

ProteomeXchange collaborative agreement, Version 2.0, May 2024

Introduction

ProteomeXchange (PX, <https://www.proteomexchange.org/>) is an international collaboration of proteomics data repositories that handle public data submissions ('partners'). At the moment of writing, the consortium has six partners (PRIDE, PeptideAtlas/PASSEL, MassIVE, jPOST, iProX and Panorama Public), which represent a substantial expansion since when version 1.0 of this agreement was originally created (November 2013). At that time, there were only two members in the Consortium (PRIDE and PeptideAtlas/PASSEL). ProteomeXchange has become a well-known and widely used database infrastructure. To exemplify this, ProteomeXchange is, since December 2022, a Global Core BioData Resource (<https://globalbiodata.org/what-we-do/global-core-biodata-resources/>).

The following rules are not intended to be legally binding, but to define the mode of interaction between collaborating partners.

1. Aims

- 1.1. Provide a network of stable, coordinated, freely accessible (open) proteomics data repositories that handle public submissions.
- 1.2. Jointly make all published proteomics datasets easily accessible for the scientific user community.
- 1.3. Support the FAIR (Findable, Accessible, Interoperable and Re-usable) principles for biological data provision.

2. Partnership Levels

- 2.1. The ProteomeXchange Consortium recognises the following levels of partnership:
 - 2.1.1. **Active:** The PX partner commits to participate in the Consortium, by maintaining a major resource for proteomics data that fulfils all of the data provisioning guidelines of the Consortium and the conditions of active partnership described below.
 - 2.1.2. **Inactive:** A former PX partner who was previously an active partner but is no longer able to participate or meet criteria for active partnership.
- 2.2. Prospective partners may be invited as observers. This does not imply current or future partnership.
- 2.3. Prospective new partners must complete the process for joining detailed in section 7 to become an active partner.

3. Voting

- 3.1. Only active partners are voting partners of PX; observers and inactive partners are non-voting.

- 3.2. There may be only one vote per institution hosting resources in the Consortium. This means that if more than one resource (e.g. PeptideAtlas and PASSEL) are hosted at the same institution, there will still be only one vote amongst them.
- 3.3. Votes are considered to be passing on the basis of a simple majority of the yes/no votes cast. If the votes are exactly split, the result is not passing.
- 3.4. Voting partners may abstain, in which case they are not counted in the number of votes cast. If a vote cannot be obtained from an active partner after one week following the initial call for votes, it shall be recorded as an abstention.

4. Conditions of active partnership

- 4.1. Partners must provide significant data resources of proteomics data.
- 4.2. Partners must maintain active data provision: relevant amounts of new data must be added within any 12-month calendar period.
- 4.3. Partners should regularly attend relevant face to face and remote PX/PSI (Proteomics Standards Initiative) meetings .
- 4.4. Partners should be willing to participate in collaborative activities, and to respond to feedback generated as a result of these activities.
- 4.5. Partners must maintain active user support with at least one designated contact person.
- 4.6. Partners must be neutral parties in providing a resource which is independent from the control of the authors and/or the data producers. There has long been a concern that lab websites or project-specific websites present a conflict of interest, i.e. the interests of the lab/project may conflict with the interest of the community to have access to data preserved in its original form at a site not controlled by the producers. In this context, it is deemed acceptable to host a small amount of one's own data as long as it is far outpaced by external data, with an expectation of at least 75% of the resource data coming from external sources.

5. Data provisioning

- 5.1. Partners must implement "public" (for released datasets) and "private" (for not yet publicly released ones) data access mechanisms. Data sets may be "private" while the accompanying manuscript undergoes peer review.
- 5.2. On publication of a manuscript, the associated PX dataset must become publicly accessible with minimal delay.
- 5.3. Once released, all data must be and remain fully freely and publicly accessible to all potential user groups, without additional steps like user registration or limitation of access, for example only to academic users.
- 5.4. Partners must fully implement the current version of the PX XML format and produce the PX XML summary file containing the metadata required for each released dataset.
- 5.5. Partners must announce/make publicly available their datasets through the ProteomeXchange portal (ProteomeCentral).

- 5.6. Partners are encouraged to support and implement the relevant PSI standard data formats and provide the data in their resources in these formats.
- 5.7. Partners must make readily and continuously accessible all data associated with each submission, including all originally submitted mass spectrometer output files.
- 5.8. Partners must provide a licence for all stored datasets. A default Creative Commons CC0 licence (or an equivalent one) is the minimum required level at the moment of writing, making available globally datasets without any restrictions.

6. End of partnership

- 6.1. Partners may leave the Consortium at any time by notification to the other partners.
- 6.2. Leaving partners (meaning resources that cannot remain Active due to e.g. funding issues or any other reason) must make all their data records available for import by an active partner database, for a 12-month period following departure, such that they may continue to be made searchable via the ProteomeXchange portal (changing the underlying URLs). The importing database will then actively maintain these records but will acknowledge the originating database within the record.
- 6.3. If an active partner is not fulfilling the conditions of active partnership, the other partners may vote to issue a formal warning. If the issues remain unresolved after six months, the other active partners may vote to terminate the PX partnership of the partner in question.

7. Steps for joining the Consortium

- 7.1. The applicants must contact all PX partners expressing their desire to join the Consortium. They must submit a document including the description of the resource (including the data workflow(s) they would like to support), with URLs to the live site, and available resources, in particular curators, as well as data backup strategies.
- 7.2. The PX partners will review the document and the resource, and ask for further details if needed. The document will be refined through iterations until both the applicant and the PX partners agree in a final version. If the applicant cannot meet the criteria for joining the Consortium, the existing partners may vote to decline the application.
- 7.3. In parallel, the applicant must be able to create a PX XML file for their first planned submission and must send it to all current partners for review.
- 7.4. Partners will discuss the PX XML file with the applicant and iterate with the applicant to ensure that the document conforms to ProteomeXchange standards.
- 7.5. All current partners vote to approve the application according to the voting guidelines. If a vote does not pass, the existing partners must draft a response letter to the applicant that indicates what the path to passing might be or if there is no path to acceptance.

- 7.6. The applicant is given test access to the ProteomeCentral web service and may perform test ID requests and test submissions.
- 7.7. In parallel, the external documentation of the PX consortium must be updated to include the new resource. Once it is ready, the documentation will be made available at the PX web page (<https://www.proteomexchange.org>).
- 7.8. When the PX partners and applicant both agree in that the external documentation is ready and the software communication between ProteomeCentral and the applicant are satisfactory, the new partner will be given full production status and production submissions may commence.
- 7.9. All the points included in section 7 are applicable for applications to become a full active partner. However, only the points 7.1, 7.2 and 7.5 are applicable for applications to become an observer (prospective) member.
- 7.10. Observer members must redo the entire process to become full active members.

8. Revision of the document

- 8.1. This document may be revised at any time such that the approval of changes follows the voting guidelines described above.