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| Serum Biomarker | TBI Outcomes |
| GFAP | Clinical TBI studies have reported longitudinal elevation in GFAP levels 1. GFAP was also recently approved by the FDA as a TBI outcome clinical measure 2. |
| NfL | Clinical TBI studies have reported elevated NfL serum levels both acutely and longitudinally1. |
| Tau (total) | Total tau elevation has been reported both acutely and chronically in TBI populations 1. |
| NSE | NSE elevated levels have reported in both mild and more severe TBI populations3,4. |
| UCHL-1 | UCHL-1 has been shown to be robustly elevated in both mTBI and more severe TBI patients 5. UCHL-1 was recently FDA approved as a TBI outcome clinical measure 2. |
| S100B | S100B has been reported to be more acutely elevated in various TBI severity cases 6,7. |
| SBDP | SBDPs are products of calpain and caspase-3 post TBI, and have been reported to be elevated in both preclinical and clinical studies 8,9. |
| MBP | MBP is an oligodentrocyte protein and a product of proteases including calpain and reported to be elevated in severe TBI patients 10,11. |
| MAP-2 | An emerging biomarker for TBI patients12. |
| BDNF | Mainly reported in the preclinical TBI studies, with potential application to clinical TBI population13. |
| microRNA | a class of small endogenous RNA molecules, and has been reported to be elevated in biofluid (CSF, serum, or plasma) in several rodent models of TBI of various severities14. |
| MV/E | lipid-bilayered, encapsulated particles (10–100 nm in diameter) that are released from cells into the CSF and blood during TBI15. reported elevated MV/E released into CSF in TBI patients16. |

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