Leipzig master students Philine Hietschold and Franziska Dreher (sitting) present their protein models to Vanderbilt graduate students Greg Sliwoski and Liz Dong during their 2012 summer internship at Vanderbilt University in the Meiler laboratory. (Courtesy of Jens Meiler)

In 2007, while Jens Meiler was visiting his parents in Germany, the associate professor of chemistry was invited to give a lecture at his alma mater, the University of Leipzig.
“When I gave that talk on my research in structural and chemical biology, I found a tremendous amount of interest in what we are doing at Vanderbilt and learned that there is a great deal of complementary research going on in Leipzig,” Meiler said.

In fact, Meiler stirred up so much interest that two years later Annette Beck-Sickinger, professor of biochemistry and bioorganic chemistry at Leipzig, spent her sabbatical at Vanderbilt. During her visit she helped establish a number of collaborations, leading the administrations of the two universities to sign a five-year memorandum of understanding that allows and encourages academic exchanges, facilitates joint research programs, student programs and a cultural exchange program.

Over the last few years, the size of the collaboration has grown to embrace 20 faculty members at the two universities; more than 20 graduate students have spent time studying at the other campus; and groups of five undergraduates have been exchanged for the last few summers. Last October, Leipzig Professor Daniel Huster spent 10 days on campus to teach a mini-course on the use of NMR spectroscopy in biology. The collaboration has its own website.

Leipzig professor Daniel Huster taught a mini-course at Vanderbilt last fall. (Courtesy of Jens Meiler)

“Leipzig has become one of our half-dozen strategic international partners,” said Tim McNamara, vice provost for faculty and international affairs. “It is a very productive relationship and we certainly want it to prosper.”

Leipzig University was founded in 1409 and has enjoyed 600 years of uninterrupted teaching and research, making it the second oldest university in Germany. It is also one of Germany’s top 20 research organizations. The university has made it a tradition to cross academic boundaries and promote interdisciplinary research.

Although furthering research is a major goal of the collaboration, it also provides opportunities for significant cultural exchanges. For example, Vanderbilt graduate student Stephanie DeLuca, wrote about her experience during five weeks in Germany on the collaboration website. “Because we stayed in a guesthouse near the city center, there were always many exciting activities to enjoy while we were...
not in the lab. In addition to shopping and visiting the Bach, Stasi and Grassi museums, we saw great performances by the Gewandhaus Orchestra and the Thomanerchor (boys’ choir). We also traveled to Dresden and Berlin, where we learned more about German history. While in Berlin, we visited many sites relevant to World War II and the Cold War, and we celebrated the German Reunification in front of the Brandenburg Gate.”

To support this relationship, the Provost’s office and the Medical Center are providing “seed funding” for up to three years that is matched by Leipzig to cover the additional expenses involved in establishing collaborations with Leipzig researchers. Although the collaboration remains centered on chemical biology, it has expanded to include some social scientists and engineers. The objective is to give these partnerships the support they need to successfully compete for external funding.

Vanderbilt undergraduate student Vanessa Arredondo discusses her scientific findings with Jan Stichel, Annette Beck-Sickinger, and Cornelia Walther (from right to left) in Dr. Beck-Sickinger’s office at Leipzig University during a 2010 summer research stay. (Courtesy of Jens Meiler)

Here at Vanderbilt, the collaboration has found an administrative home in the Institute for Chemical Biology (http://www.vanderbilt.edu/vicb/), directed by Larry Marnett (https://medschool.mc.vanderbilt.edu/facultydata/php_files/show_faculty.php?id3=809) who commented, “The VU-Leipzig initiative is a great example of a grassroots partnership based on complementary scientific interests. It has already led to many joint publications and grant proposals and is a model for collaborative international endeavors.”

Meiler and his colleagues have received a $70,000 grant from the National Science Foundation (http://www.nsf.gov) that has enabled the group to hold research symposia at both Leipzig and Vanderbilt involving faculty from both schools, pay for research trips for graduate students, allow faculty to teach short courses at each other’s campus and provide post docs and undergraduate students with summer internships. In addition, several Vanderbilt undergrads have scored scholarships from a German Research Internships in Science and Engineering program that has allowed them to carry out research in chemical biology in Leipzig.
Vanderbilt faculty Terry Lybrand, Heidi Hamm, John McLean, Jeff Johnston, Seva Gurevich, and Jens Meiler (from left to right) with Mrs. Lybrand (in the front) and LU project coordinator Anja Landsmann (in the back) have lunch in Leipzig at the “Stelzenhaus” in May 2011. (Courtesy of Jens Meiler)

Leipzig Professors Bernd Abel, Daniel Huster, Thorsten Berg, Torsten Schoeneberg, and Leipzig University vice chancellor for Research Martin Schlegel (from left to right) during a lunch break of the Vanderbilt-Leipzig Symposium in November 2011 in Nashville. (Courtesy of Jens Meiler)

The Leipzig connection is the latest case where grassroots efforts on the part of individual Vanderbilt researchers have led to formal relationships, according to McNamara. Older international partnerships that began in a similar fashion include Queen’s University Belfast, which was established by faculty members in the Robert Penn Warren Center; the University of Sao Paulo, which has productive collaborations in art, education policy and history; and the University of Melbourne, one of Vanderbilt’s strongest relationships, that extends across a number of academic fields.