Introduction

The Science and Technology Policy Institute (STPI) is currently conducting an assessment of management processes for the NCBC Roadmap Initiative. The objectives of this process evaluation are to:

- Understand the strengths and weaknesses of the current NCBC management structure;
- Solicit input and ideas from stakeholders about how management processes might be improved;
- Estimate the level of effort that has been devoted to program management by various participants to inform the budgeting process for the next term of funding.

For this activity, STPI crafted a questionnaire sent to the seven NCBC Principal Investigators; the questionnaires were sent first in October, with a follow-up in February. Four of the seven investigators responded. Although the results therefore cannot be considered representative of the views of all of the NCBC PIs, the responses of the four PIs are reported below.

The document is organized according to the three issue areas on which the questionnaire focused:

- Interactions between NCBC Principal Investigators (PIs) and NIH Program Officers and Lead Science Officers for the NCBCs
- Interactions between NCBC investigators and other NIH Science Officers for the NCBCs
- Other questions regarding the NCBC management structure and approach

Results

Area of Inquiry: What has been the nature of the interactions between the NCBC PI and the Lead Science Officer (LSO) and Program Officer (PO)?

PIs were asked about seven types of interaction between them and their LSOs and Program Officers. Those seven types were identified by STPI based upon the findings from LSO and PO interviews, and from the SO questionnaire; PIs could also respond in a free-response “other” category. The PIs were provided with a matrix, with the interaction categories as rows and three columns for specific questions:

1. Have you engaged in this activity in the last 12 months?
2. How often (e.g., daily, weekly, monthly, once) did you engage in this activity?
3. Provide any additional comments or feedback

With the exception of one category-NCBC pair, respondents stated that they engaged in each of the activities. Regarding the second question, Table 1 shows responses for how frequently each activity occurred.

Table 1: Frequency of Interactions between PI and Lead Science Officers and Program Officers

<table>
<thead>
<tr>
<th>Activity</th>
<th>Less than once per year/on ad hoc basis</th>
<th>Every 6-12 months</th>
<th>Every 3-6 months</th>
<th>Every 1-3 months</th>
<th>More than once per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participated in regular status update (e.g., by teleconference) with program officer and/or lead science officer</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Discussed Center annual report</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Interacted around selection of new Driving Biological Projects</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Interacted around SDIWG</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Responded to requests for information about my NCBC (e.g., research successes)</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LSO Participated on NCBC Steering Committee</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Interacted at Center annual meeting or other visits to your institution</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: One PI did not respond to the question regarding participation on the NCBC Steering Committee

Table 1 shows that the frequency of management interactions varies across the four responding NCBCs, with the exception of interactions at annual meetings (infrequent) and participation in regular updates.
(very frequent). Regarding the final question, comments from the PIs are reproduced below in individual bullets, because of the length of the responses.

Comments regarding interactions between the NCBC PIs and Lead Science Officers and Program Officers:

- **Activity: Participated in regular status updates.** One response commented that, “These are cordial and productive. XX and XX [names redacted] are very engaged. Other SOs, less so.” A second commented that the PO and LSO participated in updates as part of their role on the NCBC Steering Committee.

- **Activity: Discussed Center annual report.** One response indicated that the feedback was helpful, another described the process by which the discussion occurred (teleconference involving Lead Science Officer, other Science Officers, Program Officer).

- **Activity: Interacted around selection of new DBPs.** One response indicated that PO and LSO participated in reviewing applications for new DBPs and organized a second level of review with SOs. Another stated that input was “appropriate and helpful”

- **Activity: Interacted around SDIWG.** One response indicated that the program leadership has shown “patient leadership” of an initiative that the PI felt lacks focus. Another did not describe the nature of the interaction, but the PI indicated that their center has been active in the SDIWG.

- **Activity: Responded to requests for information.** One response commented that, “We are thrilled to do this, and it shows that we are being represented well by NIH staff!” Another respondent stated, “We have been asked numerous times to provide slides, key high-impact papers, and short writeups to our program and scientific liaisons officers for NIH and external presentations.”

- **Activity: LSO Participated on NCBC Steering Committee.** No comments of note

- **Activity: Interacted at Center annual meeting or other visits to your institution.** One response indicated that, “Face to face interactions ... are best, and we enjoy them. Productive."

- **Other comments.** One response indicated that there are other ad-hoc interactions around issues such as supplements and NCBC-wide activities.

Area of inquiry: What have been the interactions between NCBC personnel and other Science Officers?

PIs were asked about four types of interaction that had emerged from the LSO and PO interviews, and from the SO questionnaire; an “other” category of interactions was included. Like the previous area of inquiry, a matrix was used to ask four specific questions for each category:

1. Has someone from the NCBC engaged in this activity in the last 12 months?
2. How often (e.g., daily, weekly, monthly, once) did someone engage in this activity?
3. Who (e.g., PI, co-PI, DBP PI) engaged in the activity?
4. Provide any additional comments or feedback

Regarding the first question, investigators from all four of the NCBCs responding engaged in each of the activities. Table 2 shows how frequently each activity occurred; who from the NCBCs and comments
from the PIs are reproduced below. Table 2 shows that Science Officers foster communication between NCBCs and other investigators frequently and interact regarding the selection of new DBPs infrequently; for the other two categories (communicating around the NCBCs’ scientific activities and helping to coordinate activities across NCBCs) there were substantial differences across the four responding NCBCs.

Table 2: Frequency of Interactions between NCBC Personnel and Science Officers

<table>
<thead>
<tr>
<th>Activity</th>
<th>Less than once per year/on ad hoc basis</th>
<th>Every 6-12 months</th>
<th>Every 3-6 months</th>
<th>Every 1-3 months</th>
<th>More than once per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicated regarding the Center’s scientific activities (e.g., a Driving Biological Project)</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Communicated in order to foster collaborations between the NCBC and other investigators</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Helped coordinate collaborative research efforts across NCBCs</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Participated in the selection of new Driving Biological Projects (DBPs)</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Note: One NCBC’s responses to the frequency of interactions was descriptive, but did not provide specific times.*

Table 3 shows who engaged in the activity. For three of the four activities, all four respondents stated the Principal Investigators or co-PIs engaged with Science Officers; for the fourth activity (selection of Driving Biological Projects) three respondents named the Principal Investigators or co-PIs as participating. Other common responses were NCBC executive officers, and PIs of Driving Biological Projects. One response included “research staff” generally as a participant in interactions with Science Officers, while a second response included specific personnel such as the Director of Dissemination and the Chief Architect. Additional comments and feedback are identified in bullet-point form below Table 3.
### Table 3: Which NCBC Personnel Interact with Science Officers

<table>
<thead>
<tr>
<th>Activity</th>
<th>NCBC PI/co-PIs</th>
<th>NCBC executive officers (COO, Exec. Dir)</th>
<th>Driving Biological Project PIs</th>
<th>Others (named)</th>
</tr>
</thead>
</table>
| Communicated regarding the Center’s scientific activities (e.g., a Driving Biological Project) | 4              | 2                                        | 2                             | One response: “managers of XXX [Center name] collaborations
One response: “Dissemination Director and Chief Architect”,
One response: “All members of the ESC, our SAB members, and individual investigators at the retreat” |
| Communicated in order to foster collaborations between the NCBC and other investigators | 4              | 3                                        | 0                             | One response: “Research staff”                                                                   |
| Helped coordinate collaborative research efforts across NCBCs             | 4              | 2                                        | 1                             | One response: “Research staff”
One response: “Dissemination Director”                                      |
| Participated in the selection of new Driving Biological Projects (DBPs)   | 3              | 1                                        | 2                             | One response: “Research staff”                                                                   |

*Note: More than one response could be made*

### Comments regarding interactions between NCBC investigators and Science Officers:

- **Activity: Communicated regarding the Center’s scientific activities (e.g., a Driving Biological Project).** One response stated, “Initial review of DBP proposals was performed by a committee comprising members of our SAB, co-PIs, research staff, NIH PO and LSO.” Another response stated, “Our center has an ongoing relationship with the PO and SLO. This is not just with the PI but with the co-PI and all members of our ESC and SAB. Occasionally, e.g. during site visits in combination with retreat activities, the PO and SLO have interacted with virtually all the investigators in the center.”

- **Activity: Communicated in order to foster collaborations between the NCBC and other investigators.** Two responses mentioned the formation of collaborations around (and via) the SDIWG; the third mentioned that several investigators are PIs on projects having SOs as the Program Officer. One respondent stated, “We have coordinated with the SLO and PO to interact
with several of the NIH large-scale programs. Including the P41, ICBP, PSI, among others. This has led to interactions, cross presentations, and coordinated activities.”

- **Activity: Helped coordinate collaborative research efforts across NCBCs.** All four responses commented on this activity, stating: (1) “We are constantly looking for opportunities to do this”, (2) “Via working groups, which are only moderately effective”, (3) “A critically important activity”, and (4) “This [interactions around SDIWG] has helped with our collaborative activities with other NCBCs on DBP coordination and impact and software tools.”

- **Activity: Participated in the selection of new Driving Biological Projects (DBPs).** No comments of note

- **Other.** One response mentioned interactions via the three NCBC Special Interest Groups (SIGs).

**Other comments in response to free-response questions included in the questionnaire:**

- **Have you had interactions with NCBC program leadership (e.g., Karin Remington, Jeremy Berg)?** Two NCBC PIs answered this question. One stated, “Met with Karin Remington when in Bethesda on occasion.” Discussion topics included regular NCBC-Program/PI Teleconferences, discussions about Large-P NCBC Program evaluation, Roadmap/NCBC Program continuation. Another PI stated, “We have asked for information on the recent ARRA supplementary grant opportunities. We have also asked for specific information on the competitive renewal process. I have also met the above-mentioned individuals during several of my frequent visits to the NIH in the last 12 months.”

- **Have any Science Officers (other than the Lead Science Officer) visited the NCBC in the last year?** All four NCBC PIs answered this question. One stated that SOs visited when their travels took them to the city where the NCBC was headquartered; another commented that a single SO visited the previous summer, “to evaluate our work and to offer helpful recommendations”, and the third NCBC responded, “Yes, mostly the LSO and the PO. Perhaps one SO, but they are not a major presence at the center. Probably they are too busy to really focus on the NCBC program.” The final PI stated, “XXX [SO name redacted] has attended our retreat/site visit and has often participated to our ESC TCs.”

- **Are you satisfied with your interactions with the NIH staff administering the NCBC program?** The two NCBC PIs that responded indicated that they were satisfied.

- **What improvements might you suggest?** No improvements were suggested.

- **Have there been any changes over time in your interactions with NIH?** Two NCBC PIs responded. One stated, “Interactions have improved substantially over the course of the grant.” The other stated, “Interaction levels increase during critical times (e.g., grant reporting, selection of new DBPs, NCBC-wide events, biannual meetings, etc.)”

- **Other comments about the management model.** Two NCBC PIs responded. One stated that, “Not all SOs are equally engaged in the activities of the Center. It would be helpful to make the “job descriptions” of the SOs more explicit and to provide more guidance to PIs regarding how they might work more effectively with SOs.” The other stated, “More communication is always better”
• **Final comments:** Two additional comments were made, reported in their entirety.
  1. “I would have liked to see NIH play a stronger role in helping us to disseminate the work of all the NCBCs. It is not clear how many people even on the NIH campus are aware of the work that we are doing.”
  2. “There was much stress associated with the RFA release. NIH staff handled this probably as best as they could, but it indicated that the process is not good because local NIH politics and personnel changes shouldn’t put programs like this in jeopardy. The sources of information were not entirely consistent. In the end, the RFA was released and we were able to respond. I think that NIH leadership could have done a better job with this.”