# CALTECH POLICY ON RESEARCH MISCONDUCT

## CONTENTS

Introduction	3
General Policy	
Scope	
Definitions	
Rights and Responsibilities	
Research Integrity Officer	
Complainant	
Respondent	
Witnesses	
General Principles	
Responsibility to Report Misconduct	
Confidentiality, Retaliation, and Damage to Reputation	
The Assessment	
Conducting an Assessment of an Allegation	
The Inquiry	
• •	
Initiating an Inquiry	
Conducting an Inquiry	
The Inquiry Report	
Conclusion of the Inquiry	
The Investigation	
Initiating an Investigation	9
Conducting an Investigation	10
The Investigation Report	12
Adjudication	13
Interim Administrative Action and Reporting	14
Completion of Cases	14
Obligations to and Actions by Sponsors	15

	Reporting to Funding Agencies	. 15
	Actions by Funding Agencies	.15
	Reporting to Other Parties	
К	ecordkeeping	.1:

## CALTECH POLICY ON RESEARCH MISCONDUCT

#### INTRODUCTION

#### **GENERAL POLICY**

Caltech's <u>mission</u> is to expand human knowledge and benefit society through bold, innovative, and impactful research integrated with education. In pursuing this mission, Caltech strives for the highest levels of integrity, public trust, and responsible conduct of research and promotes the <u>Eleven Principles</u> comprising its code of conduct. Misconduct in research harms the credibility and reputation of all of the members of the Caltech community, erodes the public trust, and hinders scientific inquiry. Caltech is committed and obligated to handle allegations or evidence of research misconduct fairly, competently, and objectively in accordance with the policy described in this document and with applicable federal regulations.

#### **SCOPE**

This policy applies to all members of the Caltech community, including faculty, post-doctoral scholars, staff, and students, as well as anyone who at the time of the alleged misconduct, was employed by, a student at, an agent of, an appointee of, was otherwise affiliated by contract or agreement, or who was a volunteer or guest performing the alleged misconduct at Caltech. Thus, this policy applies to members of the Caltech community who are proposing, designing, conducting or reporting research at all Caltech facilities, both on and off campus, including those at the Jet Propulsion Laboratory or elsewhere as part of their Caltech related duties or activities.

This policy applies to research proposed, conducted, or reported on the Caltech campus or at its off-campus facilities, as well as research proposed, conducted, or reported elsewhere by members of the Caltech community as part of their Caltech-related duties or activities. Caltech may apply this policy to research proposed, conducted, or reported elsewhere where it is claimed or implied to have been done at Caltech or by a member of the Caltech community. This policy does not apply to allegations or research misconduct occurring six years before Caltech is notified of the allegation, with certain exceptions, for example, if the alleged misconduct could have a substantial adverse effect on public health or safety.

#### **DEFINITIONS**

Research misconduct is defined as fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results. Fabrication is making up data or results and recording or reporting them. Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately

represented in the research record. Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.

Research misconduct does not include honest error or differences of opinion, nor does it encompass authorship or collaboration disputes, or violations of Caltech policies or federal regulations not relating to research misconduct.

A finding of research misconduct requires that there be a significant departure from accepted practices of the relevant research community and that the misconduct be committed intentionally, knowingly, or recklessly. In addition, any allegations must be proven by the standard of a preponderance of the evidence.

#### RIGHTS AND RESPONSIBILITIES

All members of the Caltech community, including those based at off-campus facilities, ,have a responsibility to cooperate in the review of allegations of research misconduct during an inquiry or investigation. This responsibility includes providing all relevant evidence and maintaining confidentiality when appropriate.

No person may participate in the assessment, inquiry, or investigation (other than the complainant, respondent, and witnesses) if they have an actual or potential conflict of interest in the proceedings in accordance with the Caltech <u>Conflicts of Interest Policy</u>.

While Caltech has the primary responsibility for prevention and detection of research misconduct, and for the inquiry, investigation, and adjudication of research misconduct alleged to have occurred at Caltech or by the members of the Caltech community, government agencies have ultimate oversight authority for research supported by their funding.

#### RESEARCH INTEGRITY OFFICER

Caltech's Research Integrity Officers are Caltech's Vice Provost for Research and JPL's Chief Scientist. The Research Integrity Officers have primary responsibility for implementing Caltech's policy and procedures relating to research misconduct. These responsibilities include:

- meeting with people in confidence who are unsure if they should bring an allegation;
- receiving allegations of research misconduct;
- assessing allegations of research misconduct to determine whether an inquiry is warranted;
- sequestering and maintaining relevant data and other evidence;
- communicating with respondents, complainants, and witnesses regarding the process, allegation, evidence, and reports as described herein;
- appointing a chair and other members of the inquiry and investigation committees;
- ensuring that no person with an unresolved potential or actual conflict of interest is involved in the process;
- protecting from retaliation or restoring the positions or reputations of complainants and witnesses acting in good faith;

- informing the Provost and, if the alleged misconduct occurred at JPL, the JPL Director, and others who need to know of progress;
- notifying and providing reports to federal agencies and other sponsors;
- ensuring that Caltech's administrative actions are enforced and notifying other relevant parties of those actions; and
- maintaining the records of the research misconduct process.

The Research Integrity Officers may delegate some or all of their responsibilities as they deem appropriate and must not participate if they have an actual or potential conflict of interest. The Research Integrity Officers typically delegate their responsibilities during the assessment and inquiry stages to the appropriate Division Chair or JPL Associate Chief Scientist, who may work with the Director of Research Compliance in consultation with the Office of the General Counsel to ensure the responsibilities are fulfilled. In the investigation stage, the Research Integrity Officers typically delegate their responsibilities to the Director of Research Compliance on campus and the JPL Associate Chief Scientist. The Director of Research Compliance and the JPL Associate Chief Scientist will work together as appropriate.

#### COMPLAINANT

The complainant means a person who in good faith makes an allegation of research misconduct. Complainants are not limited to members of the Caltech community. The complainant's responsibilities include maintaining confidentiality, and unless the complainant chooses to remain anonymous, cooperating with the inquiry and investigation. In certain circumstances, such as when an allegation is brought anonymously, there is no complainant.

#### RESPONDENT

The respondent means a person against whom an allegation of research misconduct is directed, or who is the subject of a research misconduct proceeding. Additional respondents may be identified during an inquiry or investigation. The respondent's responsibilities include maintaining confidentiality and cooperating with the inquiry and investigation.

#### WITNESSES

A witness is any available person who has been reasonably identified as having information regarding any relevant aspect of an investigation. To the extent available, witnesses shall be interviewed during the investigation, provided with a transcript of their own interviews, and given a reasonable period of time to make corrections to the transcript to be included in the record.

#### GENERAL PRINCIPLES

#### RESPONSIBILITY TO REPORT MISCONDUCT

All members of the Caltech community, including those at all off campus facilities, have a responsibility to report observed, suspected, or apparent research misconduct. It may be reported to the Vice Provost for Research, the Office of Research Compliance, a Division Chair, the JPL Chief Scientist, the JPL Associate Chief Scientist, the JPL "Directors For" ("D4s"), the JPL Ethics Office, the Office of the General Counsel, Audit Services and Institute Compliance, the Caltech Hotline, or the IPL Ethics Help Line. Allegations of research misconduct may be reported anonymously.

When a person is unsure whether a particular incident may be research misconduct or not, they may contact or meet with the Director of Research Compliance or the JPL Associate Chief Scientist to discuss the incident informally in order to help the individual decide whether an allegation is appropriate. This discussion may be anonymous or based on hypothetical facts. If the incident, could not meet the definition of research misconduct, but should otherwise be handled, the Research Integrity Officer may refer the individual or allegation to the appropriate office with responsibility for handling such an incident.

#### CONFIDENTIALITY, RETALIATION, AND DAMAGE TO REPUTATION

Throughout a research misconduct proceeding, disclosure of the identity of the complainant and respondent will be limited, to the extent possible, to those with a need to know to carry out a fair, thorough, competent, and objective proceeding, and as allowed by law. The identity of witnesses may be similarly limited when the circumstances indicate that the witnesses may be harassed or otherwise need protection. However, Caltech must disclose the identity of complainants and respondents, and witnesses when required by applicable federal regulations, such as when a federal agency reviews a proceeding.

Unless otherwise required by applicable law, any records or evidence from which human research subjects might be identified must be kept confidential, and disclosure is limited to those who have a need to know during the research misconduct proceeding.

If a complainant makes an allegation that is not in good faith, the Research Integrity Officer will inform the Provost (on campus) or the JPL Director who will refer the matter for possible disciplinary action. However, Caltech prohibits retaliation against anyone who makes a good faith allegation of suspected research misconduct, in accordance with its <a href="Whistleblower Policy">Whistleblower Policy</a>. Any potential or actual retaliation against a complainant, respondent, witness, or research misconduct inquiry or investigation committee member should be reported to the Research Integrity Officer or reported as described in the Whistleblower Policy. The Research Integrity Officer will review the alleged retaliation and, when warranted, take steps to protect or restore the position and reputation of the person against whom the retaliation was directed.

When requested and as appropriate, Caltech will make all reasonable and practical efforts to protect or restore the reputation of respondents alleged to have committed research misconduct, but against whom no finding of research misconduct was made.

#### THE ASSESSMENT

#### CONDUCTING AN ASSESSMENT OF AN ALLEGATION

When an allegation of research misconduct is received by an official other than a Research Integrity Officer, it should be immediately brought to the Research Integrity Officer's attention. The Research Integrity Officer will typically delegate their responsibility to the appropriate Division Chair or to the JPL Associate Chief Scientist to assess, in a reasonable period of time, any allegation of research misconduct to determine whether the conduct falls within the scope of this policy, whether the allegation, if true, would include conduct that meets the definition of research misconduct, and whether the allegation is sufficiently specific such that potential evidence of research misconduct could be identified. When all of these criteria are met, an inquiry is warranted. If the Research Integrity Officer becomes aware of a possible impropriety and determines that an inquiry is warranted, he or she may initiate an inquiry without a specific allegation or complaint. If it is determined that an inquiry is warranted, the research misconduct proceeding must go forward, even if the complainant or respondent resigns or otherwise leaves or has left Caltech.

In assessing the allegation, the Division Chair or JPL Associate Chief Scientist need not interview the complainant, respondent, or any witnesses, or gather any additional information or data than what was provided with the allegation. However, he or she may do so when it is necessary to determine whether the allegation is sufficiently credible and specific.

If the allegation is true but does not meet the definition of research misconduct, the Division Chair or JPL Associate Chief Scientist will provide counsel to the complainant, try to resolve the issue through a satisfactory means other than this policy, and notify the appropriate Research Integrity Officer.

### THE INQUIRY

#### INITIATING AN INQUIRY

When the Research Integrity Officer's, Division Chair's, or JPL Associate Chief Scientist's assessment of an allegation of research misconduct leads to the determination that an inquiry is necessary, the Division Chair, Associate Chief Scientist or the Research Integrity Officer (as applicable) will initiate an inquiry, in a reasonable amount of time. In some circumstances, it may be more appropriate for the Research Integrity Officer to appoint another individual or a committee to conduct the inquiry, for example, when there is an actual or potential conflict of interest, more than one Division is involved, or where specific scientific expertise is sought.

The purpose of the inquiry is to conduct an initial review of the evidence to determine whether an investigation is warranted. An investigation is warranted when preliminary information-gathering and fact-finding indicate that there is a reasonable possibility that research misconduct may have occurred. The inquiry does not require a full review of all of the evidence related to the allegation.

The Research Integrity Officer may also wish to notify the Provost, JPL Director, and/or President at this stage, and may involve the Office of Research Compliance or JPL Ethics Office for administrative support and the Office of General Counsel for legal support for the research misconduct proceeding.

#### CONDUCTING AN INQUIRY

The inquiry begins when the Division Chair or JPL Associate Chief Scientist notifies the respondent in writing of the allegation and of the research misconduct proceeding to follow, or when this is not possible, makes a good faith effort to do so. The respondent is entitled to receive a copy of this policy. Any additional respondents identified during the inquiry must also be notified as soon as reasonably possible. When it would be helpful to the inquiry, the complainant may be notified that an inquiry was warranted based on his or her allegation.

On or before the date the respondent is notified of the inquiry, all practical and reasonable steps must be taken to obtain custody of all the research records and evidence necessary to conduct the research misconduct proceeding. The records and evidence must be inventoried and sequestered in a secure manner, except when the research records or evidence encompass scientific instruments shared by several users, in which case custody may be limited to copies of the data or evidence, as long as the copies are substantially equivalent.

The cognizant Division Chair, the JPL Associate Chief Scientist, and/or committee conducting the inquiry will examine relevant research records and materials and will normally interview the complainant, the respondent, and key witnesses. Then the preliminary evidence, including the testimony obtained during the inquiry, will be evaluated. Based on this evaluation and after consultation with the Research Integrity Officer, the Division Chair or JPL Associate Chief Scientist will recommend whether an investigation is warranted based on the criteria in this policy, any applicable federal regulations, and any sponsor agreements.

Note that the scope of the inquiry at this stage is not required to and does not normally include a determination of whether misconduct definitely occurred, determining definitely who committed any research misconduct that may have occurred, or conducting exhaustive interviews and analyses. However, if an admission of research misconduct is made by the respondent, misconduct may be found at the inquiry stage.

The inquiry, including preparation of the final inquiry report and the decision of the Division Chair, JPL Associate Chief Scientist, or committee conducting the inquiry on whether an investigation is warranted, should be completed in a reasonable time period (normally within 60 calendar days, unless the Research Integrity Officer determines that circumstances warrant a longer period. If the Research Integrity Officer approves a longer than 60 day interval to completion of the inquiry, the inquiry record must include documentation of the reasons for this).

#### THE INQUIRY REPORT

The Division Chair, JPL Associate Chief Scientist, or committee conducting the inquiry must prepare a draft inquiry report and provide the respondent with a clearly specified time period (not less than three calendar days) in which to review and comment. When it would be helpful to the inquiry, the

complainant may also be given an opportunity to comment on parts of or the entire report as well. The draft inquiry report must include:

- a. the name and position of the respondent
- b. a description of the allegations of research misconduct
- c. the funding source (including, for example, grant numbers, grant applications, contracts and publications listing the support), and
- d. the basis for the decision that the allegations warrant or do not warrant an investigation.

When appropriate, the final inquiry report may be revised in response to comments on the draft report received from the respondent and complainant, if any, and will also include, in an attachment, any comments on the draft inquiry report by the respondent and/or complainant.

#### CONCLUSION OF THE INQUIRY

The inquiry is concluded when the Research Integrity Officer receives the final inquiry report (including revisions as described at the end of the previous section) and states in writing (to be kept with the record) their determination as to whether an investigation is warranted.

The Division Chair, JPL Associate Chief Scientist, or committee conducting the inquiry shall provide the respondent with the final report, a copy of this policy, a reference to any applicable regulations, and will inform the respondent of the Research Integrity Officer's decision as to whether the proceedings will continue onto an investigation. The complainant will be notified whether or not the inquiry found that an investigation is warranted.

If it is determined that an investigation is not warranted, the research misconduct proceeding ends.

If a complainant is not satisfied with the conclusion that an investigation is not warranted, the result may be appealed in writing to the Provost or the JPL Director within 10 calendar days of the date notice was given.

#### THE INVESTIGATION

#### INITIATING AN INVESTIGATION

The investigation must begin within 30 calendar days after the decision by the Research Integrity Officer that an investigation is warranted. The purpose of the investigation is to develop a factual record by exploring the allegations in detail and examining the evidence in depth, leading to recommended findings on whether research misconduct has been committed, by whom, and to what extent. The investigation will also determine whether there are additional instances of possible research misconduct that would justify broadening the scope beyond the initial allegations.

If it is determined that an investigation is warranted, relevant federal agencies and other sponsors should be informed in a timely manner. The time scale for informing agencies and sponsors is sometimes specified by them: For example, in the case of research funded by Public Health Service, the Office of Research Integrity must be provided with the final inquiry report (including the

determination to proceed to an investigation and this policy) within 30 days. In the case of research funded by the National Aeronautics and Space Administration, the Office of the Inspector General must be notified as soon as possible once it has been determined that the inquiry supports a formal investigation.

When an investigation is initiated, interim administrative action may be required to protect the interests of complainants, respondents, students, faculty, staff, colleagues, human subjects, sponsors, or Caltech while the investigation proceeds. Possible actions include temporary suspension of the research.

#### CONDUCTING AN INVESTIGATION

On or before the date on which the investigation begins, the Vice Provost for Research on campus or the JPL Chief Scientist (i.e., the relevant Research Integrity Officer) must notify the respondent in writing of the allegations to be investigated. The Research Integrity Officer must also give the respondent written notice of any new allegations of research misconduct within a reasonable amount of time of deciding to pursue any allegations unrelated to those addressed during the inquiry or in the initial notice of the investigation. If the Research Integrity Officer has not yet notified the relevant federal agencies or other sponsors of the decision to begin an investigation, he or she must provide the sponsor with a copy of the final inquiry report and this policy, on or before the date on which the investigation begins as well.

The Research Integrity Officer will, prior to notifying respondent of the allegations, take all reasonable and practical steps to obtain custody of and sequester in a secure manner all research records and evidence needed to conduct the research misconduct proceeding that were not previously sequestered during the inquiry (as well as whenever additional items become known or relevant to the investigation). The need for additional sequestration of records for the investigation may occur for any number of reasons, including a decision to investigate additional allegations not considered during the inquiry stage or the identification of records during the inquiry process that had not been previously secured. The procedures to be followed for sequestration during the investigation are the same procedures that apply during the inquiry.

As soon as practically possible after the investigation begins, the Research Integrity Officer, in consultation with the Division Chair or JPL Associate Chief Scientist and other institutional officials as appropriate, will propose an investigation committee and a committee chair. The investigation committee must consist of individuals who do not have unresolved personal, professional, or financial conflicts of interest with the individuals involved in the investigation. The committee should include individuals with the appropriate scientific expertise to evaluate the evidence and issues related to the allegation, interview the respondent and complainant, and conduct the investigation. Members of an inquiry committee may also be appointed to the investigation committee, and the investigation committee may include people outside of the Caltech community.

<sup>&</sup>lt;sup>1</sup> The JPL Chief Scientist may delegate any or all of these responsibilities to the Associate Chief Scientist.

The respondent, and when appropriate, the complainant, shall be provided in writing the names of the people on the investigation committee and given an opportunity to comment on the suitability of the proposed members before the committee is finalized. Comments should be in writing and received within 5 calendar days of receipt for consideration by the Research Integrity Officer.

Once the investigation committee is finalized, the Research Integrity Officer will provide the committee with a formal written charge. The charge will:

- a. describe the allegations and related issues identified during the inquiry;
- b. identify the respondent;
- c. provide the inquiry report;
- d. inform the committee that it must conduct the investigation as prescribed by this policy;
- e. define research misconduct;
- f. identify any applicable federal regulations;
- g. inform the committee that it must evaluate the evidence and testimony to determine whether, based on a preponderance of the evidence, research misconduct occurred and, if so, the type and extent of it and who was responsible;
- h. inform the committee that in order to determine that the respondent committed research misconduct it must find that a preponderance of the evidence establishes that:
  - research misconduct, as defined in this policy, occurred (respondent has the burden
    of proving by a preponderance of the evidence any affirmative defenses raised,
    including honest error or a difference of opinion);
  - ii. the research misconduct is a significant departure from accepted practices of the relevant research community;
  - iii. the respondent committed the research misconduct intentionally, knowingly, or recklessly; and
- i. inform the committee that it must prepare or direct the preparation of a written investigation report.

The investigation committee must ensure that the investigation is thorough and sufficiently documented and that it includes examination of all research records and evidence relevant to reaching a decision on the merits of each allegation. The investigation committee must take reasonable steps to ensure an impartial and unbiased investigation to the maximum extent practical. During the investigation, each respondent, complainant, and any other available person who has been reasonably identified as having information regarding any relevant aspects of the investigation, including witnesses identified by the respondent, shall be interviewed. Each interview must be recorded or transcribed, and each witness must be provided with a recording or transcript of his or her interview for correction, for inclusion in the record of the investigation. The investigation committee must pursue all relevant, significant issues and leads discovered, including any evidence of any additional instances of possible research misconduct, and continue the investigation to completion.

The investigation should normally be completed within 120 calendar days, including conducting the investigation, preparing the report of findings, providing the draft report for comment and sending the final report to applicable federal agencies and other sponsors. However, if the investigation committee determines that additional time is required, it should immediately notify the Research Integrity Officer. If the Research Integrity Officer determines that the investigation should be allowed to continue beyond 120 days, a written request for more time, setting forth the

reasons for the request, should be submitted to the appropriate funding agency or agencies. If an extension is granted, Caltech may be required to file periodic progress reports. In all cases, the reasons for the delay should be documented.

#### THE INVESTIGATION REPORT

Once it has reached its conclusion, the investigation committee must prepare a draft investigation report. The respondent must be provided with (1) an opportunity to review and comment on the draft report; (2) concurrently be given a copy of or supervised access to the evidence upon which the report is based; and (3) be given 30 calendar days to make written comments. When it would be helpful to the investigation, the complainant may also be given an opportunity to comment on relevant portions of or the entire report within 30 calendar days as well. In some instances, the respondent and complainant may be asked to sign a confidentiality agreement before receiving the draft report. The respondent and complainant comments will be included in the record, considered, and when appropriate, addressed in the final report.

The draft investigation report must include:

- a. a description of the allegations of research misconduct;
- b. the name and position of the respondent(s);
- the current and former funding sources, including, for example, grant numbers, grant applications, contracts and publications listing the support, as well as any pending proposals;
- d. the institutional charge (the specific allegations of research misconduct considered in the investigation);
- e. this policy;
- f. an identification and summary of the research records and evidence reviewed;
- g. an identification and summary of any evidence taken into custody but not reviewed, and
- h. a statement of findings for each allegation of research misconduct identified during the investigation. Each statement of findings must:
  - i. indicate whether research misconduct occurred, and if so, also identify
    - the person(s) responsible for the misconduct;
    - whether the research misconduct was falsification, fabrication, or plagiarism; and
    - whether it was committed intentionally, knowingly, or recklessly;
  - ii. summarize the facts and the analysis that support the conclusion and consider the merits of any reasonable explanation by the respondent;
  - iii. identify the specific funding sources; and
  - iv. state whether any publications need correction or retraction.

Before drafting the final report, the committee must consider any comments received from the complainant or respondent, and revise the report if appropriate. The final report must also include: comments on the draft investigation report by the respondent and complainant, if any, in an attachment.

#### **ADJUDICATION**

The investigation committee will transmit the final investigation report to the Provost on campus or to the JPL Director, and will also consult with them regarding the recommended institutional action(s). The Provost or the JPL Director will determine and then state, in writing, whether Caltech accepts the investigation report, its findings, and the recommended institutional actions. The JPL Director or JPL Chief Scientist will consult with the Provost regarding the recommended institutional action. When a finding of research misconduct is accepted, the proposed institutional actions to be taken in response shall also be stated in writing.

If the Provost or JPL Director's determination varies from the findings of the investigation committee, the Provost or JPL Director will, as part of their written determination, explain the basis for rendering a different decision from the findings of the investigation committee. Alternatively, the Provost or JPL Director may return the report to the investigation committee with a request for further fact-finding or analysis.

When it is determined that there is no finding of research misconduct by the Provost or JPL Director, the Provost and Division Chair or JPL Chief Scientist and appropriate Director "for" should decide what steps need to be taken to correct the record and protect or restore the reputation of all parties involved. In addition, when the allegation was made in good faith, the Provost or JPL Chief Scientist should determine what steps might be necessary to prevent retaliatory action against the complainant, as stated above in the section entitled "Confidentiality, Retaliation, and Damage to Reputation."

When it is determined that there is a finding of research misconduct by the Provost or JPL Director, the Provost and Division Chair on campus or Chief Scientist and appropriate Director "for" at JPL should determine the course of action for dealing with the misconduct, notifying appropriate federal agencies and other sponsors, and correcting the scientific record. The Provost and Division Chair will forward the investigation report to the President, along with the full record of the inquiry and investigation, and recommend sanctions and other actions to be taken. Possible sanctions against the respondent include, but are not limited to, removal from the project, a letter of reprimand, additional oversight, probation, suspension, demotion, salary reduction, termination, and revocation of a degree conferred based on the research misconduct. The JPL Director shall brief the President on any investigation or actions taken at JPL and provide a copy of the final report.

Other institutional actions that may be appropriate include, but are not limited to, withdrawal or correction of all pending or published abstracts and papers emanating from the research where research misconduct was found, retraction or correction of submitted grant applications with data emanating from the research where research misconduct was found, and restitution of funds to the grantor federal agencies or other sponsors as appropriate.

After the President or JPL Director has reviewed the investigation report, the full record of the inquiry and investigation, the recommendations for administrative action, and any recommendations for sanctions, they shall decide what actions are appropriate. The President or JPL Director should consider the seriousness of the misconduct, including whether the misconduct was intentional or reckless, was an isolated event or part of a pattern, had significant impact on the research record, and had significant impact on other researchers or institutions.

When a final determination by the President or JPL Director has been reached, the Research Integrity Officer will notify the respondent in writing and provide them with the final investigation report. When appropriate, the Research Integrity Officer will notify the complainant in writing as well. All federal agencies and other sponsors initially informed of the research misconduct proceeding must be promptly notified of the finding. The Research Integrity Officer will ensure that the investigation report, his or her findings, and a description of any pending or completed administrative actions are reported to government agencies or sponsors with applicable terms or regulations within 30 days of the determination.

#### INTERIM ADMINISTRATIVE ACTION AND REPORTING

At any point during a research misconduct proceeding, applicable federal regulations may require Caltech to notify government agencies immediately if there is reason to believe that public health or safety is at risk, there is an immediate need to protect human or animal subjects, government resources or interests are threatened, research activities should be suspended, there is a violation of civil or criminal law, federal action is required to protect the interests of people involved in the proceeding, or the research community or public should be informed. If there is a reasonable indication of possible criminal violations, relevant authorities must be informed. In addition, Caltech may take appropriate institutional action to protect the public health, federal funds and equipment, and the integrity of the research process.

Caltech is required to report to government agencies with applicable regulations when it appears a research misconduct proceeding has been made public prematurely so that the agency may take appropriate steps to safeguard evidence and protect the rights of those involved. Agencies may take interim actions, such as suspending an existing award; suspending eligibility for federal awards; proscribing or restricting particular research activities, for example, to protect human or animal subjects; requiring special certifications, assurances, or other, administrative arrangements to ensure compliance with applicable regulations or terms of an award; requiring more prior approvals; deferring funding action on continuing grant increments; deferring a pending award; and restricting or suspending participation as an reviewer, advisor, or consultant.

#### COMPLETION OF CASES

Generally, all inquiries and investigations will be carried through to completion and all significant issues should be pursued diligently. However, in some instances, a case may be closed during the inquiry or investigation for reasons such as the respondent has admitted guilt, or a resolution with the respondent has been made.

#### OBLIGATIONS TO AND ACTIONS BY SPONSORS

#### REPORTING TO FUNDING AGENCIES

For research funded by sponsors with requirements or regulations to be informed of research misconduct, at or before the conclusion of the research misconduct investigation, the Research Integrity Officer will submit the investigation report, the final institutional action, the findings, and any pending or completed institutional actions against the respondent. Should an inquiry or investigation be concluded prematurely, through an admission of guilt on the part of the respondent, Caltech will coordinate with sponsors, as required by regulation, to ensure proper documentation and closure of the inquiry or investigation.

#### ACTIONS BY FUNDING AGENCIES

Federal agencies and other sponsors may take action against an individual or against Caltech after a finding of research misconduct has been reported. Such actions include sending a letter of reprimand; requiring that the individual or Caltech obtain special prior approval of particular activities; requiring that an institutional official other than those guilty of misconduct certify the accuracy of reports generated under an award or provide assurance of compliance with particular policies, regulations, guidelines, or special terms and conditions; suspending, restricting, or terminating an active award; requiring special reviews of all requests for funding to ensure that steps have been taken to prevent repetition of the misconduct; requiring a correction to the research record; prohibiting participation of an individual as a reviewer, advisor, or consultant, debarring or suspending an individual or institution from participation in federal programs for a specified period after further proceedings under applicable regulations.

#### REPORTING TO OTHER PARTIES

After a finding of research misconduct has been made it may be appropriate for Caltech to notify professional societies, professional licensing boards, or editors of journals in which falsified reports were or will be published, the respondent's research collaborators, and other relevant parties. The Research Integrity Officer will be responsible for insuring that those actions take place.

#### RECORDKEEPING

If after an inquiry, a determination is made that an investigation is not warranted, the records must be kept in a secure manner for at least seven years after the inquiry and be in sufficient detail such that a later assessment of why an investigation was not conducted can be made. When a research misconduct investigation proceeds to an investigation, the records of the research misconduct proceeding must be kept in a secure manner for at least seven years after completion of the investigation, or any related government proceeding, or any related litigation proceeding, whichever comes last.

Records include all relevant research records, records of the research misconduct proceeding, and the results of all interviews, including the transcripts or recordings. The records of the research misconduct proceeding include records that were secured except to the extent they were subsequently determined to be irrelevant or duplicative, the documentation of the determination of the records being irrelevant or duplicative, the inquiry report and final documents (i.e., not drafts) produced during the course of its preparation, including documentation of any decision not to investigate; and the investigation report and final documents (i.e., not drafts) produced during the course of its preparation. In addition, any information, documentation, evidence or clarification that would be helpful for an appropriate government agency to review Caltech's handling of an allegation of research misconduct must be retained as well.

Caltech may be required to transfer custody of or provide copies of records to a government agency when regulations permit a sponsor to make such a request.