

RAPID-CNS2 provides a swift and highly flexible alternative to conventional Next-generation sequencing NGS and array-based methods for single-nucleotide variant SNV/InDel analysis, detection of copy number alterations, target gene methylation analysis (e.g. MGMT), and methylation-based classification. The turnaround time of ~5 days for this proof-of-concept study can be further shortened to < 24h by optimizing target sizes and enabling real-time computational analysis. Expected advances in nanopore sequencing and analysis hardware make the prospect of integrative molecular diagnosis in an intra-operative setting a feasible prospect in the future. This low-capital approach would be cost-efficient for low throughput settings or in locations with less sophisticated laboratory infrastructure, and invaluable in cases requiring immediate diagnoses ¹⁾

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Patel A, Dogan H, Payne A, Krause E, Sievers P, Schoebe N, Schrimpf D, Blume C, Stichel D, Holmes N, Euskirchen P, Hench J, Frank S, Rosenstiel-Goidts V, Ratliff M, Etminan N, Unterberg A, Dieterich C, Herold-Mende C, Pfister SM, Wick W, Loose M, von Deimling A, Sill M, Jones DTW, Schlesner M, Sahm F. Rapid-CNS2: rapid comprehensive adaptive nanopore-sequencing of CNS tumors, a proof-of-concept study. Acta Neuropathol. 2022 Mar 31. doi: 10.1007/s00401-022-02415-6. Epub ahead of print. PMID: 35357562.

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