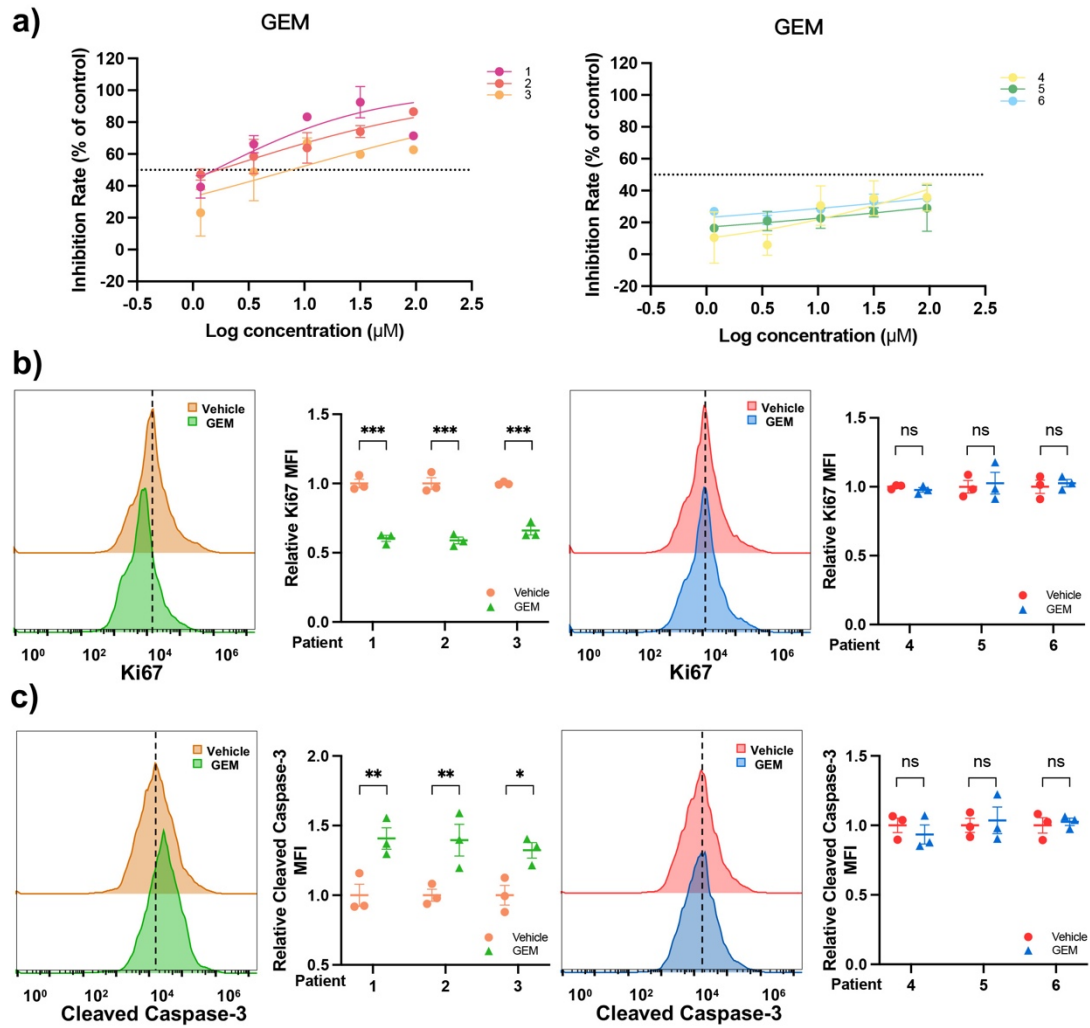


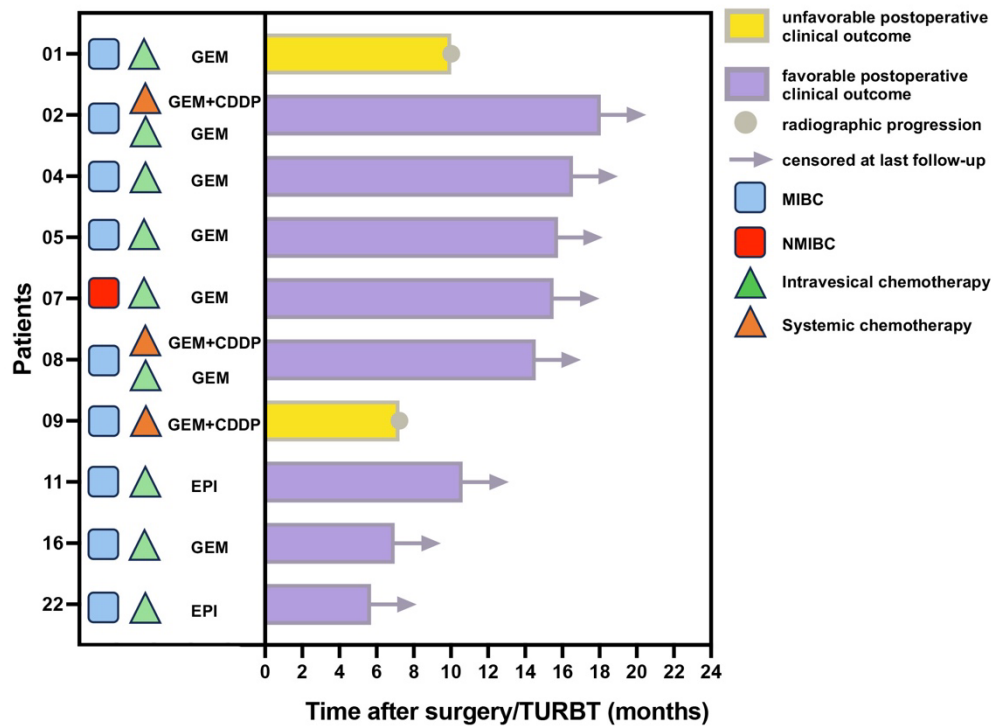
Supplementary movie 1. Dynamic growth of bladder cancer organoids.

Initially appearing as isolated single cells or small clusters, these organoids undergo a phase of rapid expansion, progressively increase in size, and ultimately mature into fully developed bladder cancer organoids.



Supplementary Figure 1. Different functional readouts of drug response in bladder cancer PDOs.

a) CTG-based cell viability following 72-h gemcitabine treatment. **b)** Flow cytometric analysis of Ki-67 following 72-h gemcitabine treatment. **c)** Flow cytometric analysis of cleaved Caspase-3 following 72-h gemcitabine treatment. PDOs with relatively sensitive (left) and relatively insensitive (right) responses to gemcitabine are shown. GEM, gemcitabine; MFI, median fluorescence intensity.



Supplementary Figure 2. Swimmer's plot of postoperative treatment and clinical course in patients with bladder cancer.

The swimmer's plot illustrates the postoperative clinical course of individual patients from the time of surgery or transurethral resection of bladder tumor (TURBT). Patients were categorized as having a favorable postoperative clinical course (no documented recurrence or progression during follow-up) or an unfavorable postoperative clinical course (documented recurrence, metastasis, or disease progression during follow-up). Bar length represents the duration of radiographic progression-free survival (rPFS) or follow-up. Circles indicate radiographic progression, whereas arrows indicate censoring at the last follow-up. Squares indicate disease category (MIBC or NMIBC), and triangles indicate the route of chemotherapy administration (intravesical or systemic). The corresponding treatment regimen is shown for each patient. GEM, gemcitabine; CDDP, cisplatin; EPI, epirubicin; MIBC, muscle-invasive bladder cancer; NMIBC, non-muscle-invasive bladder cancer; TURBT, transurethral resection of bladder tumor; rPFS, radiographic progression-free survival.