I. Context and Introduction

In the late spring of 2006 MIT’s Department of Biology was finishing its season of recruiting and hiring new faculty. Among the initiatives was a potential hire in the area of neuroscience. The candidate, Dr. Alla Karpova, had been offered a position in the Department that would be supported by an appointment in the McGovern Institute for Brain Research. Part of the communication between Karpova and the members of the Department concerning the appointment included an exchange of email with the Director of the Picower Institute for Learning and Memory, Professor Susumu Tonegawa. In his email messages, Tonegawa informed Karpova that he was unwilling to collaborate with her, and he discouraged her from coming to MIT. The email exchange was widely circulated among the MIT faculty and outside MIT. Many who read the email exchange felt that the discouragement was inappropriate, and letters and email messages were written to President Susan Hockfield, Provost Rafael Reif, and Dean Robert Silbey complaining that Tonegawa had interfered in the hiring process.

The concern about the hiring and recruitment of Karpova occurred within the context of a history of tension among the different MIT units involved in neuroscience. As a result, on July 20th the Provost announced the formation of an ad hoc committee charged with examining the structure of the neuroscience enterprise at MIT and investigating the Karpova case as a window into the workings of the neuroscience program. The charge to the committee is given in the Appendix.

The ad hoc committee sent an invitation by email to all members of the MIT faculty inviting them to speak with the committee. We met with members of the Department of Biology, the Department of Brain and Cognitive Science, the Picower Institute for Learning and Memory, and the McGovern Institute for Brain Research, as well as with members of the broader MIT community and some individuals involved with neuroscience outside MIT. We examined documents relating to the history and mission of each of the units, their administrative structures, and their faculty searches. This report represents our best effort to understand the strengths and weaknesses of the current
structure of the neuroscience program at MIT, and to reconstruct the series of events in the Karpova hiring case and its aftermath.

II. The Structure of the Neuroscience Program at MIT

The MIT neuroscience program has a complicated structure that includes two departments with strong connections to neuroscience and two donor-funded Institutes with overlapping missions. There are also connections to many other departments, connections that should be encouraged but which contribute to the complexity of the enterprise. There is concern that the present structure may be adversely affecting the MIT program. We have focused on this issue in some detail in our discussions with members of the MIT neuroscience community. Our findings are presented in this section.

MIT is unusual among research universities in that such a large fraction of our faculty members carry out their research under the auspices of a laboratory, center or institute, while their academic appointment is in one of the departments. This has several advantages. First, labs, centers and institutes (LCIs) can help multiple faculty members and their groups cooperate to attack major challenges that are not amenable to the traditional single-investigator approach. This is especially important for problems that require multiple disciplines for their solution. Second, LCIs can develop the expertise to create and maintain facilities needed by multiple faculty members, with an effectiveness that would be difficult for an academic department. Third, LCI administrators and staff can develop special knowledge and experience needed to satisfy the requirements of sponsors, while adhering to the policies and procedures established by MIT; this is especially valuable when there is a single large source of support. Last, by maintaining the responsibility for faculty appointment, promotion and tenure in the departments, one insulates these decisions from inappropriate influence from issues of funding and the requirements of powerful sponsors. This system has worked extremely well in most cases, because the leaders of LCI’s and the departments from which they draw faculty have worked together toward common goals. In addition, the faculty members associated with LCI’s are typically strongly committed to the mission of their home departments.

Most faculty members working in neuroscience have academic appointments in BCS with a smaller number in Biology, and there are also some in other departments in Science and Engineering. Only a relatively small number of these are members of one of the two neuroscience institutes, McGovern and Picower. MIT is fortunate that the McGoverns and Picowers have provided generous resources to these two Institutes.

The situation in neuroscience is unusual in two ways. Unlike most LCI’s at MIT, McGovern and Picower control faculty positions. Although a faculty appointment must be made in an academic department, the slot can only be used for a faculty member who will be a member of the Institute controlling the slot. The only other similar examples, of which we are aware, are the LCI’s associated with Biology, the Center for Cancer Research (CCR) and the Whitehead Institute. However, whereas the CCR and Whitehead faculty are almost entirely from Biology, McGovern and Picower have a mix
of faculty from BCS and Biology. When LCI’s control faculty positions the responsibilities of the LCI’s and the responsibilities of the academic departments are no longer well-separated. Our committee learned that for CCR and Whitehead the potential conflicts of interest have been well managed. This has been achieved by avoiding competition, and fostering communication and coordination between the two LCI’s and between the LCI’s and the Department.

On the other hand, there is a history of competition between the Picower and McGovern Institutes. For example, we heard testimony from several witnesses that the relationship between Picower and McGovern during the planning, construction and opening of building 46, which houses the two Institutes as well as BCS, was acrimonious. While Picower made plans for its use of facilities based on the projected needs of its faculty members, there was no long-range joint planning by the leadership of Picower, McGovern and BCS for the use of facilities by the wider community. We heard that the three separate opening ceremonies of the building were interpreted as a public statement that the units were in competition rather than collaboration.

MIT’s system of academic departments working alongside research centers, which draw membership from one or more departments, generally serves it well. However, success requires communication, coordination, and cooperation. In particular, it requires that the leadership of the departments and centers be committed to cooperation. The competition and lack of communication among the different neuroscience units, especially Picower and McGovern, have led to a breakdown of this system and is impeding progress in neuroscience at MIT.

Section 4.1 of Policies and Procedures begins, “The ideal attributes of any departmental faculty, taken as a group, are scholarly achievement, creativity, collegiality, professional competence and leadership, ability and desire to teach, and willingness to cooperate with other departments in promoting the work and welfare of the Institute as a whole.” Our committee views this as placing a special responsibility on leaders of departments and LCI’s to serve the entire MIT community, not just the unit they lead. MIT has made a great investment in the neuroscience building, as well as in the faculty appointments in Picower and McGovern. This places a special burden of responsibility on the leaders of these units to do everything possible to serve the broad neuroscience community, including faculty who are not members of one of the Institutes, by providing facilities that advance their research and activities that bring the community together. The leaders of the McGovern and Picower Institutes have not worked cooperatively to serve the entire neuroscience community.

Coordination and communication among units with closely related research activities are greatly facilitated when each unit has a clear mission and when these missions are complementary, to the extent possible, rather than overlapping. The Picower faculty has been hired specifically to address aspects of learning and memory. Most of our witnesses agree that they have a clear mission. The McGovern, on the other hand, was begun by incorporating truly distinguished faculty members, who were already at MIT, in BCS and Biology. The McGovern faculty members have research interests
that span the entire field, from neurobiology, to computational neuroscience, to cognitive science. As a consequence, McGovern has not clearly identified a precise mission. It is inevitable that units in closely related fields will have some overlap in their research. However, units can cooperate more easily if they have missions that minimize this overlap. McGovern’s failure to attempt to sharpen its mission has made cooperation with Picower more difficult.

On the other hand, experts have told us that “learning and memory” can be construed as encompassing so much of neuroscience that overlap between the research of Picower and McGovern would be inevitable, no matter what mission McGovern chose. **We find that the mission of the McGovern Institute is not clearly defined and that the mission of the Picower Institute is too broad.** There needs to be cooperation between Picower, McGovern, BCS and Biology in establishing themes for the Institutes that are in the best interests of the entire MIT neuroscience community. Once these themes are established, claims of overlap can then be adjudicated in a reasonable way.

At times issues may arise that require an administrator, at a level above the institute directors and department heads, to mediate or otherwise intervene. The department heads report to the Dean of Science as does the Picower director. However, it is not clear to whom the McGovern director reports. The McGovern director told us that since only the McGovern board can hire or fire him, he effectively reports to the McGovern board, not to the Provost and not to the Dean of Science. It seems likely to our committee, given the poor history of cooperation between Picower and McGovern, that unless changes are made there will be additional conflicts in the future. **The existing reporting structure in neuroscience makes it difficult if not impossible for the Dean to resolve disagreements between the units.**

**While the support provided by the Picower and McGovern Institutes to MIT faculty members is of great benefit to MIT neuroscience, the support structure may lead to conflicting goals between the Institutes and MIT academic departments.** Both the Picower and the McGovern Institutes have a certain number of faculty “slots.” Some of these slots are funded by one of the Institutes, and the Institute provides research support and space for the faculty occupying the slots. However, the faculty member occupying the slot must be appointed to an MIT department, and the department evaluates the faculty member for promotion and tenure. **The relationship between the Institutes and the Departments with respect to faculty hiring and promotion needs to be understood and managed in a manner that promotes excellence and nurtures the careers of the junior faculty. It must also be consistent with the broader interests of MIT and neuroscience at MIT.**

III. The Karpova Hiring Case

The recent controversy surrounding the search for and recruitment of a junior faculty member has brought national attention to the controversies within the MIT neuroscience program. Considering the case within the context of the overall neuroscience program at
MIT, we present in this section a chronology of the major events, and an analysis of the hiring and recruitment process and its failings in this case.

In the fall of 2005 the Head of the Biology Department appointed five search committees. These committees were charged with searching for candidates for three faculty positions in the Biology Department that were to be associated with one of the research centers (the Broad Institute, the Center for Cancer Research, and the Whitehead Institute) and for two faculty positions in the Biology Department that were not explicitly associated with a research center. One of the latter two general searches was chaired by Professor Robert Horvitz, a member of the Biology Department who is also a member of the McGovern Institute. A member of the Picower Institute was on this committee. At about the same time a faculty search was under way in the McGovern Institute; Horvitz participated in this search as well. The Picower Institute was not conducting a search.

The Biology search led by Horvitz identified Karpova as a candidate at an early stage and invited her for a visit in February 2006. To the best of our knowledge, Tonegawa was not explicitly invited to meet with Karpova, though standard departmental emails announcing her seminar were sent to all Biology faculty members. Karpova gave her seminar during this visit and met with faculty members, many from the McGovern Institute. Karpova expressed her desire to be a member of the McGovern Institute with a faculty appointment in the Biology Department. The McGovern faculty members were very enthusiastic about Karpova, and they voted in favor of assigning one of the McGovern Institute faculty slots to her appointment. Shortly after this vote Professor Robert Desimone, Director of the McGovern Institute, contacted Karpova to inform her of its outcome, and also told her that her appointment was possible only with approval of the Biology Department. The Horvitz search committee proceeded to canvass opinion in the Biology Department concerning a possible Karpova hire. Her case was also discussed by the Department’s executive committee. At this point it became apparent that many members of the Biology Department felt that they knew little about her. Some expressed reservations. Realizing that Karpova’s visit had focused on interactions with the McGovern Institute, Biology Department Head Chris Kaiser organized a second visit for Karpova, with the intention of having her interact with a broader cross section of the Biology Department. This second visit occurred on April 4. Tonegawa was not on Karpova’s schedule of interviews, despite Karpova’s having requested such an interview. Karpova did however go to lunch with members of Tonegawa’s research group. On April 10, Kaiser informed Karpova that her case was still under consideration, and that the Biology faculty would soon meet to vote.

Around April 13, Tonegawa learned that the Biology Department was considering appointing Karpova and that her appointment would fill one of the McGovern Institute slots. Tonegawa and Karpova have research interests that overlap, and Tonegawa was surprised and disappointed that he had not been included in the interview process. He objected to her appointment on several grounds: he had reservations about her scientific methods and plans; he felt there was enough overlap between their areas of research that there would be undesirable competition between their groups if she came to MIT; and he felt the search process had been flawed, particularly because it did not include...
consultation with him. On a number of occasions around this time Tonegawa strongly expressed his unhappiness to other members of the faculty and to Dean Silbey.

After some internal discussion, Desimone organized a third visit for Karpova, planning the visit so that Tonegawa was able to meet with her. On April 24, Desimone exchanged email with Karpova discussing the visit. During this email exchange Karpova indicated that she had other offers with deadlines of May 15, though these deadlines “were not set in stone.” The third visit was arranged and occurred on May 9.

Karpova’s May 9 meeting included a late morning “chalk talk” organized by Desimone, which Tonegawa attended. He questioned her during her talk, and later in the day Karpova and Tonegawa had a discussion about their research interests and Karpova’s plans for research at MIT. Tonegawa expressed concerns about their overlapping research interests. They agreed to continue their discussion as the appointment process developed.

In discussions on and around May 10 with Biology and BCS colleagues, Kaiser heard arguments for the need for a prompt faculty vote. Kaiser was given the impression that the deadlines for Karpova’s other offers were imminent and could not be extended beyond May 15. Feeling under great pressure and attempting to accommodate travel schedules, on the morning of May 11 he announced a faculty meeting to discuss the Karpova case for late afternoon the same day. Because of the short notice, many Biology faculty members who wished to attend the meeting could not. The annual departmental dinner was scheduled that evening at the Endicott House; many could not attend because they needed to attend to family responsibilities before the dinner. The faculty meeting took place. The discussion was cut short due to time constraints, and many left the meeting feeling the issues were not resolved. Kaiser ended the meeting with a statement that he would need to think about what to do. That evening, Tonegawa sent the first of his two email messages to Karpova. He told her he had not changed his decision not to collaborate, and he advised her therefore not to accept a potential job offer from MIT.

On May 12 Kaiser discussed the Karpova case with Silbey and after that discussion decided to make her an offer. That evening Kaiser called Karpova offering her the Biology faculty position. During that conversation he learned of the Tonegawa email. After speaking with Karpova, Kaiser called Desimone to say that he had offered Karpova the job, and he told Desimone about the Tonegawa email. Early the next morning, Karpova sent email to Kaiser, copying Desimone and Horvitz, saying that, given the circumstances, she “would probably need to turn down the offer.” Kaiser interpreted this as a declination, and replied, accepting her declination. Desimone and Horvitz interpreted the Karpova message as one of discouragement rather than declination, and convinced her to reconsider. Later that day Tonegawa sent his second email advising Karpova not to come to MIT.

During the rest of May and early June several discussions took place between Kaiser and Karpova, Desimone and Karpova, and Silbey and Karpova discussing the terms of the offer. Karpova also contacted MIT faculty members asking them for advice. On June 21
the formal written offer was sent to Karpova. Finally, on June 24, she declined it. In early July the Provost called Karpova to apologize for the shortcomings in MIT’s recruitment of her and for the distress it caused.

The process that led to the Karpova job offer was unusual and flawed in many ways.

The Biology search committee did not carry out all the steps normally expected in the search procedure. The committee failed to have Karpova meet with all faculty members in her area and with a broad representation of the members of the Biology Department. Tonegawa was not included in the interview list when he clearly should have been. Members of the search committee normally canvass people’s opinions and work to achieve consensus before the meeting for a faculty vote is called; consensus was not reached in this case. The search committee pushed the process forward to a meeting when there were still reservations being expressed by several members of the Biology faculty.

The Department Head failed in his organization and execution of the faculty meeting. Kaiser was aware that consensus had not been reached, yet he proceeded with the faculty meeting. Furthermore, the meeting was poorly organized, and in the end also did not achieve consensus. Kaiser was under pressure because of Karpova’s deadline for responding to other offers. Under the circumstances he should not have yielded to the pressure, and he should have sought clarification on whether the deadline could have been extended until a more complete deliberation process had been concluded and a consensus had been reached.

It was unusual, if not unprecedented, for the Department Head to make an offer without first achieving consensus among the faculty. Everyone we spoke with about this issue expressed surprise, perhaps even amazement, that the offer was made before discussion among the Biology faculty members was complete. The Dean made a mistake in not encouraging the Department Head to adhere to the normal procedures. Because the normal hiring procedures were not followed, disagreements arose over what was the appropriate course of action.

Decisions involving hiring and promotion of faculty are among the most important that a department head, with the advice of his/her faculty, must make. It is generally believed that the academic excellence of MIT’s departments is due, in large part, to the careful vetting process that takes place. Hiring decisions need to be independent of funding considerations and other external factors. In this case, members of the MIT faculty outside the Biology Department, in particular the Director of the McGovern Institute, inappropriately attempted to influence the decisions of the Biology faculty and Department Head. For example, Desimone’s informing Karpova that the McGovern faculty had voted in favor of offering her a slot created a possible ambiguity for Karpova and indirectly placed pressure on the Head of the Biology Department to move forward. MIT faculty outside the Biology Department also inappropriately intervened in the recruitment process. For example, Desimone attempted to change
Karpova’s mind after she had declined the Department Head’s offer and he had accepted her declination.

It is generally accepted that scientists at MIT have the freedom to choose the topics on which they work and the persons with whom they collaborate. Faculty members also feel a responsibility, when mentoring young scientists, to be sure that each has a reasonably unique topic of research to pursue. Therefore, **it was not inappropriate for Tonegawa to inform Karpova that his lab would not collaborate with hers. It was also not inappropriate for him to warn her that the mouse facility was becoming oversubscribed. It was, however, inappropriate for him to imply that the mouse facilities in the neuroscience building would not be made available to her. It was inappropriate for Tonegawa to send an email expressing concern about overlap and competition while the Department Head was deliberating about whether to make an offer. It was even more inappropriate for him to send discouraging email after an offer was made.** We heard from many that Tonegawa has a history of being very competitive, perhaps overly so. We also heard of a long history of disagreement between Tonegawa and other members of the Biology faculty, including incidents involving hiring and promotion. Tonegawa’s communication with Karpova may be a manifestation of inappropriate competitiveness, mainly directed at the McGovern leadership. However, we also believe that to some extent Tonegawa was provoked. For example, Tonegawa was not included on Karpova’s interview list despite the closeness of his area of research with hers. His concerns about scientific overlap were dismissed, first by the search committee and later by members of the Department and the Department Head, when normally the issue of overlap is taken very seriously by the Biology Department.

It is unfortunate that the disagreements that arose over the Karpova hire engaged the leaders of the two neuroscience Institutes. The acrimonious discussions broadened in scope to include issues of competition between the Institutes. **The leaders of the McGovern and Picower Institutes at times failed to consider the broader interests of MIT and neuroscience at MIT during the discussions. The well-being of the young scientist involved also became secondary.**

After Karpova received her offer from MIT, she sought the advice of a number of faculty members, including Dean Silbey. Some expressed the opinion that coming to MIT might not be the best option for her, given the tensions surrounding her appointment. Even Dean Silbey felt unable to reassure her that the MIT environment would be a welcoming one. **Under normal circumstances one might conclude that the Dean and others failed in not encouraging a promising young scientist to come to MIT. We reluctantly conclude, however, that there are so many tensions in the neuroscience program at MIT that providing such encouragement under the circumstances described above ran counter to the natural desire to give good advice. Clearly the broader issues need to be addressed.**
IV. The handling of the controversy.

The complicated and unfortunate series of events described above led to the controversy that is in part the subject of this report. As the controversy intensified, the faculty and administration were faced with a situation that was difficult to manage. **We find that a number of mistakes were made in the handling of the controversy by faculty members, various faculty members in leadership positions, the Dean of Science, and the Administration.**

The events caused many individuals to become concerned, even at an early stage of the hiring and recruitment process. Complaints were registered with the Biology Department Head, the Dean of Science, the Provost, and the President. In some cases, these complaints brought serious charges against a fellow faculty member. Many of the individuals who brought these complaints to the administration felt that their concerns were not promptly addressed. Their frustration contributed to the case and the controversy being discussed outside MIT and in the press.

**We find that complaints were not always dealt with in a prompt manner and confidentiality was not always maintained by the complainants.** Each officer receiving a complaint should have promptly evaluated it, and informed the complainant what, if any, action would be taken. Those filing the complaints should have realized that issues brought to the attention of senior administrators that involve serious charges against faculty members should be treated with confidentiality.

MIT’s policies with respect to grievances invoke a 75-day time period for grievance resolution, or longer if the circumstances are complicated. While the complaints discussed here may not be formal grievances, we feel the serious nature of the charges and the complexity of the case require a similar level of commitment to process. **After the complaints were made and before any reasonable time period had elapsed, attempts were made to manipulate the process, including communicating with the press.** In particular, the Director of the McGovern Institute showed poor judgment in sharing details of the case with a large number of people. This interference in the process has greatly complicated the resolution of this case and has caused unnecessary distress to those involved. **The public airing of the issues may have led to unintentional harm to the two neuroscience Institutes, to the reputation of MIT, and to Dr. Karpova.** While there are many historical examples of the importance of the press in providing a means for redress when institutions fail, we feel this is hardly a justification in this case. Furthermore, the presentation in the press was not balanced, and presented a partial and distorted view of the series of events.

V. Was gender an issue?

Because the Karpova case allegedly involves the adverse treatment of a female junior person by a senior male faculty member, the issue of gender bias has been raised. **We find no evidence that gender was a motivation in Professor Tonegawa's**
discouragement of Dr. Karpova. Despite the absence of gender bias as a motivation, this case nevertheless does have gender implications. The wide distribution of emails connected with the Biology Department’s search and recruitment process, and the public discussion of the Karpova case, have brought national attention to this series of events. By showcasing competition and dispute at MIT, the publicity surrounding these incidents may make it more difficult for MIT to recruit new faculty, especially but not only, in neuroscience. Since the Karpova case involved a female faculty candidate, the public perception may also be that women are not always treated fairly at MIT, and that MIT does not foster an environment conducive to cooperation and collegiality. For these reasons, the negative publicity may be particularly damaging to MIT’s efforts to increase the number of women on its faculty.

Encouraging women and underrepresented minorities to come to MIT is a stated goal of the Institute. In pursuit of this goal we need to exercise care that we do not move forward with undue haste, compromising discussion and adherence to the consensus process. The departures from standard hiring and recruitment procedures contributed to the difficulties surrounding the Karpova case, and may complicate future cases. An open discussion of strategies for increasing faculty diversity would be in the best interests of MIT. Clarification of hiring and recruitment policies and procedures in light of these goals would help to avoid future conflict.

VI. Recommendations

The Administration needs to find a procedure for managing the four units involved in neuroscience that promotes cooperation and is capable of resolving disputes. One aspect of this might be to consider steps to change the reporting structure so that it treats the two Institutes in a more symmetric manner.

For neuroscience at MIT to prosper, we recommend that the leadership of the MIT neuroscience community work to establish an overall program in neuroscience with clear roles for the four major neuroscience units. The leaders of the Institutes need to have the attributes of collegiality and a willingness to cooperate. The goal should be to make the neuroscience program synergistic, not antagonistic.

We recommend that procedures for hiring faculty into the McGovern and Picower slots be clarified. Once these procedures are established, we recommend that they be followed.

We recommend that MIT acknowledge that the process of hiring and recruiting Dr. Karpova was flawed.

We recommend that when faculty members register complaints with the Administration they maintain confidentiality until the Administration has had a reasonable time to respond. The Administration in turn has the responsibility to acknowledge complaints and to respond promptly.
APPENDIX: CHARGE TO THE COMMITTEE AND COMMITTEE MEMBERSHIP

20 July 2006

Dear Colleagues,

Over the course of several years, MIT has succeeded in recruiting and developing a remarkable group of neuroscientists, who now work and interact in a magnificent new facility. These successes attest to MIT’s commitment to identifying and recruiting outstanding faculty. Nevertheless, the events surrounding a recent recruitment of a junior faculty member in the Biology Department and the McGovern Institute have highlighted tensions among MIT’s neuroscience entities. At the President’s request, I am convening an ad hoc committee to:

1. Review the overall structure of, and interactions among, MIT’s neuroscience programs, including the Brain and Cognitive Sciences Department, the McGovern Institute for Brain Research, the Picower Institute for Learning and Memory, and the neuroscience activities within the Biology Department;

2. Look into the recent junior faculty recruitment process, and the faculty recruitment process in general, as a window on the interactions among the neuroscience entities at MIT; and

3. Consider how the climate for neuroscience research and the process of faculty appointments might be improved.

I am grateful to Dr. Torsten Wiesel and to Professors Jacqueline N. Hewitt (chair), Marc A. Kastner, Michael F. Rubner, and Sheila E. Widnall for their willingness to serve on this important committee.

L. Rafael Reif
Provost

The final committee membership was Jacqueline N. Hewitt (chair), Mildred S. Dresselhaus, Marc A. Kastner, and Michael F. Rubner. Professor Widnall stepped down because of a possible conflict of interest. Dr. Torsten Wiesel served as an advisor to the committee.