

## Description of Additional Supplementary files

File name: Supplementary Movie 1

Description: Molecular dynamics dynamic docking simulation of BnOCPA binding to the apo A<sub>1</sub>R

File name: Supplementary Movie 2

Description: Molecular dynamics dynamic docking simulation of HOCPA binding to the apo A<sub>1</sub>R

File name: Supplementary Movie 3

Description: Molecular dynamics dynamic docking simulation of the Gob GαCT to the BnOCPA:A<sub>1</sub>R complex.

File name: Supplementary Movie 4

Description: Molecular dynamics simulation of the BnOCPA:A<sub>1</sub>R:Goa(α subunit) complex.

File name: Supplementary Movie 5

Description: Molecular dynamics simulation of the BnOCPA:A<sub>1</sub>R:Gob(α subunit) complex.

File name: Supplemental Data 1

Description: BnOCPA pharmacokinetics Excel spreadsheet

File name: Supplemental Data 2

Description: Sum D Scripts (zipped folder)