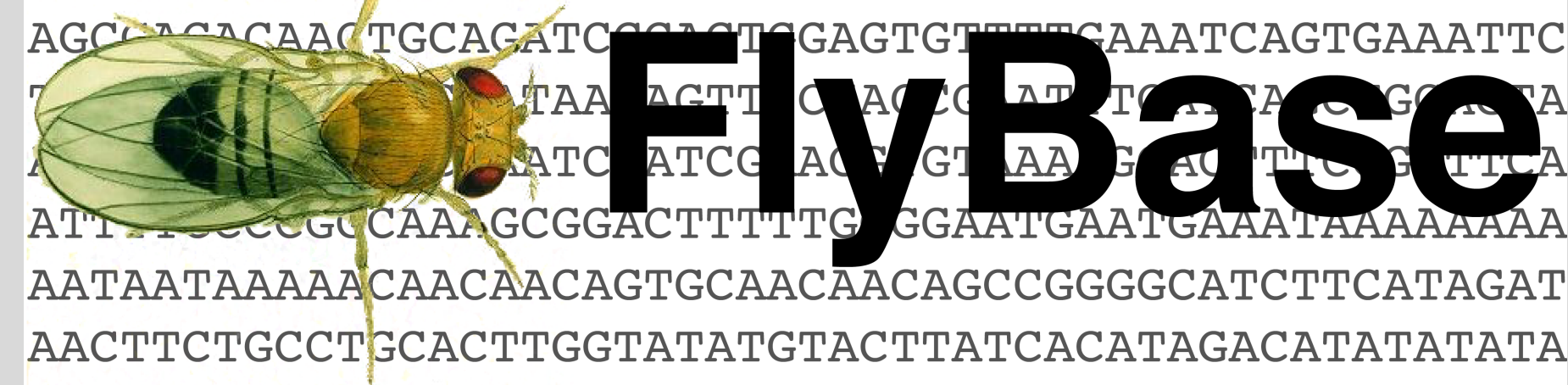


TACACAATCAGTTAGTTTCCACGACAGTCCGCAGAAACCATTGCACGGC  
GTCGGCAATCCGTAAGATAGCCAAATATTATTATGTTTCAGATACTCACT  
AGCCACACAACTGCAGATCGCTGAGTGTTCCTCAATCAGTGAAATTC  
TAAAGCTTCAATCAGTGTTCCTCAATCAGTGAAATTC  
ATTCCTCGGCAAGCGGACTTTTTCGGAATGAATGAATAAAAAA  
AATAATAAAACAACAACAGTGCAACAACAGCCGGGCATCTTCATAGAT  
AACTTCTGCCTGCACCTGGTATATGTACTTATCACATAGACATATATATA



# FlyBase Representative Publications: Using annotation data to identify key papers on a gene

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## Issue

Gene-to-publication associations are made within FlyBase regardless of the amount of data on a gene deriving from a given publication, resulting in comprehensive reference lists on each gene report page. However, it can be difficult for users to quickly **identify the key publications** that really characterize or focus on a gene in depth.

~14,000 Protein coding genes

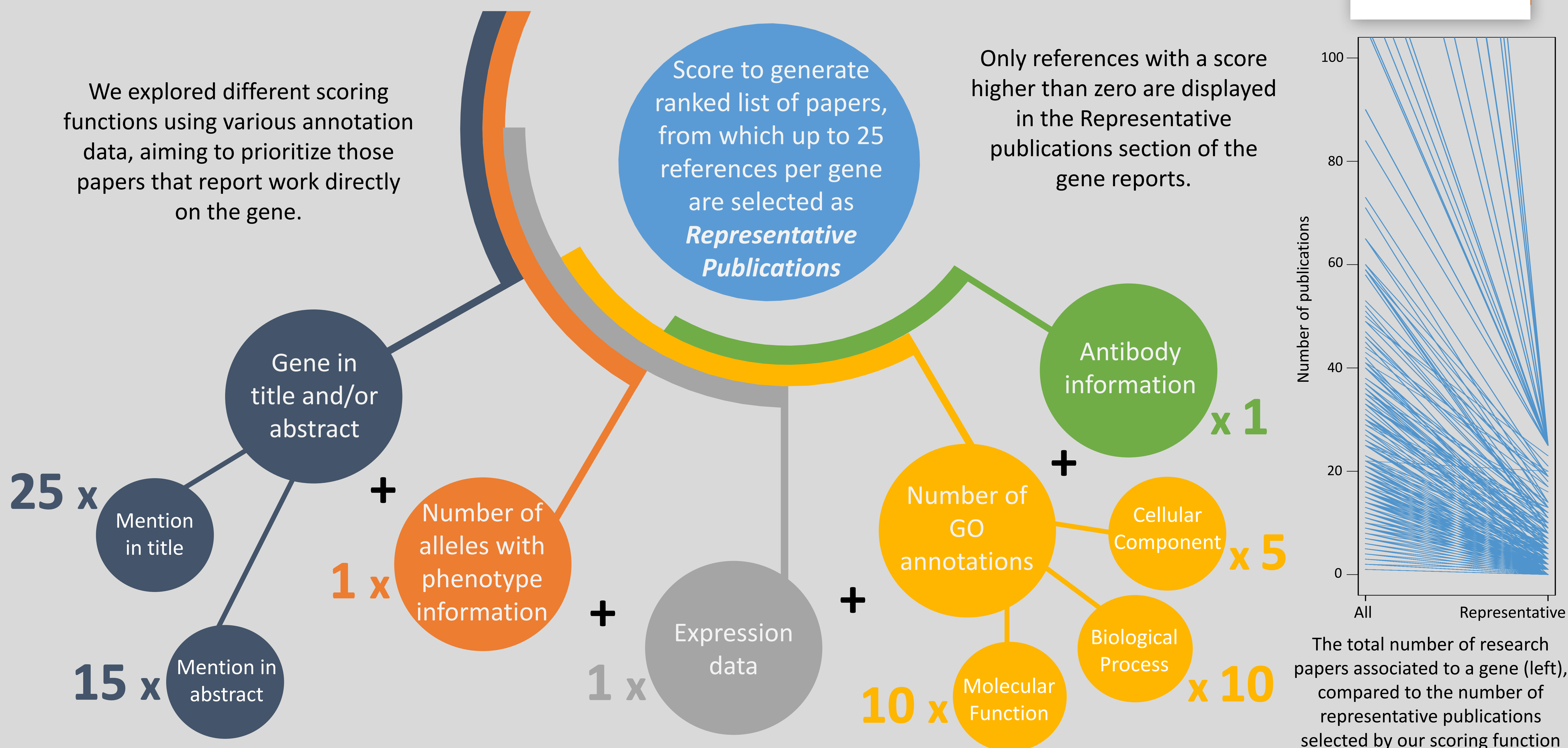


~2,500 new research papers on  
*Drosophila melanogaster* per year

We have added a “**Representative Publications**” section to gene reports, which highlights **up to 25** of the most relevant research papers for each gene. These are identified through an **in-house scoring algorithm** that assesses the amount and type of data associated to each protein coding gene, from each publication, within FlyBase.

FlyBase  
solution

We explored different scoring functions using various annotation data, aiming to prioritize those papers that report work directly on the gene.



The total number of research papers associated to a gene (left), compared to the number of representative publications selected by our scoring function for the same gene (right), displayed for 500 random genes.

References (1,820)

Publication Types

- Representative publications 25
- All publications 1820
- Research paper 862
- Supplementary material 6
- Review 474
- Erratum 3
- Personal communication to FlyBase 21
- Abstract 391
- FlyBase analysis 4
- Stock list 2
- Conference report 12
- Note 16
- Patent 4
- Letter 12

Filter 2015, Smith, cell, etc. Q

Sort by ☒ Default order  
☐ Year (descending)  
☐ Year (ascending)  
☐ Author (a to z)  
☐ Author (z to a)

Ma et al., 1993, Cell 75(5): 927--938  
The segment polarity gene hedgehog is required for progression of the morphogenetic furrow in the eye. [FBrf0064592]

Mohler and Vani, 1992, Development 115: 957--971  
Molecular organization and embryonic expression of the hedgehog gene involved in cell-cell communication in segmental patterning of Drosophila. [FBrf0055914]

Buti et al., 2014, PLoS ONE 9(3): e92682  
Hedgehog Is a Positive Regulator of FGF Signalling during Embryonic Tracheal Cell Migration. [FBrf0224486]

Read et al., 2005, Genetics 171(3): 1057--1081  
A Drosophila model of multiple endocrine neoplasia type 2. [FBrf0190765]

Deshpande and Schedl, 2005, Dev. Cell 9(5): 629--638  
HMGCoA reductase potentiates hedgehog signaling in Drosophila melanogaster. [FBrf0190201]

Suzuki and Saigo, 2000, Development 127(7): 1531--1540  
Transcriptional regulation of atonal required for Drosophila larval eye development by concerted action of eyes absent, sine oculis and hedgehog signaling independent of fused kinase and cubitus interruptus. [FBrf0126773]

Ohlmeyer and Kalderon, 1998, Nature 396(6713): 749--753  
Hedgehog stimulates maturation of Cubitus interruptus into a labile transcriptional activator. [FBrf0105900]

Hall et al., 1997, Cell 91(1): 85--97



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