

BioModels Database
Next generation model repository

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COMBINE meeting 2010, Edinburgh (UK)

8 October 2010



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Why a new version of BioModels Database?

Next generation repository

Development model

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Limitations of the current system

Features

- no full model versioning
- no ranked search results
- no possibility for a user to work privately on a model
- no collaboration possible
- no standard access for reviewers (before model publication)
- ...



Limitations of the current system

software

- not easy to deploy and reuse (depends on EBI infrastructure)
- difficult to extend
- not designed with security in mind
- fairly slow for relatively big models (SBML files over a few MB) for both users and curators
- ...



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Need for a new version in order to cope with the new challenges of the modelling field!



Proposed features

- storage (and retrieval) of all model revisions
- private *secured* access to the curation and annotation pipeline for the models *you* submitted
- collaboration: possibility to share models and work together with your colleagues
- reviewers' access to models
- easy deployment, reuse and extension
- improved search, with ranked results
- improved performance
- ...



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Current model

- all development work done at the EBI (Computational Systems Neurobiology group)
- open source (GNU General Public License)
- sources available from *sourceforge.net*
- main instance running at the EBI and one mirror at Caltech



Proposed model

- rewrite whole application with security, performance and flexibility in mind
- community developed project, initially undertaken by the European Bioinformatics Institute (EBI) and The German Cancer Research Center (DKFZ)
- multiple instances running in various institutes
- EBI (and its mirrors) remains the location where models are **publicly available**



Proposed technologies

- Groovy
- Grails (Spring, Hibernate, ...)
- Spring Security
- Hibernate Search
- YUI
- JSBML
- ...



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If you have any requests, questions or comments...



Thank you.



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