

Fully Functionalised Fragments (FFFs) go Viral: A large-scale screen to identify Newcastle Disease Virus (NDV) potentiators

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FGx Target Validation¹, Chemical Biology², Early Oncology TTD³, Quantitative Biology⁴, Hit Discovery⁵, Translational Medicine⁶

Newcastle Disease Virus (NDV) is an oncolytic virus, which selectively infects cancer cells whilst normal cells remain unchallenged. However, not all cancer cells are equally sensitive to NDV and the underlying cellular mechanisms that confer resistance to viral infection are currently unknown. We exploited the Fully Functionalised Fragment (FFF) platform which allows phenotypic screening of a large cell line panel and offers the opportunity for novel target identification. In this study, we screened 450 FFFs at two concentrations in 18 cancer cell lines, which have previously shown resistance to NDV. We looked for fragments, which sensitise cancer cells to NDV and identified a fragment hit and its putative protein targets which are involved in potentiating NDV spreading *in vitro*. Further validation of the identified targets is required to elucidate and further understand their role in enhancing NDV activity.