

In our research, we focus on selectively labelling proteins by using canonical amino acids such as tyrosine as reactive handles. By using enzymes such as mushroom tyrosinase, we can selectively oxidize deliberately exposed tyrosine residues for [4+2] cycloaddition with strained alkynes or alkenes coupled to biologically relevant functionalities. These methods is used to rapidly and easily prepare antibody-drug conjugates (ADCs), fluorescently labelled proteins and surface-immobilized antibodies.