

The John T. Lyle Center for Regenerative Studies at Cal Poly Pomona University has named Dr. Michael Page, an Assistant Professor of Chemistry, as a Lyle Center Faculty Fellow for 2008-2009. Dr. Page is researching the waste vegetable oil collected by the Lyle center from local vendors for the development of oil-based paints.

Urethane oils (UOs) are one of the most widely used types of materials in the paint and coating industry. In fact, linseed oil has been used as a prime ingredient of protective varnishes and decorative coatings for centuries. Typically UOs are formulated using linseed, sunflower, soybean, tallow, and dehydrated castor oils.

Through his research, Dr. Page hopes to help position Cal Poly Pomona as a leader in the development of environmentally sustainable oil-based paints and varnishes starting from waste vegetable oil instead of pure oils that are typically used to make these products.

At the Lyle Center and in his own lab, waste vegetable oil is converted to biodiesel. In the case of UOs, vegetable oil is reacted with commercially available glycerol. Dr. Page is hoping to use recovered glycerol (up to 80-90% purity) as a substitute for commercially available glycerol to make urethane oil. By using recycled crude glycerol, Dr. Page will reduce the chemical waste generated in the Chemistry Department and at the Lyle Center. Dr. Page hopes this research will lead to the creation of sustainable markets for crude glycerine.

Dr. Page has been an Assistant Professor at Cal Poly since 2008. He was a NIH Postdoctoral Fellow 2006-07 at Caltech and received the UCLA Excellence in Teaching Award in 2005. He holds a PhD in organic chemistry.

Lyle Center Fellows are required to present their work in an informal seminar at the Center and prepare a brief summary paper reporting on their research. Information about Dr. Page's seminar presentation will be announced later this year.

About the Center:

The mission of the John T. Lyle Center for Regenerative Studies is to advance the principles of environmentally sustainable living through education, research, demonstration and outreach. Located on 16 acres within the Cal Poly Pomona campus, the Lyle Center is designed to demonstrate sustainable living and provide a laboratory for cutting-edge research. The Center demonstrates a wide array of regenerative strategies, including passive-solar building design, energy production technology, organic agriculture, and native plant community restoration. Students and visiting scholars have the opportunity to reside at the Center and participate in its operation as active members of the community. www.csupomona.edu/~crs.