ORCID Integration Use Case Documentation

1. **Use case name**

   Integration of ORCID identifiers into Reactome Pathway Knowledgebase

2. **Institution name**

   Reactome/Ontario Institute for Cancer Research

3. **Project goals and scope**

   Reactome is a freely available, open source relational database of signaling and metabolic molecules and their relations organized into biological pathways and processes. The Reactome website is designed to literally give the user a graphical map of known biological processes and pathways that is also an interface which the user can 'click through' to authoritative detailed information on components and their relations. The Reactome database and website enable scientists, researchers, students, and educators to find, organize, and utilize biological information to support data visualization, integration and analysis.

   A key challenge for Reactome is to incentivize the unpaid external domain experts to contribute their expertise and time to the curation process. In the scientific process, the key incentive is credit attribution. While the heavily used Reactome website provides quite high visibility of editorial content, our attribution of contributions is not yet compatible with traditional scientific performance measures of publications and citations. We see ORCID iDs as a key mechanism for credit attribution in a technically straightforward, unambiguous manner that allows integration of scientific activity across different media platforms beyond traditional publications, and thus as a valuable route to increase visibility of the contributions of our external domain experts.

4. **Is your organization willing to serve as a resource for other organizations pursuing ORCID integration?**

   Yes

5. **Project personnel**

   Please include name, title, phone number, and email address for each contact:

   a. Project leader:

Robin Haw, Project Manager and Outreach Coordinator, e-mail: robin.haw@oicr.on.ca, http://orcid.org/0000-0002-2013-7835.

b. Technical contact:

Joel Weiser, Software Developer, e-mail: joel.weiser@oicr.on.ca

c. Other team members:

Peter D'Eustachio, Editor-in-Chief, e-mail: Peter.D'Eustachio@nyumc.org

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6. System(s) involved.

This project builds upon the NIH/NHGRI-funded U41 community resource project: "Reactome: An Open Knowledgebase of Human Pathways" (Grant Number: U41 HG003751-05). ORCID will serve as a common researcher identifier for linking Reactome contributors to biological pathway data.

7. Project timeline

The project began in November 2013 and will conclude in September 2014.

8. Project web page(s)

Reactome: http://www.reactome.org

Reactome-ORCID Integration: http://www.reactome.org/pages/content/orcid-integration-project/.

Author/Reviewer Search: http://reactome.org/cgi-bin/author_contributions/ .

9. Please identify the stakeholder groups within this project and describe the outreach/communications work your organization arranged in advance of implementation. Which stakeholders did you contact? How did you organize a team? What were the policy impacts?

Reactome is collaboration between the Ontario Institute for Cancer Research (OICR), the New York University Medical Center (NYUMC) and The European Bioinformatics Institute (EBI), to develop, host, and maintain a public pathway database and bioinformatics software tools. Our user community is composed of bioinformaticists, systems biology researchers, molecular biologists, clinicians, geneticists and educators worldwide. We contacted over 400 Reactome contributors to ask if they had ORCID iDs or would register with ORCID.

10. **Please provide an overview of your communications plan as well as examples of your communications outputs,** which may be adapted by other organizations for their integrations.

Presentation from ORCID Outreach meeting (May 2014) to be posted on https://orcid.org/content/orcid-outreach-meeting-and-codefest-may-2014.

Outreach and Documentation on the Reactome website: http://www.reactome.org.

11. **Are you willing to share your source code? If yes, please provide a link.**

Reactome source code is available at github: http://www.github.com/reactome and the Reactome website at http://www.reactome.org.