



STEUBEN-SCHURZ-GESELLSCHAFT E.V.

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## Report of a two-months experience at the KIT

*An internship as a culmination of seven years' worth of education  
in German language and culture*

**Margaret Jia**

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For the two month period June 6 to August 2, 2017, Margaret Jia was an analytical chemistry intern at the Karlsruhe "Institut für Technologie" (KIT), located on Campus Nord. Margaret's workplace was in the "Institut für Funktionelle Grenzflächen" and her experience as an intern was the first time she spent an extended amount of time abroad by herself, as she says in her following report she sent to *Juliane Adameit*, coordinator of the USA Interns-Program of the Steuben-Schurz-Gesellschaft in Frankfurt am Main.

My advisor was *Dr. Gerald Brenner-Weiß*. I worked under the supervision of *Mr. Frank Kirschhöfer* and *Mr. Michael Nusser*. The projects I worked on concerned quantification of nucleotides using high performance liquid chromatography coupled with tandem mass spectrometry (LC-MS/MS).

My experience as an intern at KIT was the first time I spent an extended amount of time abroad by myself. To me, my internship was a culmination of seven years' worth of education in German language and culture. Because of this, I tried to use every opportunity I had to engage with the language and culture. I tried to hold conversations with co-workers in German, and I tried to immerse myself in the culture, especially with day-to-day activities. Such small tasks as grocery shopping, taking public transportation, and eating at restaurants were a culture shock to me at first. However, I adjusted and was able to learn and assimilate to the environment.

During my time in Germany, I took advantage of my situation in Europe and visited other cities on the weekends. I travelled to Berlin, Munich, Heidelberg,

Zurich, and Paris, among others. I found that the train system was very useful to get around (as was the less expensive FlixBus mode of transportation). I found that these weekend trips accentuated my immersion in German/European culture by providing a different perspective and outlook as well as unique cultural and historical backdrops.



*Me in front of the lab bench where I did a lot of pipetting of solutions that I was working with*

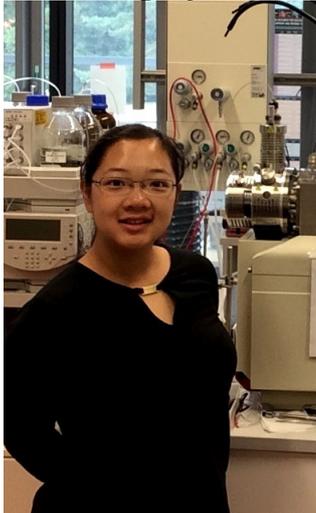
At KIT, I worked on a project developing a protocol for the quantification of adenosine for a colleague at the University of Heidelberg for the first month of my internship. doing.

**-2- Margaret Jia: Experience at the KIT**

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During this time, under *Mr. Kirschhöfer's* supervision, I found that all my colleagues were very willing to help and really wanted me to understand the work that they were doing.

I made friends with some of the students who were completing practical portions of courses and with students who were employed by the lab. I had never worked with mass spectrometers before, so I learned most of the laboratory techniques that I used during my internship.



**Margaret Jia next to the mass spectrometer and the HPLC that she mainly used for her projects.**

During the second month of my internship, I mostly worked on a protocol for quantifying and identifying oligonucleotides under the supervision of *Mr. Nusser*. The project was challenging because many of the nucleotides that I was looking for had similar mass transitions and retention times. Also during the second month, I learned how to change the motor oil on mass spectrometer pumps and how to calibrate the machines.

My interactions with my colleagues were all positive. They were very accepting and generous with their time. They encouraged me to ask questions and to participate in lab activities.

My experience with my internship at KIT allowed me to grow and mature much more than I anticipated. More than just the scientific aspect and the work and learned and completed in the lab, I faced difficulties that I had to deal with alone and in a different environment. For example, when I broke my glasses, I had to purchase contact lenses from the drug store and order new glasses from an optical store in central Karlsruhe. I had to navigate my way through getting stranded in Freiburg overnight when a storm rendered part of the train track unusable between Zurich (where I had done some sightseeing on a weekend) and Karlsruhe. These situations and many more similar ones challenged me and forced me to find solutions efficiently.

I learned so much more than what I went to Germany to learn, and I will forever be grateful for this experience.

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