Broad Agency Annoucement No. N01DA-BAA-5-7753
Neuroscience Information Framework

Issued by:
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PROPOSAL DUE DATE: May 12, 2005, 3:00 P.M. (local time)

Ladies and Gentlemen:

The National Institute on Drug Abuse invites you to submit a proposal in accordance with the requirements of this BROAD AGENCY ANNOUNCEMENT (BAA) solicitation N01DA-BAA-5-7753 entitled "Neuroscience Information Framework." Federal Acquisition Regulation (FAR) 6.102 and FAR 35.016, as well as the NIH Manual Issuance 6035, Broad Agency Announcements, authorizes the use of Broad Agency Announcement. A BAA is a general announcement of an agency's research interest. The intent of a BAA is to encourage the submission of creative and innovative approaches to specific research areas identified by the Government.

A proposal submitted in response to this BAA must present a detailed technical and cost proposal designed to meet the Research and Technical Objectives described in this announcement. An official authorized to contractually commit your organization must sign the proposal.

The Statement of Work, including the specific work requirements and performance specifications, is developed and defined by the Offeror, not the Government. The Statement of Work may not exceed ten (10) single spaced pages in length within the technical proposal.

We will NOT evaluate proposals against a specific Government need, as in the case of a conventional Request for Proposal (RFP), as offerors do not submit proposals in accordance with a common Statement of Work issued by the Government. Instead, we provide Research and Technical Objectives in the BAA RFP that describes the research areas in which we are interested. A Scientific Review Group (SRG) will evaluate the proposals received as a result of the BAA in accordance with the Evaluation Criteria specified in the BAA RFP.

We will not use an otherwise customary Source Selection process under the BAA process. We will rank all the competing proposals on the basis of their respective relevance and scientific merit. The scores assigned by the SRG are considered the final scores. The Contracting Officer will establish an Order of Merit Ranking in lieu of a Competitive Range.

We will conduct negotiations with offerors selected from the Order of Merit Ranking based on their scientific merit and those specific considerations set forth in this solicitation under item 1. of Section M, Evaluation Factors for Award. During negotiations, there is an opportunity to refine the proposed Statement of Work, as appropriate. At the conclusion of negotiations with the Offerors selected from the Order of Merit Ranking, we will allow those Offerors the opportunity to submit a Final Proposal Revision (FPR), to address weaknesses in the proposal and questions identified by the SRG.

It is anticipated that we will award one cost reimbursement completion type contract from this announcement. The length of time for which funding is requested should be consistent with the nature and complexity of the proposed research. The maximum period of performance is 15 months for the base contract period with an option for a 12-month period. We expect to award the contract on or about September 19, 2005. The NIDA estimates the average total annual cost (direct and indirect cost combined) for the contract will not exceed $400,000 for the base period and $1,000,000 for the option period.

We will tailor the award document to the final negotiations with the selected Offeror. It will reflect appropriate terms for the type of contractor organization, cost and/or fee arrangements, and other elements as negotiated prior to award.

This RFP does not commit the Government to pay the costs for you to prepare and send a proposal. The Contracting Officer is the only individual who legally can commit the Government to the expenditure of public funds on any resulting contract.

Sincerely,

/s/

Nancy A. Hurd, Contracting Officer
Contracts Management Branch, OPRM
National Institute on Drug Abuse, NIH

Background:

In 2004, the NIH launched its RoadMap Initiative, which provides a framework for priorities the NIH must address in order to optimize its entire research portfolio, laying out a vision of a more efficient and productive system of medical research. It identified the most compelling opportunities in three main areas: New Pathways to Discovery, Research Teams of the Future, and Re-engineering the Clinical Enterprise.

Consonant with the spirit and framework of the RoadMap, in October 2004, fifteen NIH Institutes and Centers[1] that support research on the nervous system announced an NIH Blueprint for Neuroscience Research (http://neuroscienceblueprint.nih.gov/). The Blueprint is a framework to enhance cooperative activities among participating Institutes and Centers. Just as the NIH Roadmap addresses the roadblocks that hamper progress across all of medical science, the Blueprint intends to take on challenges in neuroscience that are best met collectively. Its ultimate goal is to accelerate neuroscience research to reduce the burden of nervous system disorders and maintain a healthy nervous system throughout life.

Needs:

Critical to enhancing cooperative activities in the neurosciences is **the need for a framework for identifying, locating, relating, accessing, integrating, and analyzing information from the neuroscience research enterprise: information about its research activities, the data and scientific reports resulting from its activities, and the research resources and analytical tools accelerating its progress.**

Research activities: In fiscal year 2004, the NIH invested more than $4.5 billion in research on the healthy and diseased nervous system. At the same time, other U.S. and international government entities, philanthropic organizations, and private endeavors supported the research enterprise. The research activities span broad domains of study conducted by individuals from many disciplines who often remain unaware of related activities because of the organizational structure of scientific and engineering communities, research organizations, and the published literature which do not foster interdisciplinary communication or resource sharing.

Data: Progress in neuroscience depends on understanding diverse research methodologies, data types and metrics. Investigations can range from studying biological systems at cellular and molecular levels of resolution, to the behavior of whole organisms. Neuroscience research can be global in nature, such as conducting protein interaction screens, or highly specific, such as investigating the molecular structures of receptors, channels and other proteins. One of the biggest challenges facing neuroscience lies in implementing multi-scale modeling. For example, how might phenotypic and behavioral data be related to functional biological units, such as anatomical regions, cell types, and subcellular components?

Today, it is a truism that biomedical research is yielding enormous amounts of data and concomitant increases in the number of databases, most of which unfortunately lack interoperability. **A decade of outstanding work spurred by the Human Brain Project has advanced neuroinformatics. Indeed, the Neuroscience Database Gateway (NDG) recently developed by the Society of Neuroscience has**

[1] National Center for Complementary and Alternative Medicine (**NCCAM**), National Center for Research Resource (**NCRR**), National Eye Institute (**NEI**), National Institute on Aging (**NIA**), National Institute on Alcohol Abuse and Alcoholism (**NIAAA**), National Institute of Biomedical Imaging and Bioengineering (**NIBIB**), National Institute of Child Health & Human Development (**NICHD**), National Institute on Drug Abuse (**NIDA**), National Institute on Deafness and Other Communication Disorders (**NIDCD**), National Institute of Dental and Craniofacial Research (**NIDCR**), National Institute of General Medical Sciences (**NIGMS**), National Institute of Environment Health Sciences (**NIEHS**),National Institute of Mental Health (**NIMH**), National Institute of Neurological Disorders and Stroke (**NINDS**), National Institute of Nursing Research (**NINR**)

identified 90 databases and tools, with additional resources under consideration. Ironically, a small survey of the Society with respect to this Gateway indicated that 92% (of 84 respondents) stated that they were previously aware of fewer than ten databases currently listed on the NDG. This fact alone, combined with the reliance of neuroscientists upon data sources serving multiple research and disciplinary domains beyond neuroscience point to an overwhelming need to continue the development of an information framework for identifying, locating, and characterizing information resources important to neuroscience research. This framework is needed to better inform the research community of data available for generating and testing new hypotheses, performing analyses, modeling, or conducting other quantitative studies. More importantly, it is an important first step towards evaluating interoperability needs among critical components, and for stimulating services for locating, analyzing and using information, spanning multiple biological scales.

Resources and Tools: Advancement of neuroscience research depends upon the availability of a broad array of analytical technologies and services, biological and chemical reagents, and computational tools. These may include genetic constructs, model organisms, antibodies, image libraries, phenotypic assays, cognitive evaluations, software tools, microarrays, and special services, such as mass spectrometric analyses. As neuroscience research, with its many subdisciplines, becomes more integrative, a framework is needed to inform all neuroscientists of the diverse resources and tools available. Today, for example, bench scientists seek data management and analysis tools from their colleagues who work in informatics and computation; neurogeneticists seek knowledge of phenotypic assays from their colleagues who study behavior; and cognitive neuroscientists seek new and better ligands for brain imaging from their colleagues who know brain chemistry. A neuroscience information framework is essential for assessing the resource needs of the neuroscience research community, so that new areas of research may be expeditiously opened to the broader research community. An information framework also is critical to identifying and tracking data and resource provenance, an often neglected, but critical aspect of data integration and analysis across the multiple scales of neuroscience research. For example, proper use and understanding of data require ability to distinguish primary from derived data, to relate data types through ontologies, and to track objects unambiguously through the use of object identifiers.

Current Environment

As noted, information about research activities, data, and resources and tools exist in many venues and formats. Some information is scattered about the internet as lists of URL's pointing to experimental databases, software tools, and scientific literature. Other information is available through web sites and web portals maintained by government agencies, professional societies, journals, private organizations and user communities. Still other information is available through databases, such as the NIH CRISP resource (which offers information about funded grants), or through sophisticated web services, such as the NCBI's Entrez cross-database search page. Because content often focuses on limited biological objects such as genes or proteins, it is unidimensional in biological scale. In those cases, where information is linked and integrated, the underpinning thus often is linear, relating to genetic sequence.

Increasingly it is becoming apparent, that neuroscience information needs to be organized, accessed and integrated across multiple scales representing molecular, subcellular, cellular, circuit, anatomical, and behavioral functions. Indeed, the importance of organizing information more functionally, beyond the linear information of gene sequence was emphasized at the first NIH Symposium on Digital Biology, at the Laguna Beach meeting on Brain Molecular Neuroanatomy, and at the NIDA workshop on the Hypothalamus. To offer just a single example, an understanding of the role of nicotinic acetylcholine receptors in the nervous system, involves not only knowing the sequence of the receptor genes, but the consequence and control of their expression in different cell types and anatomical locations, in healthy and diseased states.

Despite the diffuse nature of the current information explosion, many encouraging developments indicate that the technologies and environment are in place for developing a more unified neuroscience information framework. A few of these are the following:

- Several projects are attempting to exploit grid technologies for biomedical research, including applications of web services;

- **Interest and activity in developing ontologies and tools for Neuroscience continue to mount;**

- **Tools for the composition and enactment of analytical bioinformatics workflows are emerging;**

- New search engines continue to emerge, and tools for clustering and filtering search results, as well as profiling text according to concept entities are emerging which may facilitate characterizing and exploring information in new ways;

- **Interest in a Semantic Web for the Life Sciences is mounting;**

- Efforts continue to define new paradigms for respecting intellectual property issues while stimulating open access and open source; elsewhere, groups are supporting the development of a variety of standards from those for interoperability on the web, to the minimal data sets for certain types of experiments.

RESEARCH AND TECHNICAL OBJECTIVES

This section presents the technical objectives that the Government seeks to achieve through this BAA. Proposals should explain how the Offeror will contribute to these overall objectives. In the contract awarded as a result of this BAA, the Statement of Work will be the Statement of Work proposed by the Offeror and negotiated and accepted by the Government.

When preparing proposals in response to this BAA, offerors must review the "Technical Proposal Instructions for Broad Agency Announcements" included in this document for additional information.

The goal of this BAA is to develop an inventory of information and other resources within a neuroscience information framework that enables neuroscientists to identify those resources most relevant to their particular queries and research needs. The framework should enable concept based queries (spanning multiple levels of biological organization and function) within and across the diverse types of information constituting the inventory. The inventory within its framework is meant to be more than a "database of databases". The framework should use innovative technologies and approaches for guiding, formulating, and performing queries, and providing rapid, informative, and clear responses. The basic neuroscience information framework developed under this announcement also should be sufficiently flexible that it could be scaled and extended in the future to offer additional functionalities supporting a greater information base.

Completion of the technical objectives of this BAA will proceed in two phases. **Phase I** will include Technical Objectives 1, 2, and 3. The first two objectives involve development and characterization of the inventory (including annotations, descriptors, metadata and other information related to the inventory and each of its entities). The third objective involves preparation of a white paper. The white paper will analyze the inventory, and propose a query based framework based on use case studies conducted by the offeror, and the inventory analysis.

Phase II is Technical Objective 4 to proceed with development and deployment of the framework enabling concept based queries. Phase II is an option.

The products from the first three Technical Objectives of this BAA should be more than a list and cursory analysis. They should be a full characterization and analysis of existing resources, and recommendations for an ingenious, multi-faceted, highly usable framework, which enables facile navigation and customized queries to identify relevant information and resources among a complex array of literature, text, images, and existing web portals, services, and resources. Offerors will be expected to consider how multiple, innovative technologies and approaches, as well as more mature tools may be brought together for achieving the technical objectives. In proposing a framework in the third technical objective, offerors will be expected to address how the inventory might be easily maintained, as well as used.

Note to Offerors:

(1) Expertise familiar with the many domains of neuroscience, information technologies, and knowledge management will be required. Potential offerors must demonstrate an ability to rapidly assemble a unique team representing a diverse array of skills and expertise. For example, for Phase I, offerors should consider identifying consultants, collaborators and partners representing many diverse communities of neuroscientists and experts in the organization and characterization of information. Illustrative communities of neuroscientists may include (but are not limited to) those studying the developing and aging brain, sensory systems, behavior, cognition, emotion, learning and memory, anatomy, neurogenetics, and the spectrum nervous system disorders, ranging from those related to trauma, infection, degeneration, and development, to those involving complex interactions with the environment and other biological systems, such as neuro-immune interactions. Experts relevant to Phase II may include highly creative individuals extremely adept at creating well designed, graphical, dynamic, multi-dimensional systems for visually interacting with information, as well as those knowledgeable about electronic publishing, web portal administration, grid architectures, and other areas necessary to an offeror's proposal. Evidence of the offeror's ability to obtain cooperation from the neuroscience research community and those providing existing, available tools, resources, and databases relevant to neuroscience research should be clearly demonstrated and documented.

(2) Disclosures of any and all patents and copyrights or patent and copyright applications relevant to offerors proposals filed in or outside the U.S. by the Offerors and/or listed personnel or collaborators must be made at the time of proposal submission and updated in progress reports. Individual and institutional intellectual property rights and rights to inventorship under United States patent law will not be affected by participation in this BAA. The involvement of the NIH in the performance of this contract will not affect ownership rights of the participating parties beyond U.S. Government rights under any funding agreement as specific under 35 U.S.C. #202.

The Offeror may not administer its patent rights in a manner that will conflict with the central goal of this BAA, which is to make a neuroscience information framework widely available to the research community.

All licensing agreements entered into by the Contractor and required for completion of the research listed in this BAA and proposed by the Contractor in their Statement of Work, as well as any licenses required for or for utilization of the deliverables shall be transferable to the Government

Objective 1: Identification of Inventory Entities

The NIH Neuroscience Blueprint Institutes and Centers needs a broad inventory identifying publicly available national and international research activities, tools, experimental resources, and databases relevant to the neuroscience research community. The inventory should identify entities related to multiple categories of information including:

(1) research activities relevant to neuroscience research;
(2) **research resources and computational tools applicable to neuroscience research**; and
(3) **experimental and literature databases relevant to neuroscience research**.

The inventory should be sufficient in scope to support a range of concept based queries spanning brain and behavioral science. It should encompass entities applicable to multiple levels of neurobiological functions and relationships among those functions including:

- molecular function
- subcellular function
- cellular function
- circuit function
- central and peripheral anatomic function
- behavior

The inventory also should be optimal in size and content based on the information categories and nature of their entities. In some cases a comprehensive listing of entities in a category may be optimal. For example, to profile a research enterprise accurately, it may be necessary to incorporate all entities included in that enterprise. In other cases, the marginal value of identifying additional entities becomes negligible, and in some cases, even negative. For example, inclusion of databases that are neither well-described, nor updated may provide little value to the broad community, and indeed may exacerbate the incorrect use of data or perpetuate the use of poor data. Inclusion of apparently redundant entities should be clarified to avoid confusion or incorrect analyses. In some cases, potentially valuable entities for an inventory may not exist per se, (such as a particular catalog of certain publicly available reagents or other resources), but use of existing or emerging technologies may enable them to be identified or derived readily from a collection of unstructured data. Offerors may wish to include strategies for developing and maintaining such derived entities in an inventory in this technical objective.

Objective 2: Characterization of inventory and its entities

For an inventory to be functionally useful and identifiable, the inventory and its entities must be characterized through ontological or semantic relationships. This characterization is needed to implement a query-based system, and to enable users to identify and develop their own rational workflows for accessing and using the entities, and for identifying clusters of related or complementary entities. The second technical objective is to characterize the inventory as a whole, and each of its entities.

The contemplated inventory will be large in scope and should describe priorities and strategies for characterizing individual inventory entities. The proposed strategy should be sufficient in scope and nature to fully represent and proportionately model all information categories across all scales of neurobiological function. Strategies should include the ability to expand as new resources become available.

Note to Offerors: Organize the inventory and related characterizations in a format and structure which enables them to be readily utilized in electronic format as the resource base for development and deployment of the framework proposed in Technical Objective 3.

Objective 3: White Paper

To evaluate the inventory, and to develop an appropriate framework for enabling concept-based queries to identify resources relevant to neuroscience and behavioral research, a white paper is needed which contains the following:

- A description, assessment, and analysis of existing practices among the inventory entities;
- Identification of technical and user requirements based upon the development of model use cases;
- Solutions and problems for an appropriate architecture for enabling concept based queries including:

•An analysis of the overall inventory and of its individual entities based upon the characterizations developed in Technical Objective 2, and other criteria developed by the offeror. Such an analysis should include (but not be limited to) a discussion of natural classes or groupings of inventory entities, based on content, data structure, ontologies, or other organizing principles; the extent to which laboratory data in the neurosciences is currently captured using ontologies; existing processes for modifying and extending ontologies relevant to the neurosciences; the frequency with which the inventory (or aspects of it) should be updated; redundancies and gaps in resources; possible strategies and tools available for discovering, identifying, or deriving new inventory entities and their descriptors; updating the inventory; and other topics identified by the offeror as relevant to inventory evaluation;

•An assessment of overall usability of the inventory and interoperability among its entities, based upon technical and user requirements developed through the model use cases; and the analyses described above. This assessment should identify those inventory entities most compatible to federation or acquisition through web services or other technologies, for future development of the framework, and discuss other considerations identified by the Offeror as relevant to framework development.

• Identification of solutions and risks for implementing a framework that enables concept based queries of the inventory across multiple levels of neuroscience and behavioral research for the purposes of ascertaining and accessing the most relevant resources in the inventory, and which allows expanding the framework and the functional relationships among entity members. The contract will require that solutions be implemented in a wide range of software environments enabling use on multiple platforms; use best practices and methodologies; comply with relevant government laws, regulations, and policies; take into account security issues and comply with government requirements regarding security; and be designed and tested to assure that the framework does not adversely impact other systems.

In proposing solutions and risks, offerors also should take into account the following four basic principles which will need to be satisfied for a fully functional information framework.

1. The inventory should be dynamic - The inventory also should identify promising new resources and tools to the research community, and it should identify data sources with current annotations and other updates. The framework should be able to capture a time series snapshot of research activities which enable profiling the nature of the research enterprise (e.g., research grants, publications, resources and tools), assessing the relationships and influences of research activities upon each other, and the changes in the research enterprise. Satisfying this principle is critical to enabling the Neuroscience Blueprint Initiative to focus its efforts, and evaluate its effects.

2. The framework should be scalable and extensible. Ultimately, it should accommodate the addition and deletion of entities to a particular category, and it should accommodate new categories, and functions for identifying and utilizing resources.

3. Upon the exercise of queries, the framework should reveal the relevance of the data. As indicated by the Society for Neuroscience poll, most users are not familiar with the purpose, organization and use of even major entities, which might be included in an inventory. For example, if a user seeks available knowledge about a protein expressed in the brain, the user does not know if protein information actually is included in any particular inventory entity, nor does s/he necessarily know how the entity organizes its information; moreover, given only a lengthy inventory of many resources, the user may not know the type of information available, or which inventory entities may be combined in a search to provide the type of information sought.

   For example, does the entity contain information about protein binding partners, protein occurrence in particular pathways or cell types, protein physical constants, or protein nomenclature? In the absence of such knowledge, users must access each inventory entity,

familiarize themselves with its organization, purpose, and use, and decide if it is appropriate, relative to all the other listed inventory entities -- an extremely tedious, imprecise, and potentially counterproductive process. The inventory should be used in a framework that enables it to be searched and analyzed to return the most appropriate entities. For example, the public NIH CRISP file (a resource of research activities supported by the NIH) enables data on research grants to be filtered and searched on a variety of parameters, including keywords.

4. The information framework should identify and retrieve information from multiple data sources.

The need to satisfy these four principles suggests numerous strategies and combinations of strategies for deploying a functional query-based information framework. In some cases, entities might be identified through publicly available existing web services such as the NCBI Entrez. In other cases, interfaces exist which enable direct mining of data among specific datasets. The focus of this BAA is upon developing a framework which would facilitate the identification of resources, singly or in groups, particularly useful to the types of studies undertaken by neuroscientists. Especially important are those approaches that would enable identifying resources which facilitate the study of linked concepts across scales of biological structure and function, such as gene expression, neuronal circuits, and behavior.

CONTRACT YEAR 2 (OPTION)

Objective 4: Development and Deployment of Information Framework

Based on the assessments and solutions identified in the White Paper, this objective is to develop and deploy a neuroscience information architecture that employs one or more strategies to identify information resources important to neuroscience research. The Government anticipates solutions will be implemented in a wide range of software environments enabling use on multiple platforms; use best practices and methodologies; comply with relevant government laws, regulations, and policies; take into account security issues and comply with government requirements regarding security; and be designed and tested to assure that the framework does not adversely impact other systems.

This framework should provide a user-friendly graphical interface. The web interface should provide clear instructions to users for navigation and use, and offer a contact feature which enables users to write for help, request features, and comment on usability. The design should permit introduction of future functionalities into the framework, such as those which may enable computation, modeling and simulations.

Prepare a timeline and milestones for developing and deploying the Information Framework. Offerors should develop criteria and a plan for benchmark and usability testing, and allow an adequate period for such testing. Offerors should take into account the availability to the government and the user community of existing tools, software and resources needed for the framework. Prior to contract completion, the Offeror shall perform a demonstration of the delivered framework including the ability to scale and extend, and satisfaction of usability and benchmarking criteria as proposed in the Statement of Work.

Under this technical objective, offeror also should provide documentation describing the informatics, software and hardware components, and architecture for deploying, using and maintaining the framework.

Organization:

A steering committee of NIH program representatives consisting of neuroscience domain experts from participating Blueprint Institutes, Centers, and from major extramural NIH computation and informatics initiatives will be formed to monitor the progress of the project. The committee will be chaired by the Project Officer who may also invite participation by liaisons from other agencies, foundations, professional organizations, and publishers and standards groups relevant to the project. During Phase I, the contractor shall meet with the committee at least three times.

For Phase I, in addition to an introductory meeting, offerors should plan for two additional meetings in the Bethesda area with the Steering Committee and others deemed appropriate by the Project Officer. The purpose of these meetings is to brief the Steering Committee on the content, organization, and characterization of the inventory, and the white paper. The second meeting will occur six months into contract performance, and will also offer an opportunity for additional exchange of information about inventory entities. The third meeting will occur at the conclusion of Phase I and include a oral briefing and discussion of the inventory and the analysis and recommendations contained in the white paper.

5. Other Activities and Deliverables

Meetings:

a. Introductory Meeting: Within 10 working days after the commencement of the contract, the contractor shall meet with the project officer and Steering Committee.

b. Briefing Meeting: For Phase I, in addition to the introductory meeting, the Contractor shall attend an additional meeting in the Bethesda area with the Steering Committee and others deemed appropriate by the Project Officer to brief the Steering Committee on the content, organization, and characterization of the inventory, and the white paper.

c. Final Meeting: A third meeting will include a final Phase I oral briefing and discussion on the inventory and the analysis and recommendations contained in the white paper.

d. Additional meetings related to Phase II will occur if the government exercises the option to proceed with Phase II.

Reports:

Monthly Report: On the tenth day of each month, two written and one electronic version of a report containing the following:

- The current inventory and characterization of its entities;
- The details of the labor hours spent and identities of individuals involved;
- Description of all the major activities of the reporting period;
- Details of problems involved, responses and plans for addressing the problems, and description of current situation;
- Status of progress with respect to timelines outlined in the proposal, and plans for the next month's activities;

Deliverables:

a. White Paper: A white paper that contains the following:

- A description and analysis of existing practices among the inventory entities;

- Description of model use cases developed and conducted by the contractor, and identification of technical and user requirements based upon the use cases;

- An analysis of the overall inventory and of its individual entities based upon the characterizations developed in Technical Objective 2, and other criteria developed by the offeror. Such an analysis should include (but not be limited to) a discussion of natural classes or groupings of inventory entities, based on content, data structure, ontologies, or other organizing principles; the extent to which laboratory data in the neurosciences is currently captured using ontologies; existing processes for modifying and extending ontologies relevant to the neurosciences; the frequency with which the inventory (or aspects of it) should be updated; redundancies and gaps in resources; possible strategies and tools available for discovering, identifying, or deriving new inventory entities and their descriptors, and for updating the inventory; and other topics identified by the offeror as relevant to inventory evaluation;

- An assessment of overall usability of the inventory and interoperability among its entities, based upon technical and user requirements developed through the model use cases; and the analyses described above. This assessment should identify those inventory entities most compatible to federation or acquisition through web services or other technologies for future development of the framework, and discuss other considerations identified by the Offeror as relevant to framework development.

- Identification of solutions and risks for implementing a framework which enables concept based queries of the inventory across multiple levels of neuroscience and behavioral research for the purposes of ascertaining and accessing the most relevant resources in the inventory, and which allows expanding the framework and the functional relationships among entity members. The deliverable should satisfy requirements that solutions be proposed and/or implemented in a wide range of software environments enabling use on multiple platforms; use best practices and methodologies; comply with relevant government laws, regulations, and policies; take into account security issues and comply with government requirements regarding security; and be designed and tested to assure that the framework does not adversely impact other systems.

b. Documentation and software for Inventory. All system documentation describing the informatics, software components, and architecture for developing, and updating the inventory, and the tools, and methodologies for identifying and updating the inventories. The Contractor shall transfer the source files and documentation for all software developed on this contract for identifying and updating the inventory to a resource determined by the Government.

c. Inventory. The Inventory, its characterization, and description of their organization in both electronic format and hardcopy shall be delivered to a resource determined by the Government.

d. Phase II, a report for Technical Objective 4 as described in the (proposal) Statement of Work. In addition, this report shall delineate the criteria for benchmarking and testing usability of the neuroscience information framework, and provides data and discussion demonstrating satisfaction of these criteria.

e. A paper and electronic log describing usage, user inquiries, problems and suggestions regarding the deployment of the framework.

f: Documentation and software for Neuroscience Information Framework: All system documentation for the information framework, including descriptions of the informatics, software components, necessary hardware components, and the architecture for developing, deploying, using and updating the information framework. The Contractor shall transfer the source files and documentation for all software developed on this contract for developing, maintaining, using and updating the neuroscience information framework to a resource determined by the government**.**

g. All new data generated under this contract, forms, code, documentation, reports, and other materials developed in performance of this Contract are properties of the Government. All other materials developed as a result of this contract shall belong to the Government. In addition, all licensing

agreements entered into by the Contractor for completion of any or all of the research listed in this contract and proposed by the Contractor in their Statement of Work; as well as all generated by the Contractor under this contract shall be transferable to the Government upon completion of the contract.

Proposal Submission Requirements

In providing their Statement of Work and plan for meeting the technical objectives, each offeror must address the following at a minimum:

(a) Special considerations and needs of the neuroscience research community with respect to identifying, using and accessing relevant research resources, and how the proposed statement of work addresses those needs. At least three possible use scenarios of a neuroscience information framework should be included in the discussion;
(b) Identification of how offerors will incorporate, build upon, or complement relevant information efforts in other domains important to neuroscience research such as genetics, proteomics, model organisms, and pathway and systems studies
(c) Inclusion of scientific and technical milestones and time-lines for implementation of those milestones for each Technical Objective
(d) Demonstration of the diversity of the research team and its experience; descriptions of the responsibilities and level of efforts for each team member
(e) Description of the project management procedures, organization, and interactions of the research team;
(f) Commitment letters from consultants, subcontractors, partners, collaborators, and other personnel (co-signed by relevant institutional or organizational officials) describing the specific expertise or other contributions they will provide; their availability and amount of time anticipated; their willingness to participate in the project, and how rights to patents, publications or other intellectual and property and resource issues will be addressed if applicable.
(g) Descriptions of additional factors or considerations important to your achieving your offer and any additional work deemed necessary that is not listed in these requirements.
(h) Description of past projects and activities relevant to the technical objectives
(i) Discussion of plans and strategies for acquiring consultants, partners, or other team members who may become necessary as the project proceeds
(j) Demonstration and documentation of the team's ability to obtain cooperation from the neuroscience research community and those providing available tools, resources, and databases relevant to neuroscience research, and descriptions of strategies for interactions necessary to complete the proposed statement of work;
(k) The approaches, methodologies, and tools to be used in identifying inventory entities, including an explanation of which approaches will be applied to identify which aspects of the inventory. A discussion of what steps will be taken to assure that the inventory will be sufficiently broad to enable users of the information framework to make queries spanning multiple levels of biological organization and function within and across diverse types of information;
(l) The strategy for selecting the set(s) of inventory descriptors and gathering the information relevant to those descriptors, including priorities
(m) The strategies for developing use cases for identifying user needs and technical requirements for developing the proposed information framework; an estimate of the nature and number of use cases that might be needed should be included.
(n) Discussion of the strategies, considerations, and criteria which will be used in developing the white paper, which --based upon the nature of the inventory and the findings and analyses resulting from the use cases -- will analyze existing practices

among inventory entities, assess overall usability of the inventory, characterize interoperability among its entities, and recommend an information framework for updating and using the inventory;

(o) A description of a proposed outline of the white paper

(p) The strategy and rationale to be employed for identifying solutions and risks for possible information frameworks and their architectures, and for recommending a particular information framework and its architecture for updating the inventory and deploying use of the inventory; a discussion demonstrating that integrated strategies, tools and approaches will be considered for incorporation into the framework, based upon user needs and types of information being queried;

(q) A plan describing how solutions will be proposed and implemented in a wide range of software environments, enabling use of the information framework on a wide range of platforms; use best practices and methodologies; comply with relevant government laws, regulations, and policies; take into account security issues and comply with government requirements regarding security; and be designed and tested to assure that the framework does not adversely impact other systems.

(r) Discussion of the strategies which will be used for developing the criteria which will be used for evaluating and demonstrating usability of the information framework, with examples of potential criteria, where possible

(s) Identification of the criteria and strategies that will be used for a model test demonstrating the ability of the proposed basic information framework to be scaled and extended during future development

(t) Identification of the factors and benchmarks to be used in evaluating the efficacy of the framework, and subsequent phases through beta testing and release of the basic information framework system.

(u) Description of how alternative strategies will be considered and used as problems and needs are identified during testing of the prototype framework

(v) Description of the proposed strategies and considerations in developing a graphical, user-friendly interface for the framework;

(w) An outline illustrating the types of documentation which will be provided for describing the informatics, hardware and software components, and architecture for deploying and using the inventory, and the tools, software, and methodologies for identifying and updating the inventories.

(x) A description of the type and source of existing software and information resources/systems that might be used and potential software development needs.

(y) Description of the automated information security plan

DELIVERABLES AND REPORTING REQUIREMENTS

A. REPORTING/DELIVERY REQUIREMENTS

1) Monthly Progress Reports
2) Final Contract Report
3) Standard Form 294 -Subcontracting report for individual contracts: This report is to be submitted semi-annually as well as at contract completion.
4) Standard Form 295 – Summary Subcontract Report

B. DELIVERY SCHEDULE AND DISTRIBUTION

The contractor shall deliver the following items in accordance with the stated delivery schedule:

ITEM #	DESCRIPTION	QTY	PLACE OF DELIVERY	DELIVERY DATE
(1)	Monthly Progress Report	4	Project Officer-3 2 Hardcopy, 1 Electronic Contracting Officer -1	15 days after the end of each month
(2)	Technical Objective 1	4	Project Officer -3 2 Hardcopy, 1 electronic copy Contracting Officer -1	6 months after date of award
(3)	Technical Objective 2	4	Project Officer -3 2 Hardcopy, 1 electronic copy Contracting Officer -1	9 months after date of award
(4)	Technical Objective 3, White Paper	4	Project Officer -3 2 Hardcopy, 1 Electronic copy Contracting Officer -1	12 months after date of award
(5)	Electronic version of the Inventory	1	NIH Computer System designated by the Project Officer	12 months after date of award
(6)	Technical Objective 4, Phase II	4	Project Officer -3 2 Hardcopy, 1 electronic format Contracting Officer -1	12 months after exercise of option

EVALUATION FACTORS FOR AWARD

A. General Information

The Government will make an award to the responsible offeror whose proposal provides the best value to the Government, cost and other factors considered. For this solicitation, the technical proposal shall receive paramount consideration in the selection of the contractor. The evaluation will be based on the demonstrated capabilities of the prospective offerors in relation to the evaluation criteria as set forth herein. Each proposal must document the feasibility of successful implementation of the requirements of the BAA.

The estimated cost of an offer must be reasonable for the tasks to be performed, and, in accordance with FAR 15.305, subject to a cost realism analysis by the Government.

All technical proposals will undergo evaluation by a peer review group also known as the Scientific Review Group (SRG).

Offerors are reminded that the Technical Approach is evaluated within the context of "contribution and relevance to this program." For example, even though a proposal provides a clear comprehensive technical plan for achieving a particular objective, if the plan is NOT within the context of the goals of this program, it will receive a low technical score regardless of the technical feasibility of the technical approach.

B. Technical Evaluation Criteria

The evaluation criteria are used by the Scientific Review Group when reviewing the technical proposals. ***The evaluation criteria below are listed in relative importance with weights assigned for evaluation purposes.***

TECHNICAL MERIT (55 points)

The feasibility, adequacy and appropriateness of the scientific and technological approach with respect to the following:

Strategies and capabilities for developing a white paper which accomplishes the following: (25 points)

1. A description and analysis of existing practices among the inventory entities;
2. Identification of technical and user requirements based upon the development of appropriate model use cases by the offeror;
3. Development and application of criteria for assessing overall usability of the inventory and interoperability among its entities in the absence of a framework;
4. Identification of solutions and risks for implementing an information framework which enables concept based queries across multiple levels of biological organization and function.

- **Needs and considerations for developing an information framework, and procedures for developing and updating a broad-based inventory: (10 points)**

1. Demonstration of the particular needs and considerations associated with developing an information framework for the neuroscience research community.
2. Procedures and strategies for developing and updating a broad- based inventory related to neuroscience research drawn from multiple information and resource categories covering (1) research activities, (2) experimental resources and tools, (3) and experimental and literature databases.

- **Procedures and strategies for developing and testing a basic information framework, and for modifying and adjusting the framework during testing based on usability tests and benchmarking; procedures and strategies for developing a model for demonstrating potential ability to extend and scale the basic information framework. (20 points)**

OFFEROR'S CAPABILITIES (45 points)

- **Clear evidence demonstrating and documenting intention and ability to assemble a diverse, creative, and expert team with the following characteristics: (25 points)**
    1. Personnel with sufficient scope and depth of experience and training to deal with diverse and complex biological and technological problems and issues associated with the organization and use of biomedical and behavioral information relevant to neuroscience research;
    2. Capability of identifying, characterizing, and analyzing a broad-based inventory related to neuroscience research;
    3. Capability of integrating technologies, methodologies, and approaches necessary for meeting the Technical Objectives;
    4. Capability of obtaining cooperation from the neuroscience research community and those providing available tools, resources, and databases relevant to neuroscience research.
- **Milestones and project management (10 points)**
    1. Evidence of clearly stated milestones and ability to accomplish proposed milestones within the timeframe; feasibility and adequacy of the milestone chart;
    2. Evidence of adequate organizational structure, facilities, management, and time commitment to complete the project; feasibility and adequacy of the management plan; strategies for identifying and recruiting subcontractors, consultants, and collaborators, and partners which may become necessary during the course of the project.
- **Adequacy of information security plans, and plans for dealing with intellectual and other property issues; demonstration and documentation of agreements regarding institutional and individual intellectual property rights and security issues. (10 points)**

C. PAST PERFORMANCE FACTOR

An evaluation of offeror's past performance information will be conducted subsequent to the technical evaluation. However, this evaluation will not be conducted on any offeror whose proposal would not be selected for award based on the results of the evaluation of factors other than past performance.

The evaluation will be based on information obtained from references provided by the offeror, other relevant past performance information obtained from other sources known to the Government, and any information supplied by the offeror concerning problems encountered on the identified contracts and corrective action taken. [NOTE: Offerors with previous contract experience should list and summarize their performance on similar or related contracts completed within the last three years or those currently in process.]

The government will assess the relative risks associated with each offeror. Performance risks are those associated with an offeror's likelihood of success in performing the acquisition requirements as indicated by that offeror's record of past performance.

The assessment of performance risk is not intended to be a product of a mechanical or mathematical analysis of an offeror's performance on a list of contracts, but rather the product of subjective judgment by the Government after it considers relevant information.

When assessing performance risks, the Government will focus on the past performance of the offeror as it relates to all acquisition requirements, such as the offeror's record of performing according to specifications, including standards of good workmanship; the offeror's record of controlling and forecasting costs; the offeror's adherence to contract schedules, including the administrative aspects of performance; the offeror's reputation for reasonable and cooperative behavior and commitment to customer satisfaction; and generally, the offeror's business-like concern for the interest of the customer.

The Government will consider the currency and relevance of the information, source of the information, context of the data, and general trends in the offeror's performance.

The lack of a relevant performance record may result in an unknown performance risk assessment, which will neither be used to the advantage nor disadvantage of the offeror.

D. EXTENT OF SMALL DISADVANTAGED BUSINESS PARTICIPATION

SDB participation will not be scored, but the Government's conclusions about overall commitment and realism of the offeror's SDB Participation targets will be used in determining the relative merits of the offeror's proposal and in selecting the offeror whose proposal is considered to offer the best value to the Government.

The extent of the offeror's Small Disadvantaged Business Participation Targets will be evaluated before determination of the competitive range. Evaluation of SDB participation will be assessed based on consideration of the information presented in the offeror's proposal. The Government is seeking to determine whether the offeror has demonstrated a commitment to use SDB concerns for the work that it intends to perform.

Offers will be evaluated on the following sub-factors:

(a) Extent to which SDB concerns are specifically identified
(b) Past performance of offerors in complying with subcontracting plan goals for SDB concerns and monetary targets for SDB participation
(c) Extent of participation of SDB concerns in terms of the value of the total acquisition.

E. EVALUATION OF OPTIONS

It is anticipated that any contract(s) awarded from this solicitation will contain option provision(s).

In accordance with FAR Clause 52.217-5, Evaluation of Options (JULY 1990), the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement, except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests. Evaluation of options will not obligate the Government to exercise the option(s).

SPECIFIC RFP INSTRUCTIONS AND PROVISIONS

1. NAICS CODE AND SMALL BUSINESS SIZE STANDARD

2. EXTENT OF SMALL DISADVANTAGED BUSINESS PARTICIPATION

NOTICE TO OFFERORS: This attachment contains proposal instructions and information which are specifically related to this acquisition. The information provided below is only a portion of the instructions and notices required for the submission of a proposal. References to additional, more general, information and forms regarding proposal preparation are contained in "Applicable RFP References."

1. NAICS CODE AND SMALL BUSINESS SIZE STANDARD (NIH 3150) (JUN 1988)

Note: The following information is to be used by the offeror in preparing its Representations and Certifications, URL http://rcb.cancer.gov/rcb-internet/wkf/sectionk.pdf specifically in completing the provision entitled, SMALL BUSINESS PROGRAM REPRESENTATIONS (MAY 2004), FAR 52.219-1:

(1) The North American Industry Classification System (NAICS) code for this acquisition is 541710.

(2) The small business size standard is 500 employees.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

2. **EXTENT OF SMALL DISADVANTAGED BUSINESS PARTICIPATION**

In accordance with FAR Subpart 15.304(c)4, the extent of participation of Small Disadvantaged Business (SDB) concerns in performance of the contract in the authorized NAICS Industry Subsectors shall be evaluated in unrestricted competitive acquisitions expected to exceed $500,000 ($1,000,000 for construction) subject to certain limitations (see FAR 19.1202-1 and 19.1202-2(b)). The dollar amounts cited above include any option years/option quantities that may be included in this solicitation. The definition of a 'Small Disadvantaged Business' is cited in FAR 19.001.

The factor entitled "Extent of Small Disadvantaged Business Participation" as set forth under the Evaluation Criteria shall be used for evaluation purposes. Credit under this evaluation factor is not available to SDB concerns that receive a Price Evaluation Adjustment (PEA) under FAR 19.11. Therefore, an SDB will be evaluated on this factor only if that SDB concern waives the PEA. **Waiver of the price evaluation adjustment shall be clearly stated in the proposal**.

The Department of Commerce determines, on an annual basis, by Subsectors, as contained in the North American Industry Classification System (NAICS) codes, and region, if any, the authorized SDB procurement mechanisms and applicable factors (percentages). The NAICS codes can be found at: http://www.sba.gov/size/NAICS-cover-page.html

The Department of Commerce website for the annual determination is:
http://www.arnet.gov/References/sdbadjustments.htm.

Offerors shall include with their offers, SDB targets, expressed as dollars and percentages of total contract value, in each of the applicable, authorized NAICS Industry Subsector(s). The applicable authorized NAICS Industry Subsector(s) for this project is (are) identified at the URL indicated above. A total target for SDB participation by the prime contractor, that includes any joint ventures and team members, shall be provided as well as a total target for SDB participation by subcontractors. In addition, offerors must provide information that describes their plans for meeting the targets set forth in their proposal. **This information shall be provided in one clearly marked section of the Business Proposal, which, shall describe the extent of participation of SDB concerns in the performance of the contract.**

If the evaluation factor in this solicitation includes an SDB evaluation factor or subfactor that considers the extent to which SDB concerns are specifically identified, the SDB concerns considered in the evaluation shall be listed in any resultant contract. Offerors should note that addressing the extent of small disadvantaged participation **is not in any way intended to be a substitute** for submission of the subcontracting plan, if it is required by this solicitation. An example of the type of information that might be given (in addition to the narrative describing the plan for meeting the targets) follows:

EXAMPLE
Targets for SDB Participation – NAICS Industry Subsector 223

	Percentage of Total Contract Value	SDB Dollars
Contract Value- $1,000,000	25%	$250,000
SDB Participation by Prime (Includes joint venture partners and team arrangements)[3]	10%	$100,000
SDB Participation by subcontractors	15%	$150,000

***Note: FAR 9.6 defines "Contractor team arrangements"** to include two or more companies forming a partnership or joint venture to act as a potential prime contractor, or a potential prime contractor who agrees with one or more companies to have them act as its subcontractors on a specific contract or acquisition program. For purposes of evaluation of the SDB participation factor, FAR 19.1202-4 requires that SDB joint ventures and teaming arrangements at the prime level be presented separately from SDB participation by subcontractors.

3. NUMBER AND TYPE OF AWARD(S)(NIH 2980) (APR 1984)

It is anticipated that one (1) award will be made from this solicitation and that award will be made on or about September 19, 2005.

4. 52.233-2 SERVICE OF PROTEST (AUGUST 1996)

(a) Protests, as defined in Section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from:

If using U.S. Postal Service:	If hand delivered or delivery service:
Contracting Officer Contracts Management Branch, OPRM	Contracting Officer Contracts Management Branch, OPRM

National Institute on Drug Abuse, NIH
6101 Executive Boulevard
Room 260, MSC 8402
Bethesda, Maryland 20892-8402

National Institute on Drug Abuse, NIH
6101 Executive Boulevard, Room 260
Rockville, Maryland 20852

NOTICE: The U.S. Postal Service's "Express Mail" does not deliver to the Rockville, Maryland address. Anything sent to the Rockville address via this service will be held at a local post office for pick-up. The Government is not responsible for picking up any mail at a local post office.

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

5. PACKAGING AND DELIVERY OF THE PROPOSAL

Shipment and marking shall be as indicated below:

External Package Marking:

In addition to the address cited below, mark each package as follows:

BAA No. N01DA- BAA-5-7753
Attention: Diane Loeb

TO BE OPENED BY AUTHORIZED GOVERNMENT PERSONNEL ONLY

Number of Copies and Address:

TECHNICAL PROPOSAL: ORIGINAL AND 10 COPIES
BUSINESS PROPOSAL: ORIGINAL AND 4 COPIES

THE ORIGINALS MUST BE SO MARKED AND READILY ACCESSIBLE FOR DATE STAMPING PURPOSES.

TO: If using U.S. Postal Service:

Contracting Officer
Contracts Management Branch, OPRM
National Institute on Drug Abuse, NIH
6101 Executive Boulevard
Room 260, MSC 8402
Bethesda, Maryland 20892-8402

If hand delivered or delivery service:

Contracting Officer
Contracts Management Branch, OPRM
National Institute on Drug Abuse, NIH
6101 Executive Boulevard, Room 260
Rockville, Maryland 20852

NOTICE: The U.S. Postal Service's "Express Mail" does not deliver to the Rockville, Maryland address. Anything sent to the Rockville address via this service will be held at a local post office for pick-up. **The Government is not responsible for picking up any mail at a local post office.**

NOTE: If a proposal is not received at the place, date, and time specified herein, it will be considered a "late proposal" and handled in accordance with HHSAR 352.215-70 LATE PROPOSALS AND REVISIONS (NOV 1986).

6. FAR 52.227-6 ROYALTY INFORMATION (APR 1984)

(a) Cost or charges for royalties. When the response to this solicitation contains costs or charges for royalties totaling more than $250, the following information shall be included in the response relating to each separate item of royalty or license fee:

(1) Name and address of licensor.
(2) Date of license agreement.
(3) Patent numbers, patent application serial numbers, or other basis on which the royalty is payable.
(4) Brief description, including any part or model numbers of each contract item or component on which the royalty is payable.
(5) Percentage or dollar rate of royalty per unit.
(6) Unit price of contract item.
(7) Number of units.
(8) Total dollar amount of royalties.

(b) Copies of current licenses. In addition, if specifically requested by the Contracting Officer before execution of the contract, the offeror shall furnish a copy of the current license agreement and an identification of applicable claims of specific patents.

7. TECHNICAL PROPOSAL INSTRUCTIONS FOR BROAD AGENCY INSTRUCTIONS

The Technical Proposal consists of two major sections:

SECTION ONE - The Statement of Work which delineates each step or task to be carried out after award of the contract in order to accomplish the proposed research.

SECTION TWO - The Detailed Proposal which consists of three parts:

(1) Part 1 - Technical Plan - describes the proposed approach, methodology, and outcome in detail, including preliminary data and other documentation supporting the proposed research project;

(2) Part 2 - Personnel - a description of the experience and qualifications of proposed personnel and a discussion of how the project will be organized and managed; and,

(3) Part 3 - Other Considerations.

SECTION ONE - Offeror's Proposed Statement of Work *(recommended limit-25 pages)*

In contracts awarded under this Broad Agency Announcement, the Statement of Work will be the Statement of Work proposed by the offeror and negotiated and accepted by the NIDA. This section of the offeror's Technical Proposal should outline the steps to be taken by the contractor during performance of the contract. The offeror's proposed Statement of Work should begin as follows:

"Independently, and not as an agent of the Government, the Contractor shall furnish all necessary services, qualified professional, technical, and administrative personnel, material, equipment and facilities, not otherwise provided by the Government under the terms of this contract, as needed to perform the tasks set forth below. Specifically the Contractor shall:"

The opening paragraph should be followed by a full Statement of Work describing each step that the contractor shall perform after the award of the contract, including: the tasks that will be performed to carry out the research project; how these tasks will be accomplished; and the time frame within which each task will be accomplished. Each step described in the Statement of Work will begin with the words

"The Contractor shall...." Where appropriate, divide the Statement of Work into separate tasks and subtasks. An outline format should be used. Briefly describe the work related to each task and describe the tasks in the sequence in which they will be carried out. More in depth descriptions of the proposed work should be provided in SECTION TWO of your Technical Proposal. The Statement of Work should also include a description of all items to be delivered to the Government during performance of the contract, such as progress reports, financial reports, end products, and deliverables.

SECTION TWO - Part 1-Technical Plan

(1) Objectives

State the overall objectives and the specific accomplishments you hope to achieve. Indicate the rationale for your plan, and its relationship to comparable work in progress elsewhere or as part of your own studies. Review pertinent work already published which is relevant to this project and your proposed approach. Provide a list of references to document published work cited in the proposal. Place the list at the end of SECTION TWO, Part 1. This section of the Technical Plan should support the scope of the project as you propose it to be accomplished, and as outlined in your proposed Statement of Work.

(2) Approach

Use as many subparagraphs, appropriately titled, as needed to clearly describe the general plan of work. Discuss phasing of research including rationale, experimental design, achievable milestones, and the possible or probable outcome(s) of the proposed approaches. Describe alternate approaches to be used if the primary approaches are unsuccessful. In addition, indicate the role of subcontractors in the plan of work, if applicable.

(3) Methods

Describe the methods you will use for the project, indicating your level of experience with each, areas of anticipated difficulties, and any unusual expenses you anticipate.

(4) Schedule

Provide a schedule for completion of work and delivery of items specified in your proposed Statement of Work. Performance or delivery schedules should be indicated for phases or segments, as applicable, as well as for the overall project. Schedules should be shown in terms of calendar months from the date of authorization to proceed or, where applicable, from the date of a stated event, as for example, receipt of a required approval by the Contracting Officer.

(5) Facilities

Describe facilities, equipment, and resources that will be used to perform all phases of the proposed project.

SECTION TWO - Part 2-Personnel

Describe the experience and qualifications of personnel who will be assigned for direct work on the project. Information is required which will show the composition of the task or work group, its general qualifications, and recent experience with similar research projects/programs and equipment/technologies. Special mention should be made of direct technical supervisors and key technical personnel, and the approximate percentage of the total time each will be available for the project, as well as how the project will be organized and managed. If staff are to be hired, include a description of the qualifications that

will be used to identify appropriate staff to fill the position(s). Include an organizational chart that clearly shows reporting relationships and lines of authority.

OFFERORS SHOULD ASSURE THAT THE PRINCIPAL INVESTIGATOR, AND ALL OTHER PERSONNEL PROPOSED, SHALL NOT BE COMMITTED ON FEDERAL GRANTS AND CONTRACTS AND OTHER SUPPORT FOR MORE THAN A TOTAL 100% OF THEIR TIME. IF THE SITUATION ARISES WHERE IT IS DETERMINED THAT A PROPOSED EMPLOYEE IS COMMITTED FOR MORE THAN 100% OF HIS OR HER TIME, THE GOVERNMENT WILL REQUIRE ACTION ON THE PART OF THE OFFEROR TO CORRECT THE TIME COMMITMENT.

(1) Principal Investigator/Project Director

List the name of the Principal Investigator/Project Director responsible for overall implementation of the contract who serves as the key contact for technical aspects of the project. Even though there may be co-investigators, identify the Prinicipal Investigator/Project Director who will be responsible for the overall implementation of any contract awarded. Discuss the qualifications, experience, and accomplishments of the Principal Investigator/Project Director. State the estimated time to be spent on the project(s), his or her proposed duties, and the areas or phases of work for which he/she will be responsible.

(2) Other Investigators

List all other investigators/professional personnel who will be participating in the project. Discuss the qualifications, experience, and accomplishments of each individual. State the estimated time each will spend on the project, proposed duties on the project, and the areas or phases for which each will be directly responsible.

(3) Additional Personnel

List names, titles, and proposed duties of additional personnel, if any, who will be required for full-time and part-time employment, or on a subcontract or consultant basis. Describe the technical areas, character, and extent of subcontract or consultant activity and specify anticipated sources for all such services. For all proposed personnel who are not currently members of the offeror's staff, a letter of commitment or other evidence of availability is required. A resume does not meet this requirement. Commitment letters for use of consultants and other personnel to be hired must include each of the following items of information:

* The specific items or expertise they will provide;
* Their availability to the project and the amount of time anticipated;
* Willingness to act as a consultant; and
* How rights to publications and patents will be handled.

Letters of commitment should be placed at the end of SECTION TWO, Part 2.

(4) Resumes

Resumes of all key personnel are required. Each resume must indicate educational background, recent experience, specific or technical accomplishments, and a listing of relevant recent publications. Resumes should be placed as the last documents in SECTION TWO, Part 2 of the proposal.

SECTION TWO -Part-3-Other Considerations

Record and discuss specific factors, not included elsewhere, that support your proposal using specifically titled subparagraphs. Items may include:

(1) Any agreements and/or arrangements with subcontractor(s). Provide as much detail as necessary to explain how your Statement of Work will be accomplished within this working relationship and how intellectual property issues will be treated (if applicable).

(2) Unique arrangements, equipment, procedures, etc. that no or few organizations are likely to have which will be advantageous for effective implementation of the project.

(3) Equipment, training and unusual operating procedures established to protect personnel from any hazards associated with your project.

(4) Other factors you feel important to support your proposed research.

2. Technical Evaluation

Proposals will be technically evaluated by an initial review panel in accordance with the factors, weights, and order of relative importance as described in the Technical Evaluation Criteria (see Section M.). This evaluation produces a numerical score (points) which is based upon the information contained in the offeror's proposal only.

8. PROPOSAL INTENT RESPONSE SHEET

AFTER REVIEWING THIS BROAD AGENCY ANNOUNCEMENT, PLEASE FURNISH THE INFORMATION REQUESTED ON THE PROPOSAL INTENT RESPONSE SHEET AND SUBMIT IT BY April 14, 2005. YOUR EXPRESSION OF INTENT IS NOT BINDING BUT WILL GREATLY ASSIST US IN PLANNING FOR PROPOSAL EVALUATION.

APPLICABLE RFP REFERENCES

1. STANDARD RFP INSTRUCTIONS AND PROVISIONS

2. OPTIONAL RFP INSTRUCTIONS AND PROVISIONS

3. FORMS, FORMATS AND ATTACHMENTS

4. SAMPLE CONTRACT FORMAT

This section identifies other items that are applicable to this RFP.

1. **STANDARD RFP INSTRUCTIONS AND PROVISIONS**

The entire file entitled "STANDARD RFP INSTRUCTIONS AND PROVISIONS" is applicable to this RFP, except as otherwise may be modified by the inclusion of an item from the "OPTIONAL RFP INSTRUCTIONS AND PROVISIONS" or as cited below**:**

a. "Alternate I to FAR Clause 52.215-1, Instructions to Offerors-Competitive Acquisition (OCTOBER 1997)" is deleted in its entirety.

2. OPTIONAL RFP INSTRUCTIONS AND PROVISIONS

The following items are applicable from the file entitled "OPTIONAL RFP INSTRUCTIONS AND PROVISIONS":

- Notice: This Requirement is Not Set-Aside for Small Business
- Concept Review
- Late Proposals and Revisions (NOV 1986), HHSAR 352.215-70 (formerly Late Proposals, Modifications of Proposal, and Withdrawals of Proposals, PHS 352.215-10)
- Total Compensation Plan – Instructions
- Total Compensation Plan – Evaluation
- Past Performance Information
- Facilities Capital Cost of Money
- "JUST IN TIME"
- Procurement of Electronic and Information Technology (EIT)

3. FORMS, FORMATS, AND ATTACHMENTS

The following items are applicable from the subdirectory entitled "FORMS, FORMATS, AND ATTACHMENTS":

a. Applicable to Technical Proposal
- Technical Proposal Cover Sheet
- Summary of Current and Proposed Activities, July 1995
- Technical Proposal Cost Information, Dec 1988

b. Applicable to Business Proposal
- Proposal Summary and Data record, NIH-2043 (Rev. 6/82)
- Disclosure of Lobbying Activities, OMB SF-LLL
- Business Proposal Cost Information (Cost Proposal Spreadsheet)
- Representations and Certifications URL http://rcb.cancer.gov/rcb-internet/wkf/sectionk.pdf

c. To Become Contract Attachments
- Invoice/Financing Requests Instructions for NIH Cost-Reimbursement Type Contracts, NIH(RC)-1, Rev. 10/98
- Instructions for Completing Form NIH 2706 (Financial Report)
- Procurement of Certain Equipment, NIH(RC)-7

d. Other Contract Forms and Attachments
- Certificate of Current Cost or Pricing Data, NIH-1397
- DHHS Small Business Subcontracting Plan
- Report of Accountable Personal Property (HHS 565)

http://rcb.cancer.gov/rcb-internet/wkf/sample-contract.htm
4. The "SAMPLE CONTRACT FORMAT-GENERAL" is applicable.