

Nephrotoxic agent	Mechanism of nephrotoxicity	References
Non-Steroidal Anti-inflammatory Drugs (NSAIDs)	Renal vasoconstriction and diminished renal blood flow result from restricting prostaglandin production.	<sup>8</sup>
Aminoglycoside antibiotics	Buildup in the kidney's tubular cells causes weakened structure and compromised performance of the kidneys.	<sup>9</sup>
Contrast agents used in radiographic procedures	Renal damage arises from toxicity to the tubules themselves and from oxidative stress.	<sup>10</sup>
Radiocontrast dyes	Direct tubular toxicity and oxidative stress lead to renal injury.	<sup>11</sup>

**Table S1.** Agents and mechanisms of nephrotoxicity.

Name of the plant	Family	Parts used	Chemical constituents	References
<i>Aervalanata</i>	<i>Amaranthaceae</i>	Whole plant	Botulin, $\beta$ -sitosterol, amyrin, hentriacontane, campesterol, stigmasterol, kaempferol, starch, propionic acid, $\beta$ -carboline-I, aervoside, aervolanine	<i>Aervalanata</i> <sup>22</sup>
<i>Aervajavanica</i>	<i>Amaranthaceae</i>	Fresh Roots	Isoquercetin, 5 methylmellein, 2-hydroxy-3-o- $\beta$ primeveroside naphthalene-1,4-dione, apigenin7-oglucoronide and kaempferol	<i>Aervajavanica</i> <sup>23</sup>
<i>Bauhinia variegata</i>	<i>Caesalpiniaceae</i>	Stems	Stigmasterol, flavone glycosides, lupeol, kaempferol-3-glucoside, $\beta$ -sitosterol	<i>Bauhinia variegata</i> <sup>24</sup>
<i>Cassia auriculata</i>	<i>Fabaceae</i>	Roots	Tannins, di-(2-ethyl) hexyl phthalate	<i>Cassia auriculata</i> <sup>25</sup>
<i>Carica papaya</i>	<i>Caricaceae</i>	Seeds	Seed flavonoids, phenols, alkaloids, protein, sterols, terpenoids, carbohydrates, steroids  Tannins, glycosides, terpenes, and sapiens	<i>Carica papaya</i> <sup>26</sup>
<i>Catania clique</i>	<i>Fabaceae</i>	Pods and leaves	Flavonoids	<i>Catania clique</i> <sup>27</sup>

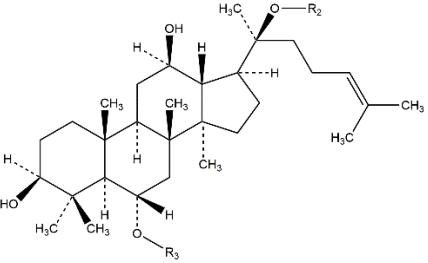
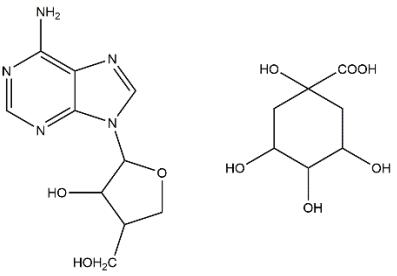
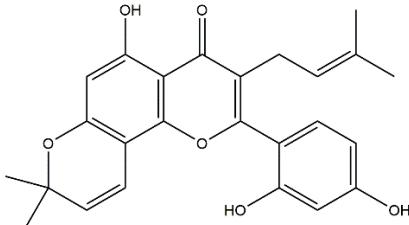
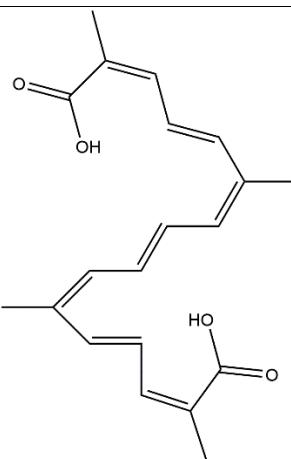
<i>Cucurbita pepo</i>	<i>Cucurbitaceae</i>	Seeds	Flavonoids, phenols, alkaloids, protein, sterols, terpenoids, carbohydrates, steroids, tannins, glycosides, terpenes, and saponins	<i>Cucurbita pepo</i> <sup>28</sup>
<i>Dichrostachys cinerea</i>	<i>Mimosaceae</i>	Roots	Fixed oils, steroids, flavonoids, wight & arn14 phenolic compounds, n-octacosanol, $\beta$ -sitosterol, $\beta$ -amyrin acetate, friedelan 3-one, friedelan 3-ol, friedlen, and $\alpha$ amyrin	<i>Dichrostachys cinerea</i> <sup>29</sup>
<i>Ficus religiosa</i>	<i>Moraceae</i>	Latex	Amino acids and tannins	<i>Ficus religiosa</i> <sup>30</sup>
<i>Kigelia Africana</i>	<i>Bignoniaceae</i>	Matured fruits	Iridoids, naphthoquinones, flavonoids, terpenes, tannins, steroids, saponins, and caffeic acid	<i>Kigelia africana</i> <sup>31</sup>
<i>Lepidium sativum</i>	<i>Brassicaceae</i>	Seeds	Volatile essential aromatic oils, fatty oils	<i>Lepidium sativum</i> <sup>32</sup>

<i>Panax ginseng</i>	Araliacae	Roots	Saponin, glycosides, ginsenosides (dammarol), panaxosides (oleanolic acid), and chikusetsu saponin	<i>Panax ginseng</i> <sup>33</sup>
<i>Picrorhizakurroa</i> Royle	Scrophulariaceae	Rhizome	Tannins	<i>Picrorhizakurroa</i> Royle <sup>34</sup>
<i>Pongamia pinnata</i>	Papilionaceae	Flowers	Flowers pongamol, protein, alkaloids, tannins, sugar, resin, and fatty oil (karanjin)	<i>Pongamia pinnata</i> <sup>35</sup>
<i>Salviae radix</i>	Lamiaceae	Whole plant	Salvianolic acid A-G, rosmarinic acid, lithospermic acid, isoferulic acid, tanshinone I, IIA, IIB, cryptotanshinone V-VI, isotanshinones I-II, IIB, and hydroxytanshinones IIA	<i>Salviae radix</i> <sup>36</sup>
<i>Vernonia cinerea</i>	Compositae	Aerial parts	Triterpenoids like α-amyrin, β-amyrin, and lupeol	<i>Vernonia cinerea</i> <sup>37</sup>

**Table S2.** Plants containing protective factors against cisplatin-induced nephrotoxicity.

Drug origin & family	Active constituents	Specific constituents	Structure	References
<i>Artemisia annua</i> (Asteraceae)	<i>Artemisia ketone</i>	Artemisiaketone, αpinene & 1,8-cineole		<i>Artemisia annua</i> <sup>52</sup>
<i>Zingiber officinale</i> (Zingiberaceae)	Catechols	<i>Gingerols</i> polyphenols		<i>Zingiber officinale</i> <sup>53</sup>
<i>Curcuma longa</i> (Zingiberaceae)	Terpenoid	Curcumin, curcuminoids		<i>Curcuma longa</i> <sup>54</sup>
<i>Berberis vulgaris</i> (Berberidaceae)	Alkaloids	Berberine		<i>Berberis vulgaris</i> <sup>55</sup>

<i>Camellia silences</i> (Thecae)	<i>Flavonoids</i>	Epicatechin, epicatechingallate, epigallocatechin	<p>R<sub>1</sub>: CH<sub>3</sub> R<sub>2</sub>: CH<sub>2</sub>OH R<sub>3</sub>: Lower fatty acid</p>	<i>Camellia silences</i> <sup>56</sup>
<i>Catania clique</i> (Leguminosae)	<i>Polyphenol</i>	Carob polyphenols		<i>Catania clique</i> <sup>57</sup>
<i>Nigella sativa</i> (Ranunculaceae)	<i>Benzoquinones</i>	Thymoquinone		<i>Nigella sativa</i> <sup>58</sup>

<i>Panax ginseng</i> (Araliaceae)	Steroid glycosides, triterpenesaponins	Ginsenosides Rh4 & Rh3		<i>Panax ginseng</i> <sup>59</sup>
<i>Cordyceps cicadae</i> (Clavicipitaceae)	Sterol	Ergosterol		<i>Cordyceps cicadae</i> <sup>60</sup>
<i>Ramulusmori</i> (Moraceae)	Flavonoids, flavonol, Diglucoside	Rutin, quercetin, morin, mulberroside A.		<i>Ramulusmori</i> <sup>60</sup>
<i>Crocus sativus L.</i> (Iridaceae)	Carotenoid	Crocin		<i>Crocus sativus L.</i> <sup>60</sup>

<i>Cordyceps cicadae</i> ( <i>Clavicipitaceae</i> )	<i>Sterol</i>	Ergosterol	<p>The chemical structure of Ergosterol is shown as a cyclohexane ring with four hydroxyl groups (OH) at positions 3, 5, and 6, and a carboxylic acid group (-COOH) at position 2.</p>	<i>Cordyceps cicadae</i> <sup>60</sup>
<i>Crocus sativus L.</i> ( <i>Iridaceae</i> )	<i>Carotenoid</i>	Crocin	<p>The chemical structure of Crocin is a complex polyene carotenoid derivative. It features a long conjugated chain with multiple double bonds, terminating in a hydroxyl group (-OH) and a carbonyl group (-CO).</p>	<i>Crocus sativus</i> <i>L</i> <sup>60</sup>

**Table S3.** Nephroprotective drugs and their chemical constituents, along with structures.