Community Nomenclature: Standardized Gene Symbols

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Gene nomenclature has been a controversial issue for years. Specific guidelines, such as those published in this issue of *Genomics* [1,2], aim to reduce the controversy by ensuring internationally agreed-upon standards. The HUGO Gene Nomenclature Committee (HGNC) and Mouse Genomic Nomenclature Committee (MGNC) work together to provide this resource for the community, applying these guidelines and approving new gene symbols.

The updated human guidelines include recommendations on how to name unknown genes found in the large pool of sequence data now available, and suggested designations for gene families of unknown function, gene duplications, antisense genes, predicted genes (*in silico*), intronic transcripts, and repeat sequences. Also addressed are issues of approved nomenclature for untranslated (noncoding) mRNAs, polycistronic genes, and cloned disease genes. Rules for pseudogene symbols and gene names have also been updated. In response to several requests there is now a section on the use of nomenclature in publications, which includes the naming of splice variants and species designations.

The guidelines were developed with input from international workshops, advisory committees, and comments from researchers. While the goal of the Nomenclature Committees is to provide approved symbols acceptable to the community, it is not always possible to approve those that previously appeared in the literature. However, both HGNC and MGNC are available to discuss symbols, approved or otherwise, and they will certainly consider changing any symbol that is deemed inappropriate. In the last 25 years this has resulted in almost 3000 human gene symbols being re-designated (there are currently over 14,000 approved human gene symbols). Working with the Nomenclature Committees before publication will give you the greatest chance of your preferred symbol being approved and identified as such in LocusLink and other databases.

Editor's Note: *Genomics* requires nomenclature approval of gene names before publication.

1. Maltais, L. J., *et al.* (2002). Rules and guidelines for mouse gene, allele, and mutation nomenclature: A condensed version. *Genomics* **79:** 471–474.
2. Wain, H. M., *et al.* (2002). Guidelines for human gene nomenclature. *Genomics* **79:** 464–470.