

Form B-2
(FY2022)
Must be typed

Date (日付)
25/01/2022
 (Date/Month/Year: 日/月/年)

Activity Report -Science Dialogue Program-
(サイエンス・ダイアログ事業 実施報告書)

- Fellow's name (講師氏名): Louis Létinier (ID No. PE20051)

- Name and title of the lecture assistant (講義補助者の職・氏名)
Maiko Wakuda, student

- Participating school (学校名): Toyama High School

- Date (実施日時): 24/01/2023 (Date/Month/Year: 日/月/年)

- Lecture title (講義題目):
Artificial intelligence (AI) and Drug management

- Lecture format (講義形式):
 ◆☒ Onsite ▪ ☐ Online (Please choose one.)(☐ 対面 ▪ ☐ オンライン(どちらか選択ください。))
 ◆Lecture time (講義時間) 60 min (分), Q&A time (質疑応答時間) 45 min (分)
 ◆Lecture style (ex.: used projector, conducted experiments)
 (講義方法 (例: プロジェクター使用による講義、実験・実習の有無など))
Used projector

- Lecture summary (講義概要): Please summarize your lecture within 200-500 words.

Research in France

France spends 49.5 billion euros on research, equal to 2.22% of its GDP. This has enabled the country to achieve its objectives, in particular at an international level, and to attract talented researchers from around the world. Including professors, researchers, engineers, technicians and support staff, more than 431,100 people are involved in research in France. They work in universities, Grandes Ecoles, public institutes and companies. 26 % of them are women. 40% of them work in the public sector and 60% are employed in the private sector. Their work is published in the best-known international scientific journals and have the fourth highest index of impact in the world.

Moreover, research knows neither borders, nor nationality: 41% of those enrolled in French Doctoral schools are foreigners and 54% of French scientific publications are the result of international collaboration.

My motives for becoming a scientist

As a doctor, my goal is to improve the health of the population and to impact as many people as possible. When I was a doctor at the hospital, I could help a certain number of patients every day, but the number of patients was necessarily limited.

However, each year in France there are more than 30,000 deaths and 200,000 hospitalizations induced by adverse drug reactions (side effects) and drug-drug interactions. And it's the same situation in other developed countries as USA or Japan for example. So, I quickly realized that to help more patients it would be more useful to study the causes and ways to avoid these side effects on a population scale. I therefore specialized in pharmacoinformatics: that is to say, studying new computer methods to better assess and improve the safety of drugs.

What I find interesting about my research?

The most important aspect of my work is that it is both theoretical and practical. Our objective is to identify the problems around the use of drugs and to propose concrete solutions. To do that, we launched a Spin-Off of the University Hospital of Bordeaux: Synapse Medicine and we have filed a patent about "Device and method for generating a drug database". Our mission is to reduce the burden of adverse drug reaction all around the world, especially in Europe, in the US and in Japan (and after in other countries). To do that, we need to bring together many different expert profiles in medicine, pharmacology, data science and IT development. This is one of the most exciting aspects of research because it allows you to constantly learn and exchange with people with different knowledge and backgrounds in order to build a better future together.

◆Other noteworthy information (その他特筆すべき事項):

- Impressions and comments from the lecture assistant (講義補助者の方から、本事業に対する意見・感想等がありましたら、お願いいたします。):

英語で話す→簡単に日本語訳という流れだったので、どの程度英語力の向上に役立てたのか不明で申し訳ないです。日本語だけ聞けばいいやという考えになったり、英語でよくわからなかった特定の単語が日本語だとどの単語に当たるのかがわかりにくかったりしそうです。また、テーマ的に日本語でも難しい部分もあったと思います。講師の英語の発音が普段聞き慣れているCDの英語の発音とは異なる、少し地域的な特色が強い発音(フランス英語)だったのも難易度を上げていたかもしれません。