PRGdb 2.0
The plant resistance genes database
Semantic mediaWiki powered!

- PRG-Wiki is an open and daily update space about plant resistance gene, in which all information about this family is stored, curated and discussed.
- The purpose of our work is creating a worldwide community working on plant resistance genes with a constant update on all aspects of this research field and to encourage scientists to be actors of the discussion and of the data exchange.
- Through the wiki pages any contributor can suggest changes to the PRG database and directly update it with new data, new information and with corrections of wrong information.

Prediction tools

Development of two specific R-genes prediction systems

**DRAGO**
(Disease Resistance Analysis and Gene Orthology)

**MATRIX**
(R-genes HMM profiling)

PRGdb 1.0
Sanseverino et al 2010 - NAR

Andolfo & Sanseverino 2012
New phytologist

How to find us...

www.prgdb.org
All the reference resistance genes are collected...

And...yes...this is a bug

How can we search specific information

The most important part...Contribution system!

You can also add new data!
Conclusions

- PRG 2.0 is a comprehensive resource on resistance genes (R-genes), a major class of genes in plant genomes that convey disease resistance against pathogens.
- Initiated in 2009, the database has grown more than 6-fold to recently include annotation derived from recent plant genome sequencing projects.
- Release 2.0 currently hosts useful biological information on a set of 112 known and 104 310 putative R-genes present in 233 plant species and conferring resistance to 122 different pathogens.
- The website has been completely redesigned with the implementation of Semantic MediaWiki technologies, which makes our repository freely accessed and easily edited by any scientists.
- We encourage plant biologist experts to join our annotation effort and share their knowledge on resistance-gene biology with the rest of the scientific community.

Future perspectives

- DRAGO web application ➔ automatic prediction and annotation of R-genes from genomes and multifasta
- New Blast version