

BioPAX Work Group
September 22, 2004 Conference Call Minutes

Participants: Gary Bader, Michael Cary, John Conroy, Lynn Ferrante, John Gennari, Veena Rajaraman, Vincent Yau, Jeremy Zucker

Summary:

1. PM page – conference call agendas and details are available at <http://www.biopax.org/pm/>
2. Recent developments
 - a. Recent ontology bug fix posted 2 weeks ago: validates as OWL DL now
 - i. Removed some junk RDF code, removed a constraint that was causing validators to choke
 - b. Recent discussions – see notes sent to biopax-discuss list
 - c. Suzanne updating EcoCyc → BioPAX converter
 - i. Sent out (to biopax-dev@googlegroups.com) glycolysis pathway as test; Jeremy would like code also, if possible
 - d. New dev/admin list: biopax-dev@googlegroups.com list
 - i. High traffic email list, mostly administrative (major discussion issues will still be sent to biopax-discuss@biopax.org)
 - ii. Still setting it up and testing it
 - iii. Open membership, archives searchable on web
 - e. Gary and Mike working on Level 2 draft
 - i. Based on prior discussions and meetings (e.g. Chicago, June 2004)
 - ii. Will send out to biopax-discuss for comment when done
 - iii. Features: Complex processes, hierarchical pathways, molecular interactions (PSI-MI compatible)
3. Level 1.2 (or Level 1.0 bug fix)
 - a. Purpose: add compliance with various OWL conventions
 - i. “Functional” vs. “Max cardinality = 1”
 1. Two different ways to say the same thing, the former is used in OWL tutorial, we use the later exclusively
 - ii. Disjointness between classes
 1. E.g. say something that is a protein cannot also be a small molecule (otherwise, because of “open world”, reasoners assume this is possible)
 - iii. Existential restrictions (we use universal only)
 - iv. Sub-properties
 1. LEFT and RIGHT (and CONTROLER and CONTROLLED) could be sub-properties of PARTICIPANTS
 - b. Main questions:
 - i. Effect on current ontology?
 1. With multiple inheritance, disjoint classes cannot be parents of the same subclass, so reaction and transport cannot be disjoint.
 - a. OK for other classes though

- b. Racer should be able to handle (classify) instances of transportWithBiochemicalReaction class
 - ii. How to proceed on this front?
 - 1. Post it as a bug-fix / update to Level 1.0, since it will have no effect on any instance data
 - 2. Have an OWL expert validate it before releasing it
 - 3. Which classes to make disjoint?
 - 4. Mike will send something out about this to biopax-discuss list
- 4. Getting data into BioPAX
 - a. POCs (point of contacts)
 - i. WIT: Joanne Luciano, Natalia Maltsev
 - ii. BioCyc: Suzanne Paley
 - iii. KEGG: Jeremy Zucker, Gary Bader
 - iv. aMAZE: Jeremy will follow up w/ Shoshana Wodak
 - v. Reactome: Gary Bader
 - 1. John Gennari interested in this mapping
- 5. libBioPAX
 - a. Writing reusable code to convert data to/from BioPAX
 - b. Would be built on top of other APIs (e.g. Jena)
 - c. Looking for volunteers
 - i. Alan Ruttenberg, John Rees from Millennium
 - d. Using PHP-collab to organize it
 - i. <http://genome.dfci.harvard.edu/phpcollab>
- 6. OWL/RDF/LSID Semantic Web for Life Sciences questions
 - a. Submitted a position paper (our thoughts on OWL as an early adopter)
 - b. Gary will post position paper to biopax-discuss
- 7. States & Signal Transduction in Level 3
 - a. Andrew Finney's comment: "signal transduction and states shouldn't be handled separately"
 - b. Katie Wollstencraft is interested in representing biological states in OWL, we should talk to her (Jeremy will contact her)
 - c. Ken Fukuda also said he was interested
 - d. Mike and Jeremy will work on organizing this subgroup
- 8. Upcoming events
 - a. National Conference on Systems Biology (NCSB) – in Heidelberg
 - b. SBML forum – in Heidelberg, after NSCB
 - c. Standards and Ontologies for Functional Genomics (SOFG) – in Philadelphia
 - i. Mike and Joanne will attend, present on BioPAX
 - ii. John Gennari is also presenting
 - d. SemWeb for Life Sciences
 - i. Joanne and Jeremy will attend
- 9. Next conference call
 - a. Specialized calls from now on?
 - i. Focus on specific aspects of the project
 - b. How often should we have them?
 - i. As needed, by topic

- c. Did not set date for next call
10. Other questions, comments
- a. Controlled vocabularies – how are they handled in OWL?
 - i. Create classes for the terms (value partitions)
 - 1. Need to create instances in order to use them though
 - ii. Best practices?
 - 1. Depends on how you're going to use them
 - 2. Currently, we create a pointer via openCV class
 - a. Could run into name collisions here though
 - 3. LSIDs for CV terms?
 - iii. Might find answers at SW-LS conference