

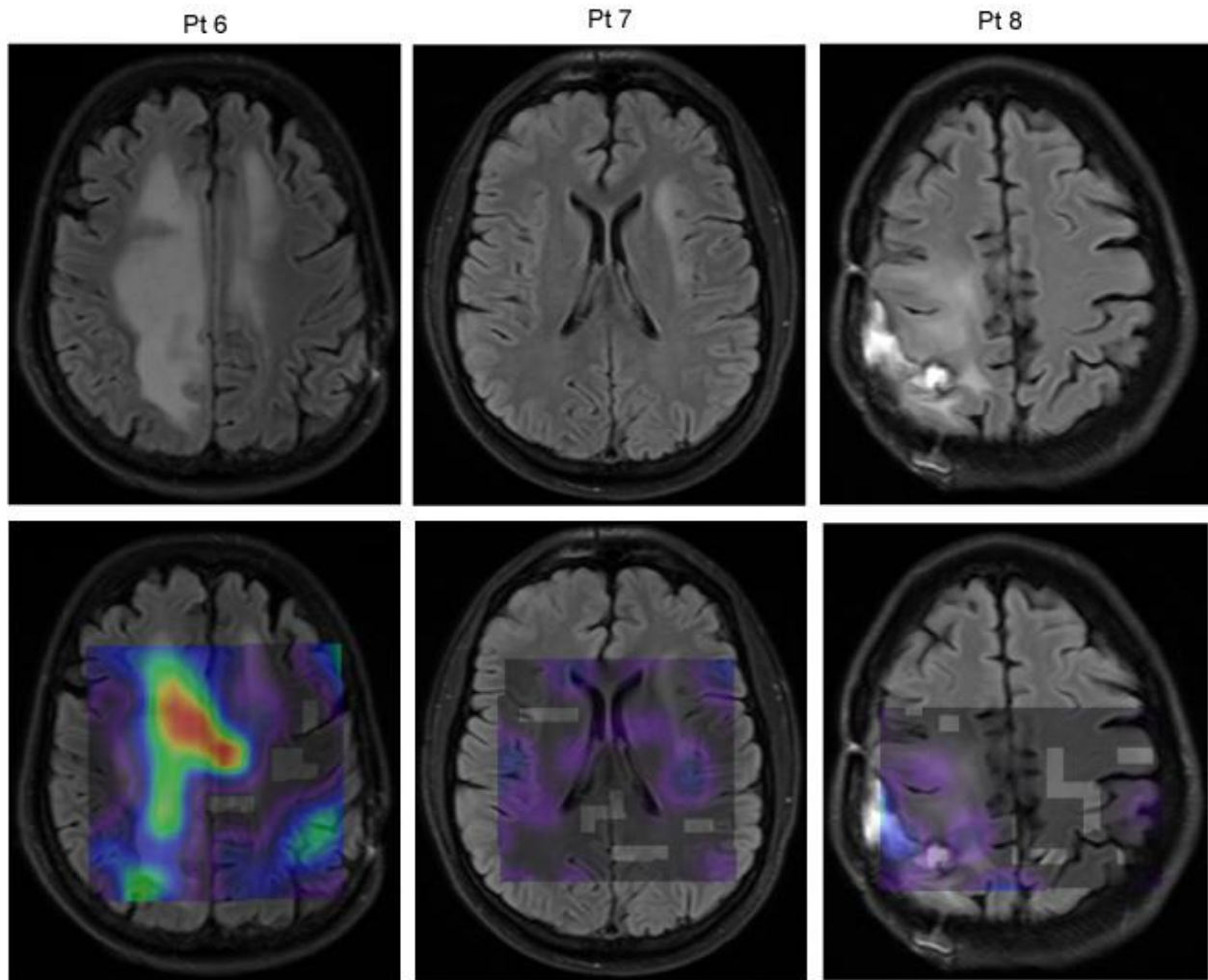
Pharmacodynamics of mutant-IDH1 inhibitors in glioma patients probed by *in-vivo* 3D MRS imaging of 2-hydroxyglutarate

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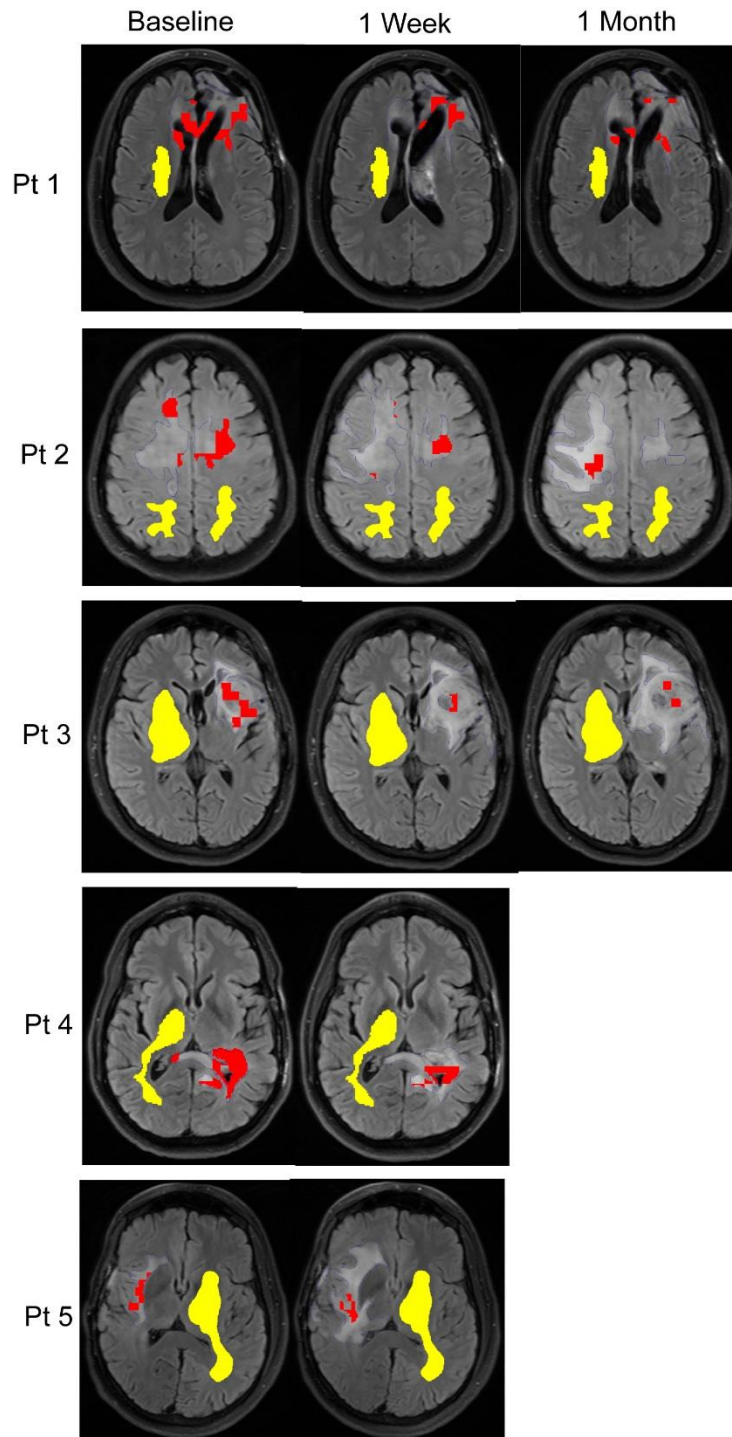
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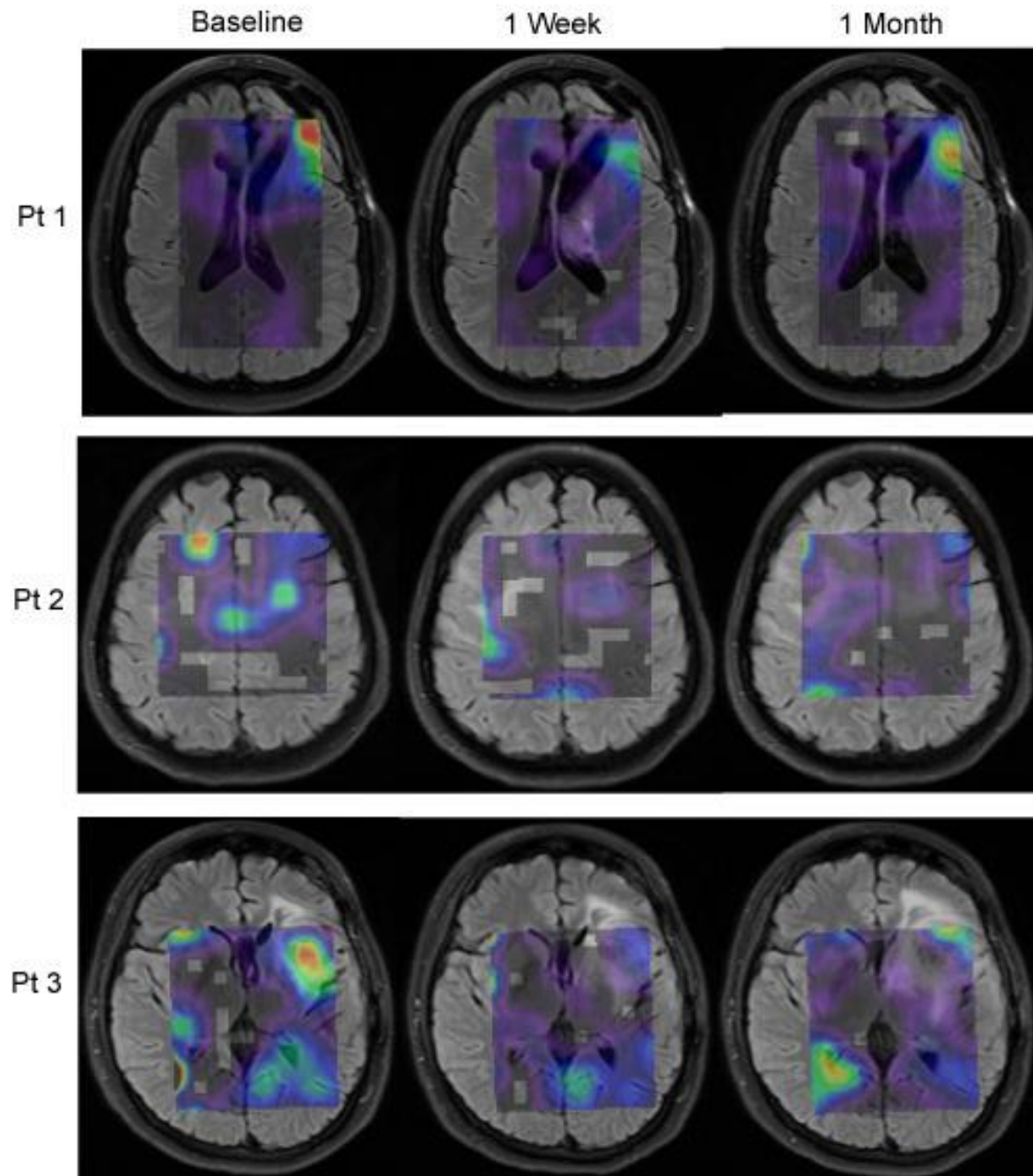
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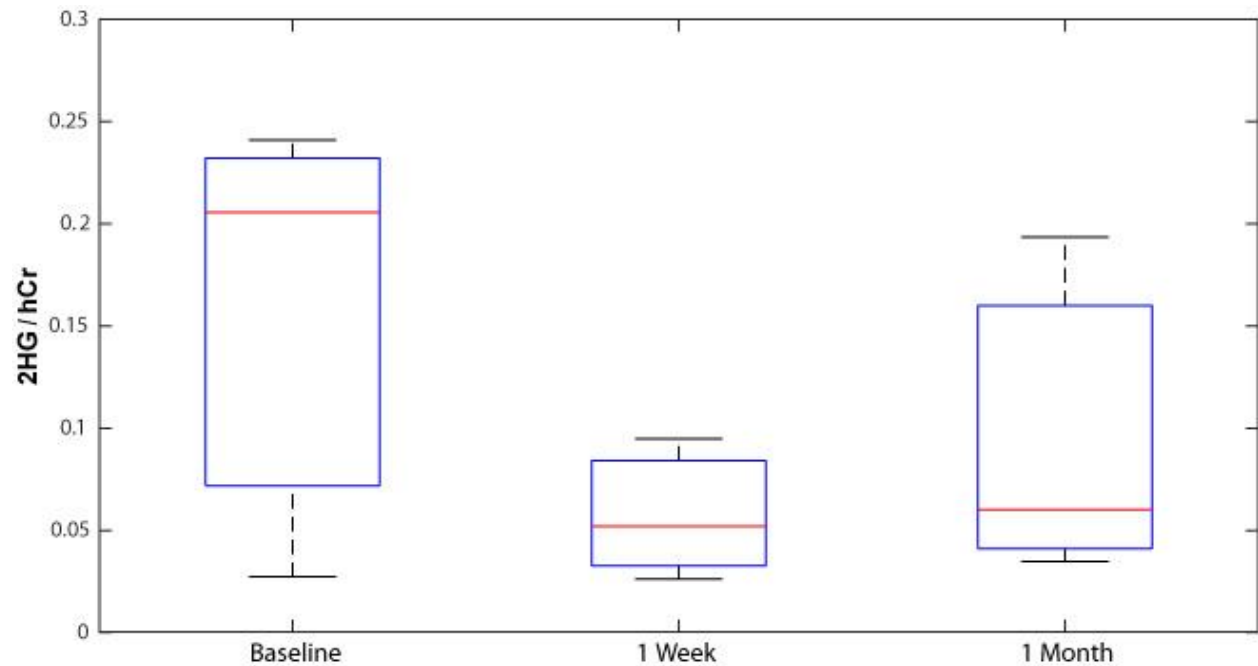
Supplementary Figure 1. 2HG maps and FLAIR images for three patients not included in the longitudinal analysis. Patient 6 had detectable 2HG levels at baseline but did not have any follow-up scan. Patients 7 and 8 had no clearly detectable tumor 2HG levels at baseline, which were comparable with the background levels in the normal appearing white matter. In patient 8 the brightest signal in the FLAIR image is due to blood products post-surgery.



Supplementary Figure 2. Region of interests for image analysis: 1) tumor ROI is outlined by the blue contour around the FLAIR T2 hyperintensity lesion; 2) mask of 2HG voxels with acceptable CRLB goodness of fit is shown in red; 3) healthy ROI in normal appearing white matter on FLAIR is shown by the yellow mask.



Supplementary Figure 3. 2HG maps for three patients that had a second follow-up scan at 1 month after start of treatment with IDH305 inhibitor of IDH1.



Supplementary Figure 4. Boxplot of 2HG/hCr levels during the first month of IDH305 treatment. 2HG was imaged in three patients for three time points over a month, including baseline (1-5 days pre-treatment), 1 week and 1 month post-treatment scans. Median levels are shown by the red line, blue box shows the interquartile range (1st-3rd quartiles), and whiskers indicate the minimum and maximum values.