Preprinting in the life sciences: Just a fad or here to stay?

By Chandrani Mondal

“Publish or perish!” This phrase has been ingrained into the heads of graduate students, postdoctoral fellows, and faculty alike, who know that success in academia is closely tied to one’s publication record. Publishing in high impact, peer-reviewed journals is a key metric used to measure scientific merit and greatly affects the ability to acquire funding, academic positions, and promotions. It is also the primary means used to disseminate results to the scientific community. In the last three decades, the amount of data required for publication in the life sciences has increased substantially, through both an increase in the number of figure panels included per figure as well as the inclusion of supplemental data. This has caused a significant delay in scientific communication in addition to other consequences, such as an extended training period for students and postdoctoral fellows.

For the past 25 years, physicists, computer scientists, and mathematicians, amongst others, have accelerated the process of sharing research by utilizing preprint servers, such as arXiv, before formal publication of data. In 2013, Cold Spring Harbor Laboratory Press initiated bioRxiv, a preprint server specifically for the life sciences. Although a relatively new concept, nearly 3,100 preprints have been posted on the bioRxiv server as of 2016. In addition to bioRxiv, other preprint servers that are being utilized in the life sciences include Peer J, F1000, and arXiv q-bio (see ASAPbio.org for a complete list).

Preprinting comes with its pros and cons; some major concerns include the quality of work being distributed, the potential for being scooped, if funding agencies and potential employers will acknowledge and value preprints as a metric of productivity, and whether preprinting will affect subsequent publication in a peer-reviewed journal. Proponents of preprinting in the life sciences, including prominent scientists such as Dr. Ronald Vale and Dr. Harold Varmus, are helping to research, curate metrics, and develop policies on preprinting through the ASAPbio (Accelerating Science and Publication in biology) initiative. From their perspective, preprinting will allow breakthroughs and discoveries to be communicated in a timely fashion, provide researchers with a way to demonstrate scientific contributions, and allow for cross-pollination of ideas and open discussion.

Recently, journals such as eLife and EMBO have announced that manuscripts posted on bioRxiv can be submitted directly to their journal websites without any formatting changes, which increases the value of the preprinting server. In addition, the Chan Zuckerberg Initiative (CZI) has announced that it will provide some financial support to bioRxiv, which will certainly help advance preprinting in general.

Only time will tell whether the life sciences community will adopt and accept preprinting as the norm and not the exception in the process of communicating scientific ideas and data to the world.

References:

Greetings fellow postdocs!

As the summer flies by we start approaching the main event organized for postdocs at ISMMS: the Annual Postdoctoral Symposium or as we call it informally, Postdoc Day. Included in the celebrations of National Postdoc Appreciation Week, the 8th edition of the symposium will be celebrated this year on Friday, September 15th. Under the theme “Moving Academia Forward”, the Postdoc Executive Committee (PEC) is working hard to bring you a day with several events addressing important issues faced by postdocs and other early career scientists today such as career training, funding, and publishing. As usual there will also be talks by award-winning postdocs and a networking reception providing an excellent opportunity to meet professionals in a wide range of fields. Stay tuned to the postdoc mailing list and our social media channels, as announcements and calls for participation in award opportunities will be sent out soon! You can check out the summary and programs of previous years here and here.

In the meantime, there is also time for fun! As usual, the Monthly Postdoc Social awaits you July 28th (the last Friday of the month), but there’s more! You can still join fellow postdocs in a Wine Tasting event at the end of August and a Postdoc Cruise in September with postdocs from all over NYC. Check the latest edition of the PostdocPro Newsletter for details and a full list of events.

Also, we’d like to draw your attention to some recent updates: the Office of Postdoctoral Affairs website has been undergoing several changes and the updated Postdoc Handbook has been recently posted in the Policies and Procedures section. And finally, if you haven’t done so yet, help us know what postdocs at ISMMS need the most by filling in the Annual Postdoc Survey.

Enjoy the summer!

Catarina

Nicholas Barbieri, PhD and Catarina Saiote, PhD are your PEC co-chairs.

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**Ways to keep in touch**

- Our website: [http://icahn.mssm.edu/education/postdoctoral-training](http://icahn.mssm.edu/education/postdoctoral-training)
- Follow our Twitter account: @MtSinaiPostdocs
- Join our Facebook page: “ISMMS Postdoc Executive Committee”
- Follow us on LinkedIn: Mount Sinai Postdocs and Postdoc Alumni

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**The Mount Sinai Postdoc Periodical**

Chief editor: Delaine Ceholski Contributing editors: Przemek Gorski, Natasha Eliyahu-Shtraizent, Laura Lecce, Elena Sanchez-Rodriguez, Agata Kurowski, Ben Shackleton, Ishaan Gupta, Chandrani Mondal

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**Alternative Careers in Sciences: Interview with Mount Sinai Postdoc Alumnus, Alaa Abdine, PhD**

By Agata Kurowski

Dr. Alaa Abdine is an executive recruiter and R&D consultant at Crossover Consulting Group (soon to be called Crossover Search). The company is a search and consulting firm for the Life Sciences industry, consisting of 4 employees. It was founded in 2008 and is located in Midtown Manhattan. I spoke with Dr. Abdine to discuss his current position and the journey he took to get there.

**What graduate degree(s) have you received?**

I obtained my PhD in Biophysics from the Paris Diderot University in France.

**Did you have any jobs between this one and your postdoc?**

After my PhD, I was a postdoc for 5 years - at Johns Hopkins then at the Icahn School of Medicine at Mount Sinai. After my postdoc, I joined the New York City College of Technology as an adjunct professor and taught Biochemistry and Molecular Biology.

**Can you give us a brief description of your current position?**

At Crossover, I currently have 15 clients composed of primarily biotech companies in the Boston area. I help these companies search for new talent for their R&D and regulatory departments. I am also responsible for establishing relationships with new clients and expanding our presence here in NYC and on the west coast. We are currently working on rebranding our firm with a new website and a better social media presence, which all fall under my responsibility.

**What do you wish you had known before accepting your current position?**

I wish I knew a bit more about the pharma and biotech industries, and science outside of academia.

**What, if anything, do you miss about being a postdoc?**

The only thing I miss is the bench work, but I am planning some side projects to get back to the bench in my spare time. What did you learn during your PhD/postdoc that is most helpful to you in your current position?

The one thing that really matters to me is curiosity for science. I love my job because it allows me to interact with great scientists and medical doctors. I am also constantly reading articles describing companies’ science programs, clinical trials, and the pharma industry in general.

**What was the most important event or factor that contributed to your transition into an alternative career outside academia?**

Curiosity.

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Approximately how many hours do you work per week?
42-46 hours.

How many hours a week do you spend in meetings?
We have a weekly meeting where we spend 30-60 minutes talking.

How frequently do you work in the evenings and/or on the weekends?
Never. However, I use the weekend to read articles, press releases, and learn about the latest clinical trials and drug approvals of our clients.

On a scale of 1-10 (1=low, 10=high), how much autonomy do you have in your current position?
I would say 7, since there is still a lot to learn and I am always asking questions.

Does your position require that you travel?
No.

Do you work with other people and/or in a team? If so, please describe the circumstances and structure of your group work.
I work in a team where each one of us has individual responsibilities. My main focus is on R&D and regulatory affairs. My coworkers work on the other aspects of biotech (clinical trials, program management, market access, etc.). Each of us works on what they are most curious about and where they feel most comfortable. These roles do change every now and then - I was in charge of medical writing but I didn’t enjoy it as much.

How did you learn to do your job?
Since I work in an office surrounded by my coworkers, I tend to ask them a lot of questions. I also search a lot and study materials whenever I have the chance. For each role I am working on, I dedicate a couple of hours learning what is necessary for it.

What is the average salary range for your position?
I have a fixed salary plus a bonus depending on my performance. The salary range for an executive recruiter ranges between $40k to $200k a year. It is not based on experience, but on how good a person is at doing his/her job.

Is a PhD necessary to apply for this type of position? No.

Is it valued to have a PhD in your current position?
I would say yes. Being a consultant and recruiter interacting only with scientists, it is really valuable to understand what they are talking about so I would say that it helps. However, my love for science and my curiosity for learning are more important than my PhD.

Was your publication record important towards getting this position? No.

Is it valued to have completed a postdoc in your current position? No.

Did your PhD/postdoc research focus matter to get this position? No.