

Gang Zenga, Marta Buenob, Carlos J. Camachosb, Bala Ramaswamia, Chunqing Luo^a and Parmjeet Randhawaa, Corresponding Author Contact Information, E-mail The Corresponding Author

^aDepartment of Pathology, University of Pittsburgh, Pittsburgh, PA, USA

^bDepartment of Computational Biology, University of Pittsburgh, Pittsburgh, PA, USA

Abstract

BK virus large T antigen (LTA) is a hexameric protein with a helicase activity that is powered by ATP hydrolysis. A mutant virus with Lys420Ala, Arg421Ala, and Asp504Ala mutations at the ATP binding sites showed marked reduction in viral fitness. This observation indicates that high throughput screening for ATPase inhibitors will be valid strategy to discover anti-BKV drugs. Pilot screening of 300 compounds from the Tim Tec ActiTarg K library identified a compound, STO18584, with selectivity index of 19.2.