

# WP4: Data Representation

# WP Objectives

- Assessment of technical aspects of database interoperability as a barrier to scientific and financial sustainability
- Assessment of the variability of practice in the semantics of biological data representation, e.g. genotype, gene expression
- Assessment of emerging standards and current practice for data representation, annotation and ontologies

# Deliverables

- D9 (month 12): Web-accessible list of data representations and relationships with international standards
  - ✓ <http://www.i-mouse.org/ontology.php>
- D10 (months 20, 36): Report on assessment of data representations and accompanying publication
  - ✓ To be presented in Athens, October 08

# Achievements

- CASIMIR Questionnaire (joint with WP7)
  - Usage of ontologies not as common in databases as might be expected
  - OBO ontologies not always used
  - MI standards still not in widespread use
  - Results on web at:  
[http://www.casimir.org.uk/casimir\\_db\\_details.read\\_only.php](http://www.casimir.org.uk/casimir_db_details.read_only.php)
  - Also to be presented in Athens

# Achievements

- Networking Meetings (D5):
  - Corfu 3-6 October 07 - general discussion on directions
  - Cambridge 15-16 September 08
    - Phenotype Ontologies
    - Minimum Standards for Phenotyping Experiments
    - Joint meeting with Interphenome Consortium

# Workshop on Describing and Reporting Phenotypes

## Participants:

- EU: MRC Harwell, University of Cambridge, Leicester University, Manchester University, Wellcome Trust Sanger Institute, EBI, Helmholtz Zentrum München, BSRC Al. Fleming, RATstream
- USA: The Jackson Lab, Rat Genome Database
- Japan: RIKEN BioResource Center

# Presentations covered:

- Ontology design
  - PATO, MP, MA, MPATH and OBI
- Ontology use in data annotation
  - EUMODIC Project, RGD, Gen2Phen, RIKEN, MGD
- Ontology Resources
  - OLS, OATH, OBO Foundry
- Minimal Information Standards
  - MIBBI, MIAME, MIMPP

# Discussions

- Use of pre and post- coordinated terms in annotations
  - Need to review PATO
  - MP and MPATH to PATO mappings good way to assess its current limitations
- Use of assay ontologies
  - RGD: Clinical Measurement and Measurement Method ontologies
  - OBI
  - EXACT



# Discussions

- Use of ontologies in Minimal Information Standards
  - Crucial to declare how the data is described
- Integrating MIMPP with other Minimal Information
- Produce a meeting report

# WP4 Future Plans

- Relationship between Diseases (and endophenotypes) in human and phenotypes in mice and other model organisms
  - **Annual meeting in Stockholm 1-3 December 08 - “One Medicine, One Pathology”**
  - 2009 AMIA Summit on Translational Bioinformatics
  - Publications!



## CASIMIR SECOND ANNUAL MEETING

### *“One Medicine, One Pathology” Integrating mouse and human disease data*

*A symposium to be held at the Nobel Forum, Karolinska Institute, Stockholm, Sweden  
To be followed by the CASIMIR Annual Open meeting*

*December 2-3<sup>rd</sup> 2008*

*Participants may register on-line at [http://www.casimir.org.uk/book\\_meeting.php](http://www.casimir.org.uk/book_meeting.php)  
Deadline for Registration 7th July 2008*

*An updated programme will be available on the CASIMIR web site in June.*

*Any enquiries should be addressed to the project administrator Dr Dawn Muddiman  
[casimir@mole.bio.com.ac.uk](mailto:casimir@mole.bio.com.ac.uk)*

#### *Invited Speakers*

*Prof. Ada Hamosh*

*Dr Anita Burgin*

*Prof. Anthony Brookes*

*Dr George Patrinos*

*Prof. Richard Mott*

*Prof. Han Brunner*

*Prof. Janan Eppig*

*Prof. Rex Chisholm*

*Prof. Robert Cardiff*

*Prof. John Sundberg*

*Dr John Hancock*

