



SoFlacs



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South Florida Section American Chemical Society

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University of Miami Miller School of Medicine, Department of Biochemistry and Molecular Biology



Friday, April 1, 12:00-1:00 PM

Join via Zoom Meeting

<https://miami.zoom.us/j/92363063694?pwd=TjJjb3pab2dFOENIS3NMdIlzL1c5QT09>

Meeting ID: 923 6306 3694 Passcode: 667619

Bevin P. Engelward, ScD

Professor of Biological Engineering
Massachusetts Institute of Technology

Death versus Cancer: Mechanisms and Methods for Predicting Genotoxicity-Induced Disease Outcomes

Professor Engelward began her scientific career as an undergraduate at Yale University and did her doctoral studies at the Harvard School of Public Health. In 1997 she joined MIT and was one of the founding faculty in creation of the Department of Biological Engineering. Prof. Engelward's work is public health-oriented and includes studies of the causes of DNA sequence rearrangements as well as the creation of novel technologies for detecting rare sequence changes *in vivo* and to measure genomic damage *in vitro*. The major objective of her work is to reveal the underlying mechanisms that drive genomic instability as a basis for contributing to improved global public health.



Frost Future of Chemistry Lecture, University of Miami, Department of Chemistry

Friday, April 1, 3:30 PM

Dafydd Owen

Senior Scientific Director of Medicinal Chemistry at Pfizer

Oral Inhibitors of the SARS-CoV-2 Main Protease for the Treatment of COVID-19

Via ZOOM – Ctrl+Click on link below

JOIN THE LECTURE

As the COVID-19 pandemic swept the globe, Dafydd Owen, along with a team of experts at Pfizer, designed a drug that could kill the SARS-CoV-2 virus. [Owen will discuss small molecule inhibition of the viral main protease \(Mpro\) has been a successful anti-viral therapeutic strategy in HIV and HCV.](#) Structural insight on the SARS-CoV-2 Mpro and previous small molecule experience with intravenous SARS-CoV-1 inhibitors gave a starting point for an oral Mpro inhibitor program in response to the COVID-19 outbreak. The discovery of the oral SARS-CoV-2 Mpro inhibitor nirmatrelvir, that displays potent anti-viral activity, will be described.

Owen has two dozen years of experience as a medicinal chemist in the design and synthesis of drug-like molecules at Pfizer R&D in the UK and the United States. His current role focuses on using medicinal chemistry in new areas of science, in particular emerging protein families of interest. In 2021, he received Pfizer's highest scientific award as both an individual and as a team member—The Breakthrough Science and Innovation Prize.