

# BioMart

and the Bioconductor package biomaRt

David Montaner  
[www.dmontaner.es/materiales](http://www.dmontaner.es/materiales)  
dmontaner@cipf.es

22 April 2013

# What is BioMart I

- A federated database system that provides unified access to disparate, geographically distributed data sources.
- Any existing databases can easily be incorporated into the BioMart framework.
- It is designed to be data platform independent.
- Efficient. Ej. parallel query processing . . .
- Unified technology.
- No need of programming: graphical user interfaces.

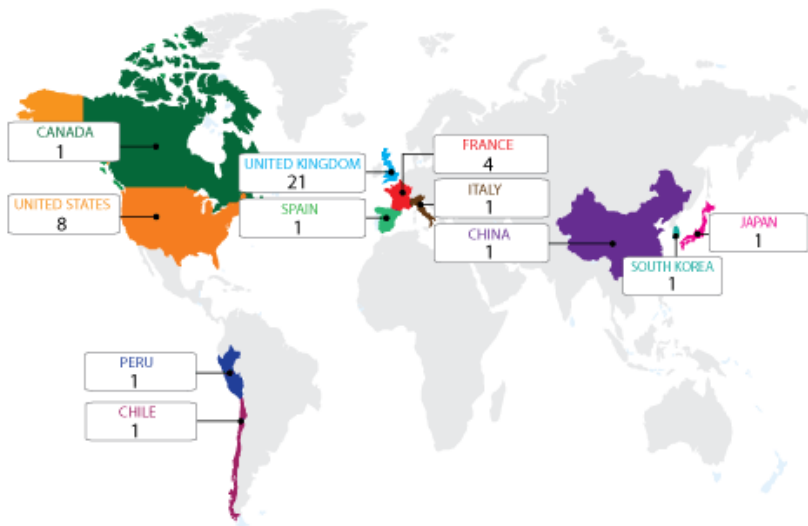
# What is BioMart II

The BioMart project provides:

- software: server . . . client
- **services**: already set up servers that provide access to a data.

<http://www.biomart.org/>

# BioMart Community



# BioMart Central Portal

[Home](#)[Community](#)[Publications](#)[News](#)

Bio Portal : 45 databases in 4 continents and growing

UK - 23  
USA - 8  
France - 4  
Canada - 1  
Chile - 1  
Peru - 1  
Spain - 2  
Italy - 1  
China - 2  
South Korea - 1  
Japan - 1

**DOWNLOAD**

Version 0.8

Proceed to **Bio** Portal ▶

Proceed to **Cancer** Portal ▶

Proceed to **Mouse** Portal ▶

## BioMart Project

The BioMart project provides free software and data services to the international scientific community in order to foster scientific collaboration and facilitate the scientific discovery process. The project adheres to the open source philosophy that promotes collaboration and code reuse.

BioMart Software

BioMart is a freely available, open source, federated database system that provides unified access to disparate, geographically distributed data sources. It is designed to be

▶ Version 0.8

▶ Version 0.7

▶ Mailing Lists

▶ Contact us

# Standardized Access

(for all users)

- Choose a Database. The repository.
- Dataset. For instance, Species.
- Select Attributes: IDs, descriptions, sequences ...  
Attributes are what we want to know about the genes.
- Set Filters.  
Indicate where our search should be restricted.

Examples:

- [BioMart Central Portal](#)
- [EnsMart](#) form Ensembl.
- [HapMap](#).
- [WormBase](#)
- [IntOGen](#) Spanish.

# biomaRt

```
http://www.bioconductor.org/packages/release/bioc/  
html/biomaRt.html
```

# References

- <http://www.biomart.org/>
- <http://www.bioconductor.org>