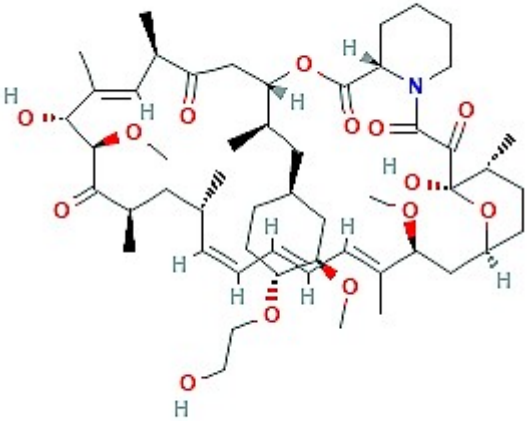
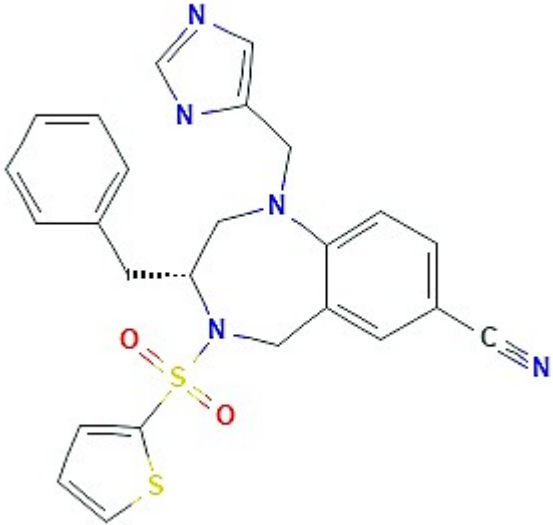
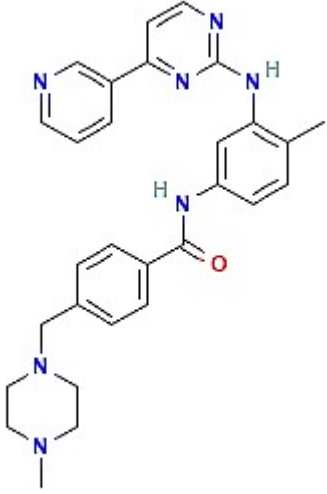
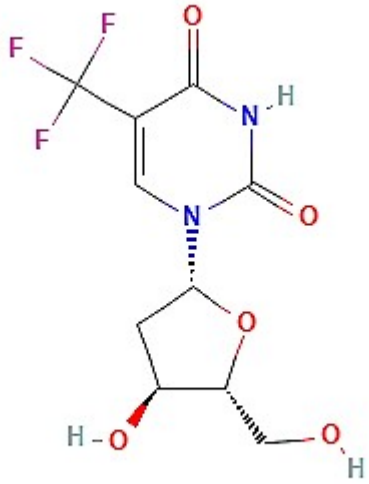
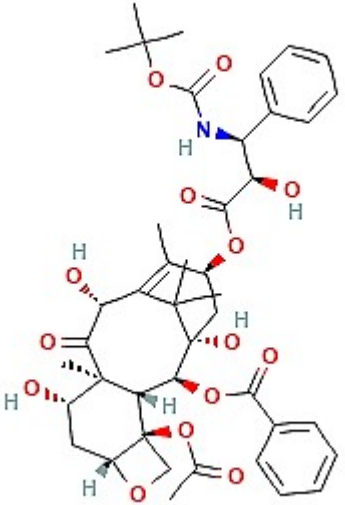


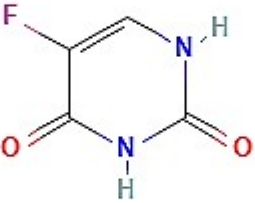
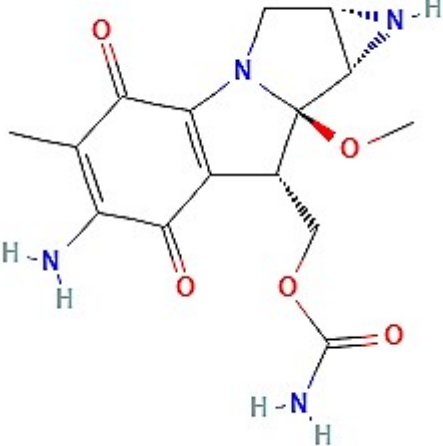
Supplementary Table 1: FDA approved drugs with their side effects and mode of action.

Name	Structure	Gastric cancer	Mechanism	Side effects
Everolimus		Gastric cancer	<ul style="list-style-type: none"><li>• Decreases proliferation and attenuated production of HIF-1<math>\alpha</math> and VEGF in gastric cancer cells in vitro.</li><li>• In vivo, everolimus significantly inhibited tumor growth <sup>1</sup></li></ul>	<ul style="list-style-type: none"><li>• Swelling of eye</li><li>• Swelling of palm</li><li>• Muscle twitching</li><li>• Prolonged bleeding from cuts</li></ul>
Ramucirumab		Gastroesophageal cancer	<ul style="list-style-type: none"><li>• It targets VEGFR-2 receptor <sup>2</sup></li></ul>	<ul style="list-style-type: none"><li>• Neutropenia</li><li>• Intestinal obstruction</li><li>• Arterial blood clots</li></ul>

				<ul style="list-style-type: none"> <li>• Hyponatremia</li> </ul>
Trastuzumab		Gastroesophageal junction cancer	<ul style="list-style-type: none"> <li>• demonstrated HER2-expression-dependent cell growth inhibition</li> <li>• exhibit potent antitumor activity in a broad selection of HER2-expressing xenograft cells, including those with low HER2 expression<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Heart problems</li> <li>• Lung problems</li> <li>• Upper respiratory tract infection</li> </ul>

<p>Imatinib</p>	 <p>The image shows the chemical structure of Imatinib. It consists of a central pyrimidopyrimidine ring system. One nitrogen atom in the six-membered ring is substituted with a 4-pyridyl group. The other nitrogen atom in the six-membered ring is substituted with a 3-methylphenyl group. The nitrogen atom in the five-membered ring is substituted with a 4-(4-(4-methylpiperidin-1-yl)benzyl)phenylamino group.</p>	<p>Gastrointestinal stroma tumor</p>	<ul style="list-style-type: none"> <li>• induces pro-apoptotic Bcl2 family proteins</li> <li>• targets BCR-ABL, c-KIT, and PDGFR kinases <sup>4</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Irregular heartbeat</li> <li>• Seizures</li> <li>• Unusual bleeding or bruising</li> <li>• Ulcers</li> </ul>
<p>Pembrolizumab</p>		<p>Gastric and gastroesophageal cancer</p>	<ul style="list-style-type: none"> <li>• Binds to PD-1 and prevents its binding with PD-1 ligands <sup>5</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Anemia</li> <li>• Kidney failure</li> <li>• Lymphopenia</li> <li>• Vitiligo</li> </ul>

<p>Trifluridine</p>	 <p>The image shows the chemical structure of Trifluridine. It consists of a pyrimidine ring substituted with three fluorine atoms at the 5-position. The nitrogen at the 1-position is hydrogen-bonded to a carbonyl group at the 2-position. The nitrogen at the 3-position is linked via a dashed bond to the C5' position of a ribose sugar ring. The ribose ring has hydroxyl groups at the 2' and 3' positions.</p>	<p>Gastroesophageal junction adenocarcinoma</p>	<ul style="list-style-type: none"> <li>• Prolongs OS, PFS</li> <li>• Prolongs time for deterioration of ECOG performance status<sup>6</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Blurred vision</li> <li>• Puffy eyelids</li> <li>• Severe burning in eyes</li> </ul>
<p>Docetaxel</p>	 <p>The image shows the chemical structure of Docetaxel, a complex taxane. It features a complex polycyclic core with multiple hydroxyl groups and a side chain containing a benzamide group and a tert-butyl ester group.</p>	<p>Gastroesophageal junction adenocarcinoma</p>	<ul style="list-style-type: none"> <li>• Inhibits microtubule disassembly</li> <li>• Cell cycle arrest at G2/M transition<sup>7</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Liver problems</li> <li>• Low blood cell count</li> <li>• Loss of vision</li> </ul>

5- Fluorouracil		Gastric cancer	<ul style="list-style-type: none"> <li>• Blocks thymidylate synthetase conversion of deoxyuridylic acid to thymidylic acid<sup>8</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>• Leukopenia</li> <li>• Angina</li> <li>• Coronary arteriosclerosis</li> <li>• hyperbilirubinemia</li> </ul>
Mitomycin		Gastric and pancreatic adenocarcinoma	<ul style="list-style-type: none"> <li>• Inhibit DNA synthesis<sup>9</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Difficulty in breathing</li> <li>• Ulcers in mouth</li> <li>• Bloody diarrhea</li> </ul>

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