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CMU FACULTY APPLY FOR GRANTS TO FURTHER NANOTECHNOLOGY RESEARCH

MT. PLEASANT, Mich.—Five Central Michigan University faculty members have applied for nano-related grants from the National Institutes of Health, totaling nearly one million dollars.

Assistant Chemistry Professor **Minghui Chai** has filed a proposal for her project titled, “Novel Dendritic Design of Nanomedicines for Drug Controlled Release.” She has requested \$210,000 from the NIH and plans to further her research regarding the phenomenon of nuclear magnetic resonance and developing new NMR techniques and their application to the solution of problems in chemistry and materials science.

Assistant Professor **George Kaminski** has filed a proposal for his project, “Computer Aided Studies of Apoptosis Inhibition: Finding Ways to Reactivation.” Kaminski’s request of \$210,000 from the NIH will focus on the development of accurate methods for assessing intra- and inter-molecular interactions in molecular simulations with empirical force fields. High-level ab initio quantum data are used as a source of fitting data and as a benchmark for testing the resulting techniques.

Associate Professor **Mary Tecklenburg** and Assistant Professor **Marco Fornari** have filed a \$226,000 proposal with the NIH for their project, “Spectroscopy of Protein Mediation of Bone Mineralization.” Tecklenburg was recently awarded \$34,000 for her project, “Raman Imaging of Bone Tissue Mineralization.” In their research, vibrational spectroscopy is used to solve problems dealing with molecular structure.

Assistant Professor **Anja Mueller** has filed a proposal for her project, “Polysaccharide-based Materials for Skin Scaffolds, Synthesis and Characterization.” She has requested \$220,000 for her research of polysaccharide-based materials to be used for the development of an improved artificial, biodegradable skin scaffold for burn victims. The scaffold will be designed with the correct surface structure to allow for cell differentiation and incorporate the delivery of various growth factors for improved healing.

To learn more about the research and research interests of these and other CMU faculty involved in the Dendrimer Center, please visit <http://www.dendrimercenter.org/research.html>.

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