SELECTION OF PRIORITY NATURAL PRODUCTS FOR EVALUATION AS POTENTIAL PRECIPITANTS OF NATURAL PRODUCT-DRUG INTERACTIONS: A NAPDI CENTER RECOMMENDED APPROACH

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DRUG METABOLISM AND DISPOSITION

Supplemental Table S1. Gap analysis and executive summary form.

NP candidate: _____

1 NP CONSTITUENTS (descriptive data)

Name (common/Latin)	Structure	Author, year	PMID	Notes/gaps

Add rows as necessary.

2 EXPERIMENTAL DATA (mechanistic and descriptive)

2.1 Essential targets and experimental systems

CYPs[a]

Essential: CYP1A2, CYP2B6, CYP2C19, CYP2C8, CYP2C9, CYP2D6, CYP3A

Experimental System	*Inhibition*	*Induction*
Recombinant enzymes		NA
Human liver microsomes	*	NA
Human hepatocytes		*
Other cell lines		NA

*Check the relevant box if the category of evidence exists in the literature for each essential CYP. *Essential. NA, not applicable.*

UGTs[b]

Essential: UGT1A1, UGT1A3, UGT1A4, UGT1A6, UGT1A8, UGT1A9, UGT1A10, UGT2B7, UGT2B10, UGT2B15

Experimental System	*Inhibition*	*Induction*
Recombinant enzymes		NA
Human liver microsomes	*	NA
Human hepatocytes	*	*
Other cell lines		NA

*Check the relevant box if the category of evidence exists in the literature for each essential UGT. *Essential. NA, not applicable.*

Transporters

Essential: BCRP[c], BSEP[d], MATE1[e], MATE2-K[e], MRP2[f], MRP3[f], NTCP[g], OATP1B1[h], OATP1B3, OATP2B1, OAT[i], OCT[j], P-gp[k]

Experimental System	*Inhibition*	*Induction*
Transfected cell lines (single, double)	*	NA
Human hepatocytes		*

Membrane vesicles	NA

*Check the relevant box if the category of evidence exists in the literature for each essential transporter. *Essential. NA, not applicable.*

Nuclear receptors

Essential: AhR[l], CAR[m], PXR[n]

Experimental System	*Inhibition*	*Induction*
Human hepatocytes	NA	*

*Check the relevant box if the category of evidence exists in the literature for each essential nuclear receptor. *Essential. NA, not applicable.*

[a]CYP, cytochrome P450; [b]UGT, UDP-glucuronosyltransferase; [c]BCRP, breast cancer resistance protein; [d]BSEP, bile salt export pump; [e]MATE1 and MATE-2K, multidrug and toxin extrusion protein 1 and 2K; [f]MRP2 and MRP3, multidrug resistance-associated protein 2 and 3; [g]NTCP, Na^+-taurocholate cotransporting polypeptide; [h]OATP1B1, OATP1B3, and OATP2B1, organic anion-transporting polypeptide 1, 2, and 3; [i]OAT, organic anion transporter; [j]OCT, organic cation transporter; [k]P-gp, P-glycoprotein; [l]AhR, aryl hydrocarbon receptor; [m]CAR, constitutive androstane receptor; [n]PXR, pregnane X receptor.

2.2 Potential enzyme and/or transporter target(s) that could mediate an NP-drug interaction

NP constituent(s) (precipitant)	Substrate (object)	Enzyme/ transporter	In vitro system	Parameter(s)	Author, year	PMID	Notes/gaps

Add rows as necessary.

3 HUMAN PHARMACOKINETIC STUDIES (mechanistic and descriptive data)

NP formulation ("dose")	Substrate (object)	Subjects	Overall effect	Author, year	PMID	Notes/gaps

Add rows as necessary.

4 MOST UP-TO-DATE LC/MS/MS BIOANALYTICAL METHODS FOR NP CONSTITUENTS

NP constituent	Biofluid	Author, year	PMID	Notes/gaps

Add rows as necessary.

5 EXECUTIVE SUMMARY