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Speaker 1: Hello and welcome to this podcast and hello to all of our listeners. I am Katrina

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Speaker 2: and I'm Peter

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Speaker 1: and this is Bjorn,

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Speaker 1: and we are all massive students in biochemistry with a specialization in protein chemistry. So we just attended this course called Protein Research Lab at the Power Center here at the University of Copenhagen, and we just wanted to talk a bit about our experiences and share it with you because we thought it was very nice.

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Speaker 1: So if you're interested in proteins like we are and you don't know what elections you're going to take on your masters, then you should definitely listen along as we go because we're going to be discussing the ups and downs of this course and why we think it's a good insight into protein and especially research. So first of all, what makes this course unique compared to other courses on the Masters and also on the Bachelor's, for that sake, is that it's mainly research based, which means that it feels less like having a traditional course with teaching and lectures and much more lab work and data processing.

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Speaker 1: Yeah, so I think at least for the three of us, it was nice that it wasn't this traditional way of teaching and attending courses, as you have said, because I think that we at least think sometimes that it can also get a bit tedious. So it was nice to, you know, work ourselves.

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Speaker 2: And another way I felt this course was different than a regular course was that our professor or mentor felt more like a co-worker than an actual teacher. And this also meant that we were the driving force for our project moving forward and not the teacher, as we were responsible for designing our own protocols and designing the experiments for purification and examination and investigation of our protein.

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Speaker 1: I also think we were were a bit baffled the first day we got there because we really started from scratch with this project. So we were like, OK, we have to choose a protein with which we want to work. And when we did that, then we the next step was to, you know, find out, what do we want to investigate about this protein and what is our hypothesis? And then later on, what would we do? Which methods will be used to test this hypothesis? So you're really in on the whole

process and your mentors are there to help you, but they aren't giving any direct answers. It's yeah us who have to do the research.

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Speaker 2: Yeah. And also because we have worked with proteins before, but we haven't worked that much with IDPs. So that was also new and interesting.

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Speaker 1: Yeah. Made some were some complications along the way as well, because it's kind of hard sometimes to work with IDPs. But I think we we learned to have a lot of patients in this course too.

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Speaker 1: Yeah. And another thing that also emphasizes this research thing is that all of the proteins we had to choose from to work with has never been analyzed that much. So it wasn't like looking in an article to see, OK, this protein contains this and this binding motif. But we had to investigate it ourselves and like not really knowing where we were supposed to end up, but just finding finding some results along the way and making some new discoveries, which was also very exciting.

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Speaker 2: I totally agree with you, Ben, but that's also why it's very frustrating, sometimes because some of your your designed experiments didn't have the outcome of the results that you expected

from the beginning, which sometimes is very difficult to like and analyze.

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Speaker 1: Um yeah. And difficult to process all over when you worked all day with something. And then it turns out to be in your eyes, crap because it's not what you wanted.

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Speaker 2: But yeah, sometimes it's also what makes it interesting when you get some results that you didn't expect from the beginning.

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Speaker 1: Yeah, I mean, that's actually what happened to us because we had to like, go away from our original hypothesis, at least to some extent, because we've found out that, yeah, our protein didn't really act the way we expected it to. But I mean, that also opens doors to go in another direction.

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Speaker 2: And it's also what makes this like basic research or the first research of a protein. Very interesting because you get these experiences that you maybe in the future will work for then.

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Speaker 1: Yes, we had some days where we had had had to go home very frustrated because our results turned out to be something else, which is also something you have to consider in this course that it is pretty

intensive lab work and it is going to be some long days. And sometimes the day doesn't end up the way you wanted it to, but it's still a part of it and you have to remember that it's that's what makes research interesting is when you when you get something that you didn't expect and then you have to analyze the protein from that perspective, instead,

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Speaker 1: you definitely need not a lot of coffee for this course and mental support as well. So shout out to us and Alex, especially,

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Speaker 1: yeah, for staying with us during the very long

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Speaker 1: days. Yeah, we were crybabies.

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Speaker 1: So in the end, after all this lab work, we were supposed to make a presentation and a poster discussion, which in my opinion, worked very well because you've got to discuss your results with some people who actually had them of a broader factual background than you. So they have had some inputs to your data that you didn't think of yourself. And yeah, and it was nice to discuss your results with someone who had a broader perspective on things.

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Speaker 1: Yeah, like really in-depth discussion with

some people who are very clever,

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Speaker 1: more clever than you, at least.

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Speaker 2: So after this presentation, we talked about that it would be nice to go back into the lab and.

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Speaker 1: Do further studies.

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Speaker 2: Yeah, of all these ideas and new thoughts about our experiments to like, try it again and see the outcome this time. So let's talk a little bit about the overall outcome of this course.

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Speaker 1: I think for me, at least, I gained a lot of scientific confidence. If you can say that, like I think that it was a very safe and motivating environment or like workspace to be a part of. And yeah, that helped me a lot to trust myself with my scientific skills.

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Speaker 1: Yeah. And then obviously, we learned a lot of methods to analyze biochemical products. For example, sex on animal, but also see this spectroscopy, which we haven't worked that much with in other courses. So we learn both to perform these experiments, but also to analyze the data from us, which gives a lot of, yeah, a lot of credibility, I

would say.

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Speaker 2: Yeah. And the last thing I would say was that we learned a lot about working independently and and communicating in a scientific language with our data and so on. So you would say that the take-home message of this course was learning by doing and

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Speaker 1: not finally something great.

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Speaker 1: Yeah, yeah. So if you like to work more practically in the lab and not sit and listen to a professor talking about how this stuff actually works in the lab, but more exploring experimenting with it yourself, then this is definitely for you.

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Speaker 1: OK, so to round up this episode, we would like to give a huge shout out to some different people. So first of all, shout out to be calm

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Speaker 1: and shout out to frolic and Morden

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Speaker 2: and all the other mentors.

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Speaker 1: Yeah, shout out to the list

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Speaker 1: and a huge shout out to an Amanda for sticking out with our very

bad samples.

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Speaker 2: And, of course,
to the rest of Spin Lab.

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Speaker 1: And last but not
least, a huge thank you goes
to our boss, Lady Caroline,
without whom none of this
would have been possible.
Thanks for listening.