

# Final report

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| <b>Personal data and general information on the internship</b> |
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Subject of studies: Epidemiology

Course of studies: Master

Time of internship: 20/04/2022 – 23/08/2022

Place of internship: Lyon, France

Internship title: Internship at the International Agency for Research on Cancer (IARC) in the Cancer Surveillance Unit

## **Planning and Preparation**

As part of the master's program, I had to do a mandatory internship at least 18 weeks full-time. The coordinator of the program provided us with some internship recommendations and

the International Agency for Research on Cancer was one of the recommended places. Starting the master's program, I knew that my primary interest was cancer epidemiology and so this internship was of my top choice because they were doing exactly the kind of work that I was interested in. Essentially, I chose this internship primarily because I was interested in the work and not because it was in France. The fact that it was in France was an added bonus. The application process for the internship was relatively straightforward; I just sent the contact person a nice email with my cover letter and resume attached. I did not hear anything back for two weeks and so I decided to send a follow-up email. It was lucky that I did this because the first email that I sent to the contact person actually landed in their spam folder. After I got a reply, they took a few days to look at my resume and cover letter and then set up an interview over Microsoft Teams. The interview was very easy, they just asked about my expectations for the internship and what kind of work I was interested in. Additionally, they talked a lot about their current projects and how I could fit into these. After they offered me the internship position, I had to apply for the Erasmus Traineeship Programme, and find accommodation in Lyon. The nice thing about the Erasmus Traineeship application was that the process itself already takes care of a large part of the organization. For example, as part of the Erasmus application, I had to provide proof of insurance and I also need to provide this to the host institution. Unfortunately, I did not have time to attend a language course because I got the internship offer in February and the host institution wanted me to start in April. However, I did use Duolingo to learn some common and easy French words and phrases before I went to France. I think the preparation that I did was sufficient for me although for some people it may have been stressful to only know little French.

### **Internship**

I learned so much during this internship mainly because they gave me a lot of tasks and were also pretty flexible in terms of the tasks I could take on. Before I started working onsite, they sent me an email and asked if I would be interested in helping them with a systematic review that looked at delays and disruptions in cancer care during the COVID-19 pandemic. Since I wanted to learn as much as possible during my time there, I agreed. For the systematic review, I did full-text screening of articles, data extraction and risk of bias assessment of the included articles. Since systematic reviews are a large part of what an epidemiologist does, this was a great learning experience for me. Additionally, they gave me my own project where I used an existing database to analyze breast cancer survival by stage at diagnosis in low- and middle-income countries. For this project, I was responsible for data cleaning which is the process

where you prepare the data for analysis by making it uniform and looking for any discrepancies such as missing values or duplicate entries. After I completed the data cleaning, I performed survival analysis and produced various graphs and figures. Once the analysis was finished, I wrote a scientific paper about the results which will hopefully be published some time early next year. In addition to the systematic review and my own project, I got to do the risk of bias assessment for another systematic review which looked at the recurrence of metastatic breast cancer. During this internship, I was fully occupied every day and a typical day was fully packed with various tasks from the systematic reviews and my own project. I really appreciated my supervisors since they allowed me to very independent but also made sure to check in with me every week to ensure I was on the right path and wasn't overwhelmed. During this internship, I got an amazing insight into what work in academia looks like. Additionally, I learned a lot more about coding and programming which is essential to an epidemiologist. Furthermore, I learned more about statistics such as net survival and meta-analysis. Most importantly, I learned about the different steps in a systematic review and how to conduct one with real data. I was also included in all the weekly IARC meetings and the Cancer Surveillance Branch research meetings. I got an amazing overview of research currently happening in cancer epidemiology worldwide.

### **Accommodation in Lyon, France**

Finding accommodation in Lyon can be a bit challenging but if you have gone through the process of finding accommodation in München then it will not seem bad in Lyon. IARC actually has a housing coordinator who sends suggestions on short-term rentals.

Unfortunately, most of these were outside of my budget and so I found a short-term rental by myself. I used the website Studapart which is mainly designed to offer study-abroad students short term rentals. I know there are a lot of other websites, but one has to be careful about scams. The room that I found was close to IARC (25 minutes by foot, 10 minutes by bike) and I had two lovely, quiet roommates who were very nice.

### **Social Interactions**

Everyone at the IARC was extremely welcoming, nice and helpful. The working language at the workplace was English and very few people were French. This was both a positive and a negative since my French is beginner level but I also wanted to improve it. Outside of the working hours, I spent a lot of time with my colleagues. Unfortunately, I did not have the chance to meet a lot of locals. However, my two roommates were from the surroundings of

Lyon and I met a colleague at IARC who was also from Lyon. Through my roommates and the colleague, I got to experience Lyon through the eyes of a local.

### **Everyday Life and Leisure**

Lyon is an extremely livable city. Not only is the old town UNESCO heritage site, Lyon is also the food capital of France. There are so many delicious restaurants ranging from Nepalese dumplings to Japanese-French fusion to traditional French. I think you could spend a lifetime just trying all the restaurants in Lyon. Furthermore, Lyon has a great location. I spent weekends in Nice, Chamonix, Grenoble, Annecy and Geneva just to name some of the places I visited. Everything is very accessible, with great train and bus connections. Due to my busy schedule, I did not have time to attend a language class but I did go to the gym a few times with my colleague from Lyon. The public transportation system within Lyon is very straightforward and easy to use with trams, underground and buses. Additionally, Lyon has a bikeshare program that is very cheap to use. I paid 19 euros for a yearly subscription which meant that I got to use the bikes for an unlimited number of rides. Lyon is not that big and it was easy to bike everywhere. For future students going to Lyon, I can only recommend the bikeshare program (Velo'v). Additionally, it is really important to keep a close eye on your belongings in public transportation. Lyon transit gets very crowded and unfortunately there are a number of pickpockets. During the first weeks in Lyon, I would recommend doing a free walking tour of Lyon (can be found via Google). Not only did I learn some interesting facts about Lyon, it was also great to get to know the different neighborhoods.

### **Financing**

While Lyon is beautiful, it is also expensive. A shared flat with flatmates is about the same as would be paid in Munich. However, I found the groceries to be more expensive than in Munich. This was a bit of a shock to me as I didn't really plan for it when I was creating my budget but if you look for the deals and sales, you should be alright. In addition to the Erasmus Grant, I also received a little stipend from the IARC which helped pay for my monthly health insurance fee. Additionally, I still had an online student job in Germany that I was also doing during my time which financed my travels around France. The Erasmus Grant was definitely why I was able to do this internship since IARC would not have paid me more than the small stipend per month. Through the Erasmus Grant, I was able to do this internship.

### **Internship and Studies**

Before I completed this internship, I had done one semester of the Master's program. I was able to apply some of the basic statistics and coding that we had learned but I also needed to

learn some things on my own. For example, during the first semester we used the program R Studio to do all statistical analysis but at the internship they mainly used Stata. So while I had learned the basic coding skills from R Studio, I had to apply them to Stata which was slightly different. The internship definitely gave me great insight into the academia life. Before this internship, I had not considered getting a PhD but talking to my colleagues and seeing academia life has given me motivation to pursue this track.

## **Conclusion**

Going into this internship, I wanted to apply the statistical and coding skills that I had learned during the first semester. Additionally, I wanted to dive deeper into cancer epidemiology and also improve my French language skills. My expectations were truly exceeded with this internship; I not only greatly improved my coding skills, I also got to apply many statistical concepts and got to learn many new ones. IARC did an amazing job of exposing me to many different projects and so I got a deep look into cancer epidemiology and its many different aspects. My only regret is that I did not really improve my French but this internship inspired me to take a French course so that I am better prepared if I go back for my Master's thesis. During this internship, I overbooked myself. Going into the internship, I naively did not expect the amount of work that it would be and I had two part-time student jobs as well as three courses. In June, I started to struggle with the workload from everything and I started to burn out. I decided to quit one of the two part-time jobs and it was absolutely the right decision. My advice for anyone doing an internship abroad would be to just focus on the internship if you are able. I learned a lot but I think I could have gotten even more out of it had I not had so many other things going on. I can only recommend this position to future interns. First, the learning and network experience was truly unbeatable and an amazing opportunity. Second, the work was engaging and meaningful. Third, the colleagues were so nice and I felt included from the first day. Lastly, living in France is amazing; the country has so many different areas to explore from the seaside towns in Cote d'Azur to the hustle and bustle of Paris, the food is unbeatable and the people are very friendly and welcoming. IARC is always happy to accept interns especially the Cancer Surveillance branch, they always need help with one project or another. This internship has inspired me to pursue a career in academia and continue my education with a PhD. I was inspired by the drive and motivation of my colleagues and was in awe by how much of themselves they poured into their research projects. I learned a lot during my time at IARC not only about cancer epidemiology but also about soft skills such as improved communication and better organization skills. Furthermore,

living in a country where I don't speak the language was an eye-opening experience. If you get the chance, I can't recommend this internship enough.