

MERCK KGAA ENGAGES MIT STUDENTS AS INTERNS THROUGH MIT'S INDUSTRIAL LIAISON PROGRAM AND MIT-GERMANY PROGRAM

Merck KGaA, in the U.S. known as EMD, is the oldest pharmaceutical and chemical company in the world and a leading innovator in oncology and cardiometabolic drugs, liquid crystals and organic light-emitting diodes for displays, and effect pigments. Merck has been a member of MIT's Industrial Liaison Program (ILP) since 2000. Through Merck's Office of Technology, the company joined ILP to enable the company's specialty chemicals, pharmaceuticals and life science and analytics businesses to draw useful expertise and advice from MIT's faculty, identify future business and product opportunities, develop collaborations with selected MIT researchers active in fields of value to Merck, and find ways to apply MIT talent to Merck's scientific and engineering challenges.

During the first years of Merck's membership, staff from the Office of Technology visited MIT frequently, using ILP's assistance to identify and evaluate MIT's activities and expertise in fields that could have an impact on Merck's businesses. As this survey expanded, ILP worked with the Office of Technology to build a large network of Merck managers, across all of Merck's businesses, who could benefit from ILP's communications, conferences, and rapid ability to bring MIT's resources to bear on Merck's questions.

One way that ILP was able to assist Merck was in the recruiting of MIT students to work as interns at Merck's Darmstadt headquarters, in research and engineering functions. The company's Industrial Liaison Officer, Steve Michaels, introduced Merck's Central Engineering Department to Sigrid Berka, Managing Director of Placements and Industrial Relations of the MIT-Germany Program, who educated Merck managers on how the MIT-Germany Program could serve as a simple and effective means to bring internship opportunities at Merck to the attention of MIT students, and to link Merck up with MIT's annual Euro Career Fairs and other mechanisms for enhancing the recruitment of MIT undergraduate and graduate students.

In 2004, Merck's Central Engineering Group opened an opportunity for an MIT student to

fill a summer internship in Automation and Control. Through the Department of Materials Science and the MIT-Germany Program, Merck selected an MIT Materials Science student to work with project engineers on projects related to pharmaceutical and chemical production over a ten week summer engagement. Merck's Director of Automation and Control, Dr. Daniel Reinhold, said, "the student was very clever so she had no problem to pick up new topics and tasks. [Her] basic engineering training helped her to adapt fast." Another intern was hired by Dr. Friedrich Rippmann, Director, Preclinical R&D/Global Technologies/Bio- and Chemoinformatics. This group within Merck Pharma always has potential projects for interns, and was able to hire a very able candidate through the MIT-Germany Program. The student's CV indicated that she would be a very good match to Merck's needs, so she was invited to Darmstadt for an interview and then offered the internship. The MIT-Germany program arranged working papers and visas for a year-long internship from March 2005 to February 2006, during which the student, "did excellent software development work in two projects, related to protein structure visualization," according to Dr. Rippmann. He added, "the candidate was very well prepared in technical skills, and she had a specific interest in German culture."

In summer 2005 Merck hired an additional MIT undergraduate from the Department of Biology, again with help from the MIT-Germany Program, for a summer position in Merck's Oncology Research Department in Darmstadt. Merck surveyed interested MIT students and then created a work plan that matched the capabilities of one of the students with Merck's needs. Merck's VP of Global Oncology Research / NCE, Dr. Jens Oliver Funk, said, "[The intern was] pretty well prepared for scientific exposure [in this position]. Since he was flexible and motivated, he learned a lot 'on the job' when we intensively coached him here. He interacted very well with people at various levels and we were overall very pleased since he brought with him initiative and ideas." Dr. Funk said he would like to recruit MIT students or graduates from MIT for future job

openings in his Department and continued, “I would highly recommend it [employing an MIT student intern], and stress the input we have to give here, in parallel. It does not fall into place just automatically.”

In both cases, to assist the success of the interns in their employment at Merck, the MIT-Germany Program and the Industrial Liaison Program followed up on the internships by meeting with the students during or after their residencies at Merck and interviewing the Merck managers who supervised them, to determine the level of success of the internships for the students and for Merck, and to identify ways to make future internships more successful. The student interns wrote experience reports for the MIT-Germany Program as part of their internships as well.

In conjunction with these internship experiences, the ILP and MIT-Germany Program introduced Merck’s Central Process Engineering Department and Human Relations Department to the MIT Euro Career Fair, organized by MIT students and held every year in late January. Merck first participated in this career fair in 2004 by sending two engineering managers (one of which was Dr. Reinhold), and returned in 2006 with a larger group of engineers. While in 2004 Merck was not actively recruiting at the Fair, but only exploring its capability to help Merck meet interested students, in 2006 Merck sent a larger group of recruiters and identified over ten candidates to consider for open positions in the company.

The ILP additionally has assisted Merck by distributing new job descriptions seeking MS or PhD-level talent in various disciplines to appropriate departments and individual faculty members at MIT whose students have the needed skills and knowledge and potential interest in Merck and its challenges.

In these ways, MIT’s Industrial Liaison Program and MIT-Germany Program continue to work closely with Merck to help the company recruit MIT students and graduates for its needs in Darmstadt, and perhaps for other sites in the future.

For more information about how we can put the resources of MIT to work for you, call the Industrial Liaison Program at 1-617-253-2691, e-mail us at liaison@ilp.mit.edu, or visit <http://ilp-www.mit.edu/>