

Vanderbilt, Leipzig research collaboration sees strong results

by **Matt Windsor**

During the past two weeks, the fifth international symposium between Leipzig and Vanderbilt universities was held on the Vanderbilt campus, as seven Leipzig faculty members presented a series of chemical biology-related lectures.

The symposium offered an opportunity to highlight the ongoing success of the international collaboration.

To date, there have been 17 joint publications between research groups at the two universities.

This summer, the first federally funded research grant resulting from the collaboration was awarded by the National Institutes of Health (NIH). The project is aimed at developing drugs for a specific type of protein known as a G-protein-coupled receptor (GPCR).

The grant was spearheaded by Annette Beck-Sickinger, Ph.D., professor of Biochemistry and Bioorganic Chemistry at Leipzig, and at

Vanderbilt by Jens Meiler, Ph.D., associate professor of Chemistry and Pharmacology, and David Weaver, Ph.D., assistant professor of Pharmacology and scientific director of the Vanderbilt High-Throughput Screening Facility.

"We work on GPCRs that play a role in obesity and colon cancer," Beck-Sickinger said. "We know these receptors. In Leipzig, we have set up biochemical assays that are necessary to study these receptors, a process that required several years of dedicated effort."

"Leipzig is providing the biochemistry and pharmacology; Vanderbilt is providing the high-throughput screening, chemical biology and computation," added Meiler. "Our collaboration enabled us to submit this grant proposal, because Beck-Sickinger's lab is providing a piece to the puzzle that was just not present here at Vanderbilt."

"As NIH funding gets more competitive, for some of these projects an international col-

laboration might just add the critical component that actually pushes you over the funding line," Meiler continued. "For this particular GPCR system, Leipzig and Vanderbilt are the two best places in the world to embark on this study."

In collaborative research projects so far, 40 researchers, including undergraduate and graduate students, postdoctoral fellows and faculty, have had the opportunity to study at the partnering universities.

One graduate student currently visiting from Leipzig is Wilma Neumann. "My project focuses on coupling cisplatin (a chemotherapy drug) to cyclooxygenase (COX) inhibitors," Neumann said. She is working with members of the lab of Lawrence Marnett, Ph.D., to evaluate the effectiveness of her compounds against several cancer cell lines.

"We can't do the tests at home because we're an inorganic lab," Neumann said. "We don't have the facilities



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for the biological tests to evaluate COX activity. There are only a few groups worldwide, as far as I know, who can perform these assays," she said, with the Marnett group being one of them.

This is Neumann's first trip to the United States, and it has already improved her understanding of American culture. "I read a lot and watch of films from the U.S., and you notice some things in there that appear to be strange. Now I

get the meaning of these," she said.

Beck-Sickinger agreed that the collaboration's benefits go beyond science.

"It opens the horizons for the exchange students. It makes them more open-minded. It contributes to their personalities, which I think is an important part of one's Ph.D. education," she said.

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