

NEWS RELEASE – Immediate Release

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Keiser University Professor Makes Important Discovery About the Gecko's Climbing Abilities

Stephanie Lopez-Chueng researches adhesive capabilities that would be useful for reusable tapes, self-cleaning products, and even climbing

Tampa, FL –July 5, 2012 - In a collaborative research project to find the mechanisms behind the climbing abilities of geckos, Stephanie Lopez-Chueng, Professor of Biology at Keiser University's Tampa Campus, has discovered the gecko's stride helps to ensure consistent "stickiness" as it climbs.

Lopez-Chueng, who obtained both her Bachelor's and Master's degrees in biology, made the critical finding with a research team at the University of Akron in Ohio. It was there that she partnered with Dr. Shihao Hu, a PhD student in mechanical engineering, to conduct a thorough investigation into the microscopic hairs, or "setae," on the gecko's foot.

Their findings, which were published in the June 13 edition of *Interface*, the Journal of the Royal Society, demonstrate that every time a gecko detaches its foot from a surface, these setae clean themselves and keep the foot sticky so that it can reattach to a new surface. By removing its toes in a rolling and peeling manner, the gecko removes dirt particles from its foot and ensures stickiness.

"Biologically inspired design, as required to develop gecko-like adhesives, opened the door for collaborations between the biological sciences and other sciences," said Stephanie Lopez-Chueng.

Dr. Hu's and Lopez-Chueng's findings could impact how adhesive products are made and used. The self-cleaning, dry adhesives, similar to the microscopic setae, could be used underwater or in outer space, where typical adhesives that we use today do not work.



Stephanie Lopez-Chueng, Biology professor at Keiser University

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About: Keiser University (KU) serves nearly 18,000 students pursuing doctoral through associate degrees on 15 campuses, employing nearly 3,500 staff and faculty. The university has been regionally accredited by the Commission on Colleges of the Southern Association of Colleges and Schools since 1991 and is a Level VI institution.

Sixty-two percent of KU students graduate in STEM (Science, Technology, Engineering and Math) and healthcare fields, providing the talented workforce necessary for Florida to compete globally. The University ranks 1st in Florida and 2nd in the nation in production of Associate of Science graduates in healthcare professions and 2nd in Florida and 3rd in the nation in production of Associate of Science in nursing graduates*.

Keiser University's educational reach extends globally through its international programs, including the Latin Division, a cooperative agreement in the Eastern European nation of Moldova, and a campus in Shanghai, China.

**Source: Community College Week evaluation of US. Dept. of Ed--Integrated Postsecondary Education Data System IPEDS 2010 Rank*