## **Supplemental Material**

Title: Metabolic profiling of nuciferine in vivo and in vitro

Authors: Hua Gao, Lei Zhang, An Zhu, Xiaoyan Liu, Tianxia Wang, Meiqi Wan,

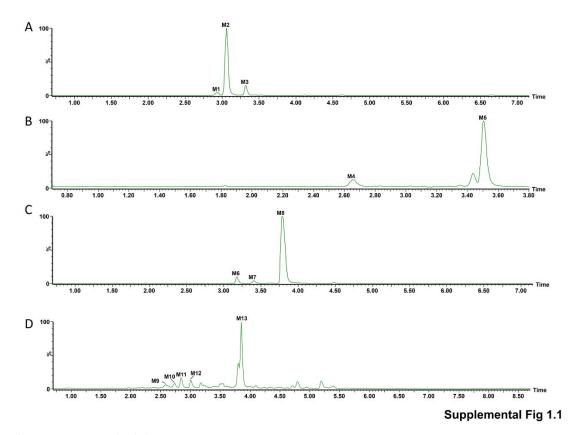
Xiuwei Yang, Yingtao Zhang, Youbo Zhang

## **Supplemental Table 1. ADMET Properties** of CYPs

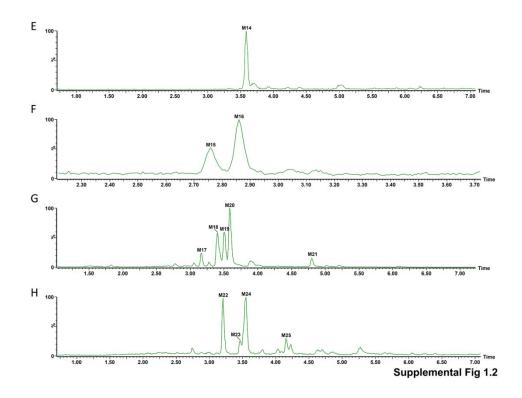
Enzyme	Substr	Sites				
CYP1A2	Yes (88%)	C17, C15, N				
CYP2A6	Yes (69%)	C17, C8				
CYP2B6	Yes (79%)	C17, C8, C15, C10, C19				
CYP2C8	Yes (77%)	C17, C19, C8, C18				
CYP2C9	Yes (61%)	C17, C19, C8, C18				
CYP2C19	Yes (71%)	C17, C19				
CYP2D6	Yes (82%)	C19, C17, C18, C15				
CYP2E1	Yes (90%)	C17, C19, C18				
CYP3A4	Yes (98%)	C17, C19, C8, C18, N, C7				

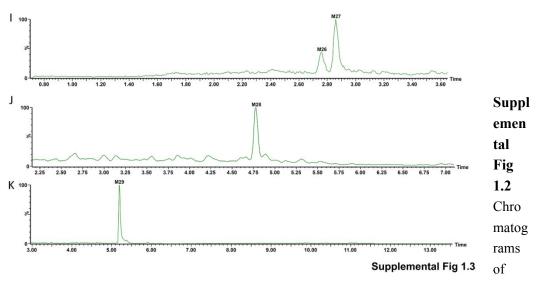
## **Supplemental Table 2. ADMET Properties** of UGTs

Enzyme	UGT1A1	UGT1A3	UGT1A4	UGT1A6	UGT1A8	UGT1A9	UGT1A10	UGT2B7	UGT2B15
Substr	No (98%)	No (98%)	Yes (98%)	No (97%)	No (98%)	No (96%)	No (97%)	No (96%)	No (98%)



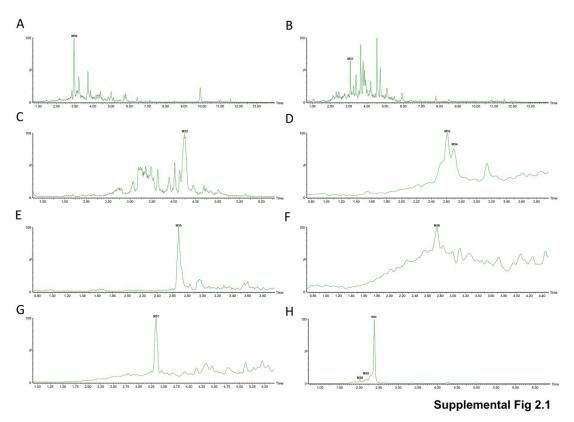
**Supplemental Fig 1.1** Chromatograms of Phase I metabolites of NF: (A) M1, M2, M3; (B) M4, M5; (C) M6, M7, M8; (D) M9, M10, M11, M12, M13



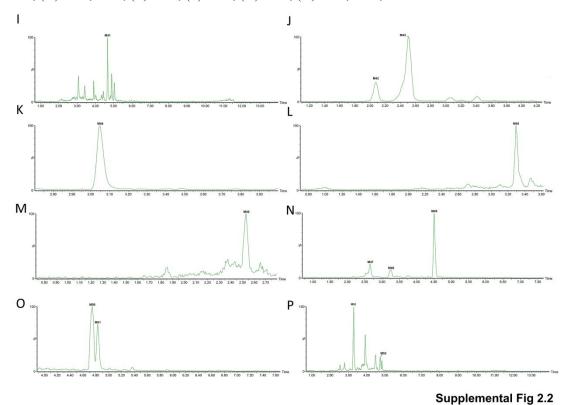


Phase I metabolites of NF: (E) M14; (F) M15, M16; (G) M17, M18, M19, M20, M21; (H) M22, M23, M24, M25

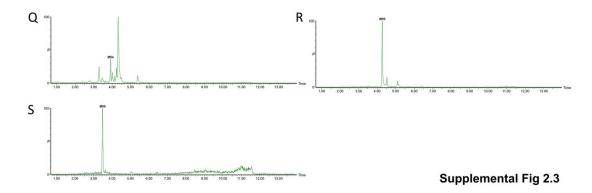
Supplemental Fig 1.3 Chromatograms of Phase I metabolites of NF: (I) M26, M27; (J) M28; (K) M29



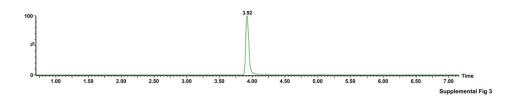
**Supplemental Fig 2.1** Chromatograms of Phase II metabolites of NF: (A) M30; (B) M31; (C) M32; (D) M33, M34; (E) M35; (F) M36; (G) M37; (H) M38, M39, M40



**Supplemental Fig 2.2** Chromatograms of Phase II metabolites of NF: (I) M41; (J) M42, M43; (K) M44; (L) M45; (M) M46; (N) M47, M48, M49; (O) M50, M51; (P) M52, M53



**Supplemental Fig 2.3** Chromatograms of Phase II metabolites of NF: (Q) M54; (R) M55; (S) M56



Supplemental Fig 3 Chromatograms of NF