## **Supporting information**

## Detection of drug bioactivation *in vivo*: Mechanism of nevirapine-albumin conjugate formation in patients

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**Figure S1**.Quantitative analysis of NVP and 12-OH-NVP metabolite in plasma from HIV patients receiving NVP. 12-OH-NVP standard (a), 12-OH-NVP (b) and NVP (c) detected in patient plasma, standard curve was constructed with synthetic 12-OH-NVP ranging from 1 nM to 1  $\mu$ M (in 50% methanol/0.1% TFA) (d).

**Figure S2.** Characterisation of human GSTP expressed in *E.coli*. Amino acid sequence of human GSTP is listed (a); Crude GSTP was resolved by SDS-PAGE using 10% gel (b); peptide mass fingerprinting by MALDI-MS to characterize GSTP (c).

**Figure S3**. MS/MS analysis of NVP-modified HSA peptides identified *in vitro*. MS/MS spectra of tryptic peptide <sup>241</sup>VHTECCHGDLLECADDR<sup>257</sup> modified by NVP at either His242 or His247. Characteristic fragment ions from NVP group are circled (a); MS/MS spectra of tryptic peptide <sup>337</sup>RH\*PDYSVVLLLR<sup>348</sup> modified by NVP at His338 marked with an \* (b);

Figure S1



**Figure S1**.Quantitative analysis of NVP and 12-OH-NVP metabolite in plasma from HIV patients receiving NVP. 12-OH-NVP standard (a), 12-OH-NVP (b) and NVP (c) detected in patient plasma, standard curve was constructed with synthetic 12-OH-NVP ranging from 1 nM to 1  $\mu$ M (in 50% methanol/0.1% TFA) (d).

Figure S2





Figure S3



**Figure S3**. MS/MS analysis of NVP-modified HSA peptides identified *in vitro*. MS/MS spectra of tryptic peptide <sup>241</sup>VHTECCHGDLLECADDR<sup>257</sup> modified by NVP at either His242 or His247. Characteristic fragment ions from NVP group are circled (a); MS/MS spectra of tryptic peptide <sup>337</sup>RH\*PDYSVVLLLR<sup>348</sup> modified by NVP at His338 marked with an \* (b);