

C3RDP – Trainee Grant Request for Applications



Program Name: Cure CF Columbus Research & Development Program (C3RDP) – Trainee Grant Request for Applications (RFA)

Brief Program Overview/Description: Cure CF Columbus (C3) Research Development Program (RDP) supports and promotes groundbreaking research and clinical cystic fibrosis (CF)-related investigation with individuals located at Ohio State University and Nationwide Children’s Hospital, and subsequently applies this knowledge for the development of new therapeutic strategies to better arm host defenses that combat infection.

Mission Statement: Excessive inflammation and recurrent infections are a hallmark of CF pathophysiology. The C3RDP mission is to develop treatments that prevent and/or diminish this pathophysiology. The C3RDP will pursue its mission through investigation of the cellular and molecular mechanisms that underlie inflammation and infection in people with CF.

Our goals for the C3RDP are:

1. To facilitate new collaborations among CF researchers
2. To foster a strong network of CF and non-CF researchers worldwide
3. To expand the C3RDP community through recruitment of new investigators and trainees/future investigators
4. To engage junior investigators into the CF space

The values of diversity, equity and inclusion are integral to the success of the C3 community. The C3RDP commits to fostering diversity in research by recruiting investigators of different scientific disciplines but also of diverse social backgrounds.

Funding Amount: Funding of up to **\$29,200** for pre-doctoral trainees and **\$70,200** for post-doctoral trainees per year per project may be requested (indirect costs are not allowed) for up to a two (2) year period. Resources will be evaluated for funding if the C3RDP is not renewed.

Key Dates (Contingent on renewal of C3RDP proposal)

RFA Release date	April 12, 2024
Grant Application Deadline	May 20, 2024, at 5 pm EST
Revisions Submitted (if necessary)	June 10, 2024, at 5 pm EST
Award Notifications	Late June 2024*
Earliest Project Start Date	July 1, 2024*
Award Period	July 1, 2024—June 30, 2025*

*Contingent on renewal of C3RDP proposal

Table of Contents

Key Dates (Contingent on RDP renewal)	1
C3RDP Training Program	2
Funding	2
Eligibility	3
Current C3RDP Research Interests	3
Application Guidelines & Components (for 1 st time applicants)	3
Grant Review Process	4
Full Application Checklist	5
Contact Information and Other Resources	5

C3RDP – Trainee Grant Request for Applications

C3RDP Training Program

The mission of the Training Program is to provide superbly integrated, high quality, and formative scientific training to individuals committed to careers in CF research. The immediate goals are to support trainees who will develop and test new hypotheses and methods and apply existing methods to CF for the first time. In the long term, the goal is to enable trainees to collect data that are relevant to CF and to recruit and train the next generations of CF researchers and physician-scientists.

Training Program objectives:

1. To provide continued support for state-of-the-art laboratory-based training in our established focus areas (CF immune dysfunction, microbial pathogenesis, the interface of macrophages and neutrophils with CF pathogens, and CF airway epithelial physiology).
2. To enhance training in our emerging focus areas (Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) modifier effects on immune cell function, progenitor cell biology and therapy, CFTR channel function and dysfunction, adaptive immune cell dysfunction in CF, and therapeutics aimed at managing infection and inflammation).
3. To make available partial financial stipend and tuition support (cost share agreement) for graduate students and post-doctoral trainees.
4. To provide potential biomedical research career trainees with a strong foundation in basic sciences and the direct lab experience needed to conduct research in our established and emerging focus areas.
5. To support our core C3 trainee enhancement programs.
6. For basic trainees, we offer shadowing in NCH's CF clinic and time to meet with and learn more about the clinical impact of CF.
7. For clinical trainees, we offer visitation and shadowing of laboratories at NCH and OSU and time to meet with the laboratory leaders to learn more about the basic science aspect of CF.

Trainee grant applications should focus on basic or translational research. Studies that incorporate use of clinical specimens that are recovered from human subjects (e.g., airway cells, immune cells, bronchioalveolar lavage (BAL), serum, etc.) are highly encouraged. Special consideration will be given to projects that: 1) propose innovative and creative approaches to the problems of CF disease; 2) focus on areas of special and emerging interest to the C3RDP research; and 3) utilize and acknowledge the C3 research cores (<https://www.curecfcolumbus.org/core-services.html>). The applications will be reviewed, and the applicants may be required to submit a revised application. All applications will be reviewed by the C3 Internal Advisory Board.

Funding

The grant includes **two trainee fellowships**. The purpose of this RFA is to support highly meritorious **trainee projects**. These applications can be an extension of prior funded C3 Research projects or new proposals from any eligible OSU or NCH trainee.

- Up to **\$29,200** can be awarded to the pre-doctoral trainee.
 - **\$25,000** will be used for partial stipend support from C3RDP.
 - **\$4,200** will be used for supplies, core services, animal costs, and travel and registration for the North American CF Conference (NACFC).
- Up to **\$70,200** can be awarded to the post-doctoral trainee.
 - **\$66,000** will be used for partial stipend support from C3RDP/NCH.
 - **\$4,200** will be used for supplies, core services, animal costs, and travel and registration for the North American CF Conference (NACFC).
- For trainees with prior C3 support, a second year of funding is contingent on demonstration of satisfactory progress and approval by the C3 Research Internal Advisory Board. A separate budget and justification will be required at this stage.
- No indirect costs will be provided.

C3RDP – Trainee Grant Request for Applications

Eligibility

General eligibility criteria:

1. Applicants should be currently enrolled in an OSU or NCH training program. These typically include individuals who are at the predoctoral, postdoctoral, or fellow phase of their education.
2. Applicants cannot hold an existing fellowship award (e.g., T32, CFF postdoctoral, F31/F32 or equivalent) that supports their stipend.
3. Current C3 trainees supported by C3 funds may apply for a 2nd year of support. See Section: Renewal Guidelines & Components for more information.
4. U.S residents and applicants from outside the U.S are welcome to apply.
5. Relevant approvals from the Institutional Animal Care and Use Committee, Institutional Biosafety Committee, and Institutional Review Board must be in place at the time that the trainee grant is awarded.

Current C3RDP Research Interests

C3 Established Focus Areas:

- Studies on CF innate immune cell dysfunction
- Effects of CFTR modifiers on cell function
- Microbial pathogenesis in CF (*Pseudomonas*, *Burkholderia*, *Staphylococcus*, *Haemophilus*, NTM and respiratory viruses including rhinovirus, RSV, influenza, others)
- Interactions at the interface of macrophages and neutrophils with CF pathogens
- Defects in CF airway epithelial cell defenses that predispose to infection

C3 emerging focus areas and opportunities for expansion include:

- Immune function and dysfunction in CF T and B cells
- Developing means to repair and/or replace mutant CFTR
- Characterization of cellular targets for CFTR correction in progenitor cells and other affected tissues
- Development of new therapeutics aimed at managing infection and inflammation

Application Guidelines & Components (for 1st time applicants)

1. Application Components
 - a. The grant application is to be submitted as a single PDF. All application attachments (links) are below and can be found on our website. The pages must be in the following order:
 - i. Signed Face page
 - ii. NIH Biosketch: Maximum 5 pages per biosketch for each
 - a. Trainee
 - b. Primary mentor
 - iii. Detailed budget
 - a. \$25,000/\$66,000 will be used for partial stipend support from NCH/OSU
 - b. \$4,200 will be used for supplies, core services, animal costs, NACFC travel and registration.
 - iv. Budget justification
 - v. Research plan: Limited to 6 pages (Arial 11 font with at least 0.5” margins). References are not counted in the 6-page limit.
 - a. Describe the aims of the project, the hypothesis to be tested and supporting preliminary data, approach (research design), anticipated results, and outcomes/alternative approaches. Include the relevance of the project to the CF Foundation and C3 research missions and an indication of how C3 core resources will be utilized. The scope of the work should encompass work proposed in a two-year project, although funding of a second year is contingent on progress made during year 1 (below).

C3RDP – Trainee Grant Request for Applications

- b. Trainees with prior support from C3 (second year) must include a summary of progress towards the aims of their prior proposal (maximum of 2-pages) that includes presentations, manuscripts, or other publication communications of progress. These individuals do not need to complete a full research plan for the second year.
- vi. Mentor’s Letter of Support and Training plan (2-page limit), which includes:
 - a. The merits of the trainee
 - b. Discussion of how the mentor will develop trainee’s capabilities for CF and C3RDP-related research or clinical activity.
 - c. Training environment
 - d. Relationship between the current application and the trainee’s long-term career goals.
- vii. The C3RDP strongly encourages that trainees enlist a CF clinical mentor. This would likely be a physician who is involved in CF clinical activities and is knowledgeable about research related to CF.
- viii. NIH formatting (font size and page formatting) must be followed for the research plan and bibliography.
- ix. Appendices are not allowed.
- x. [Application attachments](#) and the [descriptions of the C3RDP Cores](#) can be found on our C3 website.
- xi. Grant applications must be submitted as a single PDF file due on **May 20, 2024, at 5 pm EST** to PulmonaryGrants@nationwidechildrens.org.

Renewal Guidelines & Components (for previously funded trainees to request 2nd year)

1. The grant application is to be submitted as a single PDF. All application attachments (links) are below and can be found on our website. The pages must be in the following order:
 - a. Signed Face Page
 - b. Updated NIH biosketch Maximum 5 pages per biosketches for trainee and mentor
 - c. Revised detailed budget
 - d. Budget justification
 - e. Progress report (2 pages maximum; use research plan template below)
 - f. Copy of the original application
 - g. A 1-page description of plans for the upcoming year, publications, and further support for the project (use research plan template below)
 - h. NIH formatting (font size and page formatting) must be followed for the research plan and bibliography.
 - i. Appendices are not allowed.
 - i. [Application template forms](#) and the [descriptions of the C3RDP Cores](#) can be found on our C3 website. Examples can be provided upon request.
 - ii. Grant applications must be submitted as a single PDF file due on **May 20, 2024, at 5 pm EST** to PulmonaryGrants@nationwidechildrens.org.

Grant Review Process

1. Review will be conducted by members of the C3RDP Research Internal Advisory Board.
2. Each reviewer will submit a written review
3. Each grant reviewer will provide 4 scores:
 - a. Applicant
 - b. Training Plan and Environment
 - c. Scientific Merit
 - d. Relevance to CF Foundation and C3 missions

C3RDP – Trainee Grant Request for Applications

4. Grants needing clarification or improvement will be returned to the applicant and revisions will be due by **June 10, 2024, at 5 pm EST**. Revisions, if needed, must be submitted via email to PulmonaryGrants@nationwidechildrens.org.
5. Grant awards will be announced in June 2024.
6. If accepted, awardees planning to obtain specimens through the Translational Core must submit a [Specimen Request Form](#).

Full Application Checklist

Please use provided templates/attachments to complete the full application:

- Face Page
- NIH Biographical Sketch
- Detailed Budget
- Budget Justification
- Research Plan
- Mentor’s Letter of Support and Training Plan

Contact Information and Other Resources

Title	Name	Phone #	Email
Program Directors	Daniel Wozniak Mark Mitton-Fry Grace Paul	614-247-7629 614-292-1903 614-722-4766	Daniel.wozniak@osumc.edu Mitton-fry.1@osu.edu Grace.Paul@nationwidechildrens.org
C3 Administrator	Stephanie Sliemers	614-722-2059	Stephanie.Sliemers@nationwidechildrens.org
Research Operations Manager	Katie Thornton	614-722-4922	Katie.Thornton@nationwidechildrens.org

Please visit our Cure CF Columbus website for more information and resources: <http://www.curecfcolumbus.org/>

The RDP is administered out of Nationwide Children’s Hospital Pulmonary Research Core (PRC). If you have any questions about the application, who to speak to about specimens, or any problems that may arise during the grant period, please contact the PRC at PulmonaryResearchCore@nationwidechildrens.org or Dr. Karen McCoy directly at Karen.McCoy@nationwidechildrens.org.