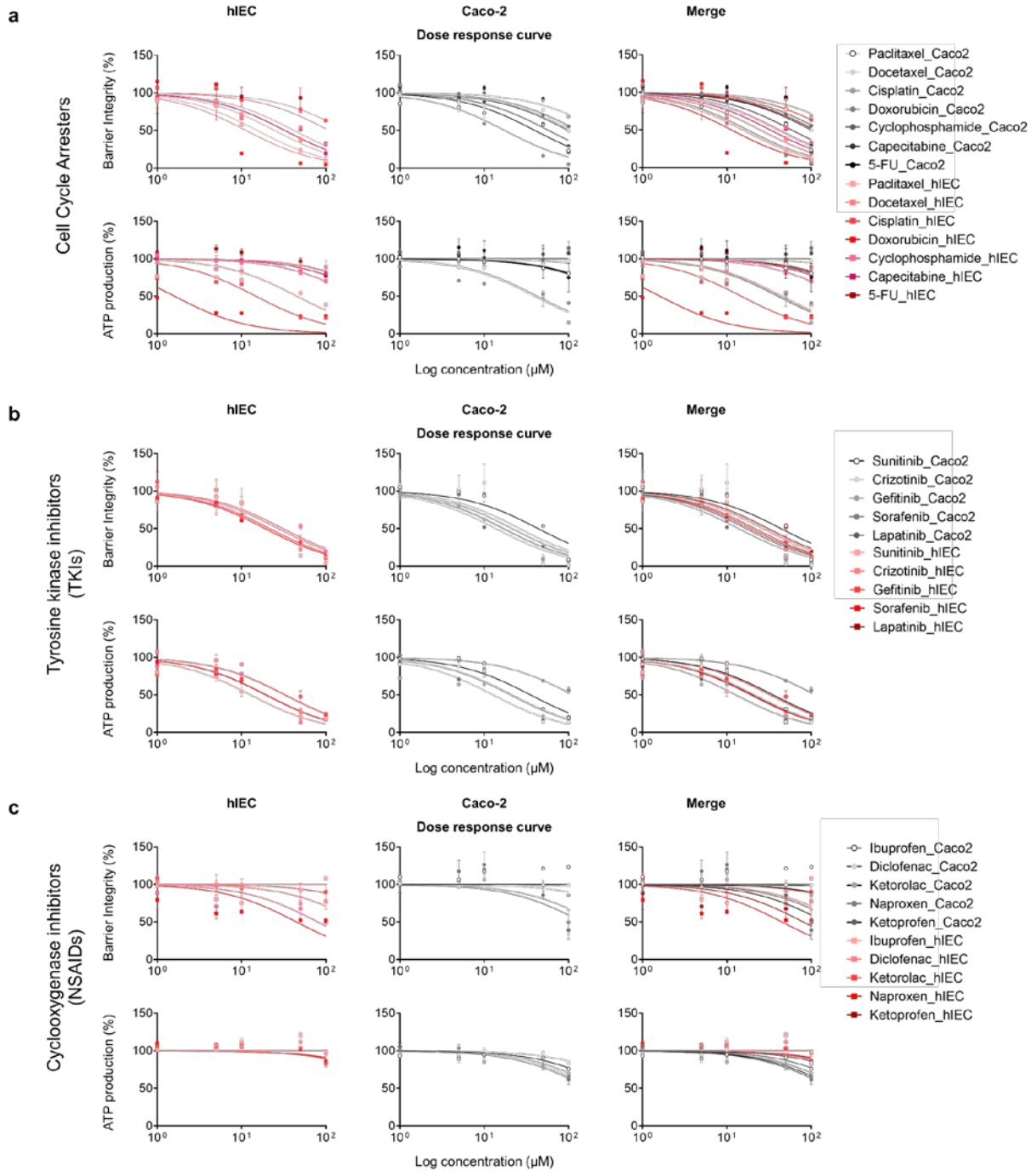
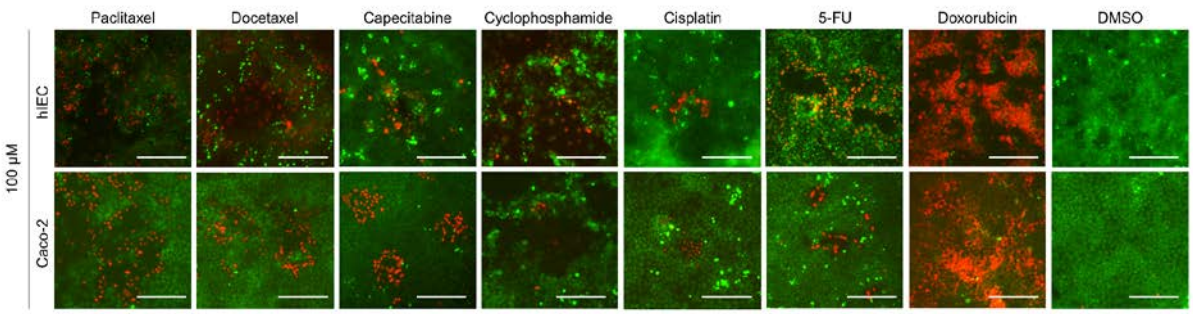
## Supplementary Figures

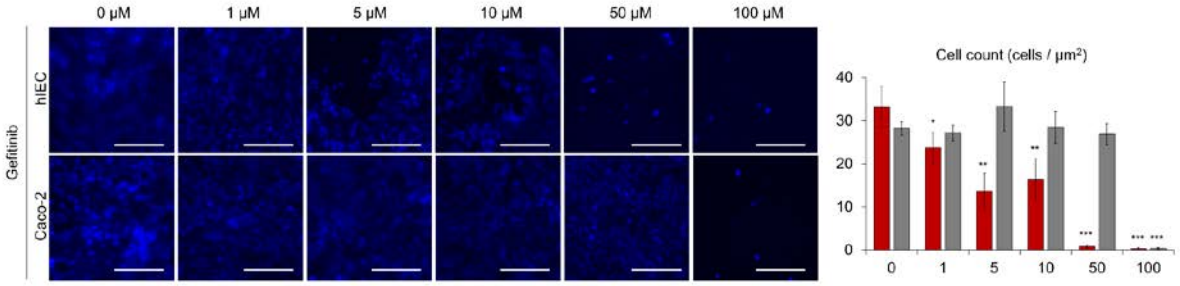



**Supplementary Fig. 1**. Summary of drug-screening results according to the drug class: (a) cell cycle arresters, (b) TKIs, and (c) NSAIDs analyzed by transepithelial electrical resistance (TEER) and cell-viability data with both human intestinal epithelial cells (hIEC) and Caco-2 cell models.

The y-axis indicates the normalized barrier integrity (%) for the TEER assays and ATP production (%) for the cell viability assays. The X-axis shows the drug concentration (log scale, μM).

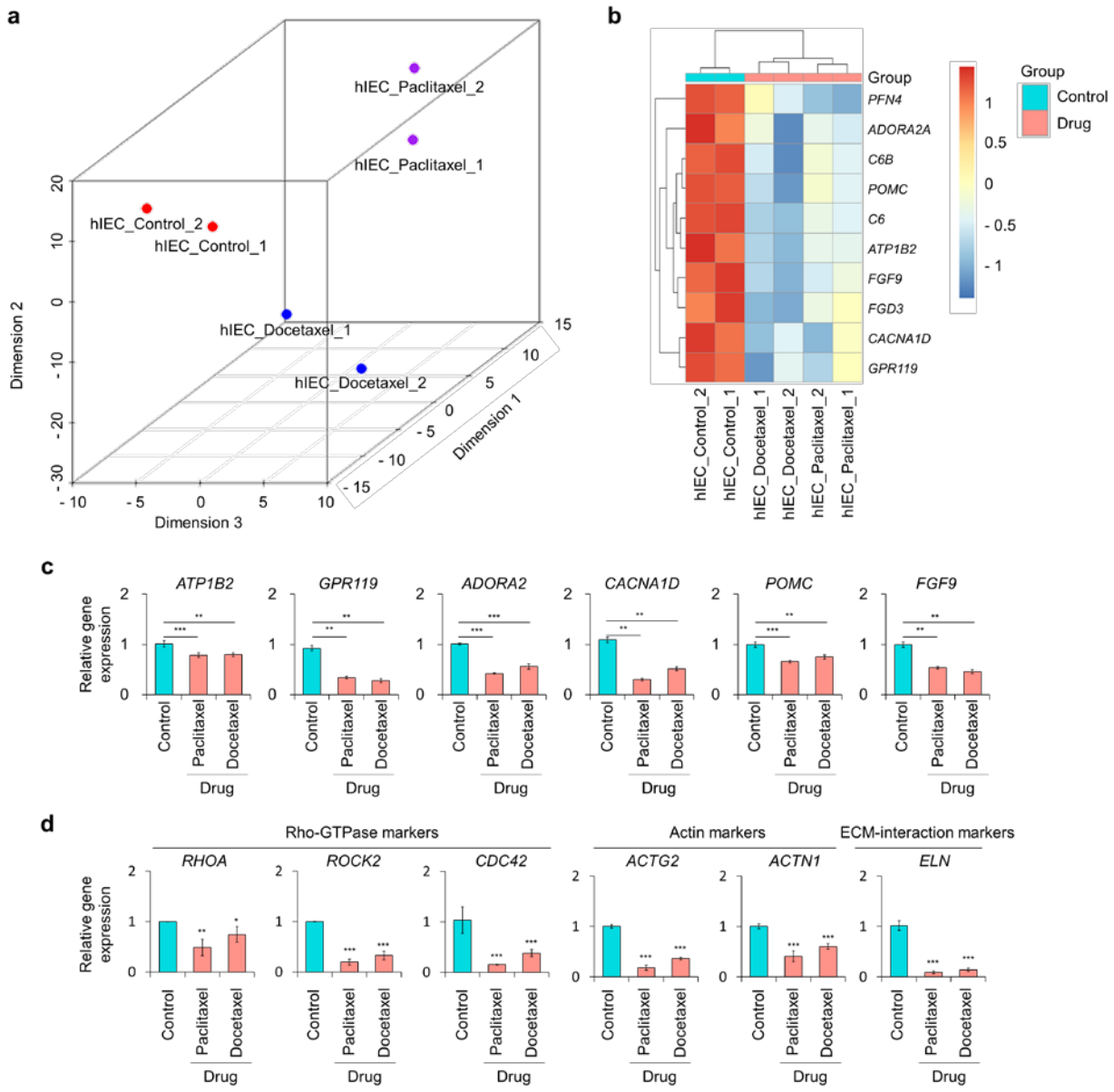



**Supplementary Fig. 2**. Cell cycle arresters caused severe cell death and senescent metabolism Representative images from live-dead cell-staining assays with human intestinal epithelial cell (hIEC) and Caco-2 models treated with cell cycle arresters at 100 μM. Cell images were taken at 20X magnification. Scale bar: 200 μm.



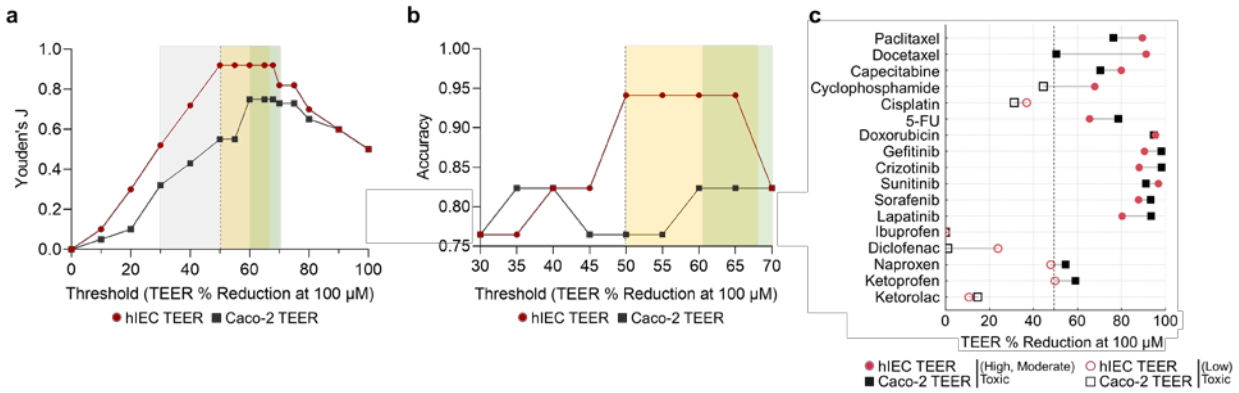

**Supplementary Fig. 3**. Dose-dependent changes of DAPI-positive cells following gefitinib treatment

Representative DAPI images and corresponding quantitative analyses of DAPI-positive cells in hIECs and Caco-2 cells. Cell images were taken at 20X magnification. Scale bar: 200 μm.




**Supplementary Fig. 4**. Transcriptomic profiling and qPCR validation of selected functional genes in drug-treated IECs. (a) 3D MDS plot showing clear separation between control and drug-treated hIECs based on transcriptomic profiles of selected functional genes. (b) Heatmap of representative genes associated with intestinal barrier function, signaling, and metabolism, demonstrating consistent downregulation across both paclitaxel- and docetaxel-treated groups relative to controls. (c) qPCR validation of the selected genes confirming significant downregulation in drug-treated hIECs compared to controls. (d) qPCR validation of Rho-GTPase, actin, and junction-related genes (*RHOA*, *ROCK2*, *CDC42*, *ACTG1*, *ACTN1*, and *ELN*)

show decreased expression compared with controls. Statistical significance was determined by conducting a t-test. Data are presented as mean ± (SEM); * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$




**Supplementary Fig. 5**. Threshold analysis of the hIEC TEER and Caco-2 TEER models. (a) Youden's J plotted against percent TEER reduction thresholds (0–100 %). The shaded gray area (30–70%) represents the main cutoff analysis window. The yellow box (50–65%) indicates the plateau range for the hIEC TEER model ($J \approx 0.92$), while the green box (60–70%) denotes the plateau for the Caco-2 TEER model ($J \approx 0.75$). (b) Accuracy plotted across percent TEER reduction thresholds (0–100%). The yellow (hIECs) and green (Caco-2 cells) boxes indicate the same plateau regions defined in panel (a), and the vertical dashed line at 50% marks the adopted percent reduction threshold used for classification. (c) Paired scatter plots comparing percent TEER reduction for individual drugs between hIEC (red) and Caco-2 (black) models; each line connects the paired values for a single drug.

## Supplementary Tables

**Supplementary Table 1.** Sequences of primers used in this study

| Gene name | Primer (Forward) | Primer (Reverse) |
|---|---|---|
| *GAPDH* | GAAGGTGAAGGTCGGAGTC | GAAGATGGTGATGGGATTTC |
| *VIL1* | TACCTGCTCTACGTTTGGCA | CATGCGTCCCTTGAAGATGG |
| *MUC2* | GACCACAACGATTCCTACGC | ACTGCCATCGGACTTGAAGA |
| *MUC13* | CGGCTACCAGGAAGATGCTA | TGAGAATGACAATGCCAGCG |
| *CHGA* | GACACACTTTCCAAGCCCAG | CGCTGTGTTTCTTCTGCTGA |
| *ECAD* | CTCCCTACGACTCTCTGCTG | CTCCTCCATACATGTCCGCT |
| *ZO-1* | TCTTCGCAGCTCCAAGAGAA | AGGCCTCAGAAATCCAGCTT |
| *OCLN* | GAGACTACAGGTGCCCATCA | CACACACACACACTTAGGCC |
| *CLDN1* | TGCTTGGAAGACGATGAGGT | CAGTGAAGAGAGCCTGACCA |
| *CYP3A4* | GGCACCACCCACCTATGATA | ATCATCACCACCACCCCTTT |
| *OATP1A2* | AGACCAACGCAGGATCCAT | GAGTTTCACCCATTCCACGTACA |
| *LAMA1* | CAGAACCAAGCAGACTACGC | TTCCATCTCCCACCACAGTC |
| *COL3A1* | TGGCATCAAAGGACATCGAG | TCCACTGGTTCCATCTTTGC |
| *CLDN16* | CCTTCCACCTTATGCACACA | GAACCAAAAGCCAGGGAGAA |
| *CLDN19* | CCAGATCTCAAGAACGCAGC | TTGTGTCATTCCTCCCCTCC |
| *GIP* | ACTTTGTGAACTGGCTGCTG | TCTTCATCGCTGGGGTTCTT |
| *GPR119* | GAGTGATCCTTGCTGTCCTG | GGAGGAAGTGACAAATGCCA |
| *SPTBN4* | GAGTGGAAGGACGGACTGAA | AGGTCATGCTCAAAGGCTCT |
| *SPP1* | GGCTAAACCCTGACCCATCT | CCGTGGGAAAATCAGTGACC |
| *ATP1B2* | TTTTCCCTCTTTGCTGGCAC | AGAATCGCTTGAACCTGGGA |
| *ADORA2A* | CATTGACCGCTACATTGCCA | GTGGTTCTTGCCCTCCTTTG |
| *CACNA1D* | GCATGTGTCTGAAAATGGGC | GGGTCCCTGAAATAGCCATG |
| *POMC* | CTGGAGAGCAGCCAGTGTCAG | AGAGGCTGCTCGTCGCCATTTC |
| *FGF9* | CCA GGA AAG ACC ACA GCC GAT T | CCA TAC AGC TCC CCC TTC TCA T |
| *RHOA* | GTGGCAGATATCGAGGTGGA | ACTATCAGGGCTGTCGATGG |
| *ROCK2* | GAGGAGTTCAAGACCAGCCT | TGGGTTCAAGCGATTCTCCT |
| *CDC42* | TGCAAACGGTCAGGGATACT | AATGCCAAGTTGTTTCGCCT |
| *ACTG2* | TGTGTGAAGAGGAGACCACC | TGTAGAAGGAGTGGTGCCAG |
| *ACTN1* | CTTCGACAACAAGCACACCA | TAACCCAAGCTGATGAGGCA |
| *ELN* | CAAGACCTGGCTTCGGATTG | TTTCCTTGCCCTGTGGATCT |

**Supplementary Table 2.** Antibodies used in this study

| Primary Antibody | Species | Concentration | Source | Catalog number | RRID | Used in |
|---|---|---|---|---|---|---|
| VIL1 | Mouse | 1:100 | Cell signaling | 55883S | N/A | Immuno-staining |
| MUC2 | Mouse | 1:50 | Cell signaling | 88686S | N/A | Immuno-staining |
| CDX2 | Rabbit | 1:100 | Cell signaling | 23083SF | N/A | Immuno-staining |
| CYP3A4 | Mouse | 1:100 | Thermo Fisher | MA5-17064 | AB_2538535 | Immuno-staining |
| ZO-1 | Rabbit | 1:100 | Thermo Fisher | 61-7300 | AB_2533938 | Immuno-staining |
| ECAD | Rabbit | 1:100 | Cell signaling | 3195S | AB_2291471 | Immuno-staining |
| OATP1A2 | Rabbit | 1:100 | Thermo Fisher | PA5-42445 | AB_2608733 | Immuno-staining |
| $Na^+$-$K^+$ ATPase | Rabbit | 1:100 | Abclonal | A11683 | AB_2861628 | Immuno-staining |
| **Secondary Antibody** | **Species** | **Concentration** | **Source** | **Catalog number** | **RRID** | **Used in** |
| Anti-Mouse 488 | Goat | 1:200 | Thermo Fisher | A21131 | AB_2535771 | Immuno-staining |
| Anti-Mouse 594 | Donkey | 1:200 | ThermoFisher | A21203 | AB_2535789 | Immuno-staining |
| Anti-Rabbit 488 | Chicken | 1:200 | Thermo Fisher | A21441 | AB_2535859 | Immuno-staining |
| Anti-Rabbit 594 | Chicken | 1:200 | Thermo Fisher | A21442 | AB_2535860 | Immuno-staining |

**Supplementary Table 3.** Total GI-toxicity scoring criteria

GI-symptom severity (grades 1–4) and symptom incidence (very common = 3, common = 2, uncommon = 1) scores were used to determine the drug GI-toxicity categories. The data presented are associated with Table 2.

| Grade score | GI symptoms severity grade |
|---|---|
| 4 | Life-threatening (hemorrhagic colitis, perforation); urgent medical intervention |
| 3 | Severe diarrhea, severe mucositis affecting diet, hospitalization required; clear intestinal barrier disruption |
| 2 | Moderate diarrhea, mild/moderate mucositis; minimal medical intervention (oral hydration or antidiarrheals) |
| 1 | Mild diarrhea, slight mucosal irritation; no clinical intervention. |
| **Incidence score** | **Incidence classification** |
| 3 | Very common (≥10%) |
| 2 | Common (1–10%) |
| 1 | Uncommon (<1%) |
| **Total GI toxicity score** | **Clinical toxicity level** |
| ≥ 9 | High toxicity (Toxic) |
| 4–8 | Moderate toxicity (Toxic) |
| ≤ 3 | Low toxicity |

**Supplementary Table 4.** Raw and normalized TEER and ATP cell-viability values from intestinal-toxicity assays (separate file)

Absolute and normalized values (mean ± SEM) from the TEER and ATP-based cell-viability assays using hIEC and Caco-2 cells at increasing drug concentrations (0, 1, 5, 10, 50, and 100 μM). The data shown represent four independent replicate experiments and are associated with Figure 2 and Table 3.

**Supplementary Table 5.** $C_{max}$ and MOS ($IC_{15}/C_{max}$) values for drugs evaluated in intestinal toxicity assays

Median [IQR] and min–max values of $C_{max}$ (μM) were obtained from peer-reviewed literature and FDA regulatory sources for each drug. MOS values were calculated from hIEC-based TEER $IC_{15}$ data ($IC_{15}$:$C_{max}$) to reflect exposure variability and pharmacokinetic context. Abbreviated sources (journal, year, PMID, and/or FDA application, label, and DrugBank ID) are listed within the table; full references are available upon request. When only a single $C_{max}$ reports was available, dispersion metrics (IQR and min–max) and corresponding MOS ranges were denoted as NA.

| Drug (Route) | MW (g/mol) | $IC_{15}$ (μM)* | Clinical $C_{max}$ median [IQR] (μM) | $C_{max}$ min–max (μM) | MOS ($IC_{15}/C_{max}$ median (min–max)) | References |
|---|---|---|---|---|---|---|
| Paclitaxel (IV infusion) | 853.91 | 2.71 | 5.1 [4.6–5.8] | 3.8–6.2 | 0.53 (0.44–0.71) | Clin Pharmacokinet 2021; PMID 28612269; DB01229 |
| Docetaxel (IV infusion) | 807.88 | 4.36 | 5.1 [4.8–5.6] | 4.0–6.0 | 0.85 (0.73–1.09) | Clin Cancer Res 2004; PMID 15041715; DB01248 |
| Capecitabine (PO BID) | 359.35 | 5.74 | 13.7 [12.8–14.5] | 10.0–16.0 | 0.42 (0.36–0.57) | Clin Pharmacokinet 2001; PMID 11286326; FDA XELODA label (NDA 020896); DB01101 |
| Cyclophosphamide (PO QD) | 261.09 | 7.40 | 122.0 [110–135] | 90.0–150.0 | 0.06 (0.05–0.08) | Eur J Cancer 2016; PMID 26773420; ClinicalTrials.gov Identifier NCT00334646; DB00531 |
| Cisplatin (IV) | 300.05 | 30.49 | 14.8 [13.0–16.3] | 10.0–18.0 | 2.06 (1.69–3.05) | J Clin Diagn Res 2016; PMID 27630935; Eur J Cancer 2022; PMID 34810046; DB00515 |
| 5-Fluorouracil (IV bolus) | 130.08 | 19.31 | 34.1 [31.2–36.9] | 25.0–45.0 | 0.57 (0.43–0.78) | Pharmacol Res 2004; PMID 15177306; Clin Cancer Res 2000; PMID 10955781; DB00544 |
| Doxorubicin (IV) | 543.52 | 1.99 | 7.6 (high-dose end-inf.; no IQR/min–max) | NA | 0.26 | Eur J Pharm Sci 2010; PMID 20688160; DB00997 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Gefitinib (PO QD) | 446.90 | 3.80 | 0.5 [0.4–0.6] | 0.3–0.7 | 7.76 (5.43–12.70) | Lung Cancer 2016; PMID 26898617; Transl Clin Pharmacol 2021; PMID 34621709; DB00317 |
| Crizotinib (PO BID) | 450.34 | 4.81 | 1.0 | 0.7–1.6 | 4.81 (3.01–6.87) | FDA XALKORI label (250 mg BID, steady-state; NDA 202570); DB08865 |
| Sunitinib (PO QD, total) | 398.47 | 3.68 | 0.3 [0.3–0.4] | 0.3–0.4 | 11.20 (9.30–13.50) | FDA SUTENT label (parent + SU12662; NDA 021938); DB01268 |
| Sorafenib (PO BID) | 464.83 | 3.36 | 6.5 [5.9–7.1] | 5.0–8.0 | 0.52 (0.45–0.66) | Oncologist 2007; PMID 17470685; Pharmacogenet Genomics 2018; PMID 28362716; FDA NEXAVAR label (NDA 021923); DB00398 |
| Lapatinib (PO QD) | 581.06 | 5.44 | 4.2 [3.8–4.7] | 3.0–5.0 | 1.30 (1.05–1.65) | FDA TYKERB label (NDA 022059); DB01259 |
| Ibuprofen (PO) | 206.28 | >100 | 145.0 | – | >0.69 | BMC Clin Pharmacol 2009; PMID 19961574; DB01050 |
| Diclofenac (PO) | 296.15 | 43.52 | 5.0 | 4.0–6.0 | 8.70 | Br J Cancer 2012; PMID 22531634; DB00586 |
| Naproxen (PO) | 230.26 | 7.90 | 313.0 | 280.0–340.0 | 0.03 (0.02–0.03) | Clin Ther 1994; PMID 7697688; DB00788 |
| Ketoprofen (PO) | 254.28 | 14.11 | 10.8 | 8.0–13.0 | 1.31 (1.09–1.76) | FDA Application No. 022470 (Orudis® tablets); Br J Clin Pharmacol 1995; PMID 7768385; DB01009 |
| Ketorolac (PO 10 mg) | 255.27 | 134.29 | 11.0 | 9.9–11.7 | 12.20 (11.50–13.60) | FDA TORADOL label (10 mg PO tablet; NDA 019645); DB00465 |

* $IC_{15}$ values were obtained from Table 3 (hIEC-based TEER assay) and used to compute MOS.

[1] MOS threshold. MOS ($IC_{15}/C_{max}$ < 1) was used as a conservative clinical risk threshold; MOS ≥ 1 denotes non-toxic exposure margin.

[2] Bracket notation for $C_{max}$ in S5. [a–b] = IQR (interquartile range); (a–b) = min–max range; no brackets = single reported value (dispersion data unavailable).

*Examples:* 4.2 [3.8–4.7] μM → median 4.2, IQR 3.8–4.7; 5.0 (4.0–6.0) μM → min 4, max 6.

[3] Infusion drugs (e.g., doxorubicin). $C_{max}$ varies with dose ($mg \cdot m^{-2}$) and infusion duration (bolus vs 30–90 min). The 7.6 μM value reflects a high-dose, end-of-infusion condition; lower medians (~1.5 μM at 60–75 $mg \cdot m^{-2}$) are reported and would shift MOS ($IC_{15}/C_{max}$) for hIEC-TEER from TP → FN, while ≥50% TEER reduction classification remains unchanged.

[4] Crizotinib. Primary $C_{max}$ = 1.0 µM (range 0.7–1.6) based on label steady-state 250 mg BID.
[5] Sunitinib. $C_{max}$ reflects total exposure (parent + active metabolite SU12662) per label.
[6] Ketoprofen. $C_{max}$ varies with food intake (fed vs. fasted ≈ 9–16 µM); median 10.8 µM shown.
[7] Ketorolac. $C_{max}$ from oral 10 mg tablet in healthy adults (2.99 µg·mL$^{-1}$ ≈ 11.7 µM; elderly ≈ 9.9 µM); *fasted single-dose PK* ≈ 3.4 µM (2.7–4.3), used only for sensitivity; MOS classification unaffected.
**Abbreviations.** MW, molecular weight; $IC_{15}$, 15% inhibitory concentration (TEER); $C_{max}$, maximum observed plasma concentration; MOS, margin of safety; PO, per os (oral); IV, intravenous; QD, once daily; BID, twice daily; IQR, interquartile range; NA, not available / not applicable.

**Supplementary Table 6.** Incidence and within-class variability of severe gastrointestinal (GI) toxicity (grade ≥3) among the analyzed drugs

GI toxicity information (e.g., diarrhea, mucositis, colitis, ileitis, perforation) was extracted from FDA labels and guidelines as well as curated sources (DrugBank, Drugs.com, Mayo Clinic) for short-course, fixed-dose regimens in patients without pre-existing GI disease, and was compared with model outcomes. To assess within-class clinical heterogeneity, the columns show clinical toxicity levels (Table 2) and report concordance with the hIEC-based TEER classifier (≥50% reduction threshold).

| Drug | Grade 3 ≥ GI incidence | Clinical toxicity level | Within-class comparison / TEER concordance |
|---|---|---|---|
| **Cell cycle arresters** | | | |
| Paclitaxel | ~ 5 % | Moderate | Correctly classified toxic |
| Docetaxel | ~ 5–10 % | High | Correctly toxic |
| Capecitabine | ~ 11 % | High | High within class; correctly toxic |
| Cyclophosphamide | < 1 % | Moderate | Borderline; correctly toxic |
| Cisplatin | ≈ 0 % | Low | Lowest within class; correctly non-toxic |
| 5-Fluorouracil | 5–15 % | High | Highest within class; correctly toxic |
| Doxorubicin | < 5 % | Moderate | Intermediate; correctly toxic |
| **TKIs** | | | |
| Gefitinib | ≈ 3 % | Moderate | Correctly toxic |
| Crizotinib | < 5 % | Moderate | Correctly toxic |
| Sunitinib | 3–5 % | Moderate | Correctly toxic |
| Sorafenib | 1–5 % | Moderate | Correctly toxic |
| Lapatinib | 5–10 % | High | Highest within TKIs; correctly toxic |
| **NSAIDs** | | | |
| Ibuprofen | < 1 % | Low | Correctly non-toxic |
| Diclofenac | < 1 % | Low | Correctly non-toxic |

| | | | |
|---|---|---|---|
| Naproxen | < 1 % | Low | Correctly non-toxic |
| Ketoprofen | < 1 % | Low | Correctly non-toxic |
| Ketorolac | < 1 % (uncommon) | Moderate | Slightly higher NSAID; false-negative (FN) case |

**Supplementary Table 7.** Drug classification into TPs, TNs, FPs, and FNs based on percent reduction and MOS

Drugs showing true positive (TP), true negative (TN), false positive (FP), and false negative (FN) results according to the percent reduction (≥50%) and margin of safety (MOS, $IC_{15}$:$C_{max}$ < 1) thresholds were used in the intestinal toxicity assays. The data correspond to Fig. 5, with additional columns displaying the AUC (95% CI, DeLong) and Mann–Whitney p-values for each assay, thereby enhancing transparency in diagnostic accuracy reporting.

| % Reduction Assay | TP | TN | FP | FN | AUC (95% CI, DeLong) | Mann–Whitney *p* |
|---|---|---|---|---|---|---|
| hIEC TEER | Paclitaxel, Docetaxel, Capecitabine, Cyclophosphamide, 5-FU, Doxorubicin, Gefitinib, Crizotinib, Sunitinib, Sorafenib, Lapatinib | Cisplatin, Ibuprofen, Diclofenac, Naproxen, Ketoprofen | None | Ketorolac | 0.96 (0.82–1.00) | <0.001 |
| Caco-2 TEER | Paclitaxel, Docetaxel, Capecitabine, 5-FU, Doxorubicin, Gefitinib, Crizotinib, Sunitinib, Sorafenib, Lapatinib | Cisplatin, Ibuprofen, Diclofenac | Naproxen‡, Ketoprofen‡ | Cyclophosphamide†, Ketorolac | 0.72 (0.48–0.89) | 0.036 |
| hIEC ATP | Paclitaxel, Doxorubicin, Gefitinib, Crizotinib, Sunitinib, Sorafenib, Lapatinib | Ibuprofen, Diclofenac, Naproxen, Ketoprofen | Cisplatin | Docetaxel, Capecitabine, Cyclophosphamide, 5-FU, Ketorolac | 0.69 (0.44–0.88) | 0.049 |
| Caco-2 ATP | Doxorubicin, Gefitinib, Crizotinib, Sunitinib, Lapatinib | Ibuprofen, Diclofenac, Naproxen, Ketoprofen | Cisplatin | Paclitaxel, Docetaxel, Capecitabine, | 0.61 (0.37–0.81) | 0.092 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | Cyclophosphamide, 5-FU, Sorafenib, Ketorolac | | |
| **MOS ($IC_{15}$/Cmax) Assay** | **TP** | **TN** | **FP** | **FN** | **AUC (95% CI, DeLong)** | **Mann–Whitney *p*** |
| hIEC TEER | Paclitaxel, Docetaxel, Capecitabine, Cyclophosphamide, 5-FU, Doxorubicin, Sorafenib | Cisplatin, Ibuprofen, Diclofenac, Ketoprofen | Naproxen | Gefitinib, Crizotinib, Sunitinib, Lapatinib, Ketorolac | 0.69 (0.43–0.90) | 0.042 |
| Caco-2 TEER | Capecitabine, Cyclophosphamide, 5-FU, Doxorubicin, Sorafenib, Lapatinib | Cisplatin, Ibuprofen, Diclofenac, Ketoprofen | Naproxen | Paclitaxel, Docetaxel, Gefitinib, Crizotinib, Sunitinib, Ketorolac | 0.65 (0.40–0.85) | 0.059 |
| hIEC ATP | Cyclophosphamide, Doxorubicin, Sorafenib, Lapatinib | Ibuprofen, Diclofenac, Ketoprofen | Cisplatin, Naproxen | Paclitaxel, Docetaxel, Capecitabine, 5-FU, Gefitinib, Crizotinib, Sunitinib, Ketorolac | 0.54 (0.32–0.74) | 0.214 |
| Caco-2 ATP | Doxorubicin, Lapatinib | Diclofenac, Ketoprofen | Cisplatin, Ibuprofen, Naproxen | Paclitaxel, Docetaxel, Capecitabine, Cyclophosphamide, 5-FU, Gefitinib, Crizotinib, Sunitinib, Sorafenib, Ketorolac | 0.40 (0.22–0.58) | 0.308 |

† Compounds classified as TPs in the hIEC TEER assay but as FNs in the Caco-2 TEER assay (≥50% TEER reduction at 100 μM). These cases demonstrate the sensitivity of the hIEC model to detect clinically relevant epithelial injury.
‡ Compounds classified as FPs in the Caco-2 TEER assay (≥50% TEER reduction at 100 μM) despite low GI toxicity (see Tables 2 and S6).
§ Compounds classified as FNs in both TEER assays (ketorolac), reflecting a mechanism not associated with early decrease in TEER (prostaglandin

inhibition/mucosal irritation).
Clinical toxicity levels were assigned as in Tables 2 and S6.

**Supplementary Table 8.** Diagnostic-accuracy metrics based on the MOS ($IC_{50}$:Cmax ratio <1) for intestinal toxicity assays

The sensitivity, specificity, accuracy, PPV, NPV, ROC AUC, and drug classification (TPs, TNs, FPs, and FNs) were calculated based on the MOS threshold ($IC_{50}$:Cmax ratio <1), highlighting the limitations of $IC_{50}$ determinations as an early diagnostic indicator. The data shown are associated with Figure 2 and Table 3.

| **MOS ($IC_{50}$/Cmax) Assay** | **TP** | **TN** | **FP** | **FN** | **Sensitivity** | **Specificity** | **Accuracy** | **PPV** | **NPV** | **AUC** |
|---|---|---|---|---|---|---|---|---|---|---|
| hIEC TEER | 1 | 4 | 1 | 11 | 0.08 | 0.80 | 0.29 | 0.50 | 0.27 | 0.44 |
| Caco-2 TEER | 0 | 4 | 1 | 12 | 0.00 | 0.80 | 0.24 | 0.00 | 0.25 | 0.40 |
| hIEC ATP | 1 | 5 | 0 | 11 | 0.08 | 1.00 | 0.35 | 1.00 | 0.31 | 0.54 |
| Caco-2 ATP | 0 | 4 | 1 | 12 | 0.00 | 0.80 | 0.24 | 0.00 | 0.25 | 0.40 |

| **MOS ($IC_{50}$/Cmax)** Assay | **TP** | **TN** | **FP** | **FN** |
|---|---|---|---|---|
| hIEC TEER | Cyclophosphamide | Cisplatin, Ibuprofen, Diclofenac, Ketoprofen | Naproxen | Paclitaxel, Docetaxel, Capecitabine, 5-FU, Doxorubicin, Gefitinib, Crizotinib, Sunitinib, Sorafenib, Lapatinib, Ketorolac |
| Caco-2 TEER | None | Cisplatin, Ibuprofen, Diclofenac, Ketoprofen | Naproxen | Paclitaxel, Docetaxel, Capecitabine, Cyclophosphamide, 5-FU, Doxorubicin, Gefitinib, Crizotinib, Sunitinib, Sorafenib, Lapatinib, Ketorolac |

| | | | | |
|---|---|---|---|---|
| hIEC ATP | Doxorubicin | Cisplatin, Ibuprofen, Diclofenac, Naproxen, Ketoprofen | None | Paclitaxel, Docetaxel, Capecitabine, Cyclophosphamide, 5-FU, Gefitinib, Crizotinib, Sunitinib, Sorafenib, Lapatinib, Ketorolac |
| Caco-2 ATP | None | Cisplatin, Ibuprofen, Diclofenac, Ketoprofen | Naproxen | Paclitaxel, Docetaxel, Capecitabine, Cyclophosphamide, 5-FU, Doxorubicin, Gefitinib, Crizotinib, Sunitinib, Sorafenib, Lapatinib, Ketorolac |