

*Supplementary Figures*

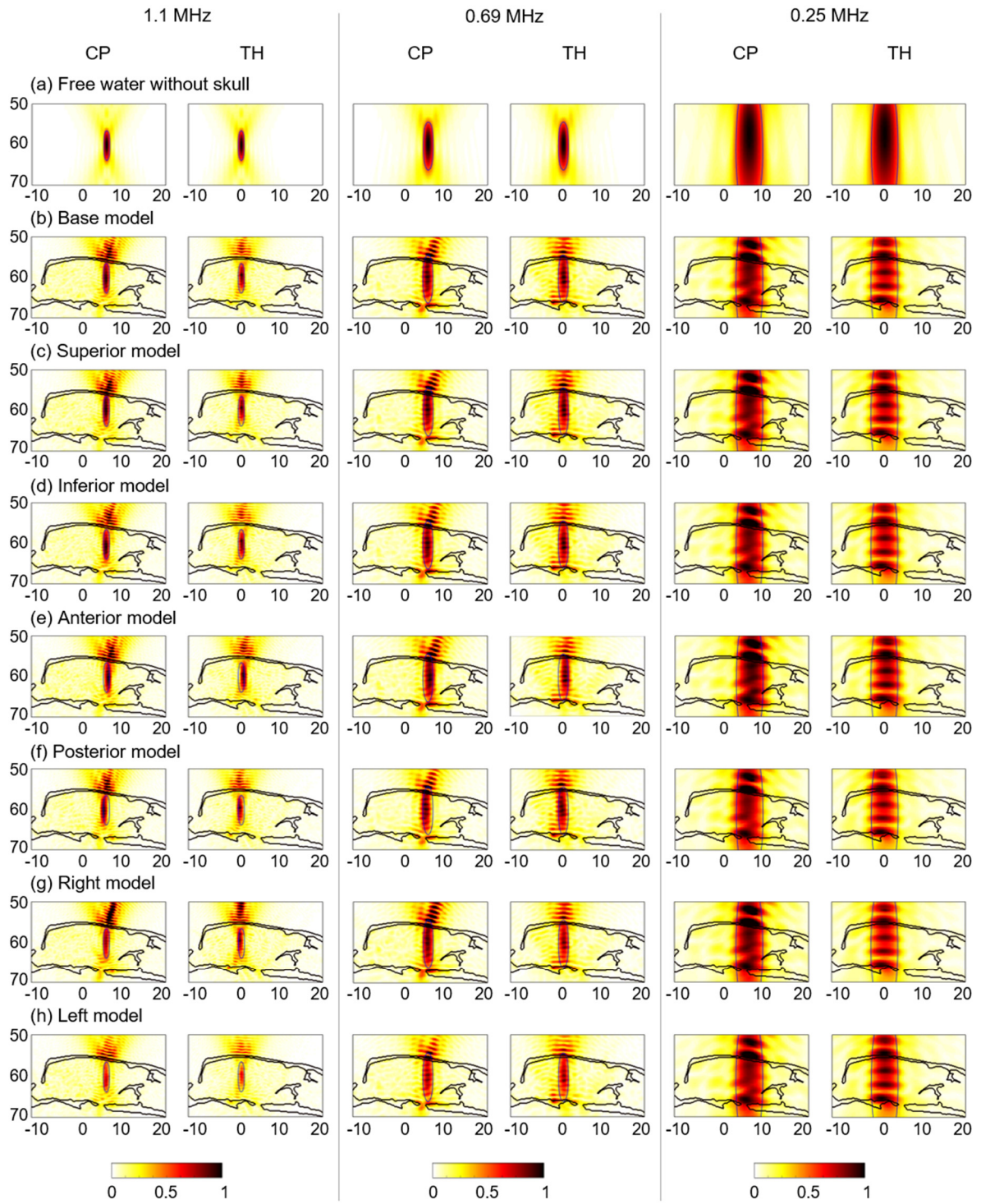
# **Numerical evaluation of the effects of transducer displacement on transcranial focused ultrasound in the rat brain**

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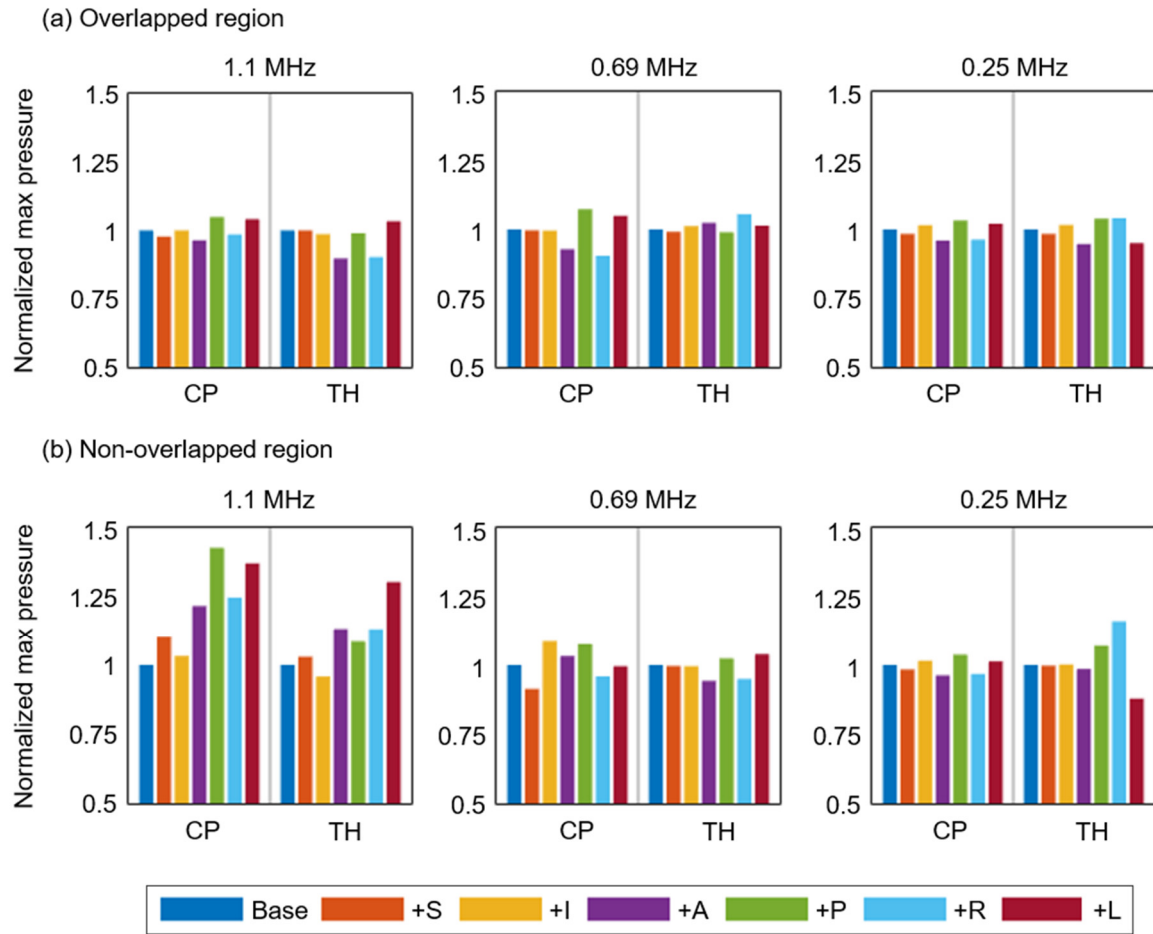
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**Supplementary Figure S1.** Normalized acoustic distributions at 1.1, 0.69, and 0.25 MHz in the sagittal view (a) in free water and (b) after transcranial transmission for the CP and TH. The transducer is displaced by 0.5 mm in all six directions: (c) +S, (d) +I, (e) +A, (f) +P, (g) +R, and (h) +L, relative to its base location. The blue lines denote the half-maximum pressure profiles in free water space.



**Supplementary Figure S2.** Effects of transducer displacement on normalized intracranial maximum pressure in the overlapped (a) or non-overlapped (b) focal volume compared with the base model at 1.1, 0.69, and 0.25 MHz. The transducer was displaced by 0.5 mm in all six directions, +S, +I, +A, +P, +L, and +R, relative to its base location.