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This is a request to create a biositemap RDF file and install it on your organization's web site. As described below, this file will enable you to publish information on the Internet about useful biomedical resources (software, models, tools, data, material, and services) that have been developed out of your research. This file can be read by a number of emerging search and query engines such as the Resource Discovery System (RDS).

Background: **Biositemaps** is a standard for (i) creating a living inventory of biomedical research resources on the Internet and (ii) and querying the inventory. The official web site of the biositemaps specification and tools is <a href="http://biositemaps.org/">http://biositemaps.org/</a>. It works very simply: each researcher or institution that intends to contribute to the inventory instantiates an RDF file on its Internet site (named "biositemapXYZ.rdf") which contains information about a standard set of properties. The key enabling technologies are the <a href="Information Model (IM)">Information Model (IM)</a> which is the list of resource properties (resource\_name, description, contact\_person, resource\_type,...) and the <a href="Biomedical Resource Ontology (BRO)">Biomedical Resource Ontology (BRO)</a> which is a controlled terminology for the resource\_type, which is used to improve the sensitivity and specificity of web search.

The instructions for how to create and publish your biositemaps file are below. We recommend that you name your file 'biositemap\_[YourOrganizationName].rdf, where [YourOrganizationName] could be a short acronym such as for UUBD for Upstate University Biochemistry Department. The first thing to do is to identify an individual there who will take responsibility for (i) creating a biositemaps file that contains information about the resource you have developed; (ii) installing the biositemaps file on your web site (if you have trouble with this step, please contact Chuck Borromeo <a href="mailto:chb69@pitt.edu">chb69@pitt.edu</a> and he can install it on a central repository); and (iii) keeping the biositemaps file up to date on regular schedule;.

## Instructions on how to create, edit, and publish your Biositemap file

We ask you to generate and edit a biositemap RDF file using the online editor described below. Then publish the file on your organization/institute/center's website according to the instructions in the Appendix below. The proper use of the editor is described in the following steps, or you may refer to the video tutorial at <a href="http://biositemaps.org/help.html#biositemaps">http://biositemaps</a>.

- 1. First, open the Biositemap editor <a href="http://biositemaps.org/editor">http://biositemaps.org/editor</a>.
- 2. Use the 'Create a new biositemap' option. If you would like to see what an example looks like, you can also load some existing biositemaps files from the registry <a href="http://biositemaps.org/biositemap.registry">http://biositemaps.org/biositemap.registry</a> (you can go ahead and load one of these biositemaps files in the editor and see what the content looks like)
- 3. When the editor opens, type in the Resource Name and then enter properties as appropriate on the screen. At a minimum, we would like you to include the following properties of each resource (i) Type in the appropriate 'Organization' and 'Center' names, (iii) Enter a 'Research Program' title as appropriate, in particular we ask that all NCBC-affiliated efforts please

select 'NCBC' under the Research Program property, (iv) type in any free text as appropriate in the Description box, (v) select 'Add new' to select terms from the controlled vocabularies for 'Resource Type', 'Related Areas of Research', and 'Related Activities' (note that you can chose multiple entries for each of these categories), (vi) For the 'Biositemap Author' property type your name. Please note that on most computer screens in order to access all the properties you will need to use the scrollbar on the right hand side.

- 4. Add additional resources, as appropriate (click on the *Add* button on the bottom left hand side of the screen)
- 5. When you have finished, click the *Download* button and a compressed version of the biositemap will be downloaded to your local computer. Please unzip and rename your file according to the convention biositemap\_[YourOrganizationName].rdf, where [YourOrganizationName] could be a short acronym such as for UUBD for Upstate University Biochemistry Department. If you have any trouble downloading the file you may need to configure IE as per the following video tutorial: <a href="http://biositemaps.org/help.html">http://biositemaps.org/help.html</a>
- 6. Host your biositemap file on your home institution's web site as per the instructions in the Appendix below. As a fallback you can ask to host your biositemaps on a central site by attaching the RDF file and sending a request to Chuck Borromeo <a href="mailto:chb69@pitt.edu">chb69@pitt.edu</a>.
- 7. Register the URL of your biositemaps file as per the instructions provided at: <a href="http://biositemaps.org/cgi-bin/biositemap-register">http://biositemaps.org/cgi-bin/biositemap-register</a>. Make sure you check the registry <a href="http://biositemaps.org/biositemap.registry">http://biositemaps.org/biositemap.registry</a> to ensure the registration worked.

It will take a day for the search tool to refresh, and then your content will be searchable on the Internet using the Resource Discovery System (RDS)

Don't hesitate to provide your comments or ask questions at any time by email or phone.

Regards,

Peter Lyster

703.819.6093 or lysterp@mail.nih.gov

## Appendix: Technical Instructions: How to install your biositemaps file on your server

We are asking that you publish information about software and data resources that you develop or find useful on the Internet using a Biositemaps (<a href="http://www.biositemaps.org">http://www.biositemaps.org</a>) RDF file [1]. Your institution will name a curator who will update the biositemaps file on a regular basis, publish it on the Internet, and engage in discussion with Biositemaps staff on best practices for the content of the biositemaps file. The biositemaps file should be published with the help of the local IT administrator. Ideally, the biositemaps file should be placed on the root directory of your web site. In some cases the IT administrator may require that you get permissions through your institution's leadership. As a fallback you can ask to host your biositemaps on a central site by attaching the RDF file and sending a request to Chuck Borromeo <a href="mailto:chb69@pitt.edu">chb69@pitt.edu</a>. The following instructions should help guide the IT administrator:

- 1. It is best if the biositemaps file is publicly accessible on the root directory of your web site. Any web server technology (IIS, Apache, etc) is acceptable. The only requirement is that the web server technology accepts an HTTP request (i.e., not ftp or HTTPS). Please use whatever web server technology is typically deployed at your institution.
- 2. Once the curator has generated the biositemaps file and installed it on the Internet with the help of the local IT administrator the path to the file will be, e.g., http://www.myinsitution.edu/Biositemap\_[YourOrganizationName].rdf.
- 3. Ensure that your web server is properly configured to serve RDF files. Typically, a web server requires you to register the MIME type definition for the .rdf extension. The following website provides an explanation of the MIME type associated with RDF files: <a href="http://www.aaronsw.com/2002/rdf-mediatype.html#anchor3">http://www.aaronsw.com/2002/rdf-mediatype.html#anchor3</a>.
- 4. The IT administrator needs to provide the biositemaps curator with the permissions necessary to create, update, and delete the RDF file hosted on your web server. The curator will update the file periodically.
- 5. The IT administrator needs to provide assistance to the biositemaps curator in the event that the web server hosting the RDF file is inaccessible. Access to the RDF file is not "mission critical", but we would appreciate your efforts in minimizing the downtime. We also expect the servers to be inaccessible as part of normal day-to-day operations (during backups, upgrades, etc).