Following narrative has links to presentations that ICON received permission to post from presenters. The presentations can also be accessed through the Agenda link (above)

**Tuesday, May 9**

**Director’s Welcome (1:30 – 2:00 pm)**

Director Kulikowski opened the public meeting with a 30-minute overview of ICON. See slides for more detail.

**Cataloguing Current Practices For Nanomaterial Handling (2:00 to 2:45 pm)**

**Summary**

Professor Patricia Holden (UCSB) and Tracy Godfrey (ED) gave an update on the team selected to perform the current practices survey, the objectives of the project, progress to date and challenges. One major challenge is overcoming confidentiality concerns. Help was requested from ICON in providing contacts at companies, making initial contacts to open the door for the researchers, and providing a pre-contact endorsement letter and confidentiality letter to UCSB for distribution along with the survey request. See slides for more detail.

**Discussion**

Meeting participants then discussed ways to overcome the challenges faced in getting sufficient industry buy-in to the survey. Confidentiality instruments were recognized as important to have in writing to make respondents more comfortable with the security of the information they will provide. Another way to allow for the submission of confidential information is to set up a web form where respondents can remain anonymous, the tradeoff being less nuanced information than through a telephone interview. Identification of more than one individual within a company was suggested as a way to get information about a variety of issues throughout the lifecycle, which may not reside within one department or person. Another option is to ask for a company response that represents the collected knowledge of several departments or individuals. Translation of the questionnaire into Japanese was suggested as a way to facilitate responses from Japanese companies. In addition to surveying companies, it was suggested that federally funded nanocenters be included in the survey because they have active industrial hygiene programs, have already been queried by the granting agencies about their practices and have fewer barriers to participating. ICON was encouraged to do a press release announcing the commencement of the study as a way of increasing project visibility.
Framework for Managing Nanomaterial Risk – an Industry/NGO Perspective (3:15-4:00 pm)

Terry Medley (DuPont) and Scott Walsh (Environmental Defense) presented an early draft of a framework for managing nanomaterial risk. Emphasizing that this is familiar to people who do risk assessment for non-nano practices, they sought input from ICON on how best to derive value from the framework.

Creating a Comprehensive and Credible Nano-Environmental Health & Safety Knowledge Base (4:00 to 5:00 pm)

Summary

ICON Operations Manager David Johnson briefly reviewed the history of the development of the ICON EHS database by Oak Ridge and the ICON efforts to create web-based access to the database. He then presented the status of Phase 3 program efforts. A search strategy has been defined and papers published in 2005 and 2006 are being added to database and will be completed by June 2006. The database is being accessed from around the world. Database use can be tracked and several key publicity efforts for the database were highlighted. The Knowledge Base Team effort will shift to expanding the knowledge base offerings beyond the ICON EHS database. See slides for more detail.

Evan Michelson (Wilson Center) gave a presentation summarizing the database the Wilson Center has implemented, which provides information on government funded, risk related research efforts in EHS implications of nanotechnology. See slides for more detail.

Arthur Miller (NIOSH) then gave a presentation summarizing the Nanoparticle Information Library (NIL) database which has been developed by NIOSH. He concluded his presentation by covering a still evolving concept to provide an integrated management tool for nanotechnology related EHS data. The earliest efforts in this area are focused at integrating the three databases discussed above, and an initial concept for linking searches of the three databases was presented. See slides for more details.

Discussion

The discussion that followed these presentations was brief. Most of the important topics have been captured in other parts of these notes under the concept of expanding the whole knowledge base effort beyond a simple database product to include the FAQ effort focused at providing sound technical commentary on nanotechnology EHS issues.

Wednesday, May 10

Identifying and Closing Knowledge Gaps in Nano Environmental Health & Safety (8:00 to 8:45 am)

Summary

Mike Garner (Intel) presented a proposal for a research-needs assessment for EHS nanotechnology issues that has been under development within ICON for a few months (see slides for more detail). He described the need to support an international audience and the efforts he has made to review and understand the other recently published assessments. He
acknowledged nascent efforts by the Wilson Center and possibly the National Academies to prepare an assessment for nanotechnology EHS research but asserted that the ICON effort would bridge a gap that exists between the shorter term effort of the Wilson Center and the longer term effort of NAS. A proposal was laid out for two workshops, the first of which would target nanomaterial risk factors and the second would focus on hazard research. Garner also articulated how this effort would differ from other assessment efforts he was aware of.

**Discussion**

There was a wide ranging discussion during the presentation. Many comments were very supportive of the effort – most participants felt the effort would be worthwhile, but agreed that the best approach would be to complete this effort in a stepwise approach. There have not been many outside contacts as yet for the effort reported today. However international input has been included through ICON participants. It was pointed out that OECD is looking at a similar approach – ICON may want to partner with them.

Several discussion points were made with regards to the assessment meetings that would seek input from experts. Many past assessment efforts have simply identified what the issues are. ICON can help coordinate the assessment effort and to bring the various governments’ efforts together. These should not be meetings that simply summarize what we know. The first meeting should frame the issue for participants and set the stage for the second meeting. There is a need to develop a good plan for involving participants to get the right people involved to start approaching people now. There is also a need to plan early for how to communicate this effort once the assessment is produced. Ideally, this would involve risk/crisis communication people early in the process.

Some individuals pointed to the semiconductor industry assessment effort as a good model for this effort – including the format of the tables within that assessment.

**Connecting ICON with other Efforts around the World (8:45 – 10:00 am)**

Three presentations were made by invited speakers: Guillermo Foladori, of the University of Zacatecas, Mexico, made a presentation on “Nanotechnologies in Latin America” that provided an understanding of how Brazil, Mexico and Argentina, in particular, are approaching nanotechnology. T. K. Lee, Executive Director of the National Program on Nanoscience and Nanotechnology and Professor at the Institute of Physics, Academia Sinica, made a presentation on “Introduction to Taiwan's National Program for Nanoscience and Technology” that provided a comprehensive overview of nanotechnology efforts in Taiwan. Of special interest was a program he covered called Nano Mark which provides for accreditation of nanomaterial suppliers in Taiwan. He also gave a brief overview of the Asia Nano Forum Group. Masahiro Takemura of the National Institute for Materials Science (NIMS) in Japan, closed this session with a brief update of the roadmapping effort on nanotechnology within Japan, which covered information developed since his presentation at the ICON Ireland workshop.
Workshop Summary and Next Steps (10:30am – 12:00pm)

Discussion

Francis Quinn (L’Oréal) led the group in a closing discussion to develop ideas that could help ICON be more effective in meeting its stated mission goals.

The initial discussion showed that there was a common understanding and support for the fact that ICON brings together many different stakeholders to discuss complex issues. ICON is trying to forge a position around responsible nanotechnology. However ICON can not possibly do all things and needs to focus on the right areas to engage in.

There was discussion and support for efforts to integrate the three databases but this needs to evolve to making available a broader knowledge set for users and industry. The discussion on the knowledge base also integrated the research needs assessment effort as a complementary activity. A “one-stop shopping” portal for information on toxicity/exposure was raised as a goal with a need to develop a screening system for prioritization. Discussion also pointed out that we need to find out who our users are and then create a structure that meets their needs. But the ability to deliver a very broad-based resource may be limited by the resources that ICON can apply to achieve a high quality database.

Some specific knowledge base issues that ICON might develop information on were brought up. These include: (a) labeling, i.e., determining and providing information on which products contain nanoparticles; (b) determining which countries are more advanced in terms of practices (e.g. labels) and build tables of essential data/issues; (c) providing a comparative framework for policies of various countries to show users the breadth of alternatives. Organizations, including NGO’s, want the database information to identify gaps clearly so that they (not ICON) can take actions to lobby governments. If the product we have in the knowledge database is of high quality, it will be widely used.

There was a substantial amount of discussion concerning how ICON is perceived – it is viewed primarily as an industry and academic supported organization. There was some sentiment that ICON needs to show more non-industry funding – this would provide a more secure budgetary environment for ICON that might allow for the council to make decisions that lack strong support from the industrial base. It also might allow ICON to set up a service to accept anonymous reporting by industrial workers on practices or concerns about nanotechnology that could be reviewed, analyzed and responded to by experts. It might also provide a more open environment for broader NGO participation and constructive discussion. Regarding NGO participation, several issues were raised: Is there a problem with being associated with industrial members within ICON by some NGO’s – for example being in the same room with the people whose products we may rate? Or is the issue that there is a fundamental distrust and concern between the parties? This issue was discussed at length, but there was no specific resolution on what was the best way to get NGO’s more involved. One opinion was that we shouldn’t worry too much about direct decision-making involvement as long as lines of communication remain open and our “products” are of high value.