



## FEATURED MEMBERS



### Dr. Mengyan Li (李孟岩)

Assistant Professor

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#### *1. My career path?*

I received my bachelor degree in Environmental Engineering from Nankai University in 2008. Then I joined Dr. Pedro Alvarez's group at Rice University and received my MS and PhD in Environmental Engineering in 2010 and 2013, respectively. My PhD dissertation focused on the development of genetic biomarkers to assess the natural attenuation of 1,4-dioxane. I also participated in some projects to investigate the implication and application of engineered nanomaterials. After graduation, I continued my postdoctoral research at Dr. Alvarez's lab where I had a chance to extend my research on exploiting microbial ecology by using state-of-the-art omics and single cell analysis. In September 2015, I joined NJIT as an Assistant Professor.

#### *2. Your current research areas, interests, and projects?*

My research is oriented to advance our knowledge on applied microbiology and molecular biotechnology and develop innovative techniques to mitigate and address environmental issues related to water and energy. My primary interest is to develop water remediation techniques that deploy microorganisms to biodegrade organic pollutants of emerging global concern. We further research interdisciplinary methods for improving urban water and wastewater treatment technologies, including the application of nanotechnology to disinfect supplies contaminated with pathogens and the use of biomass-derived charcoal to remove trace toxins. To examine the microbial processes in natural and engineered systems, we integrate conventional isolation and microscopic approaches with modern culture-independent biotechnologies. Other projects include mitigation of biofouling in membrane treatment facilities, controlling of microbial induced corrosion, and identification of microbial enzymes for biofuel production.

#### *3. Courses you normally teach?*

I have been teaching junior-level Environmental Biology, senior/graduate-level Environmental Microbiology, and graduate-level Bioremediation.



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*4. My professional activities?*

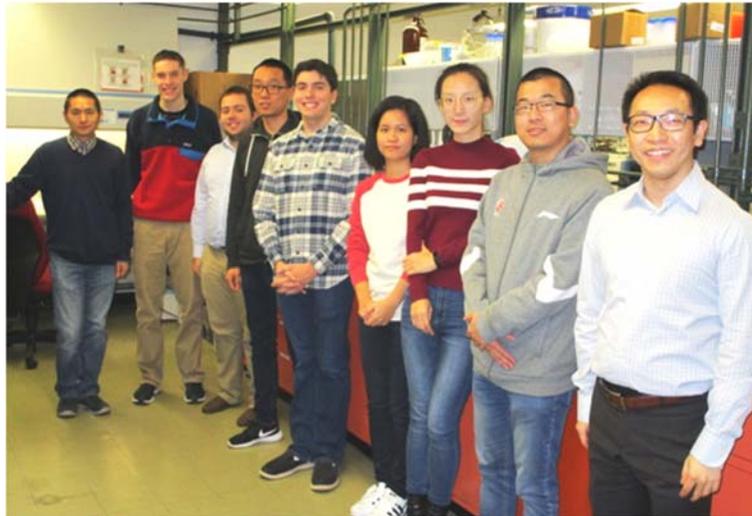
I am a member of the American Chemical Society (ACS), the American Society of Microbiology (ASM), and the Association of Environmental Engineering and Science Professors (AEESP). I am currently serving as a board member for the Passaic River Community Advisory Group.

*5. Major attractions and cultural environment of your area and/or community?*

Newark is under the umbrella of the New York metropolitan area, the most populated and urbanized region in the world. Through public transportation, our campus is well connected with Manhattan, the heart of the Big Apple where cultures from all over the world commingle. If you are an art enthusiast, you can't miss the Metropolitan Museum of Art and the Museum of Modern Art (MoMA) along with galleries scattered in Chelsea and Lower East Side. Here is, of course, the heaven for foodies as well.

*6. Key factors that lead to your career today?*

Being motivated and persistent are two driving forces for me to unravel the unknowns and innovate our traditions. Personally, I also enjoy offering help to my students and seeing them grow and thrive.



Dr. Mengyan Li and his research group at NJIT