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Commentary and Review

Research

(continued)

Methods and Resources

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Cover Visual representation of two phenotype-related gene clusters within a large molecular network. These phenotype-associated genes are potential candidates for drug targeting. Each of the graph nodes corresponds to a gene; an edge between nodes depicts a functional relationship between the respective genes. The different colors of the network edges reflect the multitude of possible functional relationships between genes: There are hundreds of common molecular relation types. For example, one gene can transcriptionally regulate another; two genes can encode two proteins forming a complex; or one gene-encoded protein can phosphorylate, acylate, cleave, methylate, and glycosylate another protein. The red and the green areas represent two disease-related gene clusters. (Cover illustration by Andrey Rzhetsky. [For details, see Yao and Rzhetsky, pp. 206–213.])