

IMPOSSIBLE TO POSSIBLE: A GENERAL STRATEGY TO LABEL LIVING SPECIMENS USING “LIVE-CELL INCOMPATIBLE” DYES WITH EXCELLENT OPTICAL PROPERTIES

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ABSTRACT

Despite the urgent needs of imaging living specimens for the cutting-edge biological research, most of the existing fluorescent labeling methods suffered from either poor optical properties or complicated operations to realize cell-permeability and specificity. A method and a correlative hypothesis are introduced to overcome this tradeoff by incubating living cells and tissues with fluorescent dyes, no matter if they are cell-permeable or not, at particular conditions without additional penetration or chemical modifications. Based on this method, the mitochondrial labeling capability of zwitterionic BODIPY dyes together with interesting interactions between organelles were revealed.

REFERENCE

[1] Y. Han, Z. Zhang, W. Liu, Y. Yao, Y. Chen, X. Luo, W. Wang, Y. Xu, X. Liu, C. Kuang, and X. Hao, “Impossible to possible: a general strategy to label living specimens using ‘live-cell incompatible’ dyes with excellent optical properties,” *unpublished*.