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Updates: None

Agenda:

- (1) Decide whether to have a face to face/WebEx soon.
 - There was general agreement that a half day meeting to focus on the pragmatic issues of Phase 2 would be very helpful.
 - It was suggested that the 10 - 2pm time slot be used so those traveling can return home the same day, and that the meeting be held within the next month.
 - Maybe we can take advantage of the already scheduled meetings in Boston, the Fifth International Symposium on Nanotechnology, Occupational and Environmental Health on August 9-12, and the OECD-WPMN (SG8) meeting on August 9th, where several of the SC members will be attending?
- (2) Introduce the task of developing a CRADA to establish structure and “membership” to the partner (public, private, international) and laboratory interactions.
 - These are more formal agreements that allow for the transfer of information, identify responsibilities and can help define IP/CBI protection.
 - USEPA and ILSI-RF will draft a CRADA, submit it to the SC for review/approval. External labs (e.g. NRC, University, Corporate) and other partnerships (e.g. to conduct risk analysis, life cycle assessment tasks) could be members of the agreement.
 - This would create a basis for outside partners to apply for a grant/funding to perform specific tasks identified under the CRADA. However, the CRADA itself would not transfer funds. Outside parties would reference the tasks identified in the CRADA in their application for funding.
 - In general the group agreed that the idea of using a CRADA would be effective, but participants from Canada wanted to check how such an arrangement would/could work for them.
- (3) Discussion of specific labs and partners and affiliations/co-sponsorships to approach now that we have selected MWCNT.
 - a. What labs for prototype and inter-laboratory studies
 - It is unlikely that any single lab will be able to perform all of the necessary components to the project, so we will need to identify many labs that working together will bring the range of expertise and abilities needed.
 - Interest has been expressed from Canadian NRC. They are very good on the analytical side, but have less experience with the release modeling and measurement aspects of the project needs. Meanwhile, another lab (in Ottawa) has expertise in chemical migration, but not necessarily in the nanoscale. The point was made that identifying

capabilities and then linking them together will be a necessary part of the planning for Phase 3 of the project.

- It was identified that there's a need to work with the companies that are incorporating the CNTs into a matrix. Some CNT manufacturers produce master batches (CNTs embedded in a matrix) that are then used by other manufacturers to produce finished products. Both producers will be necessary to engage.
- The group agreed that will be important to ensure the investigated CNT/matrix is actually used in consumer products, and that these methods aren't developed on a special/unique batch/material without real world utility.
- The suggestion was made that a good way forward would be to develop a set of tables that identify: (1) potential labs, (2) ENM/matrix sources and (3) expertise. From such a table the SC can begin to envision the sequence and coordination of lab efforts and expert groups, and identify specific tasks and/or gaps.

b. Moving forward with SDO engagement

- ANSI has invited a NanoRelease representative to participate in their meeting in mid-July.
- ASTM is examining n-Ag, and is welcome to another group working with them to develop methods for CNTs. ASTM would be happy to provide admin support, but our project would need someone to agree to propose and lead the project.
- Tinh Nguyen (NIST) was recommended as a good candidate to take this on.

c. What companies or sources for MWCNT and matrix exist?

- Discussed above under section (a)

d. NNI Signature Initiative

- One of the 4 focus areas of the initiative is Sustainable Manufacturing. Within that initiative is the concept of "responsible design", the goal of which is to identify safe/sustainable processes to manufacture CNTs. The proposal is that NanoRelease could provide a mechanism for facilitating responsible design, and so the project could align with the SI.
- It was raised that the NNI initiative doesn't clearly articulate/define sustainability – is this in a business production context, or an environmental/human safety context?
- A concern was raised that the initiative appears to assume that there is a sustainable way to produce CNTs and by aligning with the SI that the NanoRelease project may appear to endorse this assumption.
- It was suggested that before the NanoRelease project aligns with the NNI signature initiative, we need a statement that defines how we fit in to the broader initiative. Part of the message of that statement would be that NR would develop robust methods that could facilitate safe/sustainable production and facilitate selection of safer materials.

- The point was also made that aligning with the NNI SI does not preclude similar alignment with other projects or initiatives, such as may exist or arise in Canada or EU for example.
- (4) Process to identify the matrix/carrier system. Below is a proposed procedure, but SC members are encouraged to suggest other approaches.
 - a. Build the list of consumer uses so that we can consider them
 - This effort is ongoing; please continue to suggest additions and possible removal of some items that are not really consumer products.
 - The group agreed that release potential at any stage in the life cycle is the primary consideration, and that consumer and occupational exposures are a particular.
 - It was agreed that to help the group prioritize the list; life cycle categories would be added to assist consideration of release potential.
 - b. Request master batch information from manufacturers (MWCNTs are typically sold commercially in US as already incorporated in polymer ingots that are then fabricated by others into final products – the ingots are referred to as master batches).
 - c. Keep in mind the need for a positive control
 - d. Use an expert elicitation approach
- (5) Nomination of experts for the expert process
 - Although we have a number of suggestions – we need more.

Next Steps:

1. Steve will circulate a doodle invite to find a date to hold a half-day NanoRelease meeting of the Steering Committee
2. Steve will develop a spreadsheet to facilitate lab, material source and expert identification, coordination and sequencing along the project timeline (one spreadsheet with tabs of Lab, Source & Expertise)
3. Debbie will follow up with Tinh Nguyen at NIST to gauge his interest and willingness to engage within ASTM E56 to develop release measurement standards for MWCNTs.
4. Rick will draft how we envision the alignment with the NNI Strategic Initiative, and how we define sustainability.
5. Steve will send out the current list of consumer applications of CNTs with categories, for the SC members to consider. The key will be to prioritize based on: release potential.