Promega

SEBBM

Sociedad Española de Bioquímica y Biología Molecular

Live Webinar: "*Studying Endogeneous Protein Dynamics through CRISPR-Mediated Tagging with a Luminescent Peptide*"

Date: **Wednesday, September 16, 2020**
Time: **05:30 PM Central European Summer Time**
Duration: **1 hour**

CRISPR/Cas9 technology has revolutionized genome editing by offering a simple method to tag proteins at endogenous loci, facilitating the study of protein biology while maintaining proper transcriptional regulation, expression levels and stoichiometry with binding partners. By contrast, ectopic expression of tagged proteins can lead to a variety of overexpression artifacts, like mislocalization, aggregation, or dysregulation of degradation. HiBiT, an 11-amino-acid bioluminescent peptide, represents an ideal tag for endogenous labeling due to its small size and large, linear dynamic range. In this live talk, we will highlight an efficient, cloning-free method for knock-in of HiBiT. We will demonstrate that this represents a scalable strategy for studying protein dynamics, including abundance, localization, modification, and interactions. We will also focus on the application of this method to monitoring PROTAC-induced protein degradation, highlighting the importance of endogenous expression in achieving biologically meaningful results.

Register

https://bit.ly/SEBBM-Promega

Christopher Eggers, PhD
Senior Scientist,Promega Corp.

Dr. Christopher Eggers received his Ph.D. in biochemistry and molecular biology from the University of California at San Francisco and then completed a postdoctoral fellowship at the Howard Hughes Medical Institute at UC San Diego. Since 2011, Dr. Eggers has been a Senior Research Scientist at Promega, where he has focused principally on the development of the NanoLuc® and NanoBiT® technologies to create new bioluminescent assays that simplify the measurement of protein dynamics.