

## Supplementary Appendix

**Supplementary Table S1:** Standardized data-extraction framework and predefined review questions applied across all studies.

Screening	Does the study involve glioblastoma (human or animal model)?
Screening	Was focused ultrasound (FUS, MRgFUS, LIFU, SonoCloud, or similar) used?
Screening	Was temozolomide (TMZ) administered?
Screening	Does the study measure at least one therapeutic or pharmacologic outcome (drug concentration, tumor response, survival, or safety)?
Study Design	What type of study is this (animal preclinical/clinical trial/case series/case report)?
Study Design	What was the sample size or number of animals/patients?
Study Design	What was the country or institution where it was performed?
Intervention Details	What type of ultrasound device or modality was used (MRgFUS, LIFU, SonoCloud, implanted emitter, etc.)?
Intervention Details	Were microbubbles used?
Intervention Details	What were the ultrasound parameters (frequency, power, duration, pulse, etc.)?
Intervention Details	How was temozolomide administered (dose, timing, route)?
Comparator	What was the control or comparison group (TMZ only, sham ultrasound, no treatment, etc.)?
Outcomes	Did the study measure the intratumoral concentration of TMZ?
Outcomes	What was the tumor response (radiographic, histologic, or volumetric)?
Outcomes	What were the survival outcomes (PFS, OS)?
Outcomes	Were there any adverse events or safety issues reported?
Outcomes	Were there functional or neurocognitive findings?
Other	Was there any mention of MGMT, IDH, or TERT mutation status (for clinical studies)?
Other	Who funded the study, and were there conflicts of interest?