

The BIOTechno network wishes you a happy new year !

In this newsletter, you will find :



- ❖ A presentation of the association CARaDOC (young researchers from University Paris-Saclay)
- ❖ A presentation of the MOOC « PhD and Career development » (starting on the 13th of January)
- ❖ An interview with Valérie Archambault, representing the association « Femmes et Sciences »
- ❖ A calendar for events of interest for young scientists
- ❖ An article on « Impact of Covid-19 on ongoing clinical trials » by Romain Gerbier for our new section « Hot Topic »
- ❖ Our new section « BIOTechno's REAL favorites of the month » with our suggestions for books, conferences, podcasts and articles !



CARaDOC (Careers & Doctors) is an association of young researchers from Paris-Saclay University. Their main objective is to **help PhDs to build their future careers** by bringing together the PhD community and private companies.

The association also **promotes academic careers** by presenting scholarship possibilities and exchange opportunities for postdocs.

CARaDOC organizes one big annual event : **the CARaDOC convention**, where company representatives are invited to share their experiences with young researchers, who can add them to their network, with a perspective of first employment. Experts are also invited to round tables and conferences.

In 2020, the CARaDOC convention took place online on November 17th and 18th. On the first day, the focus was on roundtable discussions (launching a startup, gender equality in companies and public institutions). On the second day, a career convention was organized on the Graduateland platform with 25 companies and 3 academic program representatives.

To know more about the association and the future events of 2021, follow CARaDOC on Facebook, LinkedIn and Youtube ! You can also visit their website. (contact : contact@caradoc-paris-saclay.fr)



The PhDOOC association has opened registrations for its "**PhD & Career Development**" **MOOC** for the 5th time. This MOOC is available online for free. Followed by more than 10,000 participants since 2016, this training is mainly for PhD candidates and holders to prepare for their post-PhD career, thanks to resources, collaborative activities and exchanges with fellow participants.

The "**PhD & Career Development**" MOOC will **start on January 13th, 2021** and will be run by members of the PhDOOC association over 6 weeks. This will allow participants to **assess their skills/competencies, craft a career plan and get ready for job application**.

This training project has been awarded the Open Education Awards for Excellence 2019 and the PEPS Award 2017 from the French Ministry of Research & Higher Education.

“Le projet est particulièrement pertinent et plébiscité tant la problématique de l’isolement et des compétences transversales est importante pour les doctorants. D’autre part, les approches pédagogiques sont extrêmement variées, interdisciplinaires et collaboratives : ainsi, les participants sont amenés par exemple à être évalués par leurs pairs.”

Extrait du commentaire de synthèse formulé par le jury du prix PEPS

Watch the [teaser](#) ! And register now on <https://phdooc.moocit.fr>

Contact information : phdooc@gmail.com

Un MOOC est un cours en ligne gratuit, ouvert à tou.te.s et réalisable à votre rythme
A MOOC is an online training free and open to all, that you can complete at your own pace

5 unités de formation et deux parcours
5 training units and 2 learning pathways

- 1 Marché du travail
Job Market
- 2 Compétences
Skills & Competencies
- 3 Métiers & Projet Professionnel
Career and Professional Plan
- 4 Réseau & le Marché Caché
Networking & the Hidden Market
- 5 Candidature & le Marché Ouvert
Job Applications & the Open Market

Opti En option : Parcours académique, entrepreneurial, innovation sociale
Optional: Academia, Entrepreneurship, Social Innovation

Avec Includes

- Des ressources partagées
Shared resources
- Des activités collaboratives
Collaborative activities
- Une communauté d'apprenants
A learning community
- Des évaluations par les pairs
Peer-evaluated activities
- Des web-conférences en direct
Live webinars
- Des défis et des quiz
Challenges & quizzes

PEPS Prix 2017
Open Education AWARDS
Sponsored by Open Education Consortium

Le MOOC est réalisable en français et en anglais !
The MOOC can be completed in both French and English!





Interview de Valérie Archambault
Association Femmes et Sciences

FEMMES & SCIENCES
a s s o c i a t i o n

Pour commencer, pouvez-vous nous parler de votre parcours ?

Pendant mes études d'ingénieure à Chimie ParisTech, j'ai découvert la recherche et cela m'a fasciné. J'ai décidé de préparer un doctorat. Ces trois années extraordinaires m'ont appris à m'autosaisir de la question, à choisir les voies à explorer pour atteindre un objectif pas toujours bien défini, à m'acharner ou au contraire à renoncer à une option, à défendre une thèse devant mes aînés.

J'ai ensuite rejoint le groupe Rhodia. Après 5 années de recherche, j'ai démarré une activité de « Competitive intelligence » chez Rhodia, puis j'ai pris la direction d'une société de conseil en stratégie d'innovation et organisation de la recherche active dans le domaine des matériaux, de l'aéronautique, l'énergie, la chimie et l'environnement. J'ai rejoint MINES ParisTech en 2014, en tant que Directrice-adjointe de la Recherche, chargée des relations entreprises.

Pourquoi avoir souhaité vous engager au sein de l'association Femmes & Sciences ?

C'est un engagement pour la société et pour les femmes elles-mêmes. Je pense qu'il est essentiel d'attirer les femmes dans les métiers techniques. Climat, environnement, ressources, santé, alimentation, transition numérique..., face à ces enjeux socio-économiques, immenses et planétaires, il nous faut de bons et des bonnes scientifiques. Pourquoi la société devrait-elle se priver de la moitié de ses talents ? Et la diversité nous rend plus efficace ! Je veux aussi m'engager pour la visibilité des femmes scientifiques et techniques, le partage des responsabilités à tous les niveaux et tous les sujets d'égalité.

Qu'est ce qui est, selon vous, à l'origine du déséquilibre existant entre les femmes et les hommes dans l'accès aux carrières scientifiques ?

Les stéréotypes sur les femmes et sur les hommes sont à mon avis la principale cause des inégalités. Il y a aussi les clichés sur la science : le scientifique est un homme, en blouse blanche, plutôt âgé, avec des lunettes. C'est un problème d'association automatique (en l'occurrence « science homme ») décrit par le psychologue Anthony Greenwald en 1998. Ces idées reçues sont véhiculées dès le plus jeune âge, dans la sphère familiale et scolaire, puis au moment de l'orientation et enfin dans le monde du travail. La publicité, les réseaux sociaux et les médias jouent aussi un rôle déterminant. Le langage lui-même véhicule ces préjugés. Il n'est pas neutre d'utiliser le masculin comme le rappelle Eliane Viennot.

L'institut *Harris Interactive* a montré que les formulations-inclusives ou épiciènes suscitent jusqu'à deux fois plus de noms de femmes dans les représentations spontanées, par comparaison avec des formulations qui invisibilisent les femmes. Tout ceci ne favorise pas l'attraction des jeunes filles pour les études scientifiques ni leur carrière. Une étude récente montre que les stéréotypes implicites peuvent conduire des jurys pourtant rigoureux à défavoriser les femmes lors de concours pour la promotion de chercheurs et chercheuses.

Selon vous, cette situation est-elle en train de s'améliorer ?

Globalement, les différences d'orientation entre filles et garçons se sont peu estompées avec le temps... Il y a toujours quatre fois moins de chercheuses que de chercheurs en entreprises. En génie électrique, électronique, informatique, automatique, traitement du signal... c'est encore pire. Dans l'informatique, la situation s'est même dégradée. C'est d'autant plus regrettable que les métiers du numérique sont en pleine croissance.

Mais il y a aussi des raisons de se réjouir. Demandez à un enfant de vous dessiner un chercheur. Dans les années 1960, moins de 1 % des enfants américains dessinaient une femme scientifique. Dans les années 2010, environ un tiers des enfants dessinent une femme. Par ailleurs, suite aux lois « Copé-Zimmermann » (2011) et « Sauvadet » (2012), la part des femmes au sein des conseils d'administration du CAC 40 a triplé entre 2009 et 2015.

Et je pense qu'il y a une véritable prise de conscience et de nombreuses initiatives portées par des associations, des entreprises, et surtout les jeunes !

Comment peut-on faire évoluer les choses selon vous ?

Il faut déconstruire les stéréotypes véhiculés dès l'enfance. Femmes & Sciences a par exemple signé la « Charte pour une représentation Mixte des jouets » avec l'ensemble de la filière Jouets et cinq autres associations. Nous devons agir auprès des jeunes filles, mais aussi de celles et ceux qui les influencent, parents et monde éducatif, médias...

Les femmes scientifiques qui interviennent dans les collèges et les lycées témoignent, par leur parcours, de la variété des métiers scientifiques qu'une femme peut exercer : la preuve par l'exemple ! Les femmes scientifiques doivent être plus visibles. C'est aussi l'idée du projet « La Science taille XX-elles » : des portraits photographiques de femmes scientifiques de statuts et de disciplines variés.

Pensons aussi que les 30 % de femmes en CPGE scientifiques ou les 28 % en sciences fondamentales et applications à l'Université sortent de terminale S où elles étaient 47%. Que s'est-il passé ? Nous devons accompagner les jeunes filles à ces étapes où elles renoncent à la science : le choix des options et parcoursup.

Il faut embarquer le plus de monde possible sur ces sujets : les hommes bien sûr, les entreprises et tout particulièrement les filières qui attirent peu les jeunes filles et qui pourtant sont en pleine croissance, je pense notamment au numérique. Pour cela, faire connaître la situation et accepter le débat sur ce qu'il convient de faire. Je crois aussi qu'il faut passer autant de temps à dénoncer l'inacceptable qu'à faire connaître les bonnes initiatives !

Future events

January

14

MOOC Création d'entreprise innovante: de l'idée à la start-up

Date and time : starting on January 14th

Where : Online (registration [here](#))

In French only !

This is the 5th edition of the MOOC which already gathered 56000 subscribers during the previous years. This MOOC on the creation of innovative business is composed of several lessons on the different steps of the innovation process essential to a successful entrepreneurial project during 6 weeks. At the completion of this MOOC you will have a clear mind on business creation process, the opinions of several experts in the field and tools to concretize your project.

January

14

GIANT orientation day

Date and time : 14/01/2021, 9 am-11am

Where : Online (Information and registration [here](#))

The GIANT orientation day is organized for PhD students and junior scientists of the Grenoble area to meet their peers from other labs and discover the research going on the GIANT campus. The GIANT junior Ambassadors team will guide you online through the labs and facilities. There is also a possibility to visit the CEA Tech showroom online after the event. The event is free but prior registration is compulsory.

January

14 or 21

Cycle Découverte de la France entrepreneuriale – Séance de présentation

Date and time : 14th or 21st of January

Where : Online (Information and registration [here](#))

This training session is addressed to PhD students, master students, postdocs and young professionals. The aim is to learn about entrepreneurship to understand commercial strategy and be able to develop innovative projects accordingly. This training session will be organized over 9 months with evening sessions from 7 to 9 pm and is validated by several doctoral schools. For more information, register for this introductory session.

January

15

GENOPOLE Presentation and lab online visits

Date and time : 15th of January, 10-12 AM

Where : Online (information and registration [here](#))

You were wondering what is the Genopole ? What are their programs ? This open day event will answer your questions. The Shaker and Booster programs will be presented, entrepreneurs will present their experiences, an online visit of the laboratory will be displayed and some discussions about fundraising will be organized.

Future events

January

20

Shaker lab Biotech - Edition 8, Concours idée innovante

Date and time : Application before January 20th

Where : Online (information and registration [here](#))

Do you have a project of innovative start-up in the biotech field ? Apply to the Shaker, a program proposed by the Genopole. You can apply in 4 different categories of projects : Health Tech, Bioeconomy, FoodTech and Agtech , Greentech. Shaker will give you access to a Lab Biotech fully equipped in the Genopole (Essonne), a financial help, strategic advice, the technology platform of the Genopole (mass spectrometry, electronic microscopy...), a training in entrepreneurship, a tailored assistance and finally meeting with innovation funders.

January

28

Covid-19 and Public Health Conference

Date and time : Thursday 28th of January, 1-day conference starting at 8 AM

Where : Online (register [here](#))

This conference organized by Inserm, Aviesan and REACTing will discuss many aspects of the Covid epidemic such as the incidence and risk factors of SARS-CoV-2 infection, social inequalities, decision-makers and citizens facing the pandemic and the efficiency of various prevention strategies. The conference will be held in English. Participation is free but registration is compulsory.

February

01

MOOC de la créativité à l'innovation.

Date and time : starting the 1st of February

Where : Registration [ici](#)

In French only

This MOOC is addressed to students, young entrepreneurs and whoever is interested in innovation. You might have several questions about innovation: How to develop creativity ? How to model a business plan and marketing strategies ? How to protect innovation ? Where to find support and funds ? Experts and teacher-researchers will answer these questions during this 8-week MOOC and give you the key to success in innovation.

February

02

i-PhD contest

Date and time : Application before February 2nd at 12 AM

Registration [here](#)

Funded by the French government and BPI France, the second edition of this contest aims to detect projects of startup creation with breakthrough technologies. PhD Students, junior scientists or young start-up funders can present their projects. The winners will access to a 12-month tailored support for the development of the project, a tailored grant, national visibility and help for the building of their network.

February

09

Contest 'ma thèse en 180 secondes': Registration at Lyon University

Date and time : Before February 9th

Where : Information and registration [here](#)

"Ma these en 180 secondes" is a contest where PhD students have to present their research project in 3 minutes and convince a jury of journalists, researchers, CNRS and CPU representatives but also non-scientist public. They have to be clear, convincing and quick. Each university group will organize a final and the 2 best candidates selected will participate to the national semi-final. Most universities have already closed their application process but the University of Lyon keeps the application open until the beginning of February. If you don't have the opportunity to apply, you can still attend the final that will be held in February or March.



IMPACT OF COVID-19 ON ONGOING CLINICAL TRIALS

Written by Romain Gerbier

The COVID-19 pandemic has impacted the good conduct of clinical trial executions in the pharmaceutical and biotechnology industries. Smaller biotechs and Big Pharma have had to make tough decisions and halt ongoing trials or slow motion them despite the consequences in timelines for data readouts, regulatory reviews, and product launches.

Such decisions had to be made following the new guidelines from regulatory agencies, such as the FDA¹ or the EMA². These guidelines ensure patient safety and maintain trial integrity while being flexible when evaluating changes in protocols and clinical data. For example, the collection of information by teleconsultation is possible with a focus on safety data and primary objective endpoints.^[SEP] Nevertheless, according to France Biotech, 59% of companies have seen a sharp drop in their preclinical research. In addition, out of a panel of 29 french companies, 79% with ongoing clinical trials are experiencing long delays or even shutdowns, and for 62% of them clinical trials have come to a complete halt (April 2020).

Indeed, companies face too many factors that may influence clinical trials such as difficulty in accessing the healthcare system, travel restrictions, patient withdrawal, supply difficulties and redeployment of resources and staff to fight the pandemic. According to Charles River Associates³, a global consulting firm in Boston that assessed the impact of the crisis on clinical development programs, the impact on clinical development programs « is already severe and will be broad and long-lasting, while the magnitude and nature of the impact will vary from trial to trial and company to company ». We can easily think that this impact will be especially severe in trials involving vulnerable populations such as the elderly, subjects who are immunosuppressed or those suffering from lung or heart diseases, that are considered “high-risk” for COVID infection. As well as the trials requiring visits or stays in a hospital structure, or even those in the recruitment phase.

But beyond the regulatory and strategic problems imposed by the health crisis, it is obvious from a financial point of view that the majority of biotechs suffer and will suffer from this delay and in particular if they need additional funding to complete trials. In fact, about 1/3 of such companies have reported difficulties with the bank in obtaining their new loans. So it is and will be important that biotechnologies use the right strategy in order to minimize costs and financial loss resulting from the health crisis, at the dawn of a third wave.

1. *FDA Guidance on Conduct of Clinical Trials of Medical Products during COVID-19 Pandemic* U.S. Food and Drug Administration, 18 Mar. 2020. <https://www.fda.gov/media/136238/download>.

2. *Guidance on the Management of Clinical Trials during the COVID-19 (Coronavirus) pandemic* European Medicines Agency, 27 Mar. 2020. https://ec.europa.eu/health/sites/health/files/files/eudralex/vol10/guidanceclinicaltrials_covid19_en.pdf.

3. <https://www.appliedclinicaltrials.com/view/covid-19-will-have-heterogeneous-impact-clinical-trials-biopharmas>

BIOTechno's **REAL** favorites of the month !



READ :

- “ Scientifiques confinés ” par Jim Jourdane et Louis Badet (édition Makisapa)
- “Genentech: The Beginnings of Biotech” by Sally Smith Hughes



ANALYZE :

- “Reboot contraceptives research- it has been stuck for decades.”
Nature Comment 25 November 2020



LISTEN :

- TED Talk « [Your brain hallucinates your conscious reality](#) » Anil Seth
- Conférence [Midi Minatec: Crise sanitaire et potentiel d'innovation en vaccin](#)

WE ARE LOOKING FOR VOLUNTEER JOURNALISTS !

- Are you involved in the organization of an event interesting for young scientists and want to promote it ?
- Will you participate to one of these events and are willing to write a review afterwards for our newsletter ?
- Do you want to signal an event to add it to our calendar section ?
- Do you have an idea for a content that could fit in the BIOTechno newsletter ?

Let us know ! pres.rbt@gmail.com

WE ARE LOOKING FOR BIOTECHNO VOLUNTEERS !

The BIOTechno network is looking for a new team ! All positions are available (president, vice-president, secretary, community manager...). If you want to participate to a great associative experience that will help you and others fellow young scientists to develop a professional career in the biotechnology field, contact us to get more information !

Contact : pres.rbt@gmail.com

HOW TO BECOME A PARTNER OF THE BIOTECHNO NETWORK

In 2020, more than 30 private and institutional partners supported the BIOTechno network. You can also become our partner, get the opportunity to meet young professionals with a solid scientific background willing to develop their career in the biotechnology field. You will be able to present your company to a targeted audience during the BIOTechno events 2021 :

- Mensual webinars organized by the BIOTechno Paris team (biotechno.paris@gmail.com)
- e-Forum organized by the BIOTechno Auvergne-Rhône-Alpes team (forumbiotechno.ra@gmail.com)

You also have the opportunity to publish job offers for your company in our monthly newsletter. Your next talented employee is probably a member of the BIOTechno network !

partenariat.reseaubt@gmail.com