

Dr. Otto Warburg

Antrag

Ich benötige 10 000 (zehntausend) Mark

Otto Warburg



Figure 2 | **Grant proposal.** Facsimile of a research proposal submitted by Otto Warburg to the Notgemeinschaft der Deutschen Wissenschaft (Emergency Association of German Science), probably in 1921. The application, which consisted of a single sentence, "I require 10,000 marks", was funded in full. This is a reconstruction based on a detailed description from H. Krebs¹.

F30

Ruth L. Kirschstein Individual Predoctoral NRSA for MD/PhD and other Dual Degree Fellowships

Program Purpose

The purpose of this Kirschstein-NRSA program is to enhance the integrated research and clinical training of promising predoctoral students, who are matriculated in a combined MD/PhD or other dual-doctoral degree training program (e.g. DDS/PhD, AuD/PhD, DVM/PhD), and who intend careers as physician-scientists or other clinician-scientists.

	PD/PI	Eligibility	Career level
		U.S. citizen or permanent resident, enrolled in a dual-degree program.	Graduate/Clinical Doctorate
	INSTITUTION	Eligibility	
		U.S. domestic institutions	

F31

Ruth L. Kirschstein Predoctoral Individual National Research Service Award

Program Purpose

The purpose of this Kirschstein-NRSA program is to enable promising predoctoral students with potential to develop into a productive, independent research scientists, to obtain mentored research training while conducting dissertation research. The F31 is also used to enhance workforce diversity through a separate program.



PD/PI

Eligibility

Career level

U.S. citizen or permanent resident, enrolled in a research doctoral degree program.

[Graduate/Clinical
Doctorate](#)



INSTITUTION

Eligibility

U.S. domestic institutions,
Foreign Institutions

F31

Ruth L. Kirschstein National Research Service Award Individual Predoctoral Fellowship to Promote Diversity in Health-Related Research (Parent F31 - Diversity)

Program Purpose

The purpose of this program is to enhance the diversity of the health-related research workforce by supporting the research training of predoctoral students from population groups that have been shown to be underrepresented in the biomedical, behavioral, or clinical research workforce. The proposed mentored research training is expected to clearly enhance the individual's potential to develop into a productive, independent research scientist.

	PD/PI	Eligibility	Career level
		U.S. citizen or permanent resident, enrolled in a research doctoral degree program.	Graduate/Clinical Doctorate
	INSTITUTION	Eligibility	
		U.S. domestic institutions, Foreign Institutions	

F32

Ruth L. Kirschstein Postdoctoral Individual National Research Service Award

Program Purpose

The purpose of the Kirschstein-NRSA postdoctoral fellowship is to enhance the research training of promising postdoctoral candidates who have the potential to become productive, independent investigators in scientific health-related research fields relevant to the missions of the participating NIH Institutes and Centers.



PD/PI

Eligibility

Career level

U.S. citizen or permanent resident, with research or clinical doctoral degree.

[Postdoctorate/Residency](#)



INSTITUTION

Eligibility

U.S. domestic institutions,
Foreign Institutions

F99/
K00

Individual Predoctoral to Postdoctoral Fellow Transition Award

Program Purpose

The purpose of the Predoctoral to Postdoctoral Fellow Transition Award (F99/K00) is to encourage and retain outstanding graduate students who have demonstrated potential and interest in pursuing careers as independent researchers. The award will facilitate the transition of talented graduate students into successful research postdoctoral appointments.



PD/PI

Eligibility

Career level

U.S. citizen or permanent resident, in year 3 or 4 of PhD training.

[Graduate/Clinical
Doctorate](#)



INSTITUTION

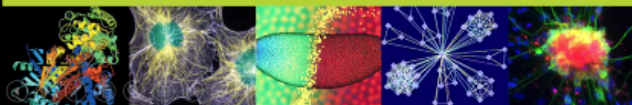
Eligibility

U.S. domestic institutions



Checklist for Application Preparation

- ☐ If you are uncertain about the NIGMS-mission relevance of your research contact the appropriate NIGMS Program Officer (PO)
- ☐ Read and follow instructions in the Funding Opportunity Announcement (FOA)
- ☐ Good grantsmanship
 - Refer to literature accurately and thoroughly
 - Include well-designed tables and figures
- ☐ Include potential pitfalls & alternative approaches
- ☐ Get feedback from other investigators familiar with NIH applications
- ☐ Allow time for submission, avoid last minute before deadline
- ☐ Send in supplemental materials if allowed by the FOA (check with SRO)
- ☐ Ask for advice from trusted colleagues, mentors, and your NIGMS POs



REVIEW CRITERIA AT A GLANCE - FELLOWSHIPS

	Fellowship (F30, F31, F32, F33)	Career Development (K01, K02, K07, K08, K23, K24, K25, K99)	Institutional Training (T32, T35, K12)
Overall Impact	<u>Overall Impact/Merit</u>	<u>Overall Impact</u>	<u>Overall Impact</u>
Scored Review Criteria (Scored individually and considered in overall impact score)	<ul style="list-style-type: none"> ✓ <u>Fellowship Applicant</u> ✓ <u>Sponsors, Collaborators, and Consultants</u> ✓ <u>Research Training Plan</u> ✓ <u>Training Potential</u> ✓ <u>Institutional Environment & Commitment to Training</u> 	<ul style="list-style-type: none"> ✓ <u>Candidate</u> ✓ <u>Career Development Plan/Career Goals & Objectives/Plan to Provide Mentoring</u> ✓ <u>Research Plan</u> ✓ <u>Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s)</u> ✓ <u>Environment & Institutional Commitment to the Candidate</u> 	<ul style="list-style-type: none"> ✓ <u>Training Program and Environment</u> ✓ <u>Training PD/PI</u> ✓ <u>Preceptors /Mentors</u> ✓ <u>Trainees</u> ✓ <u>Training Record</u> <p>Other T programs use other criteria</p>
Additional Review Criteria (Not scored individually, but considered in overall impact score)	<ul style="list-style-type: none"> ✓ <u>Protections for Human Subjects</u> ✓ <u>Inclusion of Women, Minorities, & Children</u> ✓ <u>Vertebrate Animals</u> ✓ <u>Biohazards</u> • <u>Resubmission</u> • <u>Renewal</u> 	<p>For Clinical Trials:</p> <ul style="list-style-type: none"> • <u>Study Timeline for Clinical Trials</u> <p>All:</p> <ul style="list-style-type: none"> ✓ <u>Protections for Human Subjects</u> ✓ <u>Inclusion of Women, Minorities, & Children</u> ✓ <u>Vertebrate Animals</u> ✓ <u>Biohazards</u> • <u>Resubmission</u> • <u>Renewal</u> • <u>Revision</u> 	<ul style="list-style-type: none"> ✓ <u>Protections for Human Subjects</u> ✓ <u>Inclusion of Women, Minorities, & Children</u> ✓ <u>Vertebrate Animals</u> ✓ <u>Biohazards</u> • <u>Resubmission</u> • <u>Renewal</u> • <u>Revision</u>
Additional Review Considerations (Not scored individually and not considered in overall score)	<ul style="list-style-type: none"> ✓ <u>Training in the Responsible Conduct of Research</u> • <u>Applications from Foreign Organizations</u> • <u>Select Agents</u> • <u>Resource Sharing Plans</u> ✓ <u>Budget & Period of Support</u> 	<ul style="list-style-type: none"> ✓ <u>Training in the Responsible Conduct of Research</u> • <u>Select Agents</u> • <u>Resource Sharing Plans</u> • <u>Authentication of Key Biological and/or Chemical Resources</u> ✓ <u>Budget & Period of Support</u> 	<ul style="list-style-type: none"> ✓ <u>Recruitment & Retention Plan to Enhance Diversity</u> ✓ <u>Training in the Responsible Conduct of Research</u> • <u>Select Agents</u> ✓ <u>Budget & Period of Support</u>

Responses for items with emphasis (✓ italics) are required. Last updated March 9, 2018

FELLOWSHIPS & CAREER AWARDS

Overall Impact:

The likelihood that the proposed training (F) or career development (K) will enhance the candidate's potential for a productive, independent scientific research career in a health-related field.

Overall Impact	High			Medium			Low		
Score	1	2	3	4	5	6	7	8	9

Evaluating Overall Impact

Consider the 5 criteria

(weighting based on reviewer's judgment):

Fs

- Applicant
- Sponsor(s)
- Research Training Plan
- Training Potential
- Institutional Environment & Commitment

Ks

- Candidate
- Career Development Plan/Goals*
- Research Plan
- Mentor(s)**
- Environment & Institutional Commitment

and other score influences, e.g. human subjects, animal welfare, inclusion plans, and biohazards

*K05 and K24: Plan to Provide Mentoring

**K02: Consultants/Collaborators

e.g. Proposes training or career development of high value/benefit for the candidate who has high potential for developing into a productive, independent scientist. May have some or no weaknesses in the criteria.

e.g. Proposes training or career development of high or moderate value/benefit for the candidate who has high or moderate potential for further development, but weaknesses in the criteria reduce the overall impact to medium.

e.g. Proposes training or career development of moderate value/benefit for the candidate who shows moderate potential. May have some weaknesses in the criteria.

e.g. Proposes training or career development of moderate or low value/benefit for the candidate who has moderate or low potential for further development. Weaknesses in the criteria reduce the overall impact to low.

e.g. Proposes training or career development of low value/benefit for the candidate who shows low potential. May have some weaknesses in the criteria.

5 is a good, medium-impact application. The entire scale (1-9) should always be considered.

Matching Criterion and Overall Impact Scores to Verbal Descriptors

Overall Impact and Criterion Strength	Score	Descriptor
High	1	Exceptional
	2	Outstanding
	3	Excellent
	4	Very Good
Medium	5	Good
	6	Satisfactory
Low	7	Fair
	8	Marginal
	9	Poor

Fellowship Applicant

Does the applicant have the potential to develop into an independent and productive researcher in biomedical, behavioral or clinical science?

- Assess the applicant's academic record and research experience.
- Assess evidence of productivity – publications, meeting abstract presentations, contributions to collection of data.
- Evaluate letters of recommendation for detailed strengths or weaknesses.
- Evaluate whether the applicant's record to-date and proposed fellowship activities demonstrate commitment to an independent research career.

Avoid any comments that may disclose letter writers; breach confidentiality

Focus on qualities of the applicant rather than on qualities of the application

Sponsors, Collaborators, and Consultants

Does the sponsor(s) have the following to support the proposed training?

Research qualifications:

- Does the sponsor's record of research accomplishment suggest success for the proposed training?
- Does the sponsor and training team have the expertise for success in the proposed training?

Mentorship experience and commitment to the candidate

- How does the sponsor's mentoring history suggest that they will be a strong mentor to the applicant?
In the absence of a significant mentoring history, what indicates that he/she will be a strong mentor?
- If a co-sponsor is named, are specific contributions to training noted?
 - Is there a plan for coordinated mentoring?
- Do the sponsors demonstrate a high level of commitment to the candidate by providing a personalized training plan? Do letters of collaboration convey commitment?

Adequate funds to support the proposed training

- Is there confidence that the mentoring team will have sufficient research funds over the duration of the training period? (it is appropriate to balance current funding with a history of funding awards.)

Research Training Plan

Is the research plan well integrated with the candidate's goals, will it expand the candidate's conceptual understanding and is the plan of high scientific quality?

- Keep your focus on the big picture; don't get bogged down in the experimental details. Focus more on rationale.
- Has the candidate properly considered alternative outcomes or methodologies?
- Describe why you think an aspect of the approach is a strength or a weakness. Avoid just restating the key aims or other descriptive information in the application.
- Are publishable results from the work likely? Is the amount of work proposed feasible within the timeframe requested?
- Is the work proposed sufficiently distinct from the sponsor's funded research for the applicant's career stage?
- Is the scope of the work proposed appropriate for the candidate's career stage?
- Evaluate with candidate's career stage in mind. An F31 application from a second year graduate student should be assessed differently than an F32 application from a second year post-doc.

Training Potential

Do the proposed research project and training plan have the potential to provide the applicant with the requisite individualized and mentored experiences that will develop his/her knowledge, research and professional skills?

- The training should be consistent with applicant's career goals in a health-related field and help them advance to the next stage. If a specific career goal has not been chosen (for an F31), the training should be consistent with the various options.
- Is the proposed research complementary to previous training (particularly for F32)? What new research areas/skills/techniques will be learned?
- The sponsor's training plan and applicant's proposed activities should address any weaknesses/gaps in the applicant's background relative to their career goal.
- The training plan and applicant activities should include non-research training appropriate to the career goals (e.g., teaching, coursework, grant-writing, presentations)

Institutional Environment & Commitment to Training

Are the research facilities, resources and training opportunities adequate and appropriate for the candidate's scientific development?

- For F30s and F31s, the additional educational information is often a useful source of information.

- Evaluate the availability of necessary equipment, laboratory space, computational resources and core facilities.
- Assess exposure to seminars, workshops and professional development activities.
- Address the institution's record of commitment to fostering high quality trainees.

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Additional Review Considerations

- These factors do not receive a separate score and *should NOT affect your overall impact score.*



Training in the Responsible Conduct of Research. From the drop down menu, indicate if the overall description of the training is Acceptable or Unacceptable. In order for the RCR training to be acceptable, it should be contiguous with fellowship duration and include each of the five elements - Format, Subject Matter, Faculty Participation, Duration, and Frequency. For each of these five elements, please provide comments on the details provided by the applicant.

Applications from Foreign Organizations

Select Agents

Resource Sharing Plans Data sharing is usually not relevant to fellowships unless specified in the FOA.



Budget and Period of Support Evaluate whether the requested period of support is justified for the proposed activities planned. Comments should relate to duration only; dollar amount is fixed.

- If changes in duration are recommended, explain why.

Additional Review Criteria

- Reviewers should evaluate other considerations that will apply to some applications, but not all.
- These factors do not receive a separate score but *can affect your overall impact score*.