

Austin Dodd

BIOL294

September 23, 2025

Genetics Writing Assignment #3 Primary Article-Citation and Sections

Jia, D. et al. Genetic variation in the promoter of an R2R3–MYB transcription factor determines fruit malate content in apple (*Malus domestica* Borkh.) *Plant Physiology* **186**, 549–568 <https://doi-org.proxy.lib.odu.edu/10.1093/plphys/kiab098>. (2021).

Sections that make this a primary research article:

1. Abstract
 - a. The abstract gives a brief description of the experiment and original objective of the paper.
2. Introduction
 - a. Provides the background and explains the research question. In this study the molecular and genetic mechanism in the MdMYB44 gene regulates apple fruit acidity. Looks into two allelic variants of the MdMYB44 promoter.
3. Results
 - a. Presents the original data found from the experiment (figures, tables, statistical analyses, etc.)
4. Materials and methods
 - a. Presents the experimental design, plant material, DNA sequencing, gene expression analysis, promoter assays, etc.
5. Funding
 - a. Shows who funded the experiment. Can show if there will be any bias within the results or experiment. Additionally, it shows that there is a financial record to prove the authenticity of this experiment.
6. References
 - a. Cites prior work but is secondary to the new data they generated.