

# NEWSLETTER



- The new BIOTechno Paris Team Meet the new organizers for 2021!
- Interview: Career path change From research to scientific illustration from **Bertsy** Goic **DrawInScience** shared her experience and gave us some useful advice!

### Hot Topic of the month

Why are RNA vaccines the frontrunners in the race to battle against COVID19?

### Calendar

Don't miss out on key events to network, share your work or learn !

# BIOTechno's REAL favorites of the month

**Our recommandations to REad, Analyze and Listen!** 

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### The BIOTechno Paris Team 2021

#### **ANASTASIA BARKOVA**

During my PhD in Molecular Genetics at Institut de Recherche Saint Louis, I helped with the organization of Forum BIOTechno as a member of the student association ADELIS. This experience was extremely enriching. Now, I am studying Data Science and I am happy to be back in the team of Forum BIOTechno 2021! PhDs can have great interesting careers outside of academia, that is why the mission to inform and accompany them is so important.





#### **CHARLOTTE BOUQUEREL**

I am currently doing a CIFRE phD in between Institut Curie and the company Fluigent. As my phD project is in between industry and academia, I am very interested in the transition between these two fields. I joined BIOTechno Paris because I think it is a great association to help phD students connect with professionals in order to clarify their career plan. I am also secretary of the POP418 association which is organizing events in bars for the Cancerology Doctoral School of Gustave Roussy.

#### **ILDEM SANLI**

I am a researcher working on developing cell therapies to treat impaired vision. Passionate about bringing innovative solutions to the market to improve healthcare, I currently study strategic and innovation management and would like to pursue a career in healthcare consulting. I joined Biotechno Forum to be able to help PhD students and postdocs to connect with professionals and discover new opportunities.





#### **ROMAIN GERBIER**

Experimented researcher, I obtained a Ph.D in cellular pharmacology before doing several postdocs in Paris and in Brussels on receptor dimerizations and on cancer/stem cells fields. I am really happy to be part of BIOTechno Paris this year so that I can share information on the private sector with other young scientists from academia. It is important for me to connect these two communities cause I think the transition is still complicated nowadays and I'm happy to try to bring them together. Personally I am a real ski aficionado and try to travel as often as possible.

#### SARRA KHENNAS

PharmD, Immunologist, i am currently doing a master in Health Economics. Delighted to be part of the large BioTechno family to take up all challenges alongside them. Fan of zumba and foreign language, patience and perseverance are two features that describe me.



#### SIMONETTA BANDIERA

I am a biologist by training, with 10 years' experience in the management of biomedical projects. I am passionate about recent advances in biotechnologies and their applications to enhance human health. In 2017 when I attended the Forum BIOTechno Paris for the first time, I just loved it! Since then, I have been volunteering for the Forum to strengthen the link between young professionals and industry, and to advocate for the value of the doctorate in the business world.

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### The BIOTechno Paris Team 2021

#### VIRGINIA SANCHEZ QUILES

PhD specialized in proteomics, I have a long career in scientific research. I take real pleasure in collaborating with the BIOTechno initiative, allowing young scientists to be aware of and approach fields outside of the academic path. Teamwork, adaptability and attention to detail are some of the features that could describe me.





#### LAURA MATABISHI-BIBI / LOCISTICS

Currently a 4th year PhD student in cellular biology at Institut de Recherche Saint Louis (Paris), I'm interested in fundamental research and especially in the development of new therapeutic strategies. It's a great pleasure for me to have integrated the BIOtechno Paris's community which offers an opportunity to discover all possible alternatives for working in the private sector. Moreover, being a member of this community is a new challenge that I gave myself to develop my organization and communication skills.

### NEWSLETTER COMMITTEE

#### **ANNE-CÉLINE DERRIEN**

Currently in my 4th year of PhD in Cancer Genomics at Curie Institute, I am a science passionate eager to join the industry where I wish to work in the field of biotechnologies, such as gene therapy or genetics. Being co-Coordinator of BIOTechno Paris 2021 is a way for me to meet incredible biotechnologists while strengthening my management skills by organizing events for a cause I strongly care about: helping young scientists find their professional path by discovering the multitude of options they have in the biotech field.





#### AURA MORENO

Enthusiastic Postdoc in computational biology, passionate about cancer research and bioinformatics. I dedicate my free time to communicate science as well as career opportunities outside academia for young researchers. Being part of BIOTechno will help me meet many other young researchers that like me, wish to pursue their career in the exciting field of the biotech industries.

#### **LEONARDO BETANCURT**

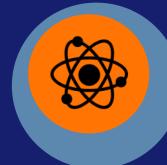
I currently work as a research engineer at Pasteur Institute, I would describe myself as determined, curious and passionate. I would like to focus my future career in the development of biotechnological tools for researchers. Being part of BIOTechno Paris is an opportunity to develop my soft skills and to be in contact with biotechnologists.







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### The BIOTechno Paris Team 2021

### PARTNERSHIPS COMMITTEE



#### RAPHAELLE DRÉAN

After 3 years of experience in biotech industries as a research engineer, I decided to start a PhD in Cancer Immunotherapy. I am now in my 2nd year of PhD in collaboration between Pasteur Institute and the biotech company Invectys. As co-coordinator of BIOTechno Paris 2021 I have the chance to exchange with enthusiastic biotechnologists and I strongly hope our events will help students and young researchers define their career path!

#### NANDJAFOT MENDY

In 2021, I am embarking on an entrepreneurial adventure in healthtech, one of the recurring themes of the Biotechno forums. By joining the organizing team in Paris, I hope to participate in promoting entrepreneurship among pHD students, engineers and others, who are the innovators and project leaders of tomorrow.





#### **ALICE PINHEIRO**

I started my career in 2005 at the Hospial Necker-Engants Malades where I worked on familial dyslipidemias. In 2010 I joined the Institut Curie where I held the position of Project Manager in molecular oncology to study epigenetic modifications in breast cancer. I then moved to a position of Laboratory Manager for a program on the discovery of breast cancer drugs. In 2019, I joined the Servier Research Center, where I work on the preclinical optimization of anti-cancer drugs. Since January 2021, I also hold the position of translational leader on biomarkers in oncology.

#### **IRINA VEITH**

#### PROGRAM COMMITTEE

I am a Postdoctoral researcher at Institut Curie. I am working on the development of 3D culture systems and their application to predict the



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response to immunotherapies in lung cancer patients. Besides work, I love to travel and discover new cultures; I enjoy sunny days playing beach volley. I am proud of being part of Biotechno Paris, as I am sure that our activities will help young researchers to develop their network and will give them the perspective on the multitude of opportunities that there are for young motivated scientists.



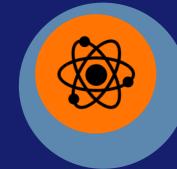
#### **SABRINA MENNOUR**

Having recently had my PhD in oncology and RNA biology, I am now working as a researcher at the Institut Curie and Gustave Roussy. I'm super happy to be part of the BIOTechno family this year. It helped me when I was working on my PhD, and so I hope together we can help many people. I would describe myself as a science enthusiast and a Netflix addict.





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### The BIOTechno Paris Team 2021

### SOCIAL MEDIA COMMITTEE

#### FANNY ROTH

I finished my phD in 2019 with the desire to actively participate in the development of innovations to lead them from bench to patients. Today, I fulfilled my career goal by joining a small biotech company called THAC as R&D project manager. As co-coordinator of BIOTechno Paris 2021 I wish to help young scientists to realize how they are valuable for industry and help them to discover all the fascinating jobs they can apply to after their studies.





#### CHAHRAZAD BENBALIT

2nd year PhD candidate. I am currently working on Nanotechnology for cancer therapy and imaging. I am a passionate person led by curiosity and discovering new things, especially in the biotechnology area. I enjoy sharing and connecting with others to harness the power of the Biotechno community, this is why I am in charge of the social media management with my colleagues as I have done in my previous volunteering roles. In my leisure time, I enjoy reading books, painting and cooking.

#### FARIZA MEZINE

I am a passionate engineer working at INSERM, among the Paris Cardiovascular Research Center (PARCC). I evolve among a team aiming to decipher the role of Extracellular vesicles in cardiovascular diseases. I am happy to be part of the BiotechnoParis 2021 organization team. I am pleased to provide my help by taking part especially in the communication and social media management. I consider this experience as a wonderful opportunity to meet new people from different horizons, to expand my network and to nourish myself with these new encounters.







# NEWSLETTER



### Interview : Career path change

### Bertsy COIC

Scientist and Illustrator Creator of DrawInScience

# Could you give us a brief description of your background?

I am an engineer in biotechnology and during my PhD, I worked with a salmon virus ,more in the applied part. I was studying the replicative cycle of a virus, and using this information, I created a diagnositc test and a prototype for a vaccine. I then moved to Institut Pasteur, where I worked with hostpathogen interactions , with mosquitoes and drosophila. I was mainly trying to undersand how mosquitoes transmit virus to humans. So I have a background mainly in molecular biology, inmunology, cell biology, etc.

### How did you go from a PhD in Biotechnology to being a scientific illustrator?

It is quite a long story. Many of us as a child want to draw and enjoy drawing, but then we grow up and we loose either the ability or the interest. For me it was almost the same. I painted until my college years., But then, during my Postdoc, I started to have interest in scientific communication. I understood the importance of explaining your work not only to your partners but also to your family, friends and anyone else who would be interested in your work.



I started to share my knowledge in social media (Facebook, Instragram), training myself in communication but also using my capacities to illustrate. This was my starting point. Because I have a scientific background, I have many scientific friends that then began to ask me for my illustrations. I spent a lot of my time doing that, so I said to myself that I would make the jump, and go for a career of scientific illustrator. I am now really happy.

# Can you give us a brief description of your daily tasks/projects as a scientific illustrator?

It is quite a tough question because every day is quite different. Also, since I am a one-person company, I have to do a lot administrative tasks: I am my own department of marketing, or finances etc.

I was very interested in visual communication part, so I started to learn how to draw with photoshop and illustrator. I started again to draw, paint with watercolors, gouache, different techniques. I decided then one day that I could mix both communication and illustration, like an experiment.

For a part of the day, I am for sure doing illustrations for my clients, but I also have to send mails, comunicate with them, read papers to understand the different projects and the message that the client wants to convey. I also use part of the day for my own project that is in social media: read papers to find the story of the week, write a post about it and illustrate it.

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### Interview : Career path change

## Bertsy COIC

### Scientist and Illustrator Creator of DrawInScience

I also try to experiment everyday (my scientific part), trying different tools or ways to illustrate, where I can be completely creative. This is the place where I have the freedom to grow up. So I have lots of different activities.

# What advice would you give on starting a new career after a PhD?

At least in my case, I guess the most important advice would be to have the time to think about yourself, what you like, what you want to do, what you are really. Take out all the noise that the people around you can say, telling you that you have a good career in academia, asking if it is worth to change...

After that, check with others what they are doing and how they reached to the positions that you are interested in. Then check with your own background and see what you can do with that. How far away are you from where you want to arrive and how much time and energy are you willing to use to reach there. Sometimes you are afraid because you may not be so close. But if you really want it, you will have the motivation and the energy to do it. What transferrable skills from your PhD are you still applying on your new career today?

There are a lot of things that I am using now. For example, the capacity to deal with different projects and deal with deadlines.

All the scientific culture is very important for me because I can communicate very well with other scientists and I also know how the scientific life is (I understand when I need to hurry up because researchers need to send the paper next week!).

It is very easy for me to communicate about different topics, and I can make questions that are important for the researchers because they know that I understand what they are talking about

The capacity to learn, as I may not have all the knowledge, but I know how to look for information and filter what I need from what is not really important.

#### To take a further look at her work visit:



Instagram/Twitter @drawinscience

#### Watch the full interview online!







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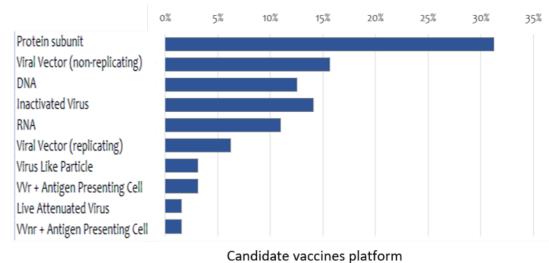


### RNA vaccines for the first time in humans

#### **By Sarra Khenas**

The atypical SARS-CoV-2 challenges the scientific community by spreading fast worldwide, leaving short time to react and save lives. To face this pandemic, and for the first time ever, different types of vaccines have been put in development in less than one year: 173 vaccines are in pre-clinical states while 64 have reached the clinical development state. The candidates in clinical phases have different mechanisms of action, dosages and schedules of administration. Interestingly, whereas only 11% (7/64) of such candidates are RNA vaccines, they have appeared as the leaders in the COVID-19 vaccine race. What makes then RNA vaccines such good candidates and how are they different from traditional vaccines?

<u>What is an RNA vaccine ?</u> Unlike other methods using weakened or inactivated virus, or engineered proteins, RNA vaccines are the first type to deliver the messenger RNA (mRNA) into human cells, where it can direct the production of the coronavirus essential spike proteins. The immune system considers such viral proteins as stranger particles and responds by producing antibodies and lymphocyte T cells to destroy the infected cells and the coronavirus if the patients were to encounter the virus.



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Source : World Health Organization (WHO)

<u>Why RNA vaccines?</u> For the first time, RNA vaccines were authorized by the FDA and EMA, in humans<sup>2</sup>. In Europe, two RNA vaccines received the conditional marketing authorization by the EMA: the Comirnaty (Pfizer–BioNTech COVID-19 vaccine) and the Moderna COVID-19 vaccine. The difference

between these two vaccines falls on the dosage, temperature of storage and efficacy. In both cases however, they have among the highest efficacy (90 & 95% respectively) compared to other vaccine types. The reasons behind such efficacy could be many, yet it is clear that three decades of previous scientific research and collaborations with the BioTechs have surely made an impact on such high-performance.

Sources:

 World Health Organization (WHO): COVID-19 Landscape of novel coronavirus candidate vaccine development worldwide. Friday, January 22, 2021.

 European Medicines Agency (EMA) : <a href="https://www.ema.europa.eu/en/human-regulatory/overview/public-health-threats/coronavirus-disease-covid-19/treatments-vaccines/treatments-vaccines-covid-19-authorised-medicines#covid-19-treatments-section">https://www.ema.europa.eu/en/human-regulatory/overview/public-health-threats/coronavirus-disease-covid-19/treatments-vaccines/treatments-vaccines-covid-19-authorised-medicines#covid-19-treatments-section</a>

 Food and Drug Administration (FDA): <a href="https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/covid-19-vaccines">https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/covid-19-vaccines</a>

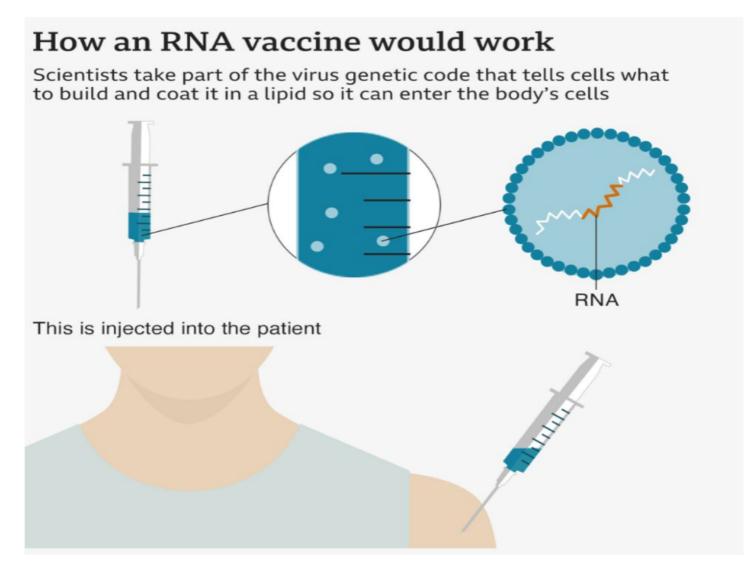


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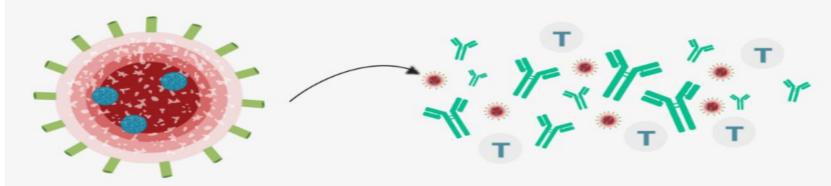


### RNA vaccines for the first time in humans

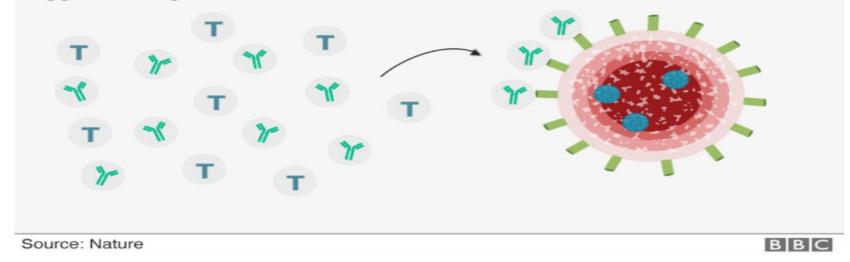
**By Sarra Khenas** 



The vaccine enters the cells and tells them to produce the coronavirus spike protein. This prompts the immune system to produce antibodies and activate T-cells to destroy infected cells



If the patient encounters coronavirus, the antibodies and T-cells are triggered to fight the virus







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### Calendar

February 9	New challenges and opportunities for bioeconomy - webinar Date and time : 10 <sup>th</sup> February , 2:00 pm – 3:30 pm (CET) Where : free event but registration online mandatory (In English) – <u>CLICK HERE</u> « New challenge and opportunities for Bioeconomy: recent technological advances to improve bacterial strain and alternative protein » Three Genopole biotech companies, Ynsect, Altar and NextProtein, will present the trends for future innovations in the FoodTech industry. An open discussion with the audience around the essential role of industrial partnerships to speed up time to market of breakthrough technologies.
February 10	Entre amplification et disqualification de la parole scientifique, les médias font-ils écran ou sont-ils un écran pour la science ? - webinaire Date and time : 9 <sup>th</sup> February , 2:00 pm – 4:00 pm (CET) Where : free event but registration online mandatory (In French) – <u>CLICK HERE</u> Comment se construisent la légitimation ou la disqualification médiatique des prises de position du personnel académique scientifique ? Quelle est la valeur de la parole scientifique lorsqu'elle entre en scène par le biais des médias ? Le mélange des voix influe directement sur la réception d'une vérité, d'un fait, alors soumis à plusieurs couches d'explicitations qui brouillent les pistes. Les médias dès lors font-ils écran ou sont-ils un écran pour la Science ?
February 10	Potenti'Elle en science – Healthcare Businesswomen's Association Date and time : 10 <sup>th</sup> February , 6:00 pm – 8:00 pm (CET) Where : Fees from 12€ to 20€ _ Virtual event (In French) – CLICK HERE Join this exciting event to celebrate International Day of Women & Girls in Science, for all ages. During this virtual event, ticket holders will be able to bring along an accompanying young person free of charge to meet inspiring women working in science. The attendees will gain insight into what it's really like having a career in science, they will be able to unravel their curiosity by questioning a diverse set of speakers, and even establish connections with the potential for a future shadow experience or informational interview. This event is all about showing young people (and less young people) how vibrant and diverse a career in science can be. What's more, the event will be held in French (local language) to promote social mobility and improve outreach.

#### **P2i Enterprise Fair** Date and time : 10<sup>th</sup> to 12<sup>th</sup> March

### 10 - 12

March

Where : Free event Virtual event Application deadline 17<sup>th</sup> February– CLICK HERE

Are you curious how being entrepreneurial fits with an academic career, or an industry career? Could your research or your idea solve a big problem or global challenge but not sure where to start? Are you interested in exploring entrepreneurship or ready to venture out as an entrepreneur? If any or all of these apply to you, then, the p2i Enterprise Fair is the event for you. The mindset and skills to identify and grasp opportunities to innovate are equally important in academia as in business. This program is exclusively open to early career researchers and early career employees from or funded by the p2i network (University of Cambridge (and partner Institutes), Freie Universität Berlin, Universität Innsbruck, PSL Université Paris, Edinburgh University (The University of Edinburgh's Data Driven Entrepreneurship (DDE)) Programme, AstraZeneca, bp) and available through application only.

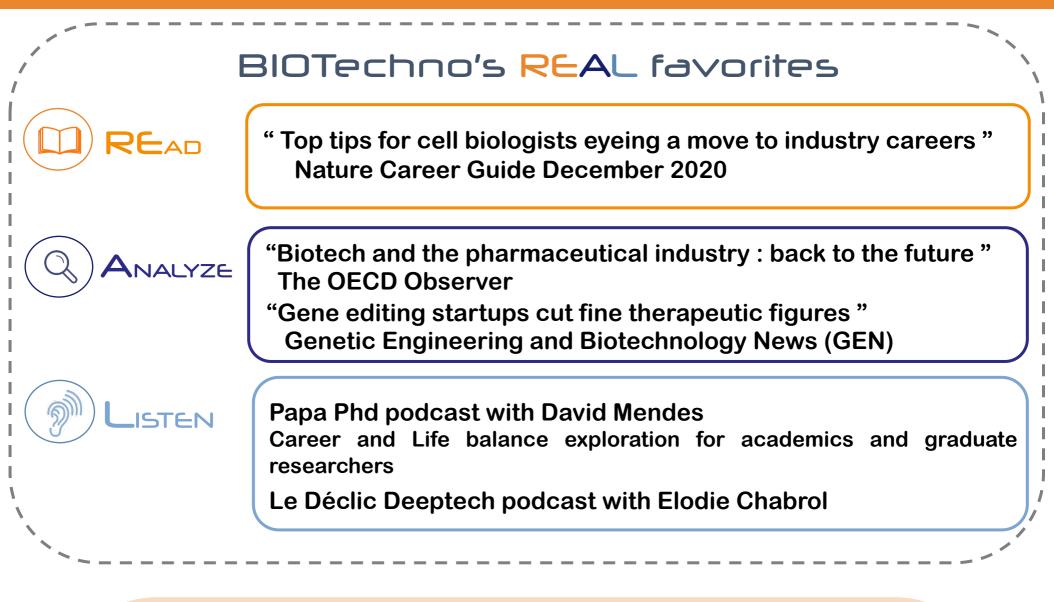




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### Our suggestions for the month





Ynsect, a french startup founded in 2011 in Paris, has been recently under the spotlight after having received in November 2020, the "Prix de la révélation de l'année" ("**Price of the discovery of the year**") at the BFM Business Awards 2020. Being one of the pioneers in natural insect protein and fertilizer production, Ynsect has come up with a sustainable solution to the increasing global demand of food and lack of farming land: the Molitor mealworms.

#### 6

After raising 110 million euros in 2019, followed by 315 million euros one year and a half later, Ysenct will begin to build its second, and **world's biggest insect farm in Amiens, France**. The new vertical bug farm should begin to operate by the beginning of 2022 and would be **the first carbon-negative farm in the world**. It would generate around 500 new jobs, and produce 100 000 tonnes of insect protein that would be used to feed livestock and pets, and to fertilize plants. What's more, **Ynsect is interested not only in feeding our livestock, pets and plants, but also... us. Should we rethink our future food system?** 





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# **JOIN US!**



### 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?

Contact : pres.rbt@gmail.com

### **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

### Become a Partner of the BIOTechno Network! Private companies / Startups/ Institutions

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 :

→ Monthly webinars organized by the BIOTechno Paris team (biotechno.paris@gmail.com)

Auvergne-Rhônes-Alpes organized **BIOTechno** e-Forum the  $\rightarrow$ by 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 !

Contact : pres.rbt@gmail.com

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