

Tumoricidal, Temozolomide- and Radiation-Sensitizing Effects of $K_{Ca}3.1$ K^+ Channel Targeting In Vitro Are Dependent on Glioma Cell Line and Stem Cell Fraction

Nicolai Stransky ^{1,2}, Katrin Ganser ¹, Ulrike Naumann ³, Stephan M. Huber ^{1,*} and Peter Ruth ²

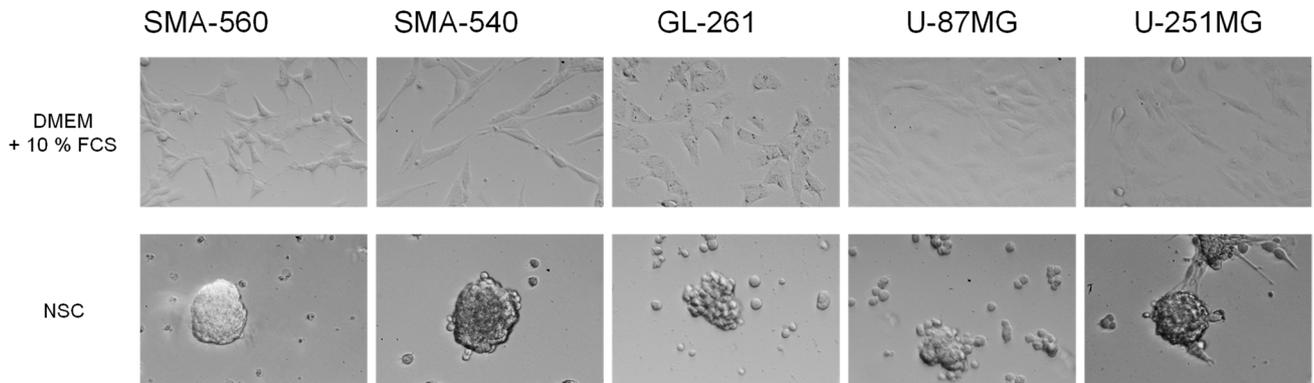
¹ Department of Radiation Oncology, University of Tübingen, 72076 Tübingen, Germany

² Department of Pharmacology, Toxicology and Clinical Pharmacy, Institute of Pharmacy, University of Tübingen, 72076 Tübingen, Germany

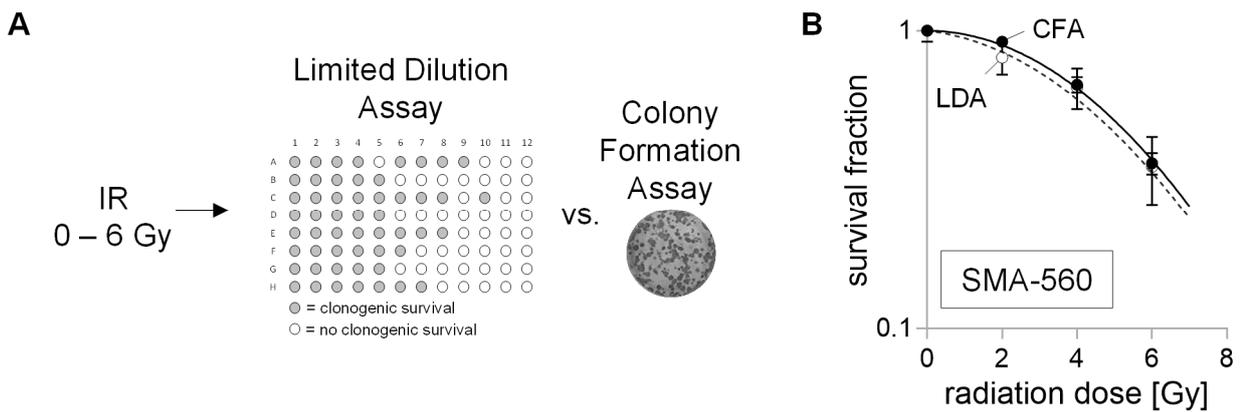
³ Molecular Neurooncology, Hertie Institute for Clinical Brain Research and Center Neurology, University of Tübingen, 72076 Tübingen, Germany

* Correspondence: stephan.huber@med.uni-tuebingen.de or stephan.huber@uni-tuebingen.de; Tel.: +49-7071-29-82183; Fax: +49-7071-29-4944

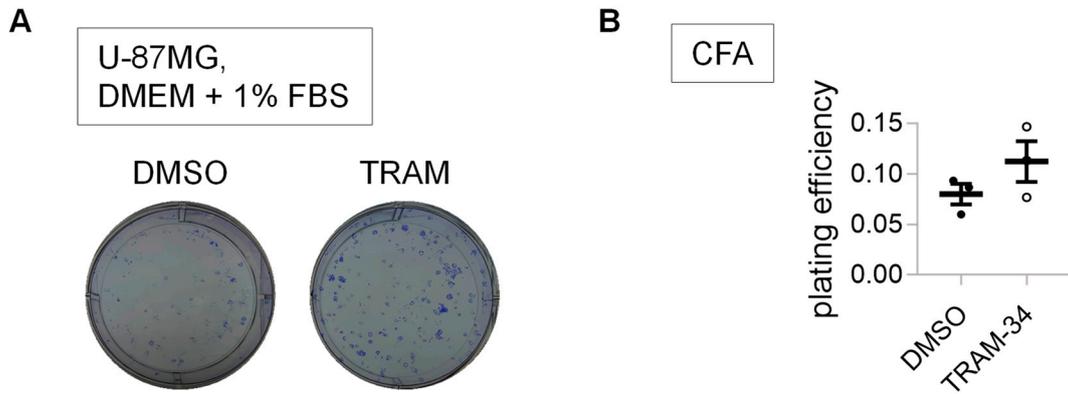
Supplementary Figures



Supplementary Figure S1. Representative images of growth phenotypes in “bulk” cell-“differentiating” DMEM/10% FBS (top) and glioma stem cell-enriching NSC (bottom) medium. Note the adherent and spheroid-like phenotype of DMEM- and NSC-grown cells, respectively.



Supplementary Figure S2. Survival fractions of irradiated (0-6 Gy) SMA-560 cells grown in DMEM + 10% FBS determined by limited dilution assay (LDA; B, open circles) or colony formation assay (CFA; B, closed circles) are not different. Depicted is in (A, left) a schematic drawing of a 96-well plate where SMA-560 cell suspensions were sequentially 1:2-diluted (well 1 to 12 from left to right). Seeded cell number-dependent clonogenic growth after 7 d incubation is indicated by grey color. In (A, right) a micrograph of fixed and stained SMA-560 colonies typically obtained in colony formation assay is shown. Data in (B) are mean values (\pm standard error) of three experimental units and three to four observational units each. Survival fractions were fitted according to the linear quadratic model and given as follows: CFA, solid line; LDA, dashed line.



Supplementary Figure S4. TRAM-34 does not exhibit tumoricidal effects on U-87MG cells when incubated in DMEM + 1% FBS. A-B. Representative images of colony formation (A) and plating efficiencies (B) after treatment with vehicle (DMSO, closed black circles) or TRAM-34 (5 μ M, open circles). Data are individual values and mean \pm standard error of one experimental unit with three observational units each.