

Department of Microbiology Center for Biomarker Analysis

10515 Research Dr., Ste. 300 Knoxville, TN 37932-2575 (865) 974-8031 FAX: (865) 974-8027

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Dear Committee Member,

I would be happy to collaborate with you on the proposed Kimballton DUSEL project. As a research assistant professor, my research has focused on increasing our understanding of the heterogeneity, microbial community structure, physiology and ecology of the subsurface microbial community and applying this knowledge to monitor subterranean environs, improve remediation processes, and develop biotechnological advancements. My field site experiences include (1) Subsurface Science Projects at Aiken, SC (Savannah River Site); Cerro Negro, NM; Parachute, CO; Oyster, VA; (2) Bioremediation Projects at the Savannah, Columbus AFB, MS; General Motors, Warren, MI; Dover AFB, DE (Remediation Technology Development Forum Consortium); and other DOE sites (ORNL, INEL, Kansas City Plant, Portsmouth); and (3) Life In Extreme Environments involving South African gold mines.

I have worked to link research to education and outreach activities by leading the U.S./South African Undergraduate Education and Research Workshops and a REU Site, Biogeochemical Education Experience – South Africa. These NSF-funded programs targeted underrepresented minority undergraduates with the goal to engage them is the scientific experience and to encourage them to scientific careers. As part of the Indiana-Princeton-Tennessee Astrobiology Initiative, I lead the education and outreach activities at the local, regional and national level.

I am honored to participate in Kimballton DUSEL as the education and outreach team leader. The Kimballton site will allow for research and educational bridge building between Virginia and Tennessee, as well as, provides a facility to bring in the Appalachian community through economic and educational developments. It would be a pleasure to transfer technologies gained through my South African REU and use them for the basis of an REU at this DUSEL facility. From a microbial ecologist, perspective the Kimballton DUSEL provides a site with long-term access to sedimentary rocks.

Sincerely,

Susan M. Pfiffner, Ph.D.

Research Assistant Professor

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