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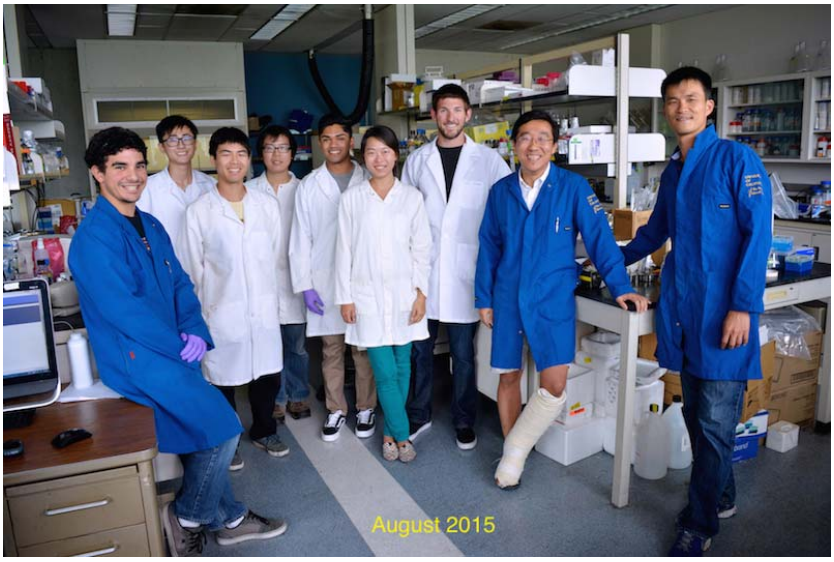
Xin Ge Received NIH R01 Grant for Antibody Research



Assistant Professor Xin Ge has been awarded $1.5M by National Institutes of Health for research on monoclonal antibodies (mAbs). Supported by this 5-year grant, Dr. Ge's lab aims to discover and engineer human mAbs having specific inhibition functions targeting a class of proteases of biomedical importance called MMPs (matrix metalloproteinases).

"MMPs play important roles in many disorders, including cancer, chronic pains, hypertension and inflammation diseases", Dr. Ge explained. "Although small molecule MMP inhibitors have been extensively studied for years, none of them passed clinical trials".

It turns out that chemical compound inhibitors lack the high selectivity required for a successful therapy. "Our lab will address this challenge by developing antibody-based inhibitors". Ge's lab applies a variety of biotechnologies such as antibody library synthesis, fluorescent cell sorting, and next generation DNA sequencing for the generation of mAbs. "Combination of these state-of-the-art techniques will accelerate our drug discovery process. We're also very enthusiastic to elucidate the inhibition mechanisms of mAbs, and to evaluate the efficacy of isolated lead mAbs in mouse studies through established collaborations."

Dr. Ge joined CEE department in 2011 after his postdoc training at University of Texas at Austin. He obtained his B.S. from Tsinghua (China) and Ph.D. from McMaster (Canada), both in Chemical Engineering.

More information about Dr. Ge's laboratory can be found at http://www.engr.ucr.edu/gelab/.