



Our vision for VitisGen

- **To identify** high priority vine performance and fruit quality traits with documented economic value to the grape industry and to the consumer.
- **To discover, identify, and improve** these high priority traits using both traditional and modern biological approaches.
- **To implement** this strategy through development of molecular trait markers and improved grape varieties.
- **To enhance** communication regarding the value of improved knowledge of grape genomics, new varieties, new technologies, and the evolving needs of the grape industry and consumers.

**Want more information
about VitisGen?**

Visit www.vitisgen.org

Contact us at: vitisgen@cornell.edu



Funding for VitisGen was provided by
the USDA-NIFA
Specialty Crops Research Initiative Competitive
Grant# 2011-51181-30635



United States Department of Agriculture
National Institute of Food and Agriculture



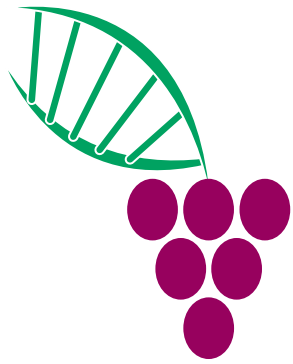
VitisGen is proud to be working with eViticulture to provide information from this project to the US grape and grape products industry.



**Mapping the way
to the next
generation of
grapes**



VITISGEN



VitisGen will focus on the following traits:

Powdery Mildew Resistance

Powdery mildew affects vineyards worldwide, resulting in reduced yields, stunted growth and lower fruit quality. New resistant varieties will help to improve vineyards' sustainability by reducing the need for fungicide applications and preventing the development of resistance to available treatments.

Low Temperature Responses

Low temperatures impact the range and growing season of grapes. Improved cold tolerance and budbreak timing could allow for greater adaptability to a changing climate and the development of economically significant grape-based industries in new regions of the US.

Fruit Quality

Grape varieties that can resist disease and tolerate cold weather often have undesirable aromas/flavors. Identification of varieties that have advantageous traits coupled with high fruit quality will lead to better grapes for wine, juice, raisins and fresh fruit.

Five teams will collaborate in an innovative program to accelerate traditional grape breeding and address the critical needs of the grape industry:

Industry and Consumers



Extension and Outreach

Communicate benefits and availability of new grapes and provide outreach about new breeding and genetics technologies.



Trait Economics

Characterize consumer and industry preferences; determine economic value of selected traits.



Genetics

Identify new markers for traits and enable marker assisted breeding.



Trait Evaluation

Evaluate disease resistance, low temperature responses, and fruit quality.

Breeding

Maintain mapping populations and develop new grape varieties.

*Accelerating Grape Variety Development via
Next Generation DNA Sequencing Technology*