

Decision Process for Specifications to the ACMG/AMP Framework

- 1) Initial proposed adjustments developed via conference calls and emails.
- 2) Electronic survey (see below) was used to gather feedback on all proposed changes from members of the Cardiomyopathy Expert Panel and larger Cardiovascular Domain Working Group.
  - a. Members could agree, disagree, propose additional adjustments and leave other comments.
- 3) Cardiomyopathy Expert Panel members votes were tallied and majority was required ( $\geq 2/3$  majority) for approval.
  - a. All rules that did not meet consensus requirements were discussed via conference calls and emails, and additional adjustments were made.
  - b. All Cardiomyopathy Expert Panel members reviewed and approved the final adjustments.

Example of Electronic Survey Questions

**Pathogenic Rules for MYH7**  
**VERY STRONG**

**PVS1** Null variant (nonsense, frameshift, canonical +/-1 or 2 splice sites, initiation codon, single or multi-exon deletion) in a gene where loss of function (LOF) is a known mechanism of disease

- **MYH7 Adjustments: Rule does not apply**
  - Data is currently insufficient to assess if LOF is a mechanism for disease or not

Agree

Disagree

Comments:

## Pathogenic Rules for MYH7

### STRONG

**PS1** Same amino acid change as a previously established pathogenic variant regardless of nucleotide change

- *Example:* Val->Leu caused by either G>C or G>T in the same codon
- *Caveat:* Beware of changes that impact splicing rather than at the amino acid/protein level

- **MYH7 Adjustments:** None, apply as stated

Agree

Disagree

Comments:

## Pathogenic Rules for MYH7

### STRONG

**PS2** De novo (both maternity and paternity confirmed) in *a patient with the disease and no family history*

- *Note:* Confirmation of paternity only is insufficient. Egg donation, surrogate motherhood, errors in embryo transfer, etc. can contribute to non-maternity.
- All cases assumed de novo, but without confirmation of paternity and maternity will be a **moderate** criteria (PM6)

- **MYH7 Adjustments:**

- Only paternity required (likelihood of non-disclosed non-maternity is very low)
- No family history requires a minimum of parents to have been screened (ECHOs) and a “non-suspicious” family history (e.g. no SCD, hx of transplant, ICD, features of CM)

Agree

Disagree

Comments: