

The Biological Basis of Hutchinson-Gilford Syndrome (HGS): Relationship to Mutagens in the Lamin A/C Gene (LMNA) and to Other Known Laminopathies

This PA is a new initiative to support research to understand how mutations in the gene for lamin A/C affect nuclear structure, thus leading to both dysfunction of the nuclear envelope, and depending on the mutation, Hutchinson-Gilford syndrome in humans (Eriksson et al., manuscript in preparation). Lamins A and C are coded by a single developmentally regulated gene designated LMNA; lamin C is a splice variant and lacks the carboxyl terminus present in lamin A. At least 6 other rare human disorders due to lamin A/C mutations (known collectively as laminopathies) besides HGS have been described so far: Emery-Dreifuss muscular dystrophy (Bonne et al., 1999), dilated cardiomyopathy (Fatkin et al., 1999), familial partial lipodystrophy (Shackleton et al., 2000), limb girdle muscular dystrophy (Muchir et al., 2000), Charcot Marie-Tooth disorder type 2 (De Sandre-Giovanni et al., 2002), and mandibuloacral dysplasia (Novelli et al., 2002). These disorders and their relationship to LMNA mutations have been reviewed recently {Burke and Stewart (2002)}, and Hutchinson (2002) has reviewed the function of lamins in the nuclear envelope.

This PA will use the National Institutes of Health (NIH) research project grant R01 award mechanism. As an applicant, you will be solely responsible for planning, directing, and executing the proposed project. Contact the program staff listed under "inquiries" for further information. This PA uses just-in-time concepts. It also uses the modular as well as the non-modular budgeting formats (see <http://grants.nih.gov/grants/funding/modular/modular.htm>). Specifically, if you are submitting an application with direct costs in each year of \$250,000 or less, use the modular format. Otherwise follow the instructions for non-modular research grant applications.

This program does not require cost sharing as defined in the current NIH Grants Policy statement at http://grants.nih.gov/grants/policy/nihgs_2001/part_i_1.htm.

Applications must be prepared using the PHS 398 research grant application instructions and forms (rev. 5/2001). The PHS 398 is available at <http://grants.nih.gov/grants/funding/phs398/phs398.html> in an interactive format. For further assistance contact Grants Info, 301-435-0714, e-mail: GrantsInfo@nih.gov.

Applications submitted in response to this PA will be accepted at the standard application deadlines, which are available at <http://grants.nih.gov/grants/dates.htm>.

Application deadlines are also indicated in the PHS 398 application kit.

Applications must be received by or mailed before the receipt dates described at <http://grants.nih.gov/grants/funding/submissionschedule.htm>. The CSR will not accept any application in response to this PA that is essentially the same as one currently pending initial review unless the applicant withdraws the pending application. The CSR will not accept any application that is essentially the same as one already reviewed. This does not preclude the submission of a substantial revision of an application already reviewed, but such application must include an Introduction addressing the previous critique.

Contact: Felipe Sierra, Biology of Aging Program, National Institute of Aging, Gateway Building, Room 2C231, Bethesda, MD 20892-9525 USA, 301-496-6402, fax: 301-402-0010, e-mail: sierraf@nia.nih.gov; Dr. Stephen Goldman, Vascular Biology Research Program, Division of Heart and Vascular Disease, National Heart, Lung and Blood Institute, Bethesda, MD 20892-7956, USA, Carrier Zip 20814, 301-435-0560, fax: 301-480-2858, e-mail: goldmans@nhlbi.nih.gov. Reference: PA No. PA-03-069.

Individual Biomedical Informatics Fellowships

Individual biomedical informatics fellowships provide support for the training of informatics scientists able to perform research into basic informatics problems or to application of informatics to any area of biomedicine, including clinical medicine, basic biomedical research, clinical and health services research, public health, professional education, and administration. Post-doctoral, pre-doctoral and, in certain specified fields, some post-baccalaureate candidates are eligible.

Individuals must submit the application form PHS Individual National Research Service Award (PHS 416-1, rev. 12/98). Applications must include at least three sealed letters of reference. Applications without at least three letters of reference may be returned or delayed in review.

Application kits are available at most institutional offices of sponsored research offices, and online at <http://grants.nih.gov/grants/funding/416/phs416.htm>

Complete Item 3 on the face page of the application indicating that the application is in response to this announcement and print F37 National Library of Medicine (NLM) Individual Informatics Fellowship.

If the applicant has been lawfully admitted to the United States for permanent residence, the appropriate item should be checked on the Face Page of the application.

Applicants who have applied for and have not yet been granted admission as a permanent resident should check the Permanent Resident block on the Face Page of the PHS 416-1 application, and also write in the word "pending." A notarized statement documenting legal admission for permanent residence must be submitted prior to the issuance of an award.

Submit a signed, typewritten original of the application (including the Checklist, Personal Data form, at least three sealed reference letters, and all other required materials) and two (2) exact, clear, single-sided photocopies of the signed application, in one package to Center for Scientific Review, NIH, 6701 Rockledge Dr., Room 1040, MSC 7710, Bethesda, MD 20892-7710 USA, Bethesda, MD 20817 USA (for express/courier service)

Incomplete applications will not be reviewed.

An individual may not have more than one individual NRSA fellowship or comparable application pending review or award at the NIH or other Department of Health and Human Services agencies at the same time. The CSR will not accept any application in response to this PA that is essentially the same as one currently pending initial review unless the applicant withdraws the pending application. The CSR will not accept any application that is essentially the same as one already reviewed. This does not preclude the submission of a substantial revision of an application already reviewed, but such application must include an introduction addressing the previous critique.

Fellowship applications undergo a review process that takes between 5 and 8 months. The receipt dates and the three annual review cycles are as follows: application receipt dates—5 April, 5 August, 5 December; initial review dates—June/July, October/November, February/March; secondary review dates—August/September, December/January, April/May; range of likely start dates—1 September–1 December, 1 January–1 March, 1 May–1 July.

From time to time, the NLM may change some elements of this announcement. Please consider the version on the NLM website at <http://www.nlm.nih.gov/> to view the most recent revision.

Contact: Carol A. Bean, Extramural Programs, NLM, Rockledge 1, Suite 301, 6705 Rockledge Dr., Bethesda, MD 20892-9525 USA, 301-594-4882, fax: 301-402-2952; Merlyn M. Rodrigues, Extramural Programs, NLM, Rockledge 1, Suite 301, 6705 Rockledge Dr., Bethesda, MD 20892-9525 USA, 301-594-4253, fax: 301-402-2952. Reference: PA No. PAR-03-070

Advances in Polycystic Kidney Disease

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDKD) through its Division of Kidney, Urologic and Hematologic Diseases (DKUHD) invites experienced and new investigators to submit research grant applications to pursue basic and applied investigations in order to better understand the etiology and pathogenesis of polycystic kidney disease (PKD), in both its autosomal dominant and autosomal recessive forms. Such applications may examine the genetic determinants, and cellular and molecular mechanisms, which disrupt normal kidney function; mechanisms of cyst formation and growth; development of experimental model systems; development of markers of disease progression; and the identification of innovative therapeutic interventions and gene targeted strategies to prevent progressive renal insufficiency due to this disorder. The intent of this PA is to intensify investigator-initiated research, to attract new investigators to the field, and to increase interdisciplinary research. The ultimate aim is to facilitate PKD-related research studies, which will provide the basis for new therapeutic approaches.

This PA will use the NIH R01 and R21 award mechanism(s). Applications must be prepared using the PHS 398 research grant application instructions and forms (rev. 5/2001). The PHS 398 is available at <http://grants.nih.gov/grants/funding/phs398/phs398.html> in an interactive format. For further assistance contact Grants Info, 301-435-0714, e-mail: GrantsInfo@nih.gov.

Applications submitted in response to this PA will be accepted at the standard application deadlines, which are available at <http://grants.nih.gov/grants/dates.htm>. Application deadlines are also indicated in the PHS 398 application kit.

Applications must be mailed on or before the receipt dates described at <http://grants.nih.gov/grants/funding/submissionschedule.htm>. The CSR will not accept any application in response to this PA that is essentially the same as one currently pending initial review unless the applicant withdraws the pending application. The CSR will not accept any application that is essentially the same as one already reviewed. This does not preclude the submission of a substantial revision of an application already reviewed, but such application must include an Introduction addressing the previous critique.

Contact: Catherine M. Meyers, Program Director of Inflammatory Kidney Diseases, Division of Kidney, Urologic and Hematologic Diseases, NIDDKD, 6707 Democracy Blvd., Room 641, Bethesda,

MD 20892-5458 USA, 301-594-7717, fax: 301-480-3510, e-mail: cm420i@nih.gov. Reference: PA No. 03-073

Technology Development for Biomedical Applications

This PA replaces PAR-02-091.

The purpose of this PA is to invite innovative applications for 1) the development of new and improved instruments or devices, 2) the development of new methodologies using existing instruments, or 3) the development of software related to instrumentation. Any of these projects should propose tools, methodologies, or software that can be used by a wide range of biomedical or clinical researchers; projects that focus on specific organs or diseases are not responsive to this announcement. Awards made for applications received in response to this announcement will employ the R21 and the R21/R33 mechanisms that are designed to support high-risk applications for which few if any preliminary findings are available. Investigators with substantial preliminary data should seek an R01 grant by submitting an unsolicited application at the standard receipt date or by responding to a particular PA.

Questions about the suitability of proposals should be addressed to program staff listed in the "Where to Send Inquiries" section well before submission. Proposals that are focused on a specific organ or disease will be returned without review; however, proposals may use a specific organ or disease as a model system. Investigators may also want to look at the National Institute of Biomedical Imaging and Bioengineering (<http://www.nibib1.nih.gov/research/investigators.htm>) and BECON (http://www.becon.nih.gov/becon_funding.htm) web pages for funding opportunities in bioengineering research or biomedical imaging research.

This PA is similar in spirit to the Instrument Development for Biological Research program in the Directorate for Biological Sciences at the National Science Foundation (NSF) (<http://www.nsf.gov/cgi-bin/getpub?nsf98119>). The major difference between the two programs is that instrumentation for the conduct of disease-oriented research is specifically excluded from the NSF program, although some instrument development proposals could be considered either under this PA or by NSF. Applicants are encouraged to contact program staff at either NSF or NIH to discuss which program is more appropriate.

This PA will use the NIH R21 and R21/R33 award mechanism(s). As an applicant, you will be solely responsible for planning, directing, and executing the proposed project.

Specific features of this mechanism include: 1) single submission and evaluation of both a feasibility/pilot phase (R21) and an expanded development phase (R33) as one application, 2) expedited transition of the R21 feasibility phase to a R33 development phase for combined applications, 3) flexible budgets, and 4) flexible staging of feasibility and development phases.

Applications under this PA will use either the combined R21/R33 mechanism or the R21 mechanism alone. Applications using just the R33 mechanism will not be considered. An application using the R21 mechanism alone is appropriate when the possible outcomes of the proposed research are unclear; under these conditions, it would not be possible to propose quantitative milestones or describe the R33 phase of the research. Applicants are strongly encouraged to contact program staff with any questions about the appropriate mechanism. Refer to the "Where to Send Inquiries" section of this PA for program staff contacts.

Applications must be prepared using the PHS 398 research grant application instructions and forms (rev. 5/2001). The PHS 398 is available at <http://grants.nih.gov/grants/funding/phs398/phs398.html> in an interactive format. For further assistance contact Grants Info, 301-435-0714, e-mail: GrantsInfo@nih.gov.

Applications submitted in response to this PA will be accepted on 1 June and 1 October annually. Both new applications and revisions to previously reviewed applications are due on the same date.

The CSR will not accept any application in response to this PA that is essentially the same as one currently pending initial review unless the applicant withdraws the pending application. The CSR will not accept any application that is essentially the same as one already reviewed. This does not preclude the submission of a substantial revision of an application already reviewed, but such application must include an Introduction addressing the previous critique. Instructions for preparing a revised application can be found at http://grants.nih.gov/grants/funding/phs398/section_1.html#8_research.

Contact: Gregory K. Farber, Division of Biomedical Technology, National Center for Research Resources, 6701 Democracy Blvd., MSC 4874, Bethesda, MD 20892-4874 USA, 301-435-0755, fax: 301-480-3659, e-mail: gf48a@nih.gov; Bo Hong, Office of Review, NCRR, 6701 Democracy Blvd., MSC 4874, Bethesda, MD 20892-4874 USA, 301-435-0813, fax: 301-480-3660, e-mail: mv10f@nih.gov. Reference: PA No. PAR-03-075