

## ABSTRACT

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Medulloblastoma: WHO 2021 and Beyond.

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In 2016, medulloblastoma classification was restructured to allow for incorporation of updated data about medulloblastoma biology, genomics, and clinical behavior. For the first time, medulloblastomas were classified according to molecular characteristics ("genetically defined" categories) as well as histologic characteristics ("histologically defined" categories). Current genetically-defined categories include WNT-activated, SHH-activated TP53 wildtype, SHH-activated TP53-mutant, and non-WNT/non-SHH. In this article, we review the most recent update to the classification of medulloblastomas, provide a practical approach to immunohistochemical and molecular testing for these tumors, and demonstrate how to use key molecular genetic findings to develop an integrated diagnosis.

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