## Instructions

You can choose to submit a blog (**1,200 words**) or short presentation (**5-6 minutes**). You must:

* Upload the presentation by the Friday following your final webinar
* Watch and feedback on **at least three** other blogs/presentations (you can choose to review more if you wish to)

If you choose to write a blog, please use the text box provided in the forum. If you choose to create a presentation, examples could include filming yourself speaking and/or acting, recording audio over presentation slides, a recorded slideshow of images, or creating an animation. You can be as creative as you wish as long as the topics are covered.

## Topics to include

* Overview of your work experience.
  + *What was your brief? What were you asked to do?*

*During my time as a student researcher with EUYSRA, the team and I worked on a self-led project involving the in-silico drug discovery for SARS-CoV-2. We requested help from one of the academic staff at the School of Chemistry and it was a fun experience both in terms of the technical aspects as well as the development of interpersonal skills.*

* + *What were the drivers for your experience(s)/measures of success?*

*At the end of the project, the team and I presented the work to a panel organised by EUYSRA as well as a report to detail the experimental process and to analyse the data collected. The measure of success for this experience comes from the feedback given by others in the society and by our supervisor.*

* Describe your own journey for each of your **three development goals.** Use these questions as a prompt.
  + *Start by reflecting upon what you hoped to gain, what were your goals?*
  + *What steps did you take to develop yourself and meet your goals?*
  + *Has your development gone as you expected?*
  + *What has been your greatest achievement?*
  + *What have you learnt from the experience?*
  + *Have you met your personal development goals?*

**Willingness to keep up to date with scientific research and literature:**

* + *Start by reflecting upon what you hoped to gain, what were your goals?*

*My goals were to utilise the existing literature for SARS-CoV-2 drug discovery projects already carried out by international experts and get inspirations from them to design our own drug discovery process.*

* + *What steps did you take to develop yourself and meet your goals?*

*I subscribed to scientific journals in the topics related to the project.*

*I asked for advice from our supervisor as to where to find the most relevant information and how to use this information.*

*I made use of referencing software to collect articles that I found and taught my teammates how to collect these information in an organised manner so that we were clear about the challenges that the pharmaceutical industry faces, the available routes of drug discovery as well as current advancement of therapeutics.*

* + *Has your development gone as you expected?*

*There is still much room for improvement in the development of the skills in this aspect, and I think I have developed techniques and thought processes that I had never imagined before. For example, I never thought about having to source information about ingredients and reagents needed for an organic synthesis, as I regarded it as a trivial and easy task to do; but it was very difficult to gather the necessary information and sources together in order to make the experiment work as expected.*

* + *What has been your greatest achievement?*

My greatest achievement was being able to identify a Traditional Chinese Medicine (TCM) compound that was used in some COVID-19 treatment in China, and identified some analogues that may serve a similar drug approach. This paved way for the group project’s scope.

* + *What have you learnt from the experience?*

*I have learned to effectively communicate with others (especially my teammates) specifically about the tasks required to complete the project*

*I have made video tutorials to teach my teammates how to use software, run codes and gather information in a universal way.*

* + *Have you met your personal development goals?*

Yes.

**Problem-solving skills to develop new and improve scientific solutions:**

* + *Start by reflecting upon what you hoped to gain, what were your goals?*

*My goals were to learn to successfully, effectively and efficiently solve a problem as they come, so that such skills could be applied in my future career.*

* + *What steps did you take to develop yourself and meet your goals?*

Problems don’t always appear right in front of you until you actually do the project and take steps to accomplish the objectives. So I set ourselves targets before carrying out the project, which was to automate a data collection and analysis process. As we were not programmers and have limited programming skills, we encountered many unexpected problems.

I took steps to get hold of the problems: identify the problems involved, brainstormed solutions by writing them down on a piece of paper, learned how to code using Python and shell script and finally trial and error.

* + *Has your development gone as you expected?*

*The development of this skill seems quite vague and cannot be quantified, but I think I encountered many more problems than expected, including having to adapt our project to the pandemic and social distancing measures, as well as technical issues such as coding errors.*

* + *What has been your greatest achievement?*

My greatest achievement was to write codes in Python and Shell Script to conduct data analysis for over 30 objects, all automated.

* + *What have you learnt from the experience?*

*I learned patience, communication skills, research skills and programming skills.*

* + *Have you met your personal development goals?*

Yes.

**Ability to analyse scientific and technical data:**

* + *Start by reflecting upon what you hoped to gain, what were your goals?*

*My goals were to learn programming and applying these skills in analysing scientific data, so that I can use programming languages in other areas.*

* + *What steps did you take to develop yourself and meet your goals?*

*I did not have very specific goals at the start, but gradually I was able to consult my teammates who know more programming than me and who provided guidance as well as programming tutorials. I also started learning some programming on LinkedIn Learning, which helped tremendously to analyse the data I collected.*

* + *Has your development gone as you expected?*

I expected to learn more than just typing a few lines of code and I think to further develop my skills in this respect, I can proactively take on more work when it comes to writing the report this summer.

* + *What has been your greatest achievement?*

*My greatest achievement was that I established the method of data analysis to apply in this project.*

* + *What have you learnt from the experience?*

*I learned to think critically. When a set of data is presented to me, I cannot use my subjective judgements to determine whether a drug tested could be actually of potential future research value. Instead, to objectively look at the data, it was important for me to use various analysis approaches to interpret the data.*

* + *Have you met your personal development goals?*

I think I could have learned more from this experience.

* What positive impact have you made?
  + *What steps did you take to make an impact?*

I identified several areas to make an impact: interpersonal, scientific and personal.

* + *How do you know you have made an impact?*

*I seek feedback from others such as my teammates and my supervisor. I could also know if I have made an impact, by reflecting on the experience.*

* + *Did you receive recognition from colleagues or managers? Did they value your contribution?*

*I received positive feedback from the society that this was an interesting project and that they were happy to provide funding once we can get into the lab and carry out scientific experiments.*

* + *Could this impact have been increased, and if so, how?*

*This impact could have been increased if there were more time allowed.*

* Thoughts on the future (now and beyond university):
  + *How will this experience influence you? Can the learning and development you have achieved relate to other activities or your studies?*

*This experience allowed me to apply my chemical knowledge as well as developing further some programming language skills, but more importantly, it gave me a chance to virtually collaborate with others to achieve some difficult tasks. The knowledge gained about drug discovery is very relatable with my degree, technical skills such as programming is useful in many areas in today’s society and team working skill is essential in many types of work, especially in the scientific field.*

* + *What further skills development/experiences do you want to focus on?*

*I would have loved to gain more in-lab hands on experience handling chemicals, designing synthetic routes as well as analysing data that arises from it if COVID-19 restrictions were not in place.*

* + *Have you gained an insight into a particular area of work?*

*I have read up on how the pharmaceutical industry works, as well as what a drug discovery project would entail, as well as how programming and automation could be applied in the pharmaceutical industry.*

*- a willingness to keep up to date with scientific research and literature  
- problem-solving skills to develop new and improved scientific solutions  
- computational skills to manage data and potentially to create scientific models and simulations  
- Attention to detail and the ability to analyse scientific and technical data*