

Application Guideline for

AJINOMOTO AMINO ACID RESEARCH PROGRAM (3ARP)

1. Program Description

Amino acids have a variety of roles in the biological system. Ajinomoto Co., Inc., based in Tokyo, Japan, is commanding 50% share of amino acids worldwide. Ajinomoto Co., Inc. wishes to support innovative research at select non-profit educational or scientific research institutions, especially research that focuses on the biological aspects of amino acids, such as nutritional, physiological and/or pharmaceutical functions and properties. While Ajinomoto Co., Inc. has a strong in-house research activity, Ajinomoto Co., Inc. wishes to expand this effort to include a number of outside research teams at select non-profit institutions. Ajinomoto Co., Inc. welcomes applications from individual investigators or from groups of investigators from the same, or from different, institutions working together to pursue a general overall theme with common objectives.

Objective: Identification of, and support for, innovative research initiatives that investigate novel functions/properties of amino acids, in the areas of nutrition (including, but not exclusive to, studies involving animals or aging humans), physiology, and/or pharmacology.

The 3ARP will be formally administered by representatives from the Corporate Research and Development groups of Ajinomoto Co., Inc. will be assisted on scientific matters by a small group of international experts in amino acid biology.

Ajinomoto Co., Inc. currently anticipates that the total budget for the 3ARP will be about US \$1 million per year for four (4) years. The types of 3ARP grants can be broken down into two broad categories, as follows:

a. Exploratory Research Grants.

Ajinomoto Co., Inc. will consider applications from individuals or groups from non-profit institutions that explore novel questions of amino acid structure, biology, nutrition, physiology and/or pharmacology according to the guidelines above. Ajinomoto Co., Inc. will accept applications for a maximum of U.S. \$100,000 in direct costs per annum for up to two (2) years of total support.

b. Young Investigators' Research Grants.

Ajinomoto Co., Inc. will consider applications from investigators who are within 5 years of their first appointment as independent investigators by the deadline for receipt of full applications. The scopes of these studies should be the same as those outlined above for Exploratory Research Grants. Ajinomoto Co., Inc. will accept Young Investigator Research Grant applications for a maximum of U.S. \$100,000 in direct costs per annum for up to two (2) years of total support.

Above budget limitation should include direct costs, equipment costs and consultant/contractual costs, but not include indirect costs described in the "Application Procedure" section of this guideline.

Ajinomoto Co., Inc., however, plans to be flexible with respect to the length of research and amount of financial support, in order to be able to consider, in its sole discretion, applications that do not fit within the above categories. Such applications should include an appropriate explanation for any deviation from the above categories.

2. Who Can Qualify for 3ARP ?

Any qualified non-profit educational or scientific research institution may apply for and, if awarded, receive a grant under the 3ARP. The principal investigator and co-principal investigator should have faculty appointment or equivalent. Ajinomoto Co., Inc., in its sole discretion, will evaluate an applicant's credentials and experience and those of the applicant's researchers and scientists to determine whether the work proposed in the application can be accomplished. The investigators who have received the prior support from this funding program are not eligible. The institution must have appropriate equipment, personnel and space, and must release a sufficient amount of the time on the part of the principal investigator and other researchers and scientists to complete the proposed work.

3. Application Procedure

The application should NOT include confidential information, trade secrets, and other proprietary information of either the applicant or third party.

a. Pre-application

Before submission of an application, an applicant is required to file a pre-application on the website, on or before March 31, 2010 (Japan Standard Time). The pre-application should include the name of the

principal investigator, the name of the institution, the project title and a brief description of the proposed project. Late application will not be accepted.

b. Application

The applicant, on or before August 1, 2010 (Japan Standard Time), must submit a completed application to the administrator of the 3ARP. Electronic submission of application is mandatory, and late application will not be accepted. The application form can be found at www.3arp.ajinomoto.com website.

c. A complete application consists of:

- (1) A completed 3ARP application form (provided in www.3arp.ajinomoto.com website).
- (2) Abstract of the research proposal (maximum: 300 words, using application form).
- (3) The biographical sketches for principal investigators and all key personnel (maximum: 3 pages per person, using application form).
- (4) The list of all other support, including grant title, funding agency, period of support, and amount of funding in U.S. dollars for principal investigator and all co-investigators (maximum 3 pages, using application form).
- (5) Research proposal (single-spaced, in 12-point type, maximum 10 pages, not including reference list, no supplementary material will be accepted).

A. Statement of objectives or specific aims of project.

B. Description of relevant past work performed by the applicant and other investigators, including references.

C. Description of study methodology, including experimental design and potential problems and possible approaches for overcoming them. Please discuss these factors in terms that will allow the 3ARP Scientific Advisory Committee (SAC) to determine whether the project is likely to accomplish its stated objectives.

(6) Budget and Justification (maximum: 3 pages, using application form).

The budget shall specify in detail the uses to which the institution would apply the 3ARP funds if it were awarded a 3ARP grant.

The 3ARP funds can be used for up to 10% of principal investigator's and co-principal investigator's, if any, salary but cannot exceed US\$ 25000 annually, including fringe benefits. The full cost of support staff salaries may be requested.

Indirect costs are limited to 25 % of direct costs minus equipment costs and/or subcontract costs if indirect costs are included in the budget submitted by the subcontracting organization. Indirect costs must be described in the application form.

Travel costs are limited to US\$ 2,000 per year per person unless specifically justified (i.e. travel for collaborators or consultants).

(7) Assurances.

Formal assurances of institutional approval for human and/or vertebrate animal studies will be required two (2) months before the start date of a funded application.

d. Application Deadline

The completed applications must be filed on or before August 1, 2010 (Japan Standard Time) with the administrator for the 3ARP.

e. Submission.

All documents must be submitted as a complete package. No portion of the application will be accepted via facsimile or mail, except the first page of the application form with signature as described in the next paragraph. The complete application package must be submitted by e-mail to **3arp@ajinomoto.com**. Upon submission, all application shall be the property of Ajinomoto Co., Inc..

f. Execution of Application.

Both the institution and the principal investigator shall sign the application, certifying to its completion, accuracy, and validity. Please send the signed first page of the application form by airmail or courier service and postmarked no later than August 1, 2010 (Japan Standard Time).

3ARP administrator Ajinomoto Co., Inc.

R&D Management Department
15-1, Kyobashi -1, Chuo-ku,
Tokyo, 104-8315
Japan

g. Announcement of Recipients.

Ajinomoto Co., Inc. expects to complete its review and consideration of the applications by November 2010, and expect to notify the successful applicants by November 30, 2010.

h. Start Date of Support.

Ajinomoto Co., Inc. currently plans for the 3ARP grant recipients to begin their research on April 1, 2011.

4. Selection Criteria

Ajinomoto Co., Inc., with the assistance of the 3ARP Scientific Advisory Committee (**SAC**), shall review and consider, in its sole discretion, the completed applications. **SAC** shall be comprised of internationally recognized experts in the field of amino acid physiology. All decisions of Ajinomoto Co., Inc. shall be final and non-appealable.

Among other factors, Ajinomoto Co., Inc. and the **SAC** will consider, in their sole discretion, the following factors: **In their evaluation, the SAC will consider:**

- 1) Relevance of the proposed research to nutritional, physiological and pharmacological aspects of amino acids.
- 2) The principal investigator's qualifications—experience, research, and training.
- 3) Evidence of the principal investigator's commitment to and potential for increasing awareness of the physiological and pharmacological aspects of amino acid research.
- 4) Depth, originality, and feasibility of the research proposal.
- 5) Clarity, methodology, and design of the research proposal.
- 6) Nature, amount, and source of other resources proposed to be committed by applicant.
- 7) Other factors deemed relevant by Ajinomoto Co., Inc. and the **SAC**.

5. Financial Information

a. Financial Administration.

The institution must administer the 3ARP funds, in accordance with its written policies and procedures and those of Ajinomoto Co., Inc.. Ajinomoto Co., Inc. shall disperse the initial funds after the start date set forth in the Sponsored Research Agreement executed by Ajinomoto and the institution. In general, Ajinomoto Co., Inc. shall distribute additional funds at 6-month intervals upon receipt of the applicable written interim report.

b. Use of 3ARP Funds.

The institution and the principal investigator must use the 3ARP funds in a manner consistent with the application and the award of the 3ARP grant as well as the Sponsored Research Agreement. The 3ARP funds can be used for up to 10% of principal investigator's salary but cannot exceed US\$ 25,000 annually. The full cost of support staff salaries may be requested.

c. Books of Account.

The institution must keep complete, true, and accurate books of account and records for the purpose of verifying the institution's compliance with the terms and conditions of the 3ARP grant and the Sponsored Research Agreement. The institution must keep such books and records at its principal place of business for at least four (4) years following the end of the calendar year to which they pertain. Such books and records must be open, at all reasonable times, for inspection and audit by a duly authorized representative of Ajinomoto Co., Inc..

d. Annual Financial Reports.

Within thirty (30) days after the close of each funding year, the institution must submit to the 3ARP administrator a written financial report, setting forth in detail the institution's use of 3ARP funds. The report shall be consistent with generally accepted accounting principles.

e. Use of Third-Party Funds.

The annual financial report provided by the institution also shall set forth in detail the institution's use of any third party funds in conducting the 3ARP research.

6. Reporting Obligations.

a. Interim Reports (approx. 3 pages, single-spaced).

At the end of each six (6) month period, grant recipients must submit to the 3ARP administrator a written interim report. Each such report must set forth: (i) the work completed during such six (6) months, (ii) the results achieved from such work, (iii) a brief analysis of such results, (iv) the work planned for the next six (6) months, and (v) the results expected from such work. Each such report shall be approximately three

(3) pages in length. For example, a two (2) year research program would involve three (3) interim reports and one (1) final report. If the SAC finds that there has been unsatisfactory progress in the research, then the research funding may be terminated.

b. Final Report (approx. 10 pages, single-spaced).

Within sixty (60) days after the research has been completed, the grant recipient must submit to the 3ARP administrator a written final report. The final report must set forth: (i) the work completed during the entire research period, (ii) the results achieved from such work, (iii) an analysis of such results, (iv) any recommendations on additional research that might be conducted based on such work and results, and (v) a summary of any intellectual property created, conceived, developed, or reduced to practice during or as a result of the research funded by the 3ARP grant. Such report also must include all information resulting from the research funded by the 3ARP grant.

c. Meetings.

Ajinomoto Co., Inc. may request one or more meetings with the principal investigator and his or her researchers and scientists, for the purpose of discussing the research, including any failure to make adequate progress in the research.

7. Sponsored Research Agreement.

The terms and conditions of the funding to be provided by Ajinomoto Co., Inc. and the research to be conducted by the successful applicant shall be set forth in a Sponsored Research Agreement. While Ajinomoto Co., Inc. understands that institutions have adopted a variety of policies and processes on transferring technology to the private sector, Ajinomoto Co., Inc. does expect to negotiate such an agreement including the clause of intellectual properties, with each successful applicant. If an applicant has policies and processes that restrict or limit its ability to sign such an agreement, the applicant should provide an explanation in its application.

Ajinomoto Co., Inc. expects each such agreement to include certain basic clauses, as follows:

a. Intellectual Property Rights.

The institution shall negotiate with Ajinomoto Co., Inc. the intellectual proprietary rights based on the work conducted under the 3ARP funds. The institution shall grant to Ajinomoto Co., Inc. a first option to acquire from the institution a license, on commercially reasonable terms and conditions, to each invention belonging to the institution arising from the research conducted with 3ARP funds. Such license, at Ajinomoto's discretion, shall be exclusive or nonexclusive, shall be worldwide or limited geographically, and shall be for all fields of use or only specified fields of use. Such terms and conditions shall provide for, without limitation, a royalty obligation, reimbursement of patent prosecution and maintenance expenses, intellectual property representations, and indemnification obligations.

b. Documentation of Intellectual Property.

All discoveries and inventions (intellectual Property) shall be documented fully by the researcher(s) in bound notebooks with respect to relevant times, places, events, participants, and witnesses. Any bound notebooks (and any documentation or other material containing, evidencing, incorporating, setting forth, or resulting from such discoveries and inventions) shall be maintained in a secure location.

c. Disclosure of Intellectual Property.

Prior to the publication of any intellectual property, the principal investigator and his or her researchers and scientists promptly and candidly shall disclose to the 3ARP Administrator, in confidence, in the form of an invention disclosure, such intellectual property. The disclosure to the 3ARP administrator shall be simultaneously with any disclosure to the applicant.

d. Protection of Intellectual Property.

The institution shall control the preparation and prosecution of all patent applications and the maintenance of all patents issued thereon, provided, however, that the institution shall be required to notify Ajinomoto Co., Inc. of any material developments in such preparation, prosecution, and maintenance.

e. Publication.

While the institution and the principal investigator retain the right to publish scientific papers on the research conducted with 3ARP funds, the institution and the principal investigator must notify Ajinomoto Co., Inc. of the desire to publish at least ninety (90) days in advance of publication and provide Ajinomoto with a written description of the subject matter of the publication in order to permit Ajinomoto Co., Inc. to review and comment thereon. The institution and the principal investigator agree to delay publication, upon Ajinomoto's written request, in order to permit appropriate steps to be taken (including in the form of an application for a patent) to protect any intellectual property arising from the research.

All publications or presentations resulting from research conducted with 3ARP funds must carry the following acknowledgement: "Funding for this research was received from the AJINOMOTO AMINO ACID RESEARCH PROGRAM."

8. No Disclosure of Third Party Information.

At all times, neither the institution nor the principal investigator shall disclose or make available, directly or indirectly, for any reason whatsoever, to Ajinomoto Co., Inc. (including the SAC), any affiliate thereof, or any director, officer, employee, consultant, or agent thereof ("Ajinomoto Group") any confidential and proprietary information of a third party. Similarly, at all times, neither the institution nor the principal investigator shall use or attempt to use, directly or indirectly, for the benefit of the Ajinomoto Group, any confidential and proprietary information of any third party. The foregoing obligations of the institution and the principal investigator apply with respect to any and all documents and materials (including, without limitation, the 3ARP application package and reports) provided to the Ajinomoto Group and any and all information made available to the Ajinomoto Group.