

XGR: an R package for deciphering genes and SNPs identified from GWAS and eQTLs

Abstract

We introduce an R package called *XGR*¹. ... Taking a list of user-input genes (or SNPs), the package 'XGR' is able to identify the underlying knowledge enriched within them, and to predict the semantic similarity between them. The package supports a wide range of ontologies (including functions, pathways, diseases and phenotypes in both human and mouse) for users to choose and thus to produce enriched knowledge and semantic similarity of their own interest.

¹<https://github.com/hfang-bristol/XGR>

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All of the output in this vignette was produced under the following conditions:

```
> sessionInfo()
```

```
R version 3.2.4 (2016-03-10)
```

```
Platform: x86_64-apple-darwin13.4.0 (64-bit)
```

```
Running under: OS X 10.11.4 (El Capitan)
```

```
locale:
```

```
[1] en_GB.UTF-8/en_GB.UTF-8/en_GB.UTF-8/C/en_GB.UTF-8/en_GB.UTF-8
```

```
attached base packages:
```

```
[1] stats      graphics  grDevices  utils      datasets  methods   base
```

```
loaded via a namespace (and not attached):
```

```
[1] tools_3.2.4
```