

## Jade Varineau, PhD

### Staff Scientist



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#### Practice Areas

Intellectual Property Protection

#### Education

Massachusetts Institute of Technology  
PhD (2024) Biology

The University of Michigan  
BS (2018) Cellular & Molecular Biology

Dr. Jade Varineau assists Choate's life sciences clients by utilizing her background in biology including cellular and molecular biology to help with the preparation and prosecution of patent applications, as well as freedom-to-operate and patentability analyses.

#### Industry Experience

Prior to joining Choate, Jade received her PhD from Massachusetts Institute of Technology (MIT) in biology. While there, she worked as a graduate researcher in the department of biology. Through her work and thesis, she discovered a cellular response that occurs when mRNA splicing is broadly inhibited using techniques in molecular, cellular, and organismal biology, and gained insights into the mechanism of human developmental disorders of the facial structures. Additionally, she collaborated with other researchers to analyze transcriptional changes relevant to non-syndromic orofacial cleft disorders.

Prior to her PhD, Jade received her undergraduate degree from The University of Michigan in cellular and molecular biology. She was an undergraduate researcher in the department of molecular, cellular and developmental biology. Here, she characterized the function of a neuromuscular protein using genetic approaches in *Drosophila*. Additionally, Jade was a researcher in the department of chemistry, where she investigated structural properties of antigen-presenting proteins using molecular dynamics simulations.

#### Publications and Presentations

- "A non-syndromic orofacial cleft risk locus links tRNA splicing defects to neural crest cell pathologies" co-author, *CellPress Sneak Peak*, March 2024
- "A common cellular response to broad splicing perturbations is characterized by metabolic transcript downregulation driven by the Mdm2-p53 axis," first author, *Dis. Model Mech.*, February 2024
- "Characterizing a common cellular response to splicing perturbations," presenter, MIT Biology Annual Retreat, June 2023
- "Stac protein regulates the release of neuropeptides", co-author, *Proc. Natl. Acad. Sci.*, November 2020