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# Bioluminescent Technologies for Studying Protein Biology and Cellular Responses

NanoLuc luciferase is a novel sensitive luciferase that can be used for standard gene expression studies. However, it also provided foundation for the NanoBiT and HiBiT technologies that can be utilized for studying various aspects of protein biology. In this talk, we will discuss how to easily study reversible protein:protein interactions and set up fast and sensitive immunoassays with the NanoBiT technology. In the second part, we will focus on the small peptide tag HiBiT which serves as an excellent tool for protein quantification in combination with CRISPR. By endogeneous tagging you can then monitor various cellular events without the necessity of using antibodies. We will discuss different applications for this tag and how it can be used e.g. for protein quantification, monitoring protein trafficking or viral infection.