Carnegie Institution of Washington
Patent and Invention Information

Introduction

In the course of their educational and research activities at the Carnegie Institution of Washington, researchers from time to time achieve inventions, which may have commercial value and may be worth attempting to patent.

A patent for an invention is a grant from the federal government to the inventor. The right conferred by the patent is the right to exclude others from making, using, or selling the invention. (Note that what is granted is not the right to make, use, or sell the invention, but the right to exclude others from doing so.)

Patent Terms

In the past, the term of a patent was for 17 years from the date of issuance. Now, however, as a result of a December 8, 1994 law passed to implement the provisions of the General Agreement on Tariffs and Trade (GATT), any patent that is issued on an application filed on or after June 8, 1995, has a term of 20 years from the earliest U.S. filing date claimed by the patent. (An extension may be possible in certain circumstances in which issuance was delayed through no fault of the petitioner.)

Patents issued from applications filed before June 8, 1995, and still in force on June 8, 1995, will have a patent term which is the longer of either 17 years from the date of issue or 20 years from the earliest U.S. filing date.

What Can Be Patented

Under U.S. patent law, any person who "invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof may obtain a patent." Process means a process, art, or method and includes a new use of a known process, machine, manufacture, composition of matter, or material. Manufacture refers to articles that are made. Composition of matter refers to chemical compositions and may include mixtures of ingredients and new chemical compounds. Some examples of inventions that might be patentable include:

- Mechanical devices;
- Machines;
- Instrumentation;
- Chemical processes;
- Plants;
- Methods of making and using genetically engineered products, as well as the products themselves;
- New compounds;
- New uses for compounds; and
- New life forms.
Criteria for Patenting

In order for an invention to be patentable, it must meet three criteria: novelty, utility (or usefulness), and non-obviousness. Novelty simply means that the invention must be new or different from what has been disclosed previously. For example, new uses of known processes, machines, compositions of matter, and materials are patentable. Utility (or usefulness) means an invention must perform or satisfy a useful purpose. Non-obviousness means that the invention must not be obvious to a person having ordinary skill in the art of the invention at the time the invention was made. Art includes patents, publications, and general knowledge in the field of the invention as it existed at the time the invention was made.

Disclosure of Invention/Disposition of Patent Rights

If a researcher believes he/she may have an invention that he/she wishes to patent, he/she should bring it to the attention of the Department Director, who will then inform the President. The researcher should submit a completed Disclosure of Invention Statement (Attachment 1), as well as a brief narrative (1-2 pages) describing the invention, and drawing of the invention, where applicable (The President assigns responsibility for managing this function to the Director of Administration and Finance).

The disposition of such inventions arising from government-funded research or research supported from some other source of outside funding is subject to the provisions of the associated research contract or grant document and to the Carnegie Institution of Washington Invention Researcher Agreement signed by the researcher (Attachment 2). Otherwise, the Institution reserves the right to own and control the disposition of inventions arising from the activities of its researchers in the course of their studies at the Institution’s facilities using its equipment and materials.

Once the Department Director and the inventor notify the President of the researcher’s invention, the President will determine whether or not the Institution wants to pursue a patent for the invention. In some cases, the President may decide that the Institution sees no need to pursue patentability and the inventor may conclude that he/she wishes to pursue the matter on his/her own, subject to the rights of any outside funding entity. The President will then determine whether the Institution will waive all interest in the matter in the favor of the inventor or make some agreement with him/her concerning patenting, the expenses involved, and the income derived from the invention.

When the decision is made that the matter warrants patent activity on the part of the Institution, the inventor shall, at the request of the President or the Department Director, execute an assignment to the Institution and such other papers as are required for such patent applications, both domestic and foreign, as the Institution determines to make. Carnegie currently uses outside patent counsel to develop its patent applications and handle matters concerning patent prosecution and any licensing of Carnegie inventions.
Inventions from Government-Sponsored Research

The Institution's U.S. Government research agreements normally include a patent rights clause that: requires that a written agreement be obtained from each researcher to disclose to the Institution any invention conceived or first reduced to practice in the performance of work under the agreement and to execute any necessary patent papers; requires that the Institution disclose each such invention to the government agency within two months; permits the Institution to elect to retain title and file for patent, subject to the Government's non-exclusive, non-transferable, irrevocable, royalty-free, worldwide license to practice or have practiced the invention for governmental purposes; and, in the exceptional case where the Government elects to take title, allows the Institution to retain a non-exclusive, royalty-free, worldwide license unless the Institution failed to comply with its disclosure obligations.

The Disclosure of Invention Statement should note any federal support received by the researcher during the period in which the research that led to the invention occurred so that Carnegie can notify the federal government concerning the invention in question and any patent application plans and so that the Institution is able to comply with all government requirements in this regard.

Inventions Supported by Other Sources of Outside Funding

Researchers at the Institution often receive financial support for their research from organizations other than the federal government, such as foundations, non-profit organizations, private companies, etc. Each of these organizations usually has its own requirements concerning inventions funded through its support and any potential patent activity. Since each organization's patent policies are different, it is important that the inventor's Disclosure of Invention Statement note any outside source of funding that supported the research that led to the invention in question so that the Institution can notify the organization of the invention and ensure that it complies with the organization's patent policies.

Effects of Publication and Divulgation Upon Patentability

U.S. patent law provides that a patent may be obtained on an invention unless the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention. There is a one year grace period which is limited to the applicant's pre-filing activities. For example, a pre-filing publication is removed as prior art if the publication is directly or indirectly attributable to an inventor. However, the grace period is not available with respect to publications which are independent of an inventor.

If the invention is described verbally or in a printed publication or is in public use or on sale anywhere in the world before the U.S. filing date, the patent rights in most foreign countries are also lost. Under an International Convention to which most industrialized countries subscribe, if the publication, public use, or sale occurs after the U.S. filing
date, foreign patent rights are still available provided the foreign patent application is filed within one year of the U.S. filing date.

This may be done by filing an application in each country of interest or by filing a so-called PCT application which, with a few exceptions, can be used for a filing in many countries provided this is followed-up with a national filing in the country or countries of interest within 30-months of the first filing.

The patent-barring publication involved must be “enabling,” which means that it describes the invention in sufficient detail and specificity that it would permit a person of ordinary skill in that art at that time to make, construct, and practice the invention without an unreasonable amount of experimentation. The publication does not need to describe details that would be obvious to a person skilled in that art at that point in time.

To be considered a publication, a document must be made publicly available and accessible, at least to that portion of the public that is skilled in the art to which the invention relates. The degree of accessibility and dissemination required to qualify as a publication depends upon the type of document in question and the situation under which it is distributed.

Some documents of limited circulation that have been judged to qualify as publications include:

- Single copies of books, periodicals, university theses and dissertations, microfilms and slides that have been deposited and shelved in a public library, assuming that they have been catalogued and indexed;

- Preprints or printed abstracts of scientific or technical papers disseminated to attendees at a scientific or technical meeting;

- Documents distributed to a limited number of commercial organizations when there is no confidentiality agreement or restriction on the use of the document; and

- Manufacturers’ catalogs, brochures, flyers, etc. distributed generally to the relevant trade.

Documents of limited circulation that have been judged not to qualify as publications include:

- Documents distributed among a number of commercial organizations on a confidential basis whether expressed or implied;

- Reports of private or semi-private research institutes that are intended for those purchasing services but not for general dissemination;
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- Manuscripts submitted to refereed journals for review;
- Intracompany documents, no matter how large the company and no matter how widespread the distribution is; and
- Government documents that are either expressly classified or restricted by reason of limited government or contractor circulation.

In addition to publication, divulgation can have an impact upon foreign patent rights. Divulgation can be interpreted as any non-confidential disclosure of the critical aspects of an invention through written or oral description, by use, or by any other manner. It includes simply displaying the invention, where its critical features can be discerned, as well as distributing a sample of the invention where the critical features can be determined.

In summary, under foreign laws (in most countries other than the U.S.) an inventor forfeits rights to patents if the invention is divulged prior to the filing of a patent application in the U.S. (or elsewhere.) Under such foreign laws, divulgation has a much broader interpretation than does “printed publication” under U.S. law.

An inventor can protect his/her patent rights by filing a U.S. patent application before he/she publishes or divulges his/her invention. He/she may then publish or talk about his/her invention. He/she may then publish or talk about his/her invention after he/she has filed a U.S. patent application and not forfeit his/her patent rights. He/she must, however, file foreign patent applications for the invention within one year of the date of the U.S. patent application, or before any publication occurs, if he/she wishes to retain foreign patent rights.

**Inventorship**

Under U.S. patent law, an inventor is one who, either alone or with others, first invents a new and useful process, article of manufacture, machine, composition of matter, or other patentable subject matter. The most important factor in determining inventorship is the initial conception of the invention. Unless a person has contributed to the conception of the invention, that person is not an inventor.

Conception of the invention under patent law has been defined as "the formation in the mind of the inventor of a definite and permanent idea of the complete and operative invention as it is thereafter to be applied in practice." Legal determination of inventorship is made in relation to the patent claims (See section on patent application, page 8). The test of inventorship is whether the person has made an original, conceptual contribution to one or more of the claims of the patent. Only those meeting this test qualify as inventors.

If an invention involves more than one inventor, it is a joint invention; multiple inventors are called joint or co-inventors. Each co-inventor is considered to have the same legal interest in a joint invention as any other co-inventor.
Note that inventorship and authorship are not the same thing. Co-authors of an article on an invention may not necessarily be co-inventors of the invention.

For legal and practical reasons, the status of co-inventorship may not be conferred simply as a reward for hard work, outstanding science, etc. Thus, colleagues, students, research assistants, technicians, machinists, etc. are not inventors, even if they gather essential data or construct a practical embodiment of the invention, unless they have made a conceptual contribution to one of the claims of the patent.

A person’s contribution to an invention can be recognized in a variety of ways:

- By designating the person as a co-inventor, if he/she meets the criteria described above;
- Through the person’s participation in the sharing of any income for subsequent commercialization of the invention; or
- By recognizing the person through publications and presentations.

Recordkeeping

Disputes sometimes arise over who first made an invention. The issue is usually decided on the basis of records kept by the parties involved in the dispute. U.S. patent practice places a premium on witnessed records when two or more parties claim the same invention. Specifically, the date the idea was conceived, called conception, and the date it was put into practiced form, called reduction to practice, is vital.

For applications filed prior to March 16, 2013, the U.S. Patent and Trademark Office (PTO) conducts proceedings, called interference proceedings, to determine who is the first inventor in the instance of two or more parties claiming the same invention. Interference proceedings are not available for applications filed after March 16, 2013. As of that date, the U.S. has adopted the first to file system rather than the first to invent – see below. The inventor must be able to support his/her case through the use of appropriate evidence; therefore, it is important to have good records of conceptions and reductions to practice that are corroborated by witnesses other than the inventors. Equally important to the Patent and Trademark Office in such proceedings is diligence shown by a contending inventor. (Diligence refers to the work done between the conception and reduction to practice stages of invention.) A contending inventor must generally show that work was diligently undertaken on the invention, i.e., that the invention was not abandoned. Again, these efforts should be documented on a day-by-day basis and witnessed by a knowledgeable third party.

The careful recording of ideas and laboratory activity and data is a routine matter for many researchers. Some recordkeeping suggestions are outlined below:
Use bound notebooks for records and make entries on a daily basis, on consecutively numbered pages;

Use the notebook to record the conception of an invention and further work toward reduction to practice. (At the conception of an invention, a scientist should immediately write a description of it in his/her notebook, sign it, and date it. He/she should then have it witnessed and dated by someone who is technically competent but who is not a co-inventor. This establishes a corroborated conception date.)

Make entries in ink and do not erase; draw a line through materials to be deleted and enter the material in corrected form; and

Sign and date entries at the time they are made and then have them signed and dated by a witness. (The witness should be someone who has read the material, is capable of understanding it but had nothing to do with producing it. Inventors and co-inventors cannot serve as corroborating witnesses.)

This information can serve as evidence of conception, reduction to practice, and diligence in the work undertaken on the invention.

**Patent Application**

There are two types of patent applications that can be filed: 1) a complete application or 2) a provisional application.

A complete patent application must include the following items:

- A written description of the invention (the specification);
- One or more claims (the legal description of the invention);
- A drawing in those cases in which a drawing is necessary;
- An oath or declaration by the applicant attesting (among other things) that the applicant is the original inventor of the application; and
- The appropriate filing fee.

The specification is a narrative description of the invention, including prior art. It must provide a disclosure, which enables a person of ordinary skill in the art of the invention to practice the invention in its full scope. In the case of biotech inventions, it may be necessary to make a deposit of a new microorganism at a recognized depository to meet the enablement requirement. It is also essential that the specification disclose the best mode of practicing the invention as known to the inventor at the time the application is filed. The specification should include a short and specific title of the invention and a
brief abstract of the technical material disclosed in the body of the specification. The body of the specification is preferably divided into sections: Background of the Invention, Summary of the Invention, Brief Description of the Drawings, and Detailed Description of the Invention.

Each claim listed represents one or more of the essential conceptual elements that make up the invention. Taken together, the claims of a patent define the scope of the invention by describing the specific features that distinguish it from prior art. The claims also provide the basis for legal enforcement of the patent. Anyone who practices the claims of the invention without the approval of the patent owner becomes subject to the charge of patent infringement.

The second type of patent application, which was made possible by the legislation passed to implement GATT, is a provisional application. It is just like a regular application except that it does not require any claims or an inventor’s declaration or oath. Only a specification and any necessary drawings, as well as the names of the inventors, need to be filed for a provisional application. The specification must, however, still contain a full disclosure of the invention sufficient to enable one skilled in the art to practice the invention if the inventor is to benefit from such a filing.

In order to obtain a patent based on the provisional application, a complete application must be filed within one year of the filing date of the provisional application. (The life of a provisional application is one year, at the end of which it is automatically terminated by law.)

The U.S. Patent and Trademark Office will not examine a provisional application for patentability during the one-year period and the pendency time of a provisional application will not be counted in the 20-year patent term which is measured only from the filing date of the complete application.

The additional year that a provisional application provides gives the inventors more time to determine the viability and scope of the invention and its commercial value before spending a large amount of money to file a complete application, while preserving an early filing date at the U.S. Patent and Trademark Office.

While the patent application process has become more standardized around the world, there are still some important differences. For applications filed prior to March 16, 2013, one major difference between the U.S. procedure and that of many foreign countries involves the timing of the application. More specifically, for applications filed prior to March 16, 2013, the U.S. process recognizes the “first to invent” while essentially all foreign processes recognize the “first to file.” Thus, for such applications in the United States you must be able to document that you came up with the invention before others, while in many foreign countries you need to get to the patent office first. However, the U.S. has changed to the “first to file” system effective March 16, 2013 as a result of the Leahy-Smith America Invents Act which was passed on September 9, 2011 (For a summary of the changes included in this new law, see Attachment 6).
Prosecution of Patent Applications

Once complete patent applications are received at the U.S. Patent and Trademark Office, the applications are examined in turn in the order in which the applications were filed. Applications will not be advanced out of turn for examination except as provided for in the Patent Office rules. The examiner assigned an application will first examine it for compliance with the patent laws. Next, the examiner will conduct a search of U.S. issued patents, foreign patents, and technical documents to determine if the described invention as claimed is new and unobvious. The examiner will then issue a decision based on the examination of the patent application and the search of the Patent Office records.

The examiner’s decision is called an office action and it is mailed to the applicant or to the applicant’s attorney or agent. (In Carnegie’s case, it is mailed to our patent attorneys Morgan, Lewis, and Bockius.) The reasons for any adverse action by the examiner should be set forth in detail in the office action, together with a listing and copies of any patents or technical documents relied upon by the examiner in reaching the decision. If the examiner decides that the application does not contain patentable subject matter or that the invention is not new and non-obvious, then the claims will be rejected. Actually, very few applications are allowed by examiners as filed, and it is more typical to have some or all of the claims rejected on the first office action.

The applicant is permitted to request reconsideration in writing, but must specifically point out the examiner’s errors. In filing a response the applicant must respond to every ground of objection or rejection lodged by the examiner in the office action. A mere allegation that the examiner has erred will not gain any meaningful reconsideration.

The applicant may also amend the application in response to the examiner’s office action. It is not enough, however, to merely amend the claims without any explanation. The applicant must explain why the amended claims are patentable over the art cited by the examiner against the original claims.

After a properly filed response or amendment, the application will be reconsidered. The examiner may then allow the application to issue as a patent, maintain the previous objections or rejections, or enter new objections or rejections. If the examiner does not allow the patent then a second office action will be issued. The second office action will usually be made final.

After receipt of a final office action the applicant’s ability to respond is severely limited. The examiner may now refuse to enter any substantive amendments as raising “new issues” and will probably only enter minor amendments, which merely correct the form of the claims.

The maximum time for response to any office action is six months, but the Commissioner may shorten the period to not less than 30 days. The usual period for response can be extended up to the maximum six-month period by paying for the extensions of time.

Revised: 12/3/12
If the examiner maintains a previous rejection or issues a final rejection, the applicant may appeal the examiner’s decision to the Board of Patent Appeals and Interferences (BPA) within the PTO. An appeal fee must be paid and an appeal brief filed with the BPA. The examiner may issue an examiner’s answer to the brief. The applicant is given the last word in a reply brief, in which the applicant can respond to issues raised in the examiner’s answer.

Should the BPA sustain the examiner’s position, then the applicant may appeal to the Court of Appeals for the Federal Circuit or to the U.S. District Court for the District of Columbia. If the appeal is taken to the Federal Circuit, then a decision will be rendered based on the record established at the PTO. If, on the other hand, the appeal is taken to the District Court, then the applicant may present additional evidence or testimony to that contained in the PTO record.

Allowance and Issuance of Patents

If the examiner or an appellate body determines that the patent application is allowable, then a notice of allowance will be sent to the applicant. Thereafter, the applicant has three months to pay the issue fee. Failure to pay the issue fee within this time period will result in the abandonment of the application.

Patent Litigation

The infringement of a patent involves the unauthorized making, using, selling, or offering to sell a patented invention within the United States or its territories, as well as importing the invention into the United States, during the term of the patent. If a patent is being infringed the patentee or a successor in interest may sue for injunctive relief and/or monetary damages in the Federal District Court in the district in which the infringement occurred or in which the infringer has a place of business. In such a suit, the accused infringer may challenge the validity of the patent and/or present evidence of non-infringement. If the patent holder merely threatens suit, the accused infringer may bring an action for declaration of invalidity and/or non-infringement of the patent.

Carnegie Institution of Washington Policy on Inventions and Patents

Carnegie’s policy statement regarding inventions and the patenting of inventions conceived and reduced to practice in the course of research conducted by its researchers (staff members, associates, fellows, and students) is entitled “Policy on Inventions and Patents” and is shown in Attachment 3 (dated January 7, 1985, as amended November 2005.)
Royalty Sharing Formula for Invention Income

Income from the sale or licensing of Carnegie-owned intellectual property is distributed according to the following formula after the deduction of any out-of-pocket expenses (such as legal fees, filing fees, etc.) and administrative overhead of 5% of gross income:
- 1/3 to the inventor(s);
- 1/3 to the Department; and
- 1/3 to the President’s Contingency Fund.

Licensing and Confidential Disclosure Agreements

Carnegie often attempts to license its inventions in order to recover the costs of the prosecution and maintenance of the patent; generate income to the inventor(s) and the Institution; and make the invention available commercially to the public.

When contacting companies as potential licensors of Carnegie inventions, the Institution, in order to protect its patent rights, asks the companies to sign a confidential disclosure agreement. Before such a disclosure agreement is signed, Carnegie generally provides only non-confidential, non-enabling information concerning its inventions (such as published articles) to the company. If the company desires further information on the invention in question, the Institution requests that it sign a confidential disclosure agreement in which it agrees to review any confidential information concerning the invention with the understanding that the company will use the information only for its evaluation of the invention and will not disclose or use it commercially until a further agreement has been signed governing licensing and the use of the information by the company.

Until a confidential disclosure agreement is signed, it is preferable for Carnegie administrative and scientific staff not to discuss or provide additional information regarding the invention to the company involved since such action could jeopardize Carnegie’s future patent rights. A sample Carnegie confidential disclosure agreement is shown in Attachment 4.

Material Transfer Agreements

In the course of their work at Carnegie, researchers often want to share samples of the materials with which they are working with their colleagues outside of Carnegie. In order to safeguard the Carnegie researcher’s potential patent rights and the uses to which the materials will be put, it is important to have these organizations first sign a material transfer agreement before Carnegie shares the materials with the outside investigators. Samples of the material transfer agreements that Carnegie requests organizations to sign are included at Attachment 5. Two copies of this agreement should be signed by the Carnegie investigator involved and then sent to Carnegie’s Director of Administration and Finance who will sign them as the Institution’s representative. Once the other organization has countersigned the agreement and returned a copy to Carnegie, the Carnegie researcher’s rights are protected and the sample can be sent out to the organization in question. Faxes and pdf versions are also acceptable.

Revised: 12/3/12
Occasionally, when Carnegie is seeking a sample of materials from outside researchers, their organizations will require that Carnegie complete that organization’s material transfer agreement form rather than using the Carnegie format. If this happens, the agreement should be submitted to the Director of Administration and Finance. The form will be reviewed by Carnegie’s attorneys, as necessary, and, once approved, signed by the Director of Administration and Finance as the Institution’s representative. It will then be forwarded to the organization involved for processing.

The Carnegie Institution is a signatory of the Uniform Biological Material Transfer Agreement (UBMTA.) If any researchers receive the UMBTA to complete from another organization, it is all right to sign as the recipient scientist and then forward to the Director of Administration and Finance for signature.
Carnegie Institution of Washington

Department

Disclosure of Invention

Date

Name of Inventor: ________________________________

Co-Inventor(s) if any: ________________________________

Was the Invention made (that is, conceived or first actually reduced to practice) in the performance of work under a grant or contract? If so, please identify.

1. Earliest date of invention

2. Nature of proof of date of Invention (number and page of notebook, etc.)

3. Date of first written description and/or drawings.

4. Invention first disclosed to
   on

5. Construction, practice, and/or operation of Invention first witnessed by
   on

6. Nature of Invention (that is, composition or product to be manufactured, process or method to be practiced, machine or system to be operated):

7. Purpose of Invention

8. Operation of Invention
9. Physical, chemical, biological, or electrical characteristics of Invention.

10. Has the Invention been described in any publications? If so, please give name of publication and date.

11. Has a manuscript describing the Invention been submitted for publication?

   If so, to whom?

   Has it been accepted for publications?

   If so, what is the expected date of publication?

12. Has the Invention been described at any seminar or other meeting? If so, please identify and give date(s).

13. Has the Invention or a product thereof been on sale in any respect?

14. Has there been any public use of the Invention?

15. Identity of any parties with prospective commercial or licensing interests.

Disclosure of invention: 9-20-01
CARNEGIE INSTITUTION OF WASHINGTON

RESEARCHER AGREEMENT

Carnegie Institution of Washington
c/o _______________________

Department

____________________________
Address of Department

Attention: _______________________

Director of Department

As a Researcher, as defined below, at, or on behalf of, the above Department of the Carnegie Institution of Washington (hereinafter "Institution"), I recognize that as a part of my duties, I may receive from other Institution Researchers or develop, on my own or with others, information which may provide the basis for obtaining patent protection that could be useful to the Institution. I also understand that premature publication of such information before steps have been taken towards obtaining patent protection or determining whether or not to seek patent protection, could jeopardize such protection that might otherwise be available. I further recognize that such information is the property of the Institution and I agree to take no action which will jeopardize patenting such information by Institution or the Institution's ownership thereof.

I understand the foregoing references to "information" extend only to prospectively patentable products, compositions, processes, apparatus and things disclosed to me and/or developed by me, as a result of my work as a Researcher for the Institution provided, however, that this does not include information (a) that was in the public domain or publicly known prior to the date of disclosure to me; (b) made available to me from another source independent of the Institution prior to the Institution's disclosure to me, or (c) becomes part of the public domain or becomes publicly known by other than my own unauthorized act.

I also recognize that, unless otherwise agreed to in writing, the entire right, title and interest in and to all such patentable inventions and/or other intellectual property resulting from my work as a Researcher for the Institution shall be owned by the Institution. I agree to make full disclosure of any such inventions and intellectual property to the Institution and I further agree to cooperate in all respects with the Institution in the completion, filing and prosecution of any and all patent applications as deemed necessary by the Institution, to protect all patentable inventions and to vest full and complete title to same in the Institution.

As a Researcher at or for the Institution, I expect to be performing work under grants awarded to the Institution or contracts entered into with the Institution by agencies of the United States Government. I understand that such grants and contracts normally include the Patent Rights Clause set forth in Attachment A to Circular No. A-124 of the
Office of Management and Budget (47 Fed. Reg. 7556, 7564-66, February 19, 1982), and that Paragraph c.(1) of the Patent Rights Clause requires the Institution to disclose to the granting or contracting Government agency any invention conceived or first actually reduced to practice in the performance of work under the grant or contract.

In order to enable the Institution to comply with the disclosure requirement of the Patent Rights Clause, as well as to exercise its rights with respect to inventions conceived or first actually reduced to practice in the performance of my work at and/or for the Institution in accordance with the Institution’s Inventions and Patent Policy effective January 7, 1985, as amended May 4, 1995, I hereby agree that if I am the inventor or co-inventor of any such invention, I will promptly disclose the invention, in the attached format, to the Director of the Department, or to whomever the Director designates as the person responsible for patent matters at the Department. I also agree to execute all papers necessary for the filing of any patent application on any such invention and for the establishment of the rights, if any, of the United States Government as well as the rights of the Institution in the invention and any such patent application. I understand the importance of reporting any such invention in sufficient time to permit the filing of patent applications before they might be barred under U.S. or foreign patent statutes.

I also acknowledge that, as the Statement of Policy on Inventions and Patents provides, the above-mentioned procedures are to be followed for any invention conceived or first reduced to practice in the performance of work under a non-federal public agency or any private organization.

I understand that the term “Researcher” as used above means any staff member, associate, fellow, visiting investigator, student or other person engaged in the educational and research work of the Institution in a capacity other than clerical and non-technical. The term also extends to independent contractors who may be asked to do research work by or for Carnegie.

Date: ____________________________

Researcher
POLICY ON INVENTIONS AND PATENTS

This Policy Statement relates to inventions and patenting of inventions conceived of or reduced to practice in the course of research by staff members, associates, fellows, and students (collectively called “researchers”) of Carnegie Institution of Washington. It covers research conducted:

- without any outside support, sponsorship, or collaboration (“independent research”); or
- under an Institution contract with or grant from an agency of the United States Government (“government research”); or
- with financial sponsorship by an outside for-profit organization (“industrially-sponsored research”); or,
- in collaboration with a member or members of a for-profit organization (“collaborative research”).

Its principles also apply, with appropriate adjustments, to other research relationships such as those with a foreign or non-profit organization, which is a grantor, sponsor, or collaborator.

1. Basic Principles:

As an institution of advanced study incorporated by Act of Congress, Carnegie Institution of Washington is organized and operated for post-graduate education and fundamental research, now principally in the natural sciences. The Institution remains loyal to the mandate of its founder “to encourage, in the broadest and most liberal manner, investigation, research, and discovery, and the application of knowledge to the improvement of mankind.” For the fulfillment of these goals, the Institution places the highest priority on publication of the results of its work and prompt sharing of information with the public.

In the course of their educational and research activities with the Institution, researchers from time to time achieve inventions, some of which may have commercial potential and may be worth attempting to patent or otherwise protect. The disposition of such inventions arising from U.S. Government-funded research is subject to the provisions of the associated research contract or grant document (“government research agreement”) and to the Researcher Agreement of the Institution with employees. Otherwise, the Institution reserves rights to own and control the disposition of inventions arising from activities of its researchers in the course of their studies in the Institution’s facilities using its equipment and materials.

In the case of an invention made by a researcher on his/her own time, within his/her own facilities, and on a subject remote from the Institution’s program and projects, the Institution has neither

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1 The term “invention” as used here means a discovery or innovation that is or may be patentable or otherwise protectable. It includes an asexually reproduced plant protectable by a patent issued by the Patent and Trademark Office and a sexually reproduced plant protectable by a Plant Variety Protection Certificate issued by the Department of Agriculture as well as, for example, computer software programs and algorithms, and copyrightable matters. References to “patents” or “patenting” herein are intended to include other modes of protection, e.g. copyright, as may be appropriate for the subject matter.
equity nor obligation. The patenting or other disposition of such an invention is the personal affair of the inventor, subject to the Institution’s interest in its not becoming a preoccupation inconsistent with his/her responsibilities to the Institution.

In any evaluation of an invention and its potential patenting, and in the negotiation of invention and patent clauses in research agreements, every attempt should be made to occasion a minimum of interference with the Institution’s educational and research programs and with prompt publication of research results.

2. **Inventions from Independent Research**

A researcher who believes that he/she may have made an invention to which the Institution has any right, should bring it to the attention of the Director of the Department, who will inform the President. In many cases, the President will decide that the Institution sees no need to investigate patentability, and the inventor may conclude, after consultation with the Director, that it would not unduly interfere with his/her studies to pursue the matter on his/her own. The President would then decide whether the Institution should waive all interest in the matter in favor of the inventor or make some other agreement with him/her as to patenting, the expenses thereof, and the income therefrom.

When the decision is that the matter warrants patent activity on the part of the Institution, the inventor shall, at the request of the President or the Director, execute an assignment to the Institution and such other papers as are required for such patent applications, domestic or foreign, as the Institution determines to make. The Institution may retain counsel to make a search and to file appropriate papers or it may submit the matter to an organization qualified to evaluate and possibly license inventions. Either initially or after the evaluation, the Institution may enter into an agreement with such an organization for further handling of all matters including licensing. If the Institution decides to terminate this activity, it will so notify the inventor and, if requested and subject to any agreement with an outside organization, allow him/her to assume all responsibility and reacquire all rights, subject in appropriate cases to an agreement with respect to expenses and income.

In any case where the Institution directly or through an outside organization grants any license or other rights to the invention or any patent on the invention, any resulting income, after deduction of the Institution’s expenses, will be used to support further educational and research activities, as directed by the Board of Trustees. Current policy is that income resulting from the sale or licensing of Institution-owned intellectual property shall be distributed according to the following formula after deduction of any out-of-pocket expenses (legal fees, filing fees, etc.) and administrative overhead of 5% of gross income:

- 1/3 to the inventor(s),
- 1/3 to the Department, and
- 1/3 to the President’s Contingency Fund.\(^2\)

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\(^2\) License agreements entered before November 1, 2005, shall be governed by the previous allocation formula: 35% to the inventor, 50% to the Department, and 15% to the President’s contingency fund. Negotiation of any royalty provisions after November 1, 2005 shall be distributed on the basis of the new formula.
3. **Inventions from Government Research**

The Institution’s U.S. Government research agreements normally include a patent rights clause that: requires that a written agreement be obtained from each researcher to disclose to the Institution any invention conceived or first reduced to practice in the performance of work under the agreement and to execute any necessary patent papers; requires that the Institution disclose each such invention to the government agency within two months; permits the Institution to elect to retain title and file for patent, subject to the Government’s non-exclusive, non-transferable, irrevocable, royalty-free, worldwide license to practice or have practiced the invention; and, in the exceptional case when the Government elects to take title, allows the Institution to retain a non-exclusive, royalty-free, worldwide license unless the Institution failed to comply with its disclosure obligations. The form of Researcher Agreement that Institution researchers are required to sign is attached to this Policy Statement.

4. **Inventions from Industrially-Sponsored Research**

Each agreement with an industrial sponsor of Institution research shall reserve for the Institution title to any resulting invention and the right to decide whether and where to apply for patent coverage. The sponsor normally will be entitled to a non-exclusive license, paying royalties to the Institution on commercial uses. Where an exclusive license is determined to be the most effective way to develop the invention in the public interest, it is preferable that one of limited term be granted to the sponsor. The term and royalty rate of a license may be specified in the original agreement or negotiated on a case-by-case basis.

When the Institution elects not to pursue a patent, or to pursue patents in a limited number of countries, the sponsor may be given the right to apply. Provisions on invention disclosure to the sponsor and patent-filing must not require or permit more than minimum delays (typically 30-90 days) in publication of research results. Where sponsored research overlaps with government research, the invention provisions of the sponsored research agreement must be coordinated with those of the government research agreement.

5. **Inventions from Collaborative Research**

A collaborative research agreement typically shall contain provisions on inventions, patents, and licensing that give the Institution full title and maximum control. An agreement may, however, provide for sharing of title, patent decision-making, and royalty income with the collaborating organization. Or the agreement may establish a procedure for some or all of such matters to be handled on a case-by-case basis as inventions evolve and are disclosed. As in sponsored research agreements, a collaborative research agreement must not impose a delay of more than 30-90 days on publication of the results of the research and, where government funding is also involved, must be consistent with the obligations of the Institution and its staff members under the government research agreement.

Attachment: Researcher Agreement
CARNEGIE INSTITUTION OF WASHINGTON

RESEARCHER AGREEMENT

Carnegie Institution of Washington
c/o ______________________

Department

__________________________
Address of Department

__________________________
Attention: Director of Department

As a Researcher, as defined below, at, or on behalf of, the above Department of the Carnegie Institution of Washington (hereinafter “Institution”), I recognize that as a part of my duties, I may receive from other Institution Researchers or develop, on my own or with others, information which may provide the basis for obtaining patent protection or other form of protection that could be useful to the Institution. I also understand that premature publication of such information before steps have been taken towards obtaining such protection or determining whether or not to seek such protection, could jeopardize such protection that might otherwise be available. I further recognize that such information is the property of the Institution with benefits from such property shared between myself and the Institution according to the formula given in the Carnegie Institution of Washington Policy on Inventions and Patents. I agree to take no action which will jeopardize patenting or otherwise protecting such information by Institution or the Institution’s ownership thereof.

I understand the foregoing references to “information” extend only to prospectively patentable or otherwise protectable products, compositions, processes, apparatus and things disclosed to me and/or developed by me, as a result of my work as a Researcher for the Institution provided, however, that this does not include information (a) that was in the public domain or publicly known prior to the date of disclosure to me; (b) made available to me from another source independent of the Institution prior to the Institution’s disclosure to me, or (c) becomes part of the public domain or becomes publicly known by other than my own unauthorized act.

I also recognize that, unless otherwise agreed to in writing, the entire right, title and interest in and to all such patentable inventions and/or other intellectual property resulting from my work as a Researcher for the Institution shall be owned by the Institution with sharing of benefits as specified in CIW policy. I agree to make full disclosure of any such inventions and intellectual property to the Institution and I further agree to cooperate in all respects with the Institution in the completion, filing and prosecution of any and all patent applications as deemed necessary by the Institution, to protect all patentable inventions and to vest full and complete title to same in the Institution.

As a Researcher at or for the Institution, I expect to be performing work under grants awarded to the Institution or contracts entered into with the Institution by agencies of the United States Government. I understand that such grants and contracts normally include the Patent Rights Clause
set forth in Attachment A to Circular No. A-124 of the Office of Management and Budget (47 Fed. Reg. 7556, 7564-66, February 19, 1982), and that Paragraph c.(1) of the Patent Rights Clause requires the Institution to disclose to the granting or contracting Government agency any invention conceived or first actually reduced to practice in the performance of work under the grant or contract.

In order to enable the Institution to comply with the disclosure requirement of the Patent Rights Clause, as well as to exercise its rights with respect to inventions conceived or first actually reduced to practice in the performance of my work at and/or for the Institution in accordance with the Institution’s Inventions and Patent Policy effective January 7, 1985, as amended May 4, 1995, I hereby agree that if I am the inventor or co-inventor of any such invention, I will promptly disclose the invention, in the attached format, to the Director of the Department, or to whomever the Director designates as the person responsible for patent matters at the Department. I also agree to execute all papers necessary for the filing of any patent application on any such invention and for the establishment of the rights, if any, of the United States Government as well as the rights of the Institution in the invention and any such patent application. I understand the importance of reporting any such invention in sufficient time to permit the filing of patent applications before they might be barred under U.S. or foreign patent statutes.

I accept the definition of inventions and patents as set out in the Carnegie Institution of Washington Policy on Inventions and Patents and I also acknowledge that, as said Policy on Inventions and Patents provides, the above-mentioned procedures are to be followed for any invention conceived or first reduced to practice in the performance of work under a non-federal public agency or any private organization.

I understand that the term “Researcher” as used above means any staff member, associate, fellow, visiting investigator, student or other person engaged in the educational and research work of the Institution in a capacity other than clerical and non-technical. The term also extends to independent contractors who may be asked to do research work by or for Carnegie.

Date: ____________________________

Researcher
Carnegie Institution of Washington

Department

Disclosure of Invention

Date

Name of Inventor:

Co-Inventor (s) if any:

Was the Invention made (that is, conceived or first actually reduced to practice) in the performance of work under a grant or contract? If so, please identify.

1. Earliest date of invention

2. Nature of proof of date of Invention (number and page of notebook, etc.)

3. Date of first written description and/or drawings.

4. Invention first disclosed to
   on

5. Construction, practice, and/or operation of Invention first witnessed by
   on

6. Nature of Invention (that is, composition or product to be manufactured, process or method to be practiced, machine or system to be operated):

7. Purpose of Invention

8. Operation of Invention
9. Physical, chemical, biological, or electrical characteristics of Invention.

10. Has the Invention been described in any publications? If so, please give name of publication and date.

11. Has a manuscript describing the Invention been submitted for publication?
    If so, to whom?
    Has it been accepted for publications?
    If so, what is the expected date of publication?

12. Has the Invention been described at any seminar or other meeting? If so, please identify and give date(s).

13. Has the Invention or a product thereof been on sale in any respect?

14. Has there been any public use of the Invention?

15. Identity of any parties with prospective commercial or licensing interests.
MUTUAL NONDISCLOSURE AGREEMENT

Each undersigned party (the “Receiving Party”) understands that the other party (the “Disclosing Party”) has disclosed or may disclose information relating to the Disclosing Party’s business (including, without limitation, computer programs, technical drawings, algorithms, know-how, products, formulas, processes, ideas, inventions (whether patentable or not), schematics and other technical, business, financial, customer and product development plans, forecasts, strategies and information), which to the extent previously, presently, or subsequently disclosed to the Receiving Party is hereinafter referred to as “Proprietary Information” of the Disclosing Party. Notwithstanding the foregoing, nothing will be considered “Proprietary Information” of the Disclosing Party unless either (1) it is or was disclosed in tangible form and is marked “Confidential,” “Proprietary” or the like or (2) it is or was disclosed in non-tangible form, identified as confidential at the time of disclosure and summarized in tangible form marked “Confidential,” “Proprietary” or the like within 30 days of the original disclosure.

In consideration of the parties’ discussions and any access of the Receiving Party to Proprietary Information of the Disclosing Party, the Receiving Party hereby agrees as follows:

1. The Receiving Party agrees (i) to hold the Disclosing Party’s Proprietary Information in confidence and to take reasonable precautions to protect such Proprietary Information (including, without limitation, all precautions the Receiving Party employs with respect to its confidential materials), (ii) not to divulge any such Proprietary Information or any information derived therefrom to any third person, (iii) not to make any use whatsoever at any time of such Proprietary Information except to evaluate internally its relationship with the Disclosing Party, (iv) not to copy or reverse engineer any such Proprietary Information and (v) not to export or reexport (within the meaning of U.S. or other export control laws or regulations) any such Proprietary Information or product thereof. Without granting any right or license, the Disclosing Party agrees that the foregoing shall not apply to any information after five years following the disclosure thereof or any information that the Receiving Party can document (i) is or becomes (through no improper action or inaction by the Receiving Party or any affiliate, agent, consultant or employee) generally available to the public, or (ii) was in its possession or known by it without restriction prior to receipt from the Disclosing Party, or (iii) was rightfully disclosed to it by a third party without restriction, provided the Receiving Party complies with restrictions imposed thereon by third parties, or (iv) was independently developed without use of any Proprietary Information of the Disclosing Party by employees of the Receiving Party who have had no access to such information. The Receiving Party may make disclosures required by law or court order provided the Receiving Party uses diligent reasonable effort to limit disclosure and to obtain confidential treatment or a protective order and has allowed the Disclosing Party to participate in the proceeding. Moreover, during the term of this Agreement and for a period of one (1) year thereafter, neither party will, without the written consent of the other party, directly or on behalf of any individual, corporation, firm or other entity, solicit or encourage employees of the other party to leave the employ of such company for any reason.
2. Immediately upon a request by the Disclosing Party at any time the Receiving Party will turn over to the Disclosing Party all Proprietary Information of the Disclosing Party and all documents or media containing any such Proprietary Information and any and all copies or extracts thereof. The Receiving Party understands that nothing herein (i) requires the disclosure of any Proprietary Information of the Disclosing Party or (ii) requires the Disclosing Party to proceed with any transaction or relationship.

3. This Agreement applies only to disclosures made before the first anniversary of this Agreement. The Receiving Party acknowledges and agrees that due to the unique nature of the Disclosing Party’s Proprietary Information, there can be no adequate remedy at law for any breach of its obligations hereunder, which breach may result in irreparable harm to the Disclosing Party, and therefore, that upon any such breach or any threat thereof, the Disclosing Party shall be entitled to appropriate equitable relief, without the requirement of posting a bond, in addition to whatever remedies it might have at law. In the event that any provision of this Agreement shall be held by a court or other tribunal of competent jurisdiction to be illegal, invalid or unenforceable, such provision shall be limited or eliminated to the minimum extent necessary so that this Agreement shall otherwise remain in full force and effect. This Agreement shall be governed by the law of the District of Columbia without regard to the conflicts of law provisions thereof. This Agreement supersedes all prior discussions and writings and constitutes the entire agreement between the parties with respect to the subject matter hereof. The prevailing party in any action to enforce this Agreement shall be entitled to reasonable costs and attorneys’ fees. No waiver or modification of this Agreement will be binding upon a party unless made in writing and signed by a duly authorized representative of such party and no failure or delay in enforcing any right will be deemed a waiver.

Dated ______ , ______

COMPANY NAME

By ____________________________

CARNEGIE INSTITUTION OF WASHINGTON

By ____________________________
Dear Sir or Madame:

The Carnegie Institution of Washington (hereinafter referred to as "Carnegie") agrees to provide you the materials indicated below for your research studies. In order to protect Carnegie’s proprietary rights in the materials (or portion thereof), we request an authorized official of your institution to sign, date, and return this letter agreement to us.

MATERIAL IDENTIFICATION:

Acceptance of the materials by your institution confirms your agreement to the following conditions:

1. This agreement and the resulting transfer of the material constitute a nonexclusive license to use the materials for research only. The material will not be used in humans and will be stored, used, and disposed of in accordance with applicable law. This agreement is not assignable and the materials may not be transferred to another party.

2. Your institution agrees to provide us with the experimental results obtained from use of the materials. Carnegie will be free to use such information for its own research purposes.
3. CARNEGIE MAKES NO REPRESENTATIONS WHATSOEVER AS TO THE MATERIALS. THEY ARE EXPERIMENTAL IN NATURE AND ARE PROVIDED WITHOUT WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED. CARNEGIE MAKES NO REPRESENTATION OR WARRANTY THAT THE USE OF THE MATERIALS WILL NOT INFRINGE ANY PATENT OR OTHER PROPRIETARY RIGHT.

4. Your institution expressly agrees to indemnify, defend, and hold harmless The Carnegie Institution of Washington; its affiliated departments; and its trustees, officers, employees, students, and agents against all claims, demands, suits, or other actions arising, directly or indirectly, from your institution’s acceptance, use, and disposal of the materials and their progeny.

5. Information relating to this material, as provided by Carnegie, is considered to be confidential in nature. Accordingly, you agree not to provide this material, or the information relating thereto, to third parties without first obtaining Carnegie’s written consent. You further agree to provide Carnegie with a copy of any proposed publication relating to this material at least thirty days prior to submission for publication and you acknowledge that Carnegie may request the removal from the proposed publication of any information considered confidential by Carnegie. It is further agreed that any publication relating to the use of this material will acknowledge Carnegie as the source of the material.

6. Any unused material will be returned to the Carnegie Institution of Washington.

7. Carnegie makes no representations or warranties regarding recipient’s freedom to use this material with respect to third party patents. This is solely the responsibility of the recipient. Additionally, the receipt of this material from Carnegie does not represent an express or implied license to use the material under any current or future Carnegie patents or patent applications.

Please return the original of this letter to me signed and dated by your institution’s authorized official.

Sincerely,

Cynthia Allen  
Director of Administration and Finance

Date

By: ____________________________  
Signature of Investigator

Date: ____________________________

Institution: ____________________________

By: ____________________________

Name: ____________________________

Title: ____________________________

Date: ____________________________
Dear Dr.:

The Carnegie Institution of Washington (hereinafter referred to as "Carnegie") agrees to provide you the materials indicated below for your research studies for a fee of $______. In order to protect Carnegie's proprietary rights in the materials (or portions thereof), we request an authorized official of your company to sign, date, and return this letter agreement to us.

MATERIAL IDENTIFICATION: ______________________

Acceptance of the materials by your institution confirms your agreement to the following conditions:

1. This agreement and the resulting transfer of materials constitute a nonexclusive license to use the materials for research only. The materials will not be used in humans and will be stored, used, and disposed of in accordance with applicable law. This agreement is not assignable and the materials may not be transferred to another party.
2. Your company agrees to provide us with any publication describing the experimental results obtained from use of the materials. Carnegie will be free to use such information for its own research purposes. It is further agreed that any publication relating to the use of this material will acknowledge Carnegie as the source of the material.

3. CARNEGIE MAKES NO REPRESENTATIONS WHATSOEVER AS TO THE MATERIALS. THEY ARE EXPERIMENTAL IN NATURE AND ARE PROVIDED WITHOUT WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED. CARNEGIE MAKES NO REPRESENTATION OR WARRANTY THAT THE USE OF THE MATERIALS WILL NOT INFRINGE ANY PATENT OR OTHER PROPRIETARY RIGHT.

4. Your company expressly agrees to indemnify, defend, and hold harmless The Carnegie Institution of Washington; its affiliated departments; and its trustees, officers, employees, students, and agents against all claims, demands, suits, or other actions arising from your company’s acceptance, use, and disposal of the materials and their progeny.

5. Any unused material will be returned to the Carnegie Institution of Washington.

6. Carnegie makes no representations or warranties regarding recipient’s freedom to use this material with respect to third party patents. This is solely the responsibility of the recipient. Additionally, the receipt of this material from Carnegie does not represent an express or implied license to use the material under any current or future Carnegie patents or patent applications.

Please return the original of this letter to me signed and dated by your institution’s authorized official.

Sincerely,

Cynthia Allen
Director of Administration and Finance

Date

By:
Signature of Investigator

Date:

Company:

By:

Name:

Title:

Date:
Changes in U.S. Patent Law Based on America Invents Act

On September 16, 2011, President Obama signed into law the Leahy-Smith America Invents Act (AIA). The America Invents Act imposes the most sweeping changes to U.S. patent law in nearly 60 years. For example, it moves the U.S. from a "first to invent" to a "first inventor to file" system, provides new Post-Grant and Inter Partes review procedures, allows third party submissions of prior art during the examination of a patent application, prohibits use of the best mode requirement for invalidating a patent, expands the prior commercial use defense, replaces current interference proceedings with derivation proceedings and provides fee setting authority to the USPTO.

A brief summary of the most relevant changes to U.S. patent law under the America Invents Act is provided below.

First Inventor to File System

Under the AIA, U.S. patent law provides, effective March 16, 2013, that the first to file a U.S. patent application, rather than the first to invent (as before the AIA), may obtain a patent on an invention unless the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention. Importantly, there is a one year grace period for filing an application which is limited to the applicant’s own pre-filing activities. For example, a pre-filing publication is removed as prior art if the publication is directly or indirectly attributable to an inventor. However, the grace period does not apply with respect to publications by others independent of the inventor.

Collectively, the patentability changes are designed to simplify the tests for patentability and provide more transparent patentability standards. Viewed broadly, the AIA leaves only a 4-prong set of requirements for patentability:

- **Sufficient differentiation** from prior public disclosures and earlier patent filings of others.
- **Sufficient disclosure** to identify the claimed embodiments and to enable them to be put to a specific, practical and substantial use.
- **Sufficient definiteness** to clearly recite the claimed subject matter.
- **Sufficient concreteness** to avoid excessively conceptual or otherwise abstract subject matter.

Derivation Proceedings

In view of the change to a first inventor to file system, interference proceedings will be phased out and eventually abolished. A new proceeding addressing derived, or "stolen", inventions replaces interferences. Such derivation proceedings will be handled by the Patent Trial and Appeal Board.
Post-Grant Review and Inter Partes Review

The America Invents Act creates a new post grant opposition procedure that can be used up to nine months after issuance of a patent. Post-grant review permits a challenge on any ground related to the validity of a patent. Patents open to opposition must have a priority date on or after March 16, 2013. The review is conducted by the USPTO's Patent Trial and Appeal Board. Limited discovery is allowed. The proceedings must be completed within one year of institution, although the time for completing the proceedings can be extended up to six months for good cause. The USPTO fees are substantial: $35,800 plus $800 for each claim challenged beyond 20.

Another available way to challenge an issued patent is by requesting Inter Partes Review. Such Review came into effect on September 16, 2012 and effectively replaced Inter Partes Reexamination. Inter Partes Review can be conducted only on patents which have been issued for 9 months or more. The grounds for challenging the patent are limited to novelty and obviousness, and only patents and printed publications can be asserted by the third party challenger. The review is conducted by the USPTO's Patent Trial and Appeal Board. Limited discovery is allowed, and trials must be conducted within one year of institution, with an extension of up to six months for good cause. The cost in USPTO fees is $27,000 plus $600 for each claim beyond 20.

Supplemental Examination

Under this new provision, a patent owner is permitted to request additional examination of a patent by the USPTO so that the Office may consider, reconsider, or correct information believed to be relevant to the patent. Effective September 16, 2012, supplemental examination may be requested at any time during the period of enforceability of any patent owned by the patent owner, regardless of filing or issue date.

Congress created supplemental examination to address concerns that charges of inequitable conduct had become far too common in district court patent litigation. If certain conditions are met, a supplemental examination may be used by a patent owner to establish a "safe harbor" against potential charges of inequitable conduct based on conduct during prior examination relating to information later considered by the Office in the supplemental examination.

Third Party Pre-issuance Submission

The new patent rules allow third parties to file pertinent publications and a short statement of relevance in patent applications prior to issue. More specifically, a third party may file a third-party submission prior to the earlier of: 1) the date of a notice of allowance; or 2) the later of six months after the date on which the application is first published or the date of the examiner's initial action.

The rules, which became effective on September 16, 2012, and apply retroactively, require a list identifying the submitted documents and a concise description of the asserted relevance of each item. The USPTO suggests that the third party should submit a narrative description or a claim chart. The fee is $180 per ten documents.
**Prioritized Examination**

Depending on the nature of the invention, it is not unusual for 3-4 years to pass before the USPTO reaches an application for examination. For years, the USPTO has offered several options to expedite the patenting process. Prior to the America Invents Act, an applicant could accelerate examination for a number of reasons, including: the age (over 65 years of age) or health of the inventor; the invention would enhance the environment, conserve energy resources, or be used for counter terrorism; prospective manufacture; or an actual infringement.

Most applications, however, do not qualify for expedited examination for any of the above types of reasons. Nevertheless, acceleration could be requested on the basis of a search for prior art provided by the applicant. In such cases, the applicant also had to submit a detailed statement of patentability over the located prior art. The cost of this effort is considerable and places a substantial responsibility on the applicant and the applicant's representatives. As a result, few applicants took advantage of this procedure.

The America Invents Act has introduced a new technique for accelerating examination, called Prioritized Examination. As of September 16, 2011, an applicant may petition for prioritized examination by simply paying the PTO a fee of $2,400 (double, if the applicant is a large entity or licenses the technology to a large entity). The Carnegie Institution is a small entity.

Despite the apparently high PTO fee, the overall cost to file the petition is probably less than for the case where the applicant does the search. Moreover, with this approach, the applicant need not make any statement about prior art, which might negatively impact the scope or validity of the patent claims.

Several restrictions are imposed to take advantage of the Request for Prioritized Examination procedure. For example, the request must be submitted when the application is initially filed, and the application cannot have more than four independent claims and thirty total claims.

The USPTO's goal is to have a final disposition of the application within 12 months of the request for prioritized examination being granted.

**Changes to Patent Litigation**

Many of the changes in the area of patent litigation are not directly relevant to the day-to-day operations of the Carnegie Institution. However, the new law eliminates the best mode invalidity defense, amending the list of defenses to patent infringement to exclude “failure to disclose the best mode.” U.S. patent law continues to require that patentees comply with the best mode requirement, i.e., an applicant is required to disclose the best way known to the applicant to practice the invention; the new law simply prevents one accused of infringing a patent from mounting a defense based on the failure to disclose best mode.

**Fee Changes**

In the America Invents Act, Congress gives authority to the USPTO to set or adjust fees to recover costs associated with patent examination and validation. The USPTO has already
exercised its new authority, most notably in areas such as Post-Grant Review and Inter Partes Review.