

Advancing Precision Medicine: The Somatic Mutation Theory contributes to the advancement of. 1 precision medicine by identifying specific genetic alterations in somatic cells that can inform personalized treatment approaches. By elucidating the genetic changes that occur in somatic cells, researchers can better comprehend the mechanisms underlying cancer formation and devise targeted therapies. Enhancing Genetic Research: By studying somatic mutations, researchers can uncover novel genetic mechanisms underlying disease development and progression. Insight into Aging and Age-Related Diseases: By studying somatic mutations, scientists can gain a better understanding of the genetic factors contributing to aging and age-related diseases. Identification of Genetic Disorders: Somatic mutations can contribute to various genetic disorders, and understanding their role is crucial for diagnosis and treatment. This knowledge may lead to the development of interventions aimed at mitigating the effects of aging and improving overall health in later life stages. This knowledge fuels further research into genetic phenomena, fostering advancements in genetics, genomics, and related fields. 2.3.4.5