat) to explain the benefits of joining.

### Reaching out to additional sponsors

So far, except for the PhD Prize, the large majority of our activities are funded by your membership fees. Thank you!

This major reliance on membership fees is, however, becoming a limitation. We would therefore like to further develop sponsorship and patronage. If you know of a company or generous benefactor who could contribute, please send an e-mail to sfbd@sfbd.fr

## Membership renewal

Membership now works for one sliding year, meaning that when you renew your membership on February 15th of one year, it is valid until February 14th of the following year. We encourage you to register as a team (different prices depending on the team size) or as individual members. The detailed information about the procedure is <a href="here">here</a>. One novelty is that you can now pay by credit card, in addition to purchase orders of checks. The list of member teams, identified by their team leader(s), can be found <a href="here">here</a>, and will become searchable, so as to become a who's who of development biology in France. Individual members appear on a different page.

Note that by becoming a team or individual member, you are not only supporting our community: members benefit from reduced fees for SFBD and ISDB (International Society for Developmental Biology) meetings, are eligible to the PhD prize and may also benefit from help for conference organization and travel fellowships.

It may be time for the renewal of your membership...

### SFBD meetings

The 2020 SFBD meeting, **Shaping life 2** will be held in Cassis near Marseille (May 12-13 2020). Registrations are now open <a href="here">here</a>. **The program includes sessions on transverse topics in developmental biology such as** stem cells & organoids, mechanics & self-organization, environmental impact on development, evo-devo & emerging models and tools & technologies. Specific slots will be kept for talks given by early career researchers. Members of the SFBD will get special reduced fees.

The 2021 SFBD meeting will be held in May in France, in partnership with our Japanese colleagues for the third time. If you wish to contribute to its organisation, or to host it in your city, please contact us: sfbd@sfbd.fr

Suggestions for the organisation of the 2022 SFBD meeting are welcome!

## Travel grants for young scientists

We will continue supporting PhD students and Post-docs with two calls for international traveling awards (400 euros for a European meeting, 500 euros for other regions, around 10 awards for the year). The two calls (Deadlines: January 31st and May 4th 2020) are open to all developmental biology meetings. A third call (Deadline January 15th 2020) is dedicated to supporting participation to the SFBD meeting **Shaping life 2** (see above). The procedure to apply is <a href="here">here</a>.

## PhD prize

Thanks to the renewal of our Zeiss sponsorship, we will award again a best PhD prize (Deadline for application: January 31st 2020). The procedure to apply is <a href="here">here</a>. The selection criteria are of course the scope and quality of the research results obtained, but the presentation and quality of writing of the entire manuscript and the relevance of the discussion of the results are also important criteria.

## Sponsorship for developmental biology events in France

We will continue supporting, with small grants up to 1000 euros, events (meetings, workshops, courses, schools...) organized by our community in France. The deadline for the support of 2021 meetings will be 15/11/2020. The procedure to apply is <a href="here">here</a>.

# Science funding in France

2020 will (again) not be a good year for science funding in France, the budget of public Higher Education and Research barely keeping up with inflation. The ANR success rate may barely reach 16% (40% for FNS in Switzerland, more than 30% for the DFG in Germany, 23% for the NSF in the US...). We will pursue our joint efforts with other learned societies to convince the government of the necessity to increase both core and grant-based funding. You can find the actions of the societies on their website. You can also have a look at our last editorial on the upcoming multi-year law for research in Le Monde.

The SFBd will be one of the founding members of the Federation of French Learned Societies to be created this spring with the aim of promoting the voice of sciences and scientists in society, a prerequisite for a better support to our activities.

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Vous recevez ce message en tant qu'abonné.e à la liste biodevfr des biologistes du développement de France

Pour vous désabonner, envoyer un message vide à : biodevfr-unsubscribe@groupes.renater.fr

Pour vous abonner, envoyer à sympa@groupes.renater.fr un message avec comme sujet "sub biodevfr" (sans guillements)

Mode d'emploi de la liste : https://groupes.renater.fr/wiki/biodevfr/public/charte de la liste

Pour configurer la fréquence de reception des messages, allez à la page d'accueil de la liste : https://groupes.renater.fr/sympa/info/biodevfr

Informations générales sur les listes renater sympa : <a href="https://groupes.renater.fr/sympa/help/introduction">https://groupes.renater.fr/sympa/help/introduction</a>