

# A Regensburg Summer: Research, Roaming, and Reflections

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This summer, I had the incredible privilege of spending 11 weeks in the city of Regensburg. During this time, I completed an independent research project at the University of Regensburg under the guidance of Till Rudack. Outside the lab, I explored Regensburg, traveled to nearby cities, and met a host of new people from around the world who had also come to study at the university.

## Research

My research project was in the umbrella of “structural bioinformatics”. Structural bioinformatics examines proteins and other small molecules using dynamic computer simulations. These simulations often predict the structure and behavior of molecules by modeling the interactions of individual atoms and comparing them to known structures.

In my project, I examined the photosystem II (PSII) protein complex in the *Chlorella ohadii*, a novel organism that can survive incredible amounts of light with minimal damage. Scientists suspect that the root *C. ohadii*’s resistance to light may lie in the conformation of its PSII proteins. I was tasked with examining the structure of *C. ohadii*’s PSII using Pymol, ChimeraX, and MOBY, which are three softwares used for protein visualization and analysis.

By the end of the summer, I was able to challenge some literature assumptions about Ohadii’s capabilities and help another lab resolve the PSII sequence of *C. Ohadii*.

## Roaming

When I was not working in the lab, I spent much of my time exploring Regensburg and traveling to nearby cities. Summer in Regensburg is an unforgettable experience. Largely because of the numerous holidays in late May and early June, there were endless festivals to enjoy. My favorites included the Dult, a traditional beer festival reminiscent of Oktoberfest, and the Jazzfest, where you could wander the city and listen to various jazz artists perform.

Another of my favorite pastimes was enjoying the glorious Danube River. The river runs directly through Regensburg’s Old Town, and it was truly at the



Regensburg Dult

heart of the city. I spent hours strolling the walk, soaking in the view from the stone bridge, and chatting with friends.

My traveling highlights include a trip to Vienna, Prague, and the Alps. Vienna and Prague were both quite beautiful. In both cities, I spent my time exploring museums, castles, and cathedrals, which were some of the most beautiful that I have witnessed. The Alps were also breathtaking (although they cannot compete with the Rockies).



*Danube River through the city*



*Street in Vienna*

## Reflections

This summer in Regensburg was one that I will never forget. The city is historical and full of culture and there are so many fascinating places to visit. The rest of Germany and even surrounding countries is just a train ride away. When I embarked on this trip, 11 weeks seemed like an eternity to explore, but I left feeling like I barely scratched the surface.

I would be remiss not to mention the incredible people I met through this program. Along with the students from CU, I also met people from every corner of the world who were studying at the university. The friends I made were truly amazing people, and they



*Prague Castle*

helped me to expand my perspective and to learn more about many other countries beyond Germany. I am very grateful to have shared some of my experiences with them.

To any prospective students, I would absolutely recommend this program.