

January 22, 2008

Report to the Sabbatical Leave Committee on sabbatical leave 1/2007-1/2008

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I requested and was given a sabbatical leave from January 2007 until January 2008. During the sabbatical I intended to learn about new biobased composites and nanocomposites and develop a working collaboration with Dr. Leonardo Simon at The University of Waterloo, Ontario, Canada. I also wanted to travel to attend conferences and travel to other universities leading to additional international collaborations.

In the course of my leave I worked with Dr. Simon to explore areas of common interest in nanotechnology and biobased materials. I attended seminars related to that subject and gave a seminar to his group about my work at MTU. I learned about several research projects, and am in the process of establishing a collaborative research program with him. A proposal for a joint research effort will be written in the future. In Ontario I also met with an international environmental group who fund research and am initiating a project with them that may lead to funding.

I traveled to Mexico and India and am similarly working on developing collaborative efforts in both countries. In Mexico I gave a poster presentation at The 20<sup>th</sup> National Congress of the Polymer Society of Mexico (Nov. 1, 2007) and met with Dr. Gabriel Luna Barcenas of Cinvestav-Queretaro (Center for Research and Advanced Studies of the National Polytechnic Institute) and Dr. Antonia Richa-Martinez (University of Guanajuato). Discussions are underway to develop ties with both institutions to facilitate student and faculty exchanges. I hope to visit Cinvestav during the next year to further develop collaboration in sustainable and advanced materials development with Dr. Barcenas. Dr. Richa-Martinez sent a draft agreement for possible research exchanges for student and faculty which has been forwarded to Marilyn Vogler for possible further action.

I also traveled to Kerala, India where I presented a poster presentation at the International Conference on Natural Polymers, Bio-Polymers, Bio-Materials, their Composites, Blends, IPNs, and Gels: Macro to NanoScales (ICNP 2007): November 19, 2007. While in India I also gave seminars at The University of Cochin Institute of Rubber Technology, Department of Chemistry, Mahatma Gandhi University, and the Plastics Society in Trivandrum. Activities for collaborations and student recruiting activities were engaged in at each of these locations.

During the course of this sabbatical I also wrote a book chapter, a research report, presented 2 seminars in the U.S. (at an EPA meeting in Washington D.C. and in the Forestry Department at The University of West Virginia, Morgantown), and engaged in research activities at MTU as a part of an existing funded research project.