D O R I S   D U K E
CHARITABLE FOUNDATION

DORIS DUKE CHARITABLE FOUNDATION (DDCF)
2022 REQUEST FOR APPLICATIONS AND
APPLICATION INSTRUCTIONS
PHYSICIAN SCIENTIST FELLOWSHIP

GRANT OPPORTUNITY

Grants of up to $220,000 over two years ($100,000 direct cost and $10,000 indirect costs per year) will be awarded to physician scientists (MD, MD/PhD, DO, or foreign equivalent) who are in, or have recently completed, subspecialty fellowship training working at US medical institutions to support two years of clinical research that will strengthen their careers as biomedical investigators.

KEY DATES

Eligibility Exemption Requests due	November 23, 2021, 5 pm ET
Notice of Exemption	by December 1, 2021, 5 pm ET
Applications due	January 7, 2022, 3 pm ET
Notice of Award	Early April 2022
Award Start Date	July 1, 2022

PROGRAM DESCRIPTION

Physician scientists lend vital expertise to biomedical research through their training as both clinicians and researchers. The Physician Scientist Fellowship (PSF) award aims to support research during the final years of subspecialty fellowship and aid in the transition into an academic faculty appointment. The specific goals of the PSF program are to: 1) support physician scientists in subspecialty fellowship to conduct an outstanding clinical research project; 2) ensure research time protection to enable development of research skills; and 3) facilitate strong mentor relationships.

AWARD INFORMATION

The 2022 Physician Scientist Fellowship consists of $100,000 direct costs plus $10,000 (10 percent) indirect costs each year for two years. The award project period will begin on July 1, 2022. DDCF expects to fund about ten proposals in 2022. The priority of the PSF award is to fund candidates with promise for strong research careers. DDCF does not have funding priorities based on disease area or research type.

ELIGIBILITY CRITERIA

To be eligible for this award, applicants must:
- Have a clinical subspecialty fellowship with a completion date that falls between June 30, 2021, and July 1, 2023.

- Have completed the majority of the clinical training portion of the fellowship by the award start date, July 1, 2022. *If in the structure of your subspecialty fellowship program, clinical training happens after your research year(s), a request must be submitted to ask for an exemption to this eligibility criterion (see page 5).*
- *Not* have an appointment as a full-time faculty member including but not limited to Instructor or Assistant Professor as of the award start date. Please note this award is intended for fellows whose transition to a faculty position is not imminent. While full-time faculty are ineligible, grantees may transition to full-time faculty during the award period. Assistant Professors may be eligible for the Doris Duke [Clinical Scientist Development Award](). We realize that some fellowship programs give their fellows the title of "instructor," but it is not a full-time faculty appointment. You may be eligible to apply if you have this type of instructor title so please apply for an exemption as indicated on page 5.
- Be guaranteed a minimum overall research time protection of 75 percent of full-time professional effort by the applicant's institution if an award is made. This protection ensures that the applicant develops skills and knowledge necessary for a career in biomedical research.
- *Not* be in a doctoral degree program at the time of the award. Applicants may be enrolled in a master's degree program at the start of the award, July 1, 2022. A description of the purpose and goals of obtaining the master's degree should be included in the proposal, if applicable (see the "Career Goals and Accomplishments" section on page 16). Time spent in a master's program cannot infringe on the 75 percent research effort required for this award.
- Have received an MD, MD/PhD, DO, or foreign equivalent degree from an accredited institution.
- Work at a US medical institution that is able to receive an award as an organization with tax exemption under 501(c)(3) Internal Revenue Code, as amended. Please see the information on page 3 and consult with your institutional grants office.
- Be working at the institution through which they are applying as of the start date of the award, July 1, 2022.

Other requirements and considerations:
- Applicants do not have to be US citizens.
- A clinical research project, as defined by DDCF, must be proposed in any disease area. A definition of clinical research can be found on page 4. This program does not set funding priorities based on research type or disease area. The clinical research question should have strong potential to impact the corresponding field and be achievable within the scope of the award amount and 2-year term. The clinical research question must be highly significant and have potential to lead to career advancement.
- A mentor or a mentorship team must be identified. Mentors are expected to play an active role during the course of the award in fostering the applicant's career development and capacity for independence. Mentors are expected to act as advocates for the applicant at the departmental, institutional and professional levels and provide scientific guidance for the proposed project.
- Experiments that utilize non-human animals or any tissues derived from them, including established cell lines, must not be included in the proposed research. Animal-based research

may be presented as preliminary evidence supporting the proposed research but the aims themselves must not include research with non-human animals.

- If applicable, Investigational New Drug Approvals must be in place by the application submission deadline. See page 5.
- Institutional Review Board (IRB) approvals are not necessary at the time of application. However, DDCF strongly prefers IRB approvals to be in place by the grant start date, July 1, 2022. IRB approval **must** be in place no longer than three months after the award start date. See page 5.

Other funding:

- Applicants who are supported by an NIH K award or are principal investigators of an NIH R series award or equivalent are not eligible to apply. Having received a PSF award does not preclude application and receipt of K awards or similar during the award period.
- Awardees cannot be supported by an NIH T or F series grant concurrent with the PSF because these NIH programs require full-time commitment. Applicants whose NIH T grant does not require full-time commitment at their institution may submit a request for an exemption (see page 5)
- While applicants may need several sources of funding to conduct their research, budget expenses that directly overlap with another funded project should not be proposed.

APPLICANTS FROM GROUPS UNDERREPRESENTED IN BIOMEDICAL RESEARCH

The Doris Duke Charitable Foundation recognizes that a diverse workforce that represents the demographics of the population of the United States is better poised to address health issues affecting all communities. DDCF strongly encourages individuals from groups underrepresented in biomedical research to apply because DDCF is committed to the retention and advancement of early-career physician scientists who are conducting seminal clinical research and who belong to populations whose exclusion from research based on their race, ethnicity, gender, disability, sexual orientation, or limited resources has resulted in underrepresentation in the workforce. DDCF defines individuals underrepresented in biomedical research as those who identify as: Blacks or African Americans, Hispanics or Latinos, American Indians or Alaska Natives, Native Hawaiians and other Pacific Islanders, women, individuals with disabilities, LGBTQ+, or having experienced limitations in access to science afforded by privilege (e.g., limited access to the knowledge, skill, and networks that facilitate enrollment in and graduation from a health professions school; or coming from a family with an annual income below a level based on low-income thresholds according to family size published by the U.S. Bureau of the Census).

501(c)(3) STATUS OF THE APPLICANT'S INSTITUTION

DDCF can award grants only to institutions that have determination letters from the US Internal Revenue Service documenting exemption from federal income taxation as an organization described in section 501(c)(3) of the Internal Revenue Code of 1986, as amended (the "Code"), and that they are not a private foundation or a Type III supporting organization as defined in Section 509(a) of the Code. Please note that this requirement does not exclude participation of applicants at state universities, which may not have 501(c)(3) status. State university applicants are encouraged to apply through their grant-receiving arms (e.g., applicants from the University of Texas may apply through the University of Texas Foundation). DDCF encourages applicants to seek guidance from their

institutions to identify the appropriate institutional entity through which they can apply. DDCF is unable to provide information on the tax ID that applicants must use to gain access to the application site.

APPLICATION PROCESS

Interested candidates must submit a single application. This competition is a one-stage process in which complete applications are evaluated by a review panel. All applicants will be notified of the review results in early April 2022. Instructions to prepare a complete application by January 7, 2022, start on page 7.

> All communications will be made through email. We recommend applicants add ddcf@aibs.org and noreply@mail.smapply.net to their email safe senders list.

REVIEW AND SELECTION CRITERIA

The goal of the review is to identify physician scientists in subspecialty fellowship who show great promise to become committed researchers and who are addressing a major health issue, whether related to a rare or common disease. Supportive mentoring and institutional environment should be evident as they are critical to building successful careers in research. Detailed review criteria for applications can be found in Attachment 1 on page 19.

Submitted applications are also evaluated for adherence to instructions. Compliance with formatting, application length, and information content is sought to ensure a fair review process. Non-compliant applications are not evaluated by the review panel. To avoid disqualification, we strongly encourage you to check your application against the list in Attachment 2 on page 21, which includes administrative compliance criteria.

DEFINITION OF CLINICAL RESEARCH

For this program, clinical research is defined as the scientific investigation of the etiology, prevention, diagnosis, or treatment of human disease using human subjects, human populations (including health outcomes, services, and epidemiology), or materials of human origin. Included in the definition are studies that utilize tissues or pathogens only if they can be linked to a patient. Experiments that utilize non-human animals or any tissues derived from them, including established cell lines, must not be included in the proposed research.

It is expected that the research protocols of grant applicants will require Institutional Review Board (IRB) approval. Occasionally, DDCF has funded research that does not require IRB approval (e.g., research using de-identified patient populations, immortalized human cells, and bacterial isolates). If a research project is being proposed that does not require IRB approval, applicants are strongly encouraged to contact DDCF program staff to discuss whether the proposed research falls within the DDCF's definition of clinical research. Please email ddcf@aibs.org with questions regarding the eligibility of your research project.

APPLICATION REQUIREMENTS FOR USE OF HUMAN RESEARCH SUBJECTS

Institutional Review Board approval, if necessary, is not required at the time of application. However, if necessary, Investigational New Drug approval must be in place by the submission deadline, January 7, 2022. DDCF strongly prefers Institutional Review Board approval to be in place by the grant start date of July 1, 2022. Institutional Review Board approval must be in place by October 1, 2022. The grantee may not conduct activities supported by the PSF that involve human subjects until Institutional Review Board approval is in place. We recommend that you coordinate with your Institutional Review Board to ensure timely approval.

GUIDELINES AND POLICIES

DDCF grants are subject to policies described here. Our policies may differ from those of the National Institutes of Health. For example, DDCF does not have restrictions on the use of human fetal tissue and embryonic stem cells.

ELIGIBILITY EXEMPTION REQUESTS
DEADLINE NOVEMBER 23, 2021, 5 PM ET

All eligibility criteria exemption requests must be submitted by **November 23, 2021, 5 pm ET**. Interested applicants must submit the form at https://www.surveymonkey.com/r/2022PSF . Requests will only be accepted through this form. In addition to contact information, you will need to:

1. Indicate the specific eligibility criterion from which you seek to be exempted and why it renders you ineligible for the competition.
2. Present a clear and brief justification for the request (1000-character limit). If the end date of your subspecialty fellowship falls outside the window of June 30, 2021 – July 1, 2023, indicate why an exemption is being requested. Reasons for such a request might include situations such as parental leave, childcare, eldercare, medical conditions, or delays in training due to COVID-19.
3. Attach a biographical sketch that lists the full official start and end date for your fellowship.
4. A letter from the Human Resources department at your institution to confirm a leave, if applicable.

Please do not provide additional materials, we will get in touch if any other information is needed. All requests will be evaluated as a group. As a result, even if submitted early, responses to all exemption requests will be communicated by the end of business day on December 1, 2021.

ABOUT THE DORIS DUKE CHARITABLE FOUNDATION

The Doris Duke Charitable Foundation is a philanthropic organization with the mission to improve the quality of people's lives through grants supporting the performing arts, environmental conservation, medical research and child well-being, and through preservation of the cultural and environmental legacy of Doris Duke's properties.

QUESTIONS

If you have any questions concerning this Request for Applications, please consult our online Frequently Asked Questions or email ddcf@aibs.org with "2022 PSF – your last name" as the subject line. Questions will be answered within two business days. Please do not call; we will promptly reply

to any inquiries submitted over email. We cannot assure that phone calls will reach the appropriate contact at the foundation in a timely manner. For this reason, we strongly encourage applicants to contact us via email.

**STEP-BY-STEP INSTRUCTIONS ON HOW TO PREPARE
AND SUBMIT A COMPLETE APPLICATION**

OVERVIEW OF HOW TO SUBMIT AN APPLICATION

A complete application consists of (1) online confidential commitment forms submitted by the mentor and the department chair at the applicant's request, including a letter(s) of support to be uploaded by the designated mentor; and (2) an application form, including three attachments, submitted by the applicant via DDCF's online application form. Note that the requirements for submitting supporting materials are different for the mentor and department chair. The detailed components of the complete application are described in the summary on the next page. Please note that partially completed applications will not be reviewed. To begin an application submission, do the following:

1- Visit
   https://ddcf.smapply.io/prog/psf_mentorship_and_institutional_commitment_form_request
   to send a request to the mentor and department chair to fill out electronic confidential commitment forms. Read more about the support forms on page 9. We suggest that you visit this site to make requests well in advance of the deadline so that the mentor and department chair receive timely instructions on how to submit the confidential forms. Mentor information provided here must match that provided in the online application submission form. Note that the site to request support forms from the department chair and mentor is different from the application submission site.

2- Obtain the *tax identification number* (also known as the Employer Identification Number or EIN) of the grant-receiving organization, the organization that would accept and administer the award. *The applicant will be unable to access the application submission form without this information. We recommend that applicants enter the EIN instead of trying to search for the organization when creating a new application to avoid selecting the incorrect grant-receiving body, which would delay processing of a grant should the proposal be funded.*

3- Start an online application form at: https://ddcf-portal.givingdata.com/campaign/psf.

   Once you gain access, we strongly suggest that you bookmark this website and ensure that all required information has been gathered in advance of the deadline. Please use the bookmark to return to an application form in progress.

   Note that the online application site listed in #3 is different from the site listed in #1 above, and **both** sites must be visited to complete an application. The site listed in #1 is *solely* for applicants to request the support forms from the mentor and chair, who will then submit their forms to trigger automated submission on this website. Applicants will complete and submit for themselves all other components at the website listed in #3.

Use the summary on the next page to ensure that you gather all the information required to submit an application. The Doris Duke Charitable Foundation may have concurrent competitions, each with its own application form. Please confirm that you are visiting the websites indicated here to avoid submission of forms for the wrong competition.

Summary of Application Components

A complete application consists of:

			Instructions on page:
	Online Confidential Support Materials (applicant must visit https://ddcf.smapply.io/prog/psf_mentorship_and_institutional_commitment_form_request/)		9
☐	I. Mentorship form (filled out by a designated mentor) with letter(s) of support on institutional letterhead uploaded by the same mentor (2-pages maximum for each mentor, **assembled into one pdf for applicants with mentorship teams**)		
☐	II. Institutional Commitment Form from the department chair or division chief for applicants in departments of Internal Medicine or Pediatrics		
	Online application form (Start an application at https://ddcf-portal.givingdata.com/campaign/psf; this site is different from the one above; make sure you visit both and submit the corresponding forms)		12
☐	III. Principal Investigator (fellow) information and affiliations		
☐	IV. Project information		
☐	V. Contact information for the mentor or mentors, if applicable		
☐	VI. Contact information for the department chair who will provide confirmation of institutional support		
	VII. Other institutional contacts (for pre- and post-award and public relations)		
	VIII. Demographic information		
	Application attachments		
☐	IX. Proposed budget using DDCF's template (download template)		14
☐	X. Proposal **(1-8 below assembled into one PDF document)**		15
	1. Biographical sketch of the applicant and mentor(s) using the NIH template (5-page limit per biographical sketch)		16
☐	2. Career Goals and Accomplishments (1-page maximum)		16
☐	3. Research Plan (9-page maximum)		16
	4. Literature Cited in Research Plan (no page limit)		17
☐	5. Mentoring Plan (2-page maximum)		17
☐	6. Description of Resources (1-page max)		18
☐	7. Consultant/Collaborative/Contractual Arrangements (Each letter maximum 1 page)		18
☐	8. Budget justification (1-page maximum)		18
☐	XI. Assurance form (download here)		18

ONLINE CONFIDENTIAL SUPPORT MATERIALS

A complete application will include two confidential online forms: (1) Mentorship Form submitted by a designated mentor and (2) Institutional Commitment Form submitted by the department chair. Supporting materials collected in these forms provide information about the applicant, the designated mentor and plans for mentorship, and the institutional commitment to provide research time protection for the applicant. Detailed instructions for how to request these materials are provided below. Outstanding mentorship and institutional environment are critical to success in this competition. Below are descriptions of the mentorship and institutional support expected for this award.

Mentors and department chairs will automatically receive the guide in Attachment 3 on page 23, when you request that they fill out the Mentorship and Institutional Commitment forms, respectively. Attachment 3 is provided here only for reference.

Supporting materials from the designated mentor and department chair will include two confidential online forms:

I.   Mentorship Form

Mentors are expected to play an active role during the course of the award in fostering the applicant's career development as a physician scientist and capacity for independence. Mentors are expected to act as advocates for the applicant at the departmental, institutional and professional levels and provide scientific guidance for the proposed project.

The foundation recognizes that the mentor functions described may be more adequately fulfilled by a team rather than an individual mentor. Though not required, applicants may opt to engage a mentorship team rather than a single mentor. Applicants with mentorship teams must, however, designate a mentor to fill out the mentorship form. Designated mentors will be evaluated for their research and mentorship accomplishments, including current research funding, and will be responsible for briefly describing the mentorship team if applicable. Mentors from institutions outside of the applicant's may be included if they would strengthen the applicant's research experience or would expand access to knowledge that will enable a successful research career.

The Mentorship Form submitted by the designated mentor will ask for information about the mentor and letter(s) of support. If the applicant has a mentorship team, the designated mentor must upload all the letters of support as one PDF file through the online confidential support materials website. See the attachment on page 23 for additional details.

In their letter of support, mentors are asked *to avoid* referring to personal circumstances or attributes of the applicant, such as: marital status, age or gender (e.g., young, woman, man), juggling of work-life balance such as child care responsibilities or illness, and roles of the applicant outside of the professional setting (e.g., mother, husband, father).

II. Institutional Commitment Form submitted by the department/division chair

The Institutional Commitment Form must be completed by the applicant's department chair to guarantee that the applicant will be provided with the required research time protection (75 percent) if selected to receive the Physician Scientist Fellowship award. Division chiefs in the departments of Medicine or Pediatrics may fill out this form if they are authorized to guarantee protected research time.

Instructions for the applicant on how to request supporting materials from a mentor and the department chair

- Before going to the site below, applicants will need the following information for both the mentor and the department chair:
  - First name and last name
  - Institutional email address

- Alert the mentor and department chair to expect email requests from the address noreply@mail.smapply.net. It is advisable to add this address to the safe senders list to avoid email requests from being blocked by spam filters. *The email addresses for the mentor and department chair that were used by the applicant to make the requests are the only addresses authorized to fill in the respective forms.*

- Visit https://ddcf.smapply.io/prog/psf_mentorship_and_institutional_commitment_form_request/ and bookmark the page. We recommend that applicants visit this site as soon as possible so that the mentor and department chair can complete and upload their supporting materials ahead of the deadline. Online confidential support forms from mentors and department/ division chairs must be submitted by **January 7, 2022, 3 pm ET. Late submissions will not be accepted.**

- Click "Apply" on the homepage and follow the instructions:

  > **For New Applicants**: Click "Register" on the top right corner of the login page next to "Don't have a SurveyMonkey Apply account?" Follow the prompts to create a login using the applicant's email address as the username. We suggest using the same institutional email address as for the online pre-proposal form.
  > *Note: if a returning applicant attempts to register, the user will be prompted instead to login with the existing password associated with the applicant's email to access the forms. The applicant can choose to reset their password at this time if necessary.*
  > **For Returning Applicants:** Login using your previous credentials, you may also reset your password as needed.

  For issues with account logins, contact Apply Customer Support by selecting the "Information (i)" icon on the upper right corner of the homepage and selecting "Having technical issues with this site?" Instructions for login assistance can be referenced [here](#).

- On the landing page, you will see two tasks: 1) Mentorship Form and 2) Institutional Commitment Form. Click on "Mentorship Form" to send a request for the designated mentor to fill out a Mentorship Form. An optional message may be included for the mentor.

- Repeat the previous step to request the department chair to complete an Institutional Commitment online form.

- Upon submission of their contact information, an automatic email will be generated for each of the two individuals. This email will include instructions on how to complete online confidential support forms for the applicant. Please make sure you are confident in your selections so that unnecessary emails are not distributed.

  Once the applicant sends requests to the mentor and chair, a half-filled green circle will appear by each of the two tasks as pictured below. The circle indicates a request has been made.
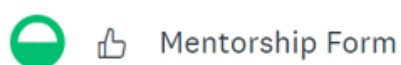
- Applicants will receive confirmation emails from noreply@mail.smapply.net once each individual agrees to complete their form in support for your application and a confirmation email when they submit their electronic support form. Applicants should receive a total of two notice of acceptance emails and two submission confirmation emails.

- Another way to check if a submission has been made by the mentor and department chair, is to click on each of the tasks and look for a green check next to the mentor and department chair name and email address as shown below

- Once both forms have been submitted by the corresponding individuals, you will also receive an email to confirm the submissions done through this website are complete. If you do not receive an email, please check your spam folder. Please note that the online confidential support forms are only part of the application. Be sure to also submit a complete an Online Application Form.

- If necessary, applicants can replace the contact information for the mentor and department chair up to deadline. If any of these individuals did not receive the email with instructions, we recommend that the applicant delete and add them again. We also recommend that email recipients check their junk mail folder or spam email filter.

- It is the applicant's responsibility to ensure that the supporting forms are completed by the deadline. **Late submissions will not be accepted**.

- Applications missing the online confidential support forms from their mentor or department chair will be disqualified without notice.

ONLINE APPLICATION FORM

Enter all information requested into the online application system. Fields marked with an asterisk are required. You will not be able submit the application without entering information into the required fields. Complete the online form by entering the following information:

III. Principal Investigator (Fellow) and affiliations
- First name, middle initial and last name
- Pronouns (optional)
- Telephone number
- Institutional email address. Note that commercial email addresses such as Gmail, Yahoo, etc. are not acceptable. All communications regarding the application will be sent to the institutional address.
- Office address
- ORCiD number
- Post-baccalaureate academic degree(s), institution and year
- Current position title
- Department name
- Institution name and affiliated research institute/hospital if applicable
- Start date of subspecialty fellowship training
- Anticipated completion or completion date of subspecialty fellowship training
- Confirmation of completion of the majority of the clinical training portion of the fellowship by the award start date
- Field(s) of research training (select from the list)
- Clinical specialty and subspecialty (select from the list)
- Doctoral and Master's degree completion confirmation, if applicable
- NIH K award funding disclosure, if applicable
- Percent professional effort currently allocated to patient care, research, teaching, administration, and other
- Overall and PSF project-specific percent research effort to be committed during the award term
- Number of first author peer-reviewed original reports

IV. Project information
- Project title (maximum 255 characters)
- Primary disease area (select from the list)
- Primary biomedical/health research area (select from the list)
- Research classification (select from the list)
- Research approach (select from the list)
- Research abstract (maximum 250 words)
- Experimental systems to be used in the proposed experiments and their source
- IRB and IND requirements for the project

V. Mentor(s) information

The form will ask for the information below for the mentor (or mentors, if applicable):
- First name and last name
- Title
- Department
- Institution
- Telephone number
- Email address

Applicants with mentorship teams:
- The contact information for up to three mentors may be provided in this online application form with the option to indicate if your team comprises additional mentors. *If you have more than three mentors on your team, please be sure to include all mentors' biosketches in your application attachment even if they are not listed in the online application form.* Only one designated mentor will be responsible for indicating the composition of the team in the confidential online Mentorship Form.
- Make sure that the information of the first mentor listed matches that of the mentor designated to fill out the Mentorship form.

VI. Department chair information

Applicants are asked to provide the contact information for the department chair. This person must be able to confirm that the applicant will have 75% protected time for research as well as the term of the applicant's title. Applicants in the Departments of Medicine or Pediatrics may provide contact information for their division chief, provided that this person can provide assurance of research time protection and confirm the term of the applicant's title.

Please make sure that the information below matches what you provided for the Institutional Commitment form:

- First name and last name
- Title
- Institutional email address
- Phone number

VII. Other institutional contacts

Enter name, title and contact information for each of the individuals responsible for managing pre-award research proposals, post-award grants and contracts, financials, and communications at the institution.

VIII. Demographic information

DDCF recognizes the value to clinical research of a diverse workforce that is representative of the demographics of the United States. We collect applicant data on race, ethnicity, gender, disability,

sexual orientation, and barriers in access to resources that may have limited participation in research. Please help us improve our processes by providing your optional responses. Individual information will be kept on a secure server, will not be provided to the review panel, and will only be described in aggregate.

APPLICATION ATTACHMENTS

For the review of applications, the foundation will add a cover page to each application. The cover page will include information that you provide through the application submission form such as your name and institution, project title, abstract, etc. When assembling your proposal attachment, do not include any additional pages (e.g., cover page, photos of the applicant, table of contents, abstract) beyond the required content. DDCF will allow **one** additional attachment if your institution requires a waiver for trainees to act as Principal Investigators on a grant. Please get in touch at ddcf@aibs.org if your institution stipulates that the applicant submit this waiver. *Including additional pages beyond an authorized waiver might result in disqualification from the competition as described in Attachment 2 on page 21.*

IX. Budget

The Excel document Budget Template must be used. The template can be downloaded from the first page of the online application form and must be uploaded as a single Excel file.

The budget template contains TWO worksheets: The first contains the detailed year 1 budget. The second contains the summary budget for the entire grant. A detailed budget for year 2 should not be prepared. No rows or columns may be deleted, moved, or manipulated in size. It is acceptable to add rows to the detailed Year 1 budget template, as necessary. Please include the budget justification as instructed in the next section.

Guidelines for Preparing the detailed Year 1 Budget:

- **Personnel:** The fellow is required to spend a minimum of 75 percent effort on research in general. There is no minimum effort allocation requirement for the PSF project. If salary is charged to the PSF award, the percent salary allocated to the award must not exceed the percent effort dedicated to the project. It is acceptable to have salary support from the institution or other sources.

  If applicable, salary must be greater than or equal to the NIH National Research Service Award (NRSA) Fellowship stipend, determined by the number of full years of relevant postdoctoral experience when the award is issued. While the salary for the applicant does not have to adhere to the NIH salary cap for postdoctoral trainees or fellows, the salary level must be justified.

  Salaries for research staff should be based on current actual salaries for existing employees. If a position is "to be named," use the salary of an equivalent employee. Fringe benefits should be budgeted for salaried positions based on the appropriate rates at your institution. Fringe benefits typically cover charges such as FICA, retirement, and health insurance. Salaries for

nurse and research coordinator efforts are allowable costs as long as these positions would directly support the proposed research plan.

- **Consultants:** Consultants are individuals who provide expert services for the project and are compensated by a fee for the service. Consultants do not receive salary support from the grant. Consultant costs should be reasonable and necessary to the project.
- **Supplies:** Supplies are expendable items and must be necessary for the conduct of the research project. If the total for supplies exceeds $10,000, break down the costs into categories such as reagents, disposables, etc.
- **Equipment:** Equipment is non-expendable, tangible property that has a useful life of more than one year. *Small equipment allocations of $5,000 or less (e.g., a computer) are allowable.*
- **Travel:** Travel costs should be reasonable and based on current rates. Typically, a DDCF medical research award budget contains one trip per year to a scientific meeting. We also require budgeting for attendance to the annual Doris Duke Clinical Scientist Meeting. An approximate cost of $1,000 is expected to cover travel and ground transportation expenses for our meeting. Hotel costs will be covered by the foundation.
- **Subject costs:** Expenses related to subject recruitment (such as participation incentives, subject remuneration, phlebotomy charges, etc.) and clinical laboratory analyses of human subjects or their samples (such as clinical laboratory assays, imaging charges, study medications, etc.) should be listed in this section of the budget.
- **Other expenses:** Publication costs may be included as other expenses. Applicants to the PSF award are expected to have completed all training leading to an academic degree. However, coursework and training costs are allowed when these would provide supplementary training that is relevant to the project.
- **Total Direct Costs:** Total direct costs are the total costs from all items budgeted in the proposal, including equipment. Direct costs are costs that will be used to directly support the program activities. The total direct costs must not exceed $100,000 annually for the entire grant term.
- **Indirect Costs:** Indirect costs are the costs that cannot be directly associated with the grant but are incurred as a result of the institution taking on the proposed activity. The maximum amount of indirect costs for the PSF is 10 percent of annual total direct cost or $10,000 annually ($20,000 over the entire grant term).

X. Proposal (sections 1-8 assembled into a single PDF document)

- **Font:** Use 12-point font size throughout unless noted otherwise. Smaller font sizes are acceptable for use in tables, figure legends, the biographical sketch, and the list of cited literature.
- **Line spacing:** Single-spaced text body
- **Page Margins:** Page margins must not be smaller than 0.5 inch on all sides
- **Color Figures:** Applicants may include color figures as reviewers will be provided with the electronic PDF that you submit
- **Page Limits:** Do not exceed the page limits stated for each section
- **Page Numbers**: Please number the pages
- **Section Headers:** Each numbered section (1-8 below) must include the section name (e.g., Career Goals and Accomplishments, Research Plan)

Applicants **must include all sections** described below. The following sections must be compiled into a **single PDF proposal document** in the order listed below for submission with your application. Do not use PDF files that have Flash embedded in them. Adhere to the page guidelines described below.

1. **NIH format biographical sketch of the fellow and mentor (Maximum 5 pages each)**
   Biographical sketches must be provided for the fellow and the mentor(s). Changes to the mentors are not accepted once an application is submitted. The biographical sketch, including research support information, must be in the current NIH format. For applicants who opt to have more than one mentor, the biographical sketches for all mentors (5 pages each) must be provided. Do not include biographical sketches for collaborators, consultants, or any others not explicitly required.

   Be sure to arrange your biosketches in the following order: 1) fellow (applicant), 2) designated mentor, 3) other mentors as needed.

2. **Career Goals and Accomplishments (1-page maximum)**
   Statement written by the applicant that contains a description of significant professional accomplishments, reasons for undertaking clinical research, plans for future professional development, and long-term career goals. Include how you envision this award will further your career development. If the applicant would be enrolled in a master's degree program at the award start date, include a description of the purpose and goals of obtaining this degree and how much time it will require.

3. **Research Plan (9-pages maximum, excluding literature cited)**
   The research plan is a concise proposal for a clinical research project prepared by both the fellow and the mentor or mentor team (see page 4 for DDCF's definition of clinical research).

   As you begin to work on your research plan, we strongly recommend that you copy/paste all the section headers below into your working document to ensure that all sections are included. *Proposals with a research plan missing sub-sections or with sub-sections out of order will be disqualified from the competition without prior notice.*

   The research proposal must include these sections:

   - **Clinical Significance:** Address all of the following questions (*no more than two sentences each*). We suggest copying and pasting the questions so that the presence of your responses is evident. Not addressing these questions might disqualify your proposal.
     - What is the clinical research question to be addressed?
     - Why is your proposal important and original (has it been done before)?
     - What is the expected societal impact of the proposed research?
     - How will the proposed research impact or improve patient care or human health?
   - **Hypotheses and Specific Aims:** Clearly state each hypothesis being tested and the corresponding proposed specific aim.

- **Background and Significance:** Discuss the scientific knowledge that led to the stated hypotheses and specific aims and cite critical references. State the importance and health relevance of the proposed research.
- **Preliminary Results:** Present data pertinent to the proposed research, especially if they substantiate the validity of a new technique or hypothesis or demonstrate expertise in a new area of research. We understand that COVID-19 has negatively affected research productivity and will be mindful of this general impact when evaluating availability of preliminary results to support the scientific premise.
- **Research Design and Methods:** Describe the procedures and methodology that will be used to accomplish the specific aims of the project. For each specific aim, describe the participants (age, age group, gender, etc.), samples and their source (commercial or from study subjects), study design, inclusion and exclusion criteria for participants if applicable, predictor and outcome variables, methods to measure or assess predictor and outcome variables, and randomization of treatment and analyses. Discuss any potential difficulties and alternate approaches that might be taken to accomplish the aims.

NOTE: The review committee comprises experienced physician scientists and will broadly reflect the disease areas supported by this award mechanism; however, your proposal will not necessarily be reviewed by experts in your field of research. Therefore, it is in your best interest to define all acronyms, to keep your research plan free of jargon, and to make it understandable to a non-specialist.

4. **Literature Cited in Research Plan (No page limit, 10-point font may be used)**
   Provide complete references to the literature cited in the body of the Research Plan.

5. **Mentoring Plan (2-pages maximum)**
   Description of mentor(s)'s training record and an individualized mentoring plan for the fellow. The mentoring plan should describe how the mentor will contribute to the development of the fellow's research career. Please include the following:
   - Description of availability of mentor's time, professional influence, scientific knowledge, resources, and environment for fellow's research and career development
   - Plans for supervision, guidance, and communication, such as face-to-face meetings
   - Plans for enrichment activities, such as seminars, journal clubs, and formal coursework
   - Plans to help strengthen the applicant's research skills, particularly in areas for which the applicant may not already have a strength and that are required to carry out the research aims
   - Short- and long-term goals
   - Efforts to support the applicant in the preparation for a future successful transition to a faculty position
   - If the applicant self-identifies as a member of a group underrepresented in biomedical research, mentor's efforts to provide support
   - Training timeline

6. **Description of Resources (1-page maximum)**
   Identify specific resources such as subjects, materials, equipment, and facilities that you will need to complete the proposed research plan. Do not list general laboratory and office facilities at your disposal such as office square footage and general use computer equipment. Provide assurance that you have access to the specialized equipment and facilities required for your research including facilities for patient studies if needed, such as hospital units or clinical research centers, but do not include a letter confirming access to resources.

7. **Consultant/Collaborative/Contractual Arrangements (Each letter maximum 1 page)**
   If applicable, include letters verifying any consulting, collaborative, or contractual arrangements necessary to conduct the proposed research. **These should not be letters of recommendation.**

8. **Budget Justification (1-page maximum)**
   Provide a budget justification for the proposed expenses. Be sure to explicitly justify large or unusual budget allocations and the proposed effort allocation of the fellow. The budget justification must include an explanation of salary allocations. If salary is charged to the PSF award, the percent salary allocated to the award must not exceed the percent effort dedicated to the project.

XI. **Assurance form (download here)**
   The Assurance Form **must be signed by the applicant and an Institutional Official.** A signed assurance form must be uploaded to the Online Application Form. Applications missing this form will be disqualified from the competition.

PLEASE NOTE

- Applications **will not be accepted after 3 pm ET on January 7, 2022.** The online application system shuts down automatically at the deadline.
- After the deadline, applicants with incomplete applications and those not adhering to instructions will be removed from the competition without notice.
- Applicants whose mentor or department chair does not provide the electronic confidential support forms will be removed from the competition without prior notice. It is the responsibility of the applicant to ensure that this information is submitted by the deadline. Please note that the deadline for submission of the confidential forms is the same as for the applicant, **3 pm ET on January 7, 2022.** Late submissions will not be accepted.
- Applications that do not meet the page limits and formatting instructions will not be considered for review.
- The submission of an application is final, and modifications after submission will not be accepted.
- The maximum size for the attachment is 1000 MB. Please note that files with certain extensions (such as "exe", "com", "vbs" or "bat") cannot be uploaded.

Proposals will be evaluated according to the following review criteria:

Significance

- Impact on human health. Does the disease or health issue being studied pose a major clinical burden (with considerable morbidity and mortality for affected individuals, whether it is a rare or common condition) or has the potential to improve the health of marginalized communities?
- Likelihood that the research will influence the field, lead to improvements in human health, and career advancement of the applicant.
- Potential of the research, if carried out successfully, to fill critical gaps in evidence or knowledge.
- Significance of the societal impact of the proposed research.

Originality

- Does the applicant propose new work, not previously done by others, to address a clinically meaningful research question?

Approach

- Appropriateness of the methodology and scope of the project for a subspecialty fellow.
- Are the research aims anchored in background literature that informs the study design, clinical sample, key variables, and methods being used?
- Are preliminary data sufficient to give confidence in the project? Please consider that COVID-19 is widely affecting researchers' ability to produce preliminary data. The foundation is not averse to risk if the research plan is sound.
- Is the study plan rigorous? Are the following appropriate to the study: hypotheses, study design, predictor and outcome variables, participants or samples and their age group and gender, entry criteria, recruitment strategy, assays or tools to measure or calculate variables, and statistical analyses?
- Is the study power adequate to answer the research question?

Investigator

- The applicant's promise to make significant contributions to the field.
- Demonstration of the applicant's inventiveness and talent.
- Potential of the applicant to have a successful career in clinical research.
- Evidence that the PSF award will move the candidate's career forward and provide a pathway to future research grant funding.

Environment and Mentorship
- Quality of the research training environment.
- Commitment of the applicant's department and institution to the applicant.
- Evidence of institutional and mentor commitment to facilitate access to key resources, including necessary clinical subjects or specimens if applicable.

- Evidence of the mentor's successful research career, including grant support. Will this provide necessary support to the applicant?
- Potential of the mentor to support the applicant and offer outstanding research and career guidance.
- Fit of the proposed partnership between applicant and mentor.
- Evidence of both parties' commitment.
- Quality of the mentoring plan and proposed structure of the mentorship. Will the mentoring plan help the applicant achieve skills and knowledge to advance as a physician scientist?
- If collaborations are needed, have they been established, particularly in areas lacking in the applicant's or mentor's training?

ATTACHMENT 2: ADMINISTRATIVE COMPLIANCE CRITERIA
2022 DORIS DUKE PHYSICIAN SCIENTIST FELLOWSHIPS

We recommend checking your application against this list of items that, if not met, will result in disqualification from the competition. Using this list will ensure that your proposal is reviewed.

- ☐ Eligibility criteria: Do you meet all eligibility criteria? Unless an exemption was approved, ineligible applicants' submissions are not reviewed.

- ☐ Mentorship form was submitted.

- ☐ Institutional commitment form from the department chair, or division chief in Internal Medicine or Pediatrics, was submitted.

- ☐ The instructions for the 2022 competition were used to prepare the application. Using instructions from previous competitions will likely result in disqualification as the instructions are revised annually.

- ☐ Proposed budget was prepared in the DDCF-provided template.

- ☐ Proposed budget was uploaded as an attachment to the online application form.

- ☐ Proposal attachment is a single document assembled as instructed.

- ☐ Proposal attachment was uploaded to the online application form.

- ☐ NIH-format biographical sketch of the applicant is no more than 5-pages long.

- ☐ NIH-format biographical sketch of the applicant is part of the Proposal attachment in the instructed order (i.e., 1 – applicant, 2 – designated mentor, 3 – other mentors).

- ☐ NIH-format biographical sketch of the mentor(s) are included as part of the proposal attachment in the instructed order (i.e., 1 – applicant, 2 – designated mentor, 3 – other mentors). If the mentor team comprises more than three mentors, all biosketches are included.

- ☐ The Career Goals and Accomplishments section of the proposal attachment is present and no longer than 1-page.

- ☐ The Research Plan is part of the proposal attachment and follows the Career Goals and Accomplishments section.

- ☐ The Research Plan does not exceed nine pages.

- ☐ Research Plan description includes all five labeled, required sub-sections in the instructed order.

- ☐ Cited literature is included as part of the proposal attachment as instructed.

- ☐ Mentoring Plan is included as part of the proposal attachment and does not exceed two pages.

- ☐ Description of Resources is included as part of the proposal attachment and does not exceed one page.

☐ Budget Justification is included as part of the proposal attachment and does not exceed one page.

☐ Signed assurance form was uploaded to the online application form.

☐ Extra pages (e.g., cover page, table of contents, publications, abstracts, headshots, IRB approval letter, letter confirming access to resources, protocol modification plan, etc.) are not included. We add a standard cover page to each application for review, so please do not include one. Including any items not requested as part of the application might result in disqualification. *The only exception to this requirement is if your institution requires the submission of a waiver for fellows to act as PI on a grant submission; if this is your situation, be sure to notify ddcf@aibs.org to allow for an additional page.*

ATTACHMENT 3: INFORMATION FOR MENTOR(S) AND DEPARTMENT CHAIR OF APPLICANTS TO THE 2022 DORIS DUKE PHYSICIAN SCIENTIST FELLOWSHIP

The purpose of the Doris Duke Physician Scientist Fellowship award is to support research conducted by subspecialty fellows during final years of subspecialty fellowship and aid in the transition into an academic faculty appointment. The award is highly competitive and successful applicants have outstanding research plans, mentors and institutional support. Supportive mentoring and institutional environment should be evident as they are critical to building successful careers in research.

The Doris Duke Charitable Foundation recognizes that a diverse workforce that represents the demographics of the population of the United States is better poised to address health issues affecting all communities. Therefore, the foundation values mentor and institutional efforts to achieve diversity, equity, and inclusion in biomedical research.

Applicants to Physician Scientist Fellowships will request a designated mentor and the department chair, or division chief for applicants in Internal Medicine and Pediatrics, each to complete a confidential online form in support for their application by **3 pm ET on January 7, 2022**. The Mentorship Form will be submitted by a designated mentor and the Institutional Commitment Form will be submitted by the department chair or chief, if applicable. If the designated mentor is the department chair, this person must submit each of the two forms. Please see the corresponding section below for specific guidance based on your role in the application.

The mentor, or the designated mentor for applicants with a mentorship team, and the department chair will receive an email message from noreply@mail.smapply.net requesting completion of a Mentorship Form or Institutional Commitment Form, respectively, **by 3 pm ET on January 7, 2022**. It is advisable to add this address to the safe senders list to avoid email requests from being blocked by spam filters.

The email will include instructions on how to complete the corresponding electronic confidential support form for the applicant and a *unique* link to log into the portal for the relevant form. Mentors and department chairs will need to create an account to access their respective forms by clicking "Register" on the top right corner of the login page. Please note that the same instructions apply for mentors and chairs who have participated in prior competitions; they will receive the same invitational email but will simply login instead of creating an account. If returning users attempt to register, they will be prompted to login with existing credentials, at which point they may reset their password.

For issues with account logins, contact Apply Customer Support by selecting the "Information (i)" icon on the upper right corner of the webpage and selecting "Having technical issues with this site?" Instructions for login assistance can be referenced [here](#).

For any other questions, please contact mrp@ddcf.org.

Mentorship form

Mentors are expected to play an active role in fostering the applicant's career development as a clinician researcher during the course of the Physician Scientist Fellowship grant. Mentors are expected to act as advocates for the applicant at the departmental, institutional and professional levels and provide scientific guidance for the proposed project. DDCF recognizes that these functions may be more adequately fulfilled by a team rather than an individual mentor. Though not required, applicants may opt to engage a mentorship team rather than a single mentor. Mentors from institutions outside of the applicant's may be included if they would strengthen the applicant's research experience or would expand access to knowledge that will enable a successful research career.

The Mentorship Form collects the information from the designated mentors:
1. Their name, academic title, and field of research
2. Their active research funding
3. Their experience as mentors
4. The mentor's racial equity and mentorship training and resulting changes to mentoring activities.
5. The mentor's role and effort to foster an environment that is inclusive and committed to promoting the career of the applicant, if the applicant is from a group underrepresented in biomedical research.
6. Mentorship letter of support

The Mentoring Plan in the main application will include details of mentoring interactions and time commitments, while the mentorship letter(s) should describe:
- The relationship with the applicant.
- Why the applicant's record and accomplishments merit PSF support.
- Why the mentor(s) has/have taken a mentorship role for this applicant.
- Mentoring philosophy and experience.
- Plans for successfully developing the applicant's career as a clinical investigator.

Mentors are asked to avoid referring to personal circumstances or attributes of the applicant, such as: marital status, age or gender (e.g., young, woman, man), juggling of work-life balance such as child care responsibilities or illness, and roles of the applicant outside of the professional setting (e.g., mother, husband, father).

Institutional Commitment Form

The form asks the department chair to provide the following information:

1. Applicant's official appointment title (if applicable)
2. Applicant's fellowship end date
3. Confirmation that the applicant rank is not faculty
4. Applicant's current effort allocation to research.

Confirmation that the applicant would have 75% research effort protection during the award term, if funded

5. Confirmation that the applicant would be guaranteed a position through the term of the award.
6. Brief remarks (1,500-character limit) about the institution's commitment to the applicant, including research time protection and how the institution will support the applicant's research and career advancement.
7. Information about the department's plans to advance diversity, equity, and inclusion.
8. Description of additional resources being provided to the applicant, if from a group underrepresented in biomedical research, to foster an environment that is inclusive and committed to promoting the career of the applicant

Department chairs are asked to avoid referring to personal circumstances or attributes of the applicant, such as: marital status, age or gender (e.g., young, woman, man), juggling of work-life balance such as child care responsibilities or illness, and roles of the applicant outside of the professional setting (e.g., mother, husband, father).

Letters on institutional letterhead will not be accepted in lieu of the Institutional Commitment form nor in addition to it.