# PRE-MED









### INTERNSHIPS IN GERMANY

Krupp Internship Program for Stanford Students in Germany



The Krupp Internship Program arranges 3–6 month, fully paid internships with leading companies and institutions all over Germany for students of any major/minor who have participated for at least one quarter in the Stanford-in-Berlin Program and have completed the equivalent of 1 year of college-level German. Pre-medical students have access to hands-on experiences through the Krupp Internship Program. Past placements have included internships in biology, bioengineering,

chemistry, and psychology. The program has placed students in hospitals (with departmental rotation and/or with emergency room access), commercial and government research institutions (sometimes in connection with hospitals and clinical facilities), associations of classical alternative medicine, and veterinary medicine. During these internships, students shadow doctors, examine and consult with patients, do lab research, and learn about the German health care system.







Internships provide first-hand premedical experience and may help students decide whether medical school is the right choice for them. A medical internship abroad enhances an academic record while providing a deeply enriching, personal experience at a key point in a student's academic career. Students should

not be intimidated by the prospect of working in a foreign language and culture—as students frequently report, that is actually the most exciting part! Countless cases prove that, with foresight, it is easily manageable to study abroad, complete an internship, and still graduate on time.



"I got to work every day at 7 am where I spent the first hour drawing blood, administering IVs, giving shots, and laying intravenous needles. Around 8 am I would accompany an assistant ward doctor and another German medical student on ward rounds. This would take between two and three hours. I would listen to the doctor chat with the patients, answer questions, and explain test results. During these rounds I learned how to listen to the heartbeat and lung through a stethoscope. Then we would all eat breakfast together around 11 am. After breakfast I would join other medical students in talking with new patients where we would take patient medical history and perform basic physical. examinations. Throughout the day I would draw blood and give patients medication. The workday would end between 2:30 and 3 pm. Every Wednesday I attended an hour long class session with the other medical students where we learned how to read EKGs or how to identify certain diseases. My tasks were very worthwhile. I will use them in the future, because I would like to become a doctor [she did]. I got to do things that students in America cannot do until much later on in their medical training. It was very exciting."

Erin Atkinson (Chemistry), Krankenhaus Lichtenberg, 2004 "I wanted to do research with this department [Allogenic Stem Cell Transplantation] because I thought it would be a field of medicine that would allow for both interesting clinical work and research. This turned out to be the case. [...] I contributed to a thesis project, and in doing so gained new experience with clean bench work, T cell manufacturing, and flo cytometry. All of this was new for me but very relevant for the kind of work I see myself doing in the future. I was also involved in analyzing results, and ended the internship with a substantial presentation that provided new conclusions to the work so far. I also had the opportunity to shadow the doctors in the clinic weekly."

Gabriela Steiner (Human Biology, German Studies), Charité – Universtitätsmedizin Berlin, Clinic of Hematology, Oncology and Cancer Immunology, 2017

"My responsibilities were incredibly fulfilling; skills learned from the classes I took were immediately put to use, such as EKG graph reading. Other skills of empathy, passion, and requirement of focus for long periods of time will be practical regardless of whatever I decide to pursue. [...] Being in a completely Germanspeaking environment forced me out of my comfort zone, and being exposed to what are and are not acceptable work social norms was interesting. Specifically, doctor-patient interactions were different in Germany than in the US."



Michael Figueroa (Chemical Engineering), Sana Klinikum Lichtenberg, 2019



As an intern, I was helping out with multiple projects going on in the lab before taking on a project of my own—a retrospective analysis to evaluate a relatively new drug with respect to multiple prognosis factors. In lab, I helped with tumor sample collection and preparation for entry into the Tumor Bank Ovarian Cancer (TOC) at the Charité, which included watching live tumor debulking surgeries, which can be open abdomen for metastatic tumors. I also was attending the Tumor Conference (TuKo) where many doctors get together and discuss patient cases and decide on group recommendations for the patients' treatment plans. I also worked on sequencing data analysis under a PhD student and learned how to apply novel bioinformatic methods, with particular interest in in situ sequencing to better understand the tumor microenvironment. I really enjoyed being involved in many different moving parts within the lab and getting to see each step of the process in building and maintaining a tumor bank, as well as conducting research using the information in the tumor bank.



### Camryn Franke

(Bioengineering, German Studies), Charité – Universitätsmedizin Berlin, Department for Women's Medicine, 2022



## These are some of the institutions and companies that have provided internships in the past:

- Charité Universitätsmedizin Berlin https://www.charite.de/en
- BGM Associates
   https://www.bqmassociates.net
- German Institute of Human Nutrition (DIFE): https://www.dife.de
- German Cancer Research Center (DKFZ) https://www.dkfz.de
- Max-Delbrück-Centrum (biomedical research) https://www.mdc-berlin.de
- Sana Klinikum Lichtenberg, Berlin https://www.sana.de/berlin
- Habichtswald-Klinik Ayurveda https://www.ayurveda-klinik.de
- Pferdeklinik Dallgow (veterinarian medicine) https://www.pferdeklinik-dallgow.de



### Stanford @ Charité Berlin: Women's Health in Comparative Perspective

BOSP Berlin center and the specialist group for gynecology at the Charité-Universitätsmedizin Berlin cooperate in teaching and research. The working group Tumor Bank Ovarian Cancer (AG TOC) offers research internships for bachelor students that are particularly suitable for students of biology and human biology, biochemistry, bioinformatics and biomechanical engineering. As the program develops, we hope to offer a course in women's health in the spring quarters of the Berlin centerspecifically designed for prospective medical students in anticipation of their internships at Charité, but also open to qualified students who do not intend to do a subsequent internship.

#### The Krupp Foundation

Alfried Krupp, the last head of the steel firm Krupp AG, was found guilty at Nuremberg for war crimes and crimes against humanity. Sentenced to twelve years, he was pardoned by US High Commissioner McCloy after serving two. Krupp left his entire private and corporate estate to the philanthropic foundation that bears his name; it has supported science, art & culture, education, health, and sports for over half a century. Berthold Beitz, head of the foundation from its founding until his death in 2013, is honored, with his wife Else, in the Yad Vashem holocaust memorial as "Righteous Among the Nations" for saving hundreds of Jews in Poland during World War II. Beitz personally initiated the "Krupp Internship Program for Stanford Students in Germany."



#### Berlin Program Information and Download of this Flyer:

H.G. Will Center. Bing Overseas Studies Program in Berlin: https://bosp.stanford.edu/berlin

Contact: krupp-internship@stanford.edu



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