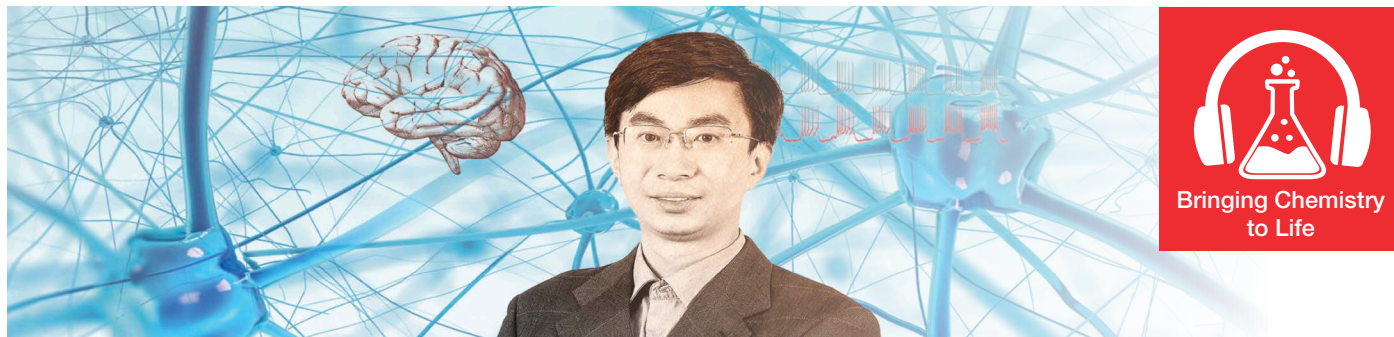


Bringing Chemistry to Life podcast series

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Season 1: The 2019 C&EN's Talented 12 Episode 9: Watching chemistry as it happens



Episode abstract

Life is the result of an incredibly complex mix of chemical reactions, all happening at the same time, influencing each other. These apparently chaotic and incomprehensible systems are elegantly regulated at organ, tissue and even cellular and sub-cellular level. Most of these chemical phenomena are not fully understood and the scale and complexity of the micro-environment where they happen often prevent scientific observations without perturbing them. This is where out-of-the-box chemical thinking can make a difference, and this is what Dr. Peng Zou has dedicated his research efforts to. Smart use of chemical tags can allow us to literally visualize chemical phenomena inside the cell as they happen, using relatively straightforward technologies such as fluorescence microscopy. One reaction at a time, Peng's team is developing detailed cellular maps and achieving significant advances in the comprehension of the cell's chemical machinery. This episode is masterful example of how chemistry can advance biological knowledge.

About our guest

Peng Zou, PhD

Assistant Professor, Department of Chemical Biology,
Peking University

Peng's group site:

<http://www.zoulab.org/>

C&EN Talented 12 profile of Peng:

<https://cen.acs.org/biological-chemistry/neuroscience/Peng-Zou/97/i33>

Recent Publications from Peng:

- [The evolving capabilities of enzyme-mediated proximity labeling](#)
- [Mapping spatial transcriptome with light-activated proximity dependent RNA labeling](#)
- [Hybrid Indicators for Fast and Sensitive Voltage Imaging](#)
- [Imaging Neuronal Activity with Fast and Sensitive Red Shifted Electrochromic FRET Indicators](#)
- [Chromophore-Assisted Proximity Labeling of DNA Reveals Chromosomal Organization in Living Cells](#)

Peng's Content Recommendations:

- [For the Love of Enzymes: The Odyssey of a Biochemist](#) (a book by Arthur Kornberg)
- [The Three-Body Problem Trilogy](#) (a science fiction book trilogy by Cixin Liu)

This podcast series is available via the following links



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