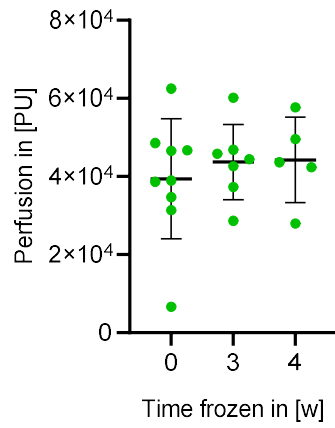
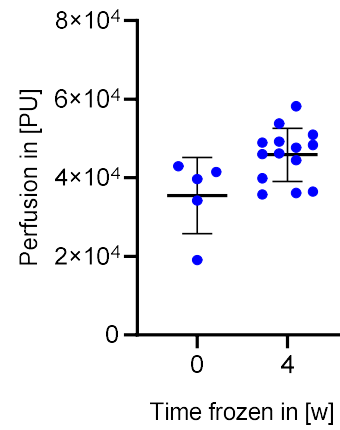


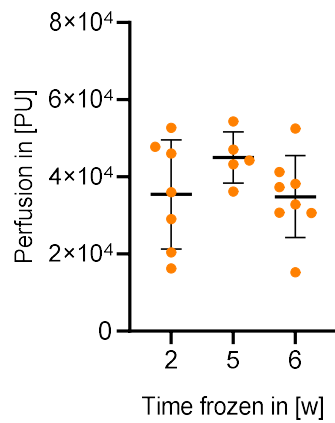
A



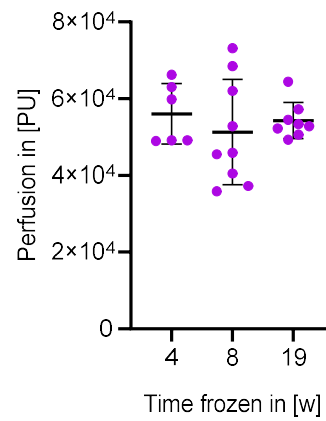
B



C

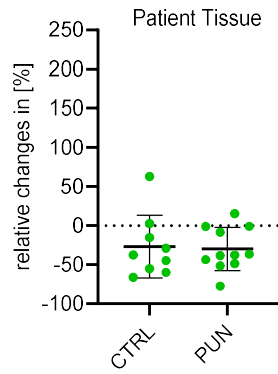


D

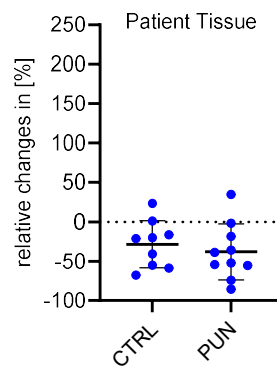


Supplementary Figure S1: LSCI-based measurements of CAMs engrafted with osteosarcoma patient material. Measurements took place after cultivation and before the start of the treatment. A perfusion filter of 300-3000 PU was applied. Comparison of perfusion surrounding the tumor of four different patients (A-D) per time of the tissue being frozen before engraftment.

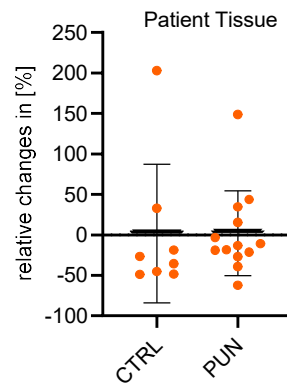
A



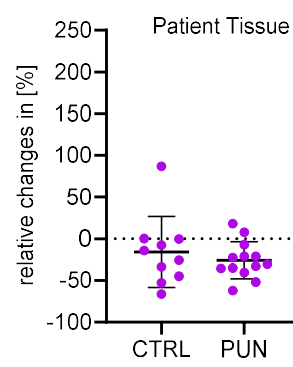
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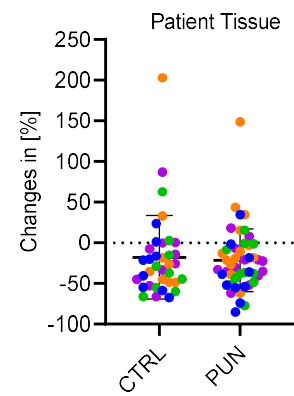
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D



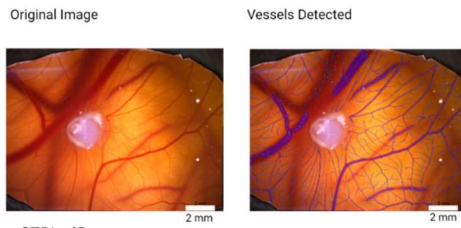
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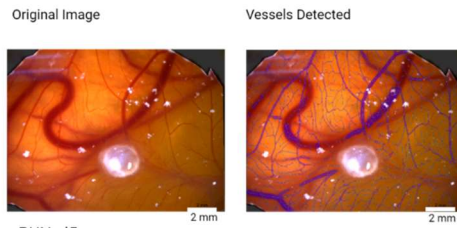
Supplementary Figure S2: Relative changes in LSCI-assessed perfusion from day 1 (before the start of the treatment) to day 5 (shortly before explantation) for untreated (CTRL) and punicalagin-treated (PUN) CAMs of all four patients (A-E). Each color represents an individual patient. Data was evaluated using a Welch's t.test. The significance level was set at $p < 0.05$. No significance was observed (n.s.).

A

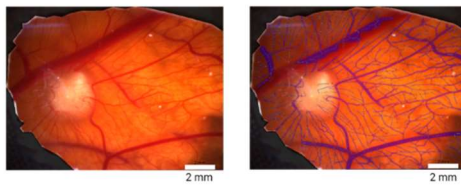
CTRL, d1



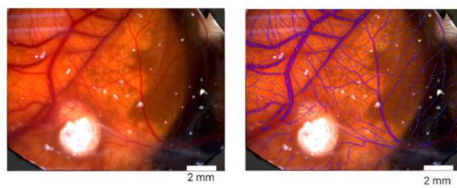
PUN, d1



CTRL, d5

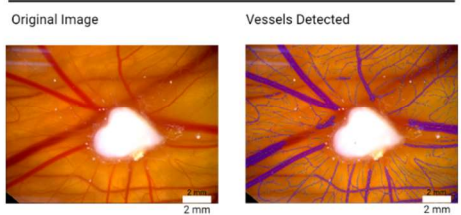


PUN, d5

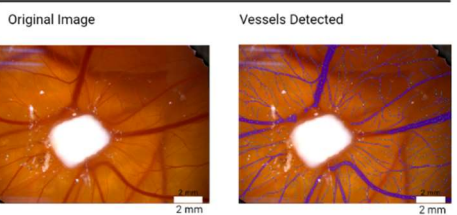


B

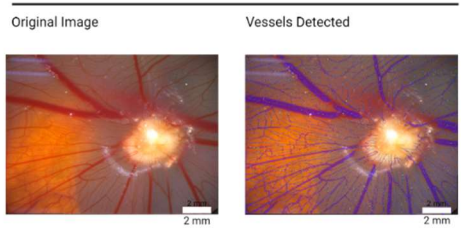
CTRL, d1



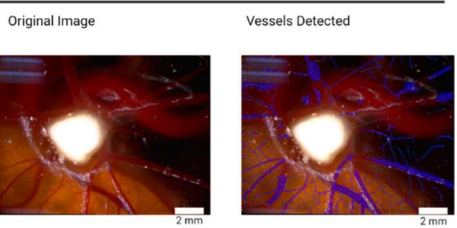
PUN, d1



CTRL, d5

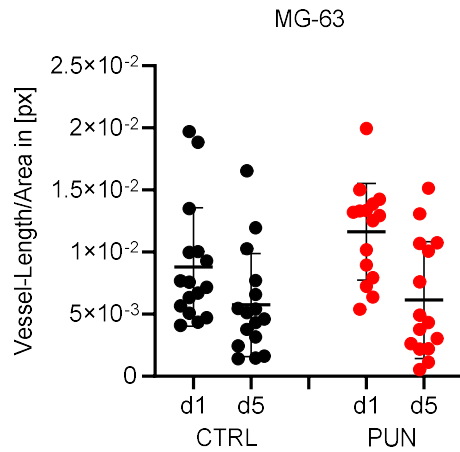


PUN, d5

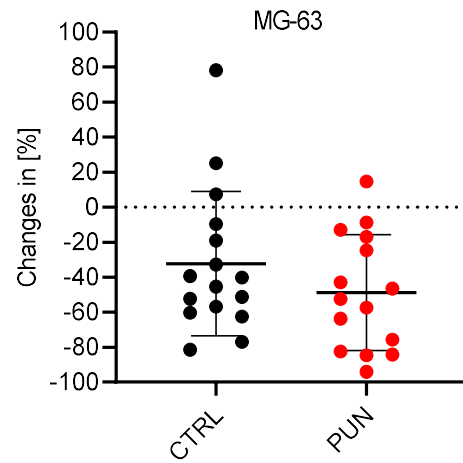


Supplementary Figure S3: Measurement of the angiogenic development with the CAM assay application v3.1.0. CAMs engrafted with SaOs-2 cell line tumors (A) and tumor tissue from one representative patient (B). Angiogenesis development was assessed before the first treatment, and five days after the start of the treatment. The output shows detected blood vessels (purple) and branching points (red).

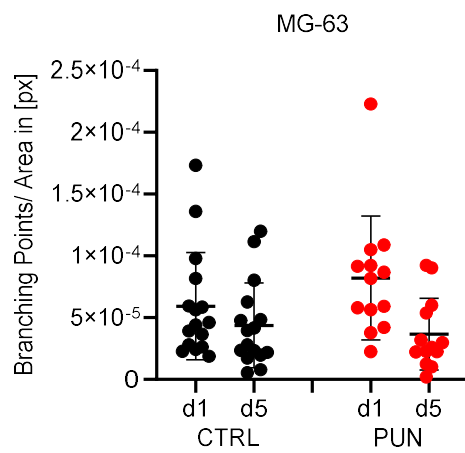
A



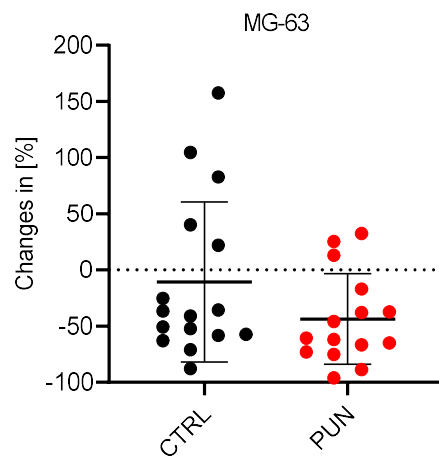
B



C

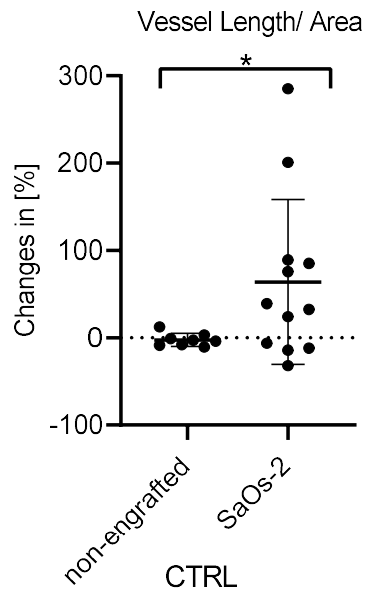


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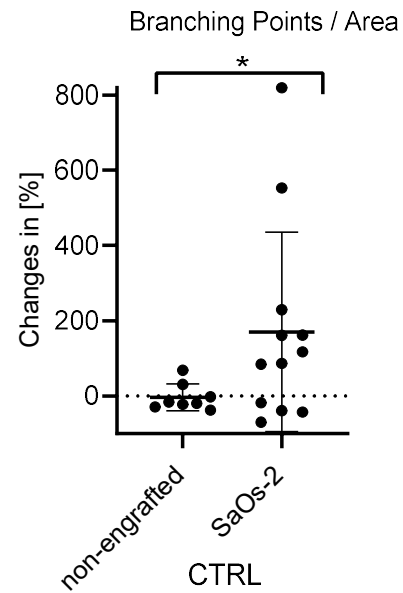


Supplementary Figure S4: Vessel length and branching point measurements of CAMs engrafted with MG-63 cell line tumors, detected with the CAM assay application. Measurements took place before the start of the treatment and 5 days afterwards, directly before explantation. A: Total vessel length of CAMs engrafted with MG-63 cell line tumors. B: Relative changes in vessel length from day 1 (before treatment) to day 5 (before explantation). C: Number of branching points for CAMs engrafted with MG-63 cell line tumors. D: Relative changes in the number of branching points per area from day 1 (before treatment) to day 5 (before explantation). Data was analyzed using a Welch's t-test. The significance level was set at $p < 0.05$ for all datasets. No significance was observed (n.s.).

A

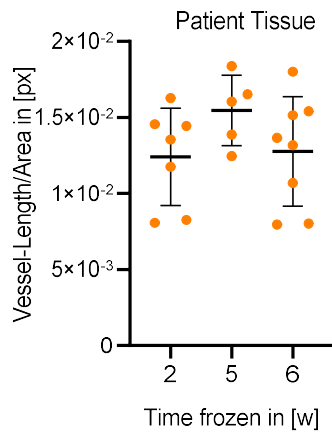


B

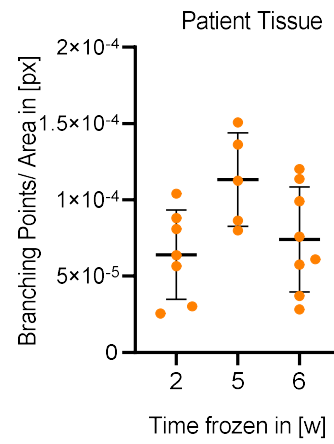


Supplementary Figure S5: Measurements of changes in vessel length (A) and branching points (B) per area with the CAM assay application v3.1.0. for non-engrafted CAMs, and for CAMs engrafted with SaOs-2 cells, respectively. A: Relative changes in vessel length from day 1 (before treatment) to day 5 (before explantation) B: Relative changes in the number of branching points per area from day 1 (before treatment) to day 5 (before explantation). Data was analyzed using an unpaired Welch's t.test The significance level was set at $p < 0.05$ for all datasets. Significances were observed in A and B.

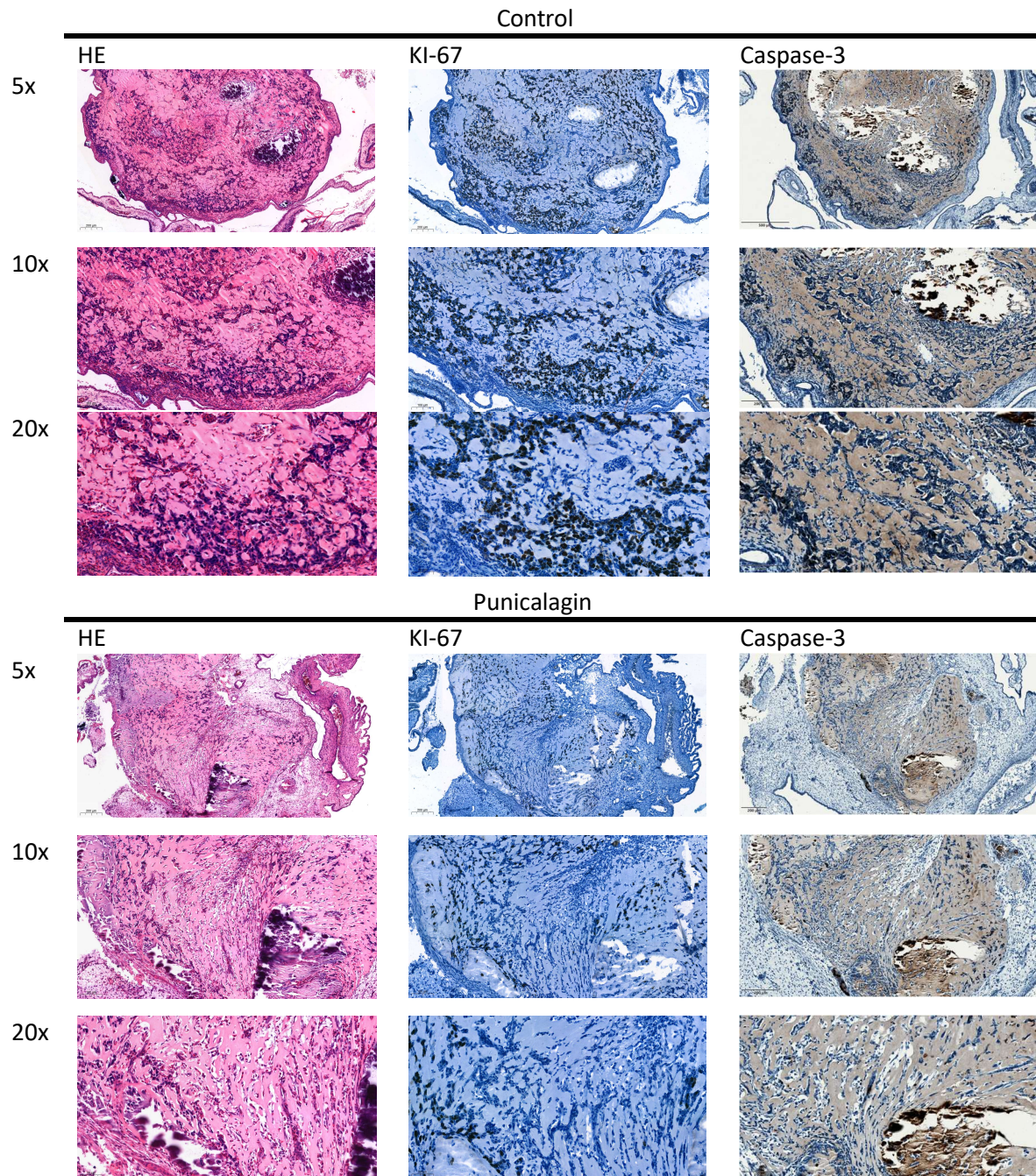
A



B



Supplementary Figure S6: Vessel length (A) and branching points (B) of CAMs engrafted with patient tissue of a representative patient before the start of the treatment per time the tissue was frozen. The freezing protocol did not affect angiogenic development.



Supplementary Figure S7: HE, Ki-67 and Caspase-3 staining of two representative CAMs engrafted with SaOs-2 cell line tumors from the control group (above) and the group treated with punicalagin (below). Fivefold, tenfold and twentyfold magnifications are shown, respectively.