The Hartwell Foundation seeks to inspire innovation and achievement by offering individual researchers an opportunity to realize their professional goals. We believe that philanthropy is a serious responsibility and that wealth appropriately used is an essential mechanism for improving the state of mankind. Through a unique and selective funding process, we provide financial support to stimulate discovery in early-stage biomedical research that we hope will benefit children. We want the research to make a difference.

1. APPLICATION PROCESS

INSTITUTIONAL NOMINATION

Each year The Hartwell Foundation announces its selection of the Top Ten Centers of Biomedical Research in the United States, inviting each center to participate in nominating individuals for a Hartwell Individual Biomedical Research Award. The Foundation requires four nominations from each research institution in an application process that seeks early-stage, innovative, and cutting-edge biomedical research that has not yet qualified for significant funding from outside sources and that should benefit children. From the list of submitted nominees, the Foundation selects ten investigators to receive a Hartwell Individual Biomedical Research Award, providing support for three years at $100,000 direct cost per year.

Research institutions that fully participate in The Hartwell Foundation nomination process receive a Hartwell Fellowship to fund one postdoctoral candidate of their choice that exemplifies the values of the Foundation. The Fellowship provides support for two years at $50,000 direct cost per year.

From time-to-time, the Foundation may select institutions at-large for limited participation in nominating individuals for a Hartwell Individual Biomedical Research Award.

PROGRAM QUALIFICATIONS AND INVESTIGATOR ELIGIBILITY

Institution. The Hartwell Foundation selects participating research institutions in a qualification process that takes into account the shared values the institution has with the Hartwell Foundation relating to children’s health, while also considering the presence of a medical school, biomedical engineering, and the quality and scope of ongoing research. The Foundation also takes into account the institutional commitment to provide technical support to the investigator, as well as to translational approaches that promote rapid clinical application of research results, including technology transfer. Selection of an institution in any given year does not guarantee selection in a subsequent year. The Hartwell Foundation requires each Top Ten selected research institution to hold an internal open competition to identify four nominees, based upon application requirements set forth by the Foundation.
Investigator. Only investigators nominated by a research institution selected by The Hartwell Foundation are eligible for consideration of a Hartwell Individual Biomedical Research Award. All candidates for the Award should be citizens of the United States, hold a full-time appointment in the sponsoring institution, and be eligible to serve as a principal investigator in biomedical research.

Award Evaluation Criteria

The Foundation will evaluate the submitted proposal of each nominee for a Hartwell Individual Biomedical Research Award by consideration of responses provided by the investigator to both non-technical and technical requests for information. As part of the evaluation process, the Foundation will interview nominees at their supporting institution, where each candidate will make a concise presentation (max 30 minutes) regarding their proposed research in the context of their professional goals. The Foundation will only consider funding those proposals that reflect relevance in terms of potential benefit to children.

Non-technical. Candidates for a Hartwell Individual Biomedical Research Award must submit a non-technical summary of the proposed research for a lay audience, which specifically addresses why the research is early-stage, innovative, and cutting-edge. Projects should represent early-stage biomedical research that has not yet qualified for significant outside funding, including those not yet submitted for funding consideration. The non-technical summary should identify key collaborations; productivity technologies that will be used in support of the research; and explain the approach that could be used to translate results to the patient, either currently or in the future. Candidates must also explain how the research could potentially benefit children.

As part of the evaluation criteria, the Foundation will look carefully for collaborations, technologies used, translational impacts, benefits to children, and how the pursuit of the research will make a difference.

If appropriate, the candidate should offer a description of the technology transfer process. Other non-technical requests for information include a detailed budget disclosing proposed expenditures, current and pending sources of funding, as well as the contemplated approach for follow-on funding at the expiration of the award.

Technical. All candidates for a Hartwell Individual Biomedical Research Award are required to submit a detailed technical proposal, which describes the significance of achieving the aim of the research. Proposals should include information regarding the innovation and the experimental approach or proposed research methodology, including relevant literature references. Proof of principle is desirable, but not a requirement. Nominees for an Individual Biomedical Research Award should make every effort to convey clearly their use of advanced technology. In addition, proposals must outline aims and objectives for pursuing the research effectively and responsibly, with a projected time-line of reasonable milestones. Candidates should anticipate a backup strategy for any unexpected technical or feasibility limitations in the research, including contingencies related to collaborations.

Timing

- April 15: Announcement of “The Hartwell Foundation 2010 Top Ten Centers of Biomedical Research” — a request will be sent to each selected institution to submit nominations for a Hartwell Individual Biomedical Research Award
- April 15 to October 31: Selected institutions hold internal competitions to select nominees for a Hartwell Individual Biomedical Research Award
- November 1: Due date for receipt of nominations and associated documentation for a Hartwell Individual Biomedical Research Award by all institutions, including identification of a designated recipient for a Hartwell Fellowship, as appropriate
November 5: The Hartwell Foundation will begin a series of visits to each participating institution to interview Nominees for the Hartwell Individual Biomedical Research Award — candidates will be expected to make a concise presentation about their proposed research (max 30 minutes) in the context of their professional goals — interviews will be complete by January 31, 2010

December 15: Announcement of Hartwell Fellowship awards, with funding complete in December

April 1, 2010: Announcement of Hartwell Individual Biomedical Research Awards, with funding complete by April 30

April 30, 2010: Due-date for receipt of Hartwell Individual Biomedical Research Award Annual Report — the year is from April 1 to March 31

**REQUIRED DOCUMENTS**

**Nominating Institution.** The Hartwell Foundation requires each Top Ten selected research institution to nominate four candidates for participation in the Hartwell Individual Biomedical Research Award competition. The Foundation provides an *Official Nomination* form that the institution must complete for each candidate. The nominee and the chief executive of the institution must sign each nomination. A complete nomination will include the Research Proposal and the Curriculum Vitae of each candidate.

As part of the nomination process the Foundation also requires all participating institutions to submit a cover letter that:

- Explains the internal selection process used by the institution in making their nominations and the number of candidates considered
- Describes how the institution intends to offer recognition to both individual researchers and The Hartwell Foundation following announcement of an award
- Designates an individual at the institution responsible for official contact by the Foundation

In addition, at the time of the above nomination, each Top Ten selected research institution must also identify an individual for the Hartwell Fellowship. The Foundation provides a *Designated Recipient* form for the institution to complete, which requires the signature of both the Hartwell Fellow and the chief executive of the institution. Complete documentation will include the Curriculum Vitae, contact information for the designated Fellow and a statement of citizenship.

Participating institutions must send all required documents to the Foundation as PDF files on a USB portable drive. The Foundation will notify each institution by email upon receipt of their nominations.

**Nominee.** Nominees for a Hartwell Individual Biomedical Research Award must submit a Research Proposal.

**Text Format:** 1-inch margins, single-column text, and only black, 12-point Times Roman font (bold or italic font may be used for emphasis); do not indent paragraphs; start each major Section (I-XI) on a new page, unless multiple sections can be completely self-contained on a single, separate page.

**Pagination:** ignoring the title page, number each page in the footer at the bottom center using regular 8-point Times Roman font — lowercase Roman numerals for pages prefatory to the body of the proposal (Contents and Section I) and Arabic numerals, as p. # of #, for the body of the proposal (the Non-Technical Summary must begin on page 1); number only the Appendix cover page.
Header: starting only with page 1, at the top right of each page, using regular, 8-point Times Roman font, place the applicant name and highest academic degree(s) on one line.

Title of Proposal: the title should be terse, stimulate interest, not be overly dramatic and preferably identify the proposed innovation; the title should not include a “study of” or “investigation of” or “analysis of” or “development of” and should not include any pronouns. Except for a summary colon, the title should be free of punctuation.

In-Text Abbreviations, Comments, References, and Citations: Define the first use of any abbreviation or acronym in parenthesis, and include details in Section I: Abbreviations, Acronyms, Technical Terms and Jargon. Comments, explanations, or additional information relating to specific passages in the text must be cited by deploying a numerical format in superscript font (i.e., (1), (2), (3), …), placing the numbered note in sequence at the bottom of the same page where the citation occurs. For reference works cited, use only a parenthetical numerical format in regular font (i.e., (1), (2), (3) …) and record each citation numerically in sequence of appearance in Section XI: References.

Research Proposal Outline: all points must be addressed explicitly and preferably in first person tense (avoid group-think). Adhere to the following form:

Title Page (do not number this page): use “Title Case” format, but do not capitalize adjectives, adverbs or conjunctions; avoid the use of descriptors in providing the name of Nominee and academic degrees, job title, primary or principal department affiliation, name of supporting institution, shipping address, contact phone numbers (office and mobile), email address and the submission date.

Contents (number this page i): table of page listings for sections I–XII.

I. Abbreviations, Acronyms, Technical Terms and Jargon: glossary of all obscure or unusual abbreviations, acronyms, technical terms or jargon used in the proposal in alphabetical order. Use this section to provide a detailed explanation or definition for the lay reader (i.e., not simply the words that indicate what each letter in an acronym refers). List sequentially, one item per line and provide extra line spacing between the terms for ease of reading (page numbering begins with ii).

II. Non-Technical Description of Research (must begin on page 1): 5-page limit
   A) Lay Summary of proposed research (250 words or less) — avoid jargon
   B) Explain how the research is
      1. early-stage
      2. innovative
      3. cutting-edge
   C) Explain how the proposed research is transformative or will address an unmet need, and discuss the likelihood of project success in terms of conceptual and/or technical risk
   D) Explain how the proposed research could potentially benefit children in the United States
   E) Describe the productivity technologies that will be used in support of the research, including the use of relevant core facilities provided by the institution
   F) Describe key collaborations (individuals other than the principal investigator and laboratory support personnel who provide assistance or guidance in achieving success, but do not take financial support): provide name and academic degrees, job title, department affiliation, name of institution, geographic location, and succinctly describe role in the proposed research.
G) Describe the process and timeline to translate research results to the patient, either currently or in the future

H) Explain how the pursuit of the research will make a difference

I) Explain how funding from The Hartwell Foundation will advance the professional goals of the Nominee

III. **Technical Description of Research**: (10-page limit)

A) Present a concise, technical description of the proposed research, including a detailed description of the current state-of-the-art

B) Outline the aims and objectives of the research

C) Outline the research design, including methods, scientific technologies, etc.

D) In a single chart (horizontal bar graph), propose a timeline for the aims and objectives of the research, indicating realistic milestones

E) Offer a backup strategy for any technical or feasibility limitation that might be potentially encountered in the research, including possible contingencies related to collaborations

IV. **Budget**

A) Describe proposed use of funds for each year of funding arranged in a single table, with four columns (NIH/NSF budget forms are unacceptable):
   1. Category
   2. Year 1
   3. Year 2
   4. Year 3

   Columns should consist of category line item description-expenses; the total expense for each year must equal $100,000; all personnel must be identified by name (if available at the time of application) and job title; do not include travel expenses to attend a Hartwell Annual Meeting

B) Offer a succinct justification (not simply an explanation or description) for each budgeted line item, but in particular:
   1. Explain the necessity for using any portion of requested funds for identified personnel — percentage effort is not a justification
   2. Justify purchase of any equipment by explaining how it would make a difference in facilitating the proposed research and why no other options are available

C) Provide a detailed breakdown of any personnel “fringe” expenses

D) Justify requirements for any student education expense or tuition reimbursement (if citing institutional requirements, provide the policy statement verbatim in section XII. Appendix)

E) Explain whether funding provided by The Hartwell Foundation will be sufficient to support the research

V. **Existing and Pending Sources of Research Funding Available to the Nominee**: provide funding source (including start-up funds); funded project title and identification number (as appropriate); role of Nominee, including percentage effort; amount of funding received by Nominee (direct cost); and funding initiation and expiration dates
VI. Intellectual Property
   A) Outline a plan for protecting any discovery or proprietary project outcomes
   B) Describe any patent(s) received or application(s) filed regarding the research, including reference number(s); do not include the actual patents.
   C) Provide current status of any intellectual property disclosures

VII. Research Outcomes and Vision of Project Success
   A) Define succinctly what will constitute project success
   B) Describe contemplated timing for translation of research results to potential clinical applications (e.g., clinical trial strategy, clinical intervention, clinical therapy, knowledgebase, product development)
   C) If appropriate, outline a plan for technology transfer and commercialization
   D) Describe the approach that will be used to share research results with others

VIII. Key Laboratory Support Personnel
   A) Identify key laboratory personnel other than the principal investigator or collaborators who will be involved in the research: provide name and academic degrees, job title, departmental affiliation, qualifications, including both current and contemplated sources of financial support (do not submit CVs)
   B) For personnel unidentified at the time of application submission: describe desired qualifications, all source(s) of anticipated financial support and expected start date

IX. Collaborators
   A) For each collaborator: provide name and academic degrees, job title, department affiliation, institution, location, contact phone number(s) and email address, including their source(s) of anticipated financial support (do not submit CVs)
   B) Identify whether or not associated travel is required to support the collaboration and if applicable, how travel expenses will be managed

X. Follow-on Funding: describe the contemplated approach that will be taken to attract additional funding at the expiration of the Hartwell award.

XI. References: list authors and titles for each citation; highlight the name of the Hartwell Nominee, named Support Personnel or Collaborator in bold; for publications with an excessively long list of authors it is acceptable to use et al, but only after the Nominee, supporting personnel or collaborator(s) as coauthor(s) have been properly highlighted.

XII. Appendix: cover page, providing a table listing the contents for all supporting documentation, related letters of collaboration, institutional policies, etc. Do not include entire publications or entire patents.
II. ADMINISTRATIVE GUIDELINES

The Hartwell Foundation expects that research institutions selected to participate in the Hartwell Individual Biomedical Research Award competition will adhere to the following requirements:

ACCOUNTABILITY
The Foundation requires accountability from the supporting institution regarding both the nomination process and the use of funds provided to individual investigators. All qualified investigators at selected institutions should have the opportunity to apply for a Hartwell Individual Biomedical Research Award. Individuals who receive a Hartwell Individual Biomedical Research Award must demonstrate that they utilize award funds efficiently and responsibly. Supporting research institutions are responsible for maintaining adequate records and receipts of expenditures that demonstrate they properly administer Award funds.

BUDGET
The recipient of a Hartwell Individual Biomedical Research Award may determine best use of the funds to support the direct cost of the project, including but not limited to salaries, supplies, equipment, personnel, cost of animal experimentation, human clinical trials, collaboration, or travel related to the conduct of research. Expenditures should be consistent with the budget submitted in the award application for direct cost of the research.

CARRYOVERS AND EXTENSIONS
Unexpended funds from one award year may move forward to the next award year without permission of the Foundation, providing the funds support the direct cost of the project and are consistent with the budget submitted in the award application. In the event of unexpended funds, the investigator must communicate the explanation in the annual report.

CO-INVESTIGATORS, COLLABORATORS AND CONSULTANTS
Collaboration may include a co-investigator in the research or a consultant to the project. In any case, award funds must only support the direct costs of research guided by the principal investigator and be consistent with the budget submitted in the award application.

CONTINUATION OF FUNDING IN 2ND AND 3RD YEARS
The Hartwell Foundation recognizes the possibility that unexpected technical or feasibility limitations, including those involving collaboration, may occur in the course of research that necessitate the modification of original aims and objectives. Nonetheless, the Foundation expects each recipient of a Hartwell Individual Biomedical Research Award to demonstrate progress toward projected milestones described in the proposal. Progress is evaluated in quarterly reviews and the annual report. The Foundation reserves the right to withdraw future funding if the investigator does not demonstrate progress. Withdrawal of funding will not occur without advance notice to the investigator.

CRITIQUE OF PROPOSAL APPLICATION
The Hartwell Foundation will not provide written or verbal critiques of any application or accompanying proposal documentation.
ETHICS
The Hartwell Foundation expects all awardees to adhere to the highest standards of research ethics. Concerns regarding violations in ethical conduct of research may lead to notification of institutional officers, up to and including possible revocation of funding by the Foundation.

FINANCE
It is the intent of The Hartwell Foundation that the Individual Biomedical Research Award shall be only for the direct support of research described in the application. The Hartwell Foundation will not deploy future year funds to cover over-expenditures in any budget year. The supporting institution and the recipient of a Hartwell Individual Biomedical Research Award agree to submit financial reports to the Foundation as part of the Annual Report. Financial reports must detail expenditures by category and compare expenses to plan.

FINANCIAL BENEFIT
The Hartwell Foundation provides financial support for biomedical research that will benefit children and it is not the intent of the Foundation to enrich itself by the funding of such research. However, if the supporting institution receives financial benefit as a result of a Hartwell Individual Biomedical Research Award, The Hartwell Foundation expects to receive 5% of the share due the institution as a contribution in further support of the Foundation’s mission. The Foundation waives any ownership rights in any intellectual property.

FUNDABLE PROJECTS – INDIVIDUAL BIOMEDICAL RESEARCH AWARD
Participating institutions agree to utilize an effective means to call for proposals from appropriate areas of basic and applied life sciences, principally limited to medicine and biomedical engineering, and consistent with the values of The Hartwell Foundation. Proposals should reflect relevance in terms of potential benefits to children. The Foundation will only consider proposals in biomedical research. The Foundation will not consider for example, research in social science, psychology, ecology, environmental impacts, anthropology, or botany.

HARTWELL FELLOWSHIP
Research institutions that fully participate in The Hartwell Foundation nomination process will receive a Hartwell Fellowship for two years at $50,000 direct cost per year to fund one postdoctoral candidate of their choice in areas of biomedical science, consistent with Fundable Projects as described for the Individual Biomedical Research Award. It is the intent of The Hartwell Foundation to support scientists in the early stages of biomedical research careers by enabling them to pursue further specialized training as part of their career development.

The following rules apply to the Hartwell Fellowship:
- Hartwell Fellows must be citizens of the United States
- Funds may be used for salary, health insurance, or travel related to a scientific meeting, but not for the purchase of supplies or equipment or other fringe benefits
- No part of the Fellowship may cover institutional overhead or other indirect costs, nor should the recipient or the sponsoring research laboratory be obligated or penalized to pay by substitution such indirect costs by any other means
- At the conclusion of funding, the Hartwell Fellow should submit a summary of the impact that the award had on their career goals
HARTWELL FOUNDATION ANNUAL MEETING

All recipients of the Individual Biomedical Research Award agree to attend an annual meeting each year in lieu of a formal second Quarterly Review, with expenses paid by the Foundation. The 2010 Annual Meeting will be September 26-29, in Ithaca, NY.

HARTWELL INDIVIDUAL BIOMEDICAL RESEARCH AWARD

Only investigators nominated by the head of an invited research institution are eligible for consideration for the Hartwell Individual Biomedical Research Award. Each Award is for three years at $100,000 direct cost per year.

The following rules apply to the Individual Biomedical Research Award:

- The recipient should be a citizen of the United States, must hold a full-time appointment in the sponsoring institution, and must be eligible to serve as a principal investigator in biomedical research.
- The recipient may determine best use of the funds to support the direct cost of the project.
- No part of the Award may cover institutional overhead or other indirect costs, nor should the recipient be obligated or penalized to pay by substitution such indirect costs by any other means.
- The recipient agrees to Quarterly Reviews with the Foundation regarding progress toward goals and objectives, as well as the submission of a written Annual Report that summarizes the research and expenses to budget.

INSTITUTIONAL OVERHEAD AND INDIRECT COSTS

By accepting The Hartwell Individual Biomedical Research Award or a Hartwell Fellowship, the supporting institution agrees not to take any part of the funding for institutional overhead or other indirect costs, and will not obligate or penalize the recipient of an award or a sponsoring research laboratory to pay by substitution such indirect costs by any other means. With the exception of health insurance, no portion of an award may be subject to deductions for discretionary fringe benefits by the Sponsoring Institution.

INTERVIEW OF NOMINEES

The Hartwell Foundation will interview all the nominees from each eligible institution on one day, on site at the institution. The Foundation will determine an agreeable interview date for each institution in November, prior to the close of internal competitions. Interviews are open only to the nominee and will last 60 minutes. Nominees will make a concise presentation about their proposed research in the context of their professional goals (max 30 minutes), followed by Q&A. Nominees who fail to complete the interview will be ineligible for consideration of an Investigator award, risking the loss of full participation of the institution in the Hartwell process.

MATERIAL CHANGE OF CIRCUMSTANCES

In the event of any material or significant change of circumstances regarding the status of an individual investigator or a supporting research institution, the Foundation at its sole discretion reserves the right and final authority to determine the disposition of the Hartwell Individual Biomedical Research Award and any remaining funds.
**NOMINATION PROCESS**

Research institutions selected by The Hartwell Foundation agree to nominate the best research proposals from their faculty and research staff in an open and competitive application process of their own design that meets all of the requirements of the Foundation. Eligible institutions may not nominate the same individual in two consecutive annual competitions.

**PROGRESS REPORTS**

The Foundation reserves the right to withdraw funding if the investigator does not demonstrate progress toward identified milestones, as evidenced in periodic reports or site visits.

**Quarterly Reviews.** All recipients of a Hartwell Individual Biomedical Research Award agree to quarterly reviews with the Foundation regarding research progress toward goals and objectives. Progress should follow realistic milestones as suggested in the original Research Proposal, modified as necessary to account for any encountered limitations. The Foundation may request the investigator to provide the review during a site visit or in a videoconference. The Quarterly Review will take place in the first month following the end of each quarter — the year is from April 1 to March 31.

**Annual Report.** By April 30 of each year of funding, recipients of a Hartwell Individual Biomedical Research Award agree to submit an annual progress report (5-page limit, submitted as a PDF by email) that contains:

- A concise non-technical summary of progress versus plan
- A technical description of advances made in the research versus plan
- Steps taken to reach original project goals, including any divergence from the research plan or consideration of contemplated alternatives
- An analysis of expenditures versus the budget, noting any significant category changes, additions, deletions, carryovers, or extensions
- Mention any discovery or IP, including announcement of any patent(s) filed

**SITE VISITS**

Recipients of a Hartwell Individual Biomedical Research Award agree to participate in occasional site reviews, as mutually convenient.

**VIDEO CONFERENCE**

Recipients of a Hartwell Individual Biomedical Research Award agree to use videoconference methodology for periodic communications with the Foundation and other recipients. The Foundation will make available appropriate videoconferencing equipment to each recipient within two months of funding the Award. Sponsoring institutions agree to provide the recipient of a Hartwell Individual Biomedical Research Award with necessary bandwidth connections to enable effective videoconferencing and to notify the Foundation when they are prepared to accept the equipment. The recipient and the sponsoring institution both agree to have videoconferencing installed and operational within one month following receipt of the equipment.

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