

Preliminary draft

Notes from 4th HAI workshop, October 7, 2007 (Seoul, Korea)

Chairs: Mathias Uhlen (Sweden), Michael Snyder (US) and Peter Hudson (Australia)

Presenters: Henry Rodriguez (NCI, US, Henning Hermjacob, EBI, UK and Erik Björling, KTH, Sweden)

Participants: 66 persons

1. Welcome by the chair persons.
2. Introduction (Uhlen). The mission for HAI is to endorse the generation of validated protein probes (affinity reagents) to human proteins. Focus of the workshop is the development of a pilot database for validated antibodies.
3. NCI proteome binders initiative (Rodriguez). NCI is planning an effort to generate validated monoclonal antibodies towards cancer-related proteins, primarily selected from the list generated by Leigh Andersson. A pilot project will be initiated involving 40 cancer related protein targets. The pipe-line will involve antigen production, generation of monoclonal antibodies and subsequent validation. The aim is to generate three independent hybridoms (monoclonals) to each target functional in as many applications as possible. The focus will be Western blots, IHC and immunocapture. The plan is to have the first antibodies generated by mid-2008.
4. EU ProteomeBinder initiative (Hermjacob). The initiative involves approximately 25 research groups in Europe and US. An important part of the effort is the development of a database and standards for affinity reagents data. Several workshops have been organized and documentation on standards are being assembled. In this way, the effort of the HUPO Proteome Standards Initiative (PSI) has been extended towards affinity binders data. A workshop is planned in Europe January 2008 to discuss the time-lines and deliverables for the project.
5. Antibodypedia pilot database (Björling). A pre-version of a pilot database was described. The URL is:

www.antibodypedia.org
username: proteomebinder
password: preview

The aim is to develop a community-based portal for validated antibodies. This would be a "virtual" resource with validation data available on-line. It is important

to attract both academic and commercial providers to submit information about their antibodies. The workshop agreed that the data required (mandatory) to submit an antibody should be kept as minimal as possible to minimize the time needed for submission. A system in which the antibody provider "scores" the antibody in an application-specific manner was suggested and this was approved by the workshop. Only validation in which the primary data is submitted (through an image) will be approved. It was noted that a "curator" function will be needed and that it is important to incorporate the possible to submit experience (results) from external users to promote an interactive process. The rules for validation must be standardized and this will be an important mission for the future. It was suggested that each validation is scored with four categories (1. supportive, 2. uncertain/less supportive, 3. not supportive and 4. Assay not done). It might be preferable to have more categories for some applications (such as Western blots). The general concept of the antibody portal was approved by the workshop, but it was noted that the participation of the commercial antibody providers in the development of the database is important to ensure active submission from this group.

6. Time-lines and deliverables (Uhlen).

Q4, 2007. Pre-version of antibodypedia. Invite suggestions for improvement from the community. Improve code.

Q1 2008 . Release a version 0.5 of the portal. Include four applications (protein assay, WB, IHC and immunofluorescence) with suggestions for validation criteria (for each application).

Q2 2008. Invite (pilot) submission from both academic and commercial providers

Q3 2008. Evaluate progress at 5th HAI workshop (Amsterdam)

Q4 2008. Release a version 1.0 with possibility for community interactions (regarding specific antibodies).

7. The workshop was closed.