Maximizing Investigators’ Research Award (MIRA, R35) for Non-ESIs, PAR-22-180

Jon Lorsch, Zhongzhen Nie, Lisa Moeller, Brett Hodgkins, Maqsood Wani
Opening Remarks

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Director
National Institute of General Medical Sciences
## MIRA Award Rates as Compared with R01

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Renewal/Conversion Rates</th>
<th>Funding Change Median %</th>
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<tr>
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<td>Cohort-Wide</td>
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<tr>
<td>R01 Renewal</td>
<td>45.3%</td>
<td>3.0</td>
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<tr>
<td>R35 Renewal</td>
<td>86.0%</td>
<td>3.0</td>
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<tr>
<td>R01/R35 Conversion</td>
<td>52.0%</td>
<td>14.1</td>
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Key Elements of the MIRA Concept

• A single NIGMS grant per PI to provide support for the NIGMS-related research in an investigator’s lab, reduced administrative burden

• Five-year funding, flexibility in future research directions, higher stability

• PI relinquishes other NIGMS support with some exceptions, e.g., resource, training, small business grants

• Award levels based on current support

• Renewals – lower application numbers, higher success rates, flexible funding levels
Eligibility for MIRA Application

New applications converted from a qualifying award
- A single-PI R01-equivalent GM award (DP1, DP2, R01, R37, SC1, NRMN U01)
- By the end of the fiscal year following the one in which your qualifying award was originally set to expire (NCE has no effect on eligibility time window)
- A PD/PI may have more than one qualifying award

New applications from New Investigators (always talk to us before applying)
- A PD/PI working in GM mission
- Not a project leader on a multi-component award from NIH (except for NIGMS COBRE, IDeA-CTR, and NARCH)
- ESIs should apply through the ESI MIRA FOA (PAR 20-117 will be reissued). If you are an ESI, this webinar is not for you.

Renewal applications
- Both EI MIRAs and ex-ESI MIRAs will be renewed through this FOA
- By the end of the 2nd fiscal year following the one in which your current MIRA was originally set to expire
A PEDP Is Required for MIRA Applications

A Plan for Enhancing Diverse Perspective (PEDP)
- A summary of strategies to increase the merit of research via inclusivity
- A one-page attachment required for all applications (will return appl if missing)
- A scorable criterion at scientific review

Please refer to the NIH Brain Initiative Webpage for Additional Information
- General Description (Plan for Enhancing Diverse Perspectives (PEDP) | Brain Initiative (nih.gov))
- Key Elements and Examples (PEDP Key Elements and Examples | Brain Initiative (nih.gov))
- Frequently Asked Questions (PEDP Frequently Asked Questions | Brain Initiative (nih.gov))
Distinct Features of MIRA Applications

Features of MIRA Applications
- No specific aims: flexible to follow new research directions
- Scientific topics: within the scientific mission of NIGMS
  ([https://www.nigms.nih.gov/about-nigms/who-we-are/overview](https://www.nigms.nih.gov/about-nigms/who-we-are/overview))
- Research strategy: 6 pages (background, recent progress, future research)
- Biosketch: tailored
- Budget request: A single line of budget for each year, no detailed budget
## Receipt and Review Dates for MIRA Applications

<table>
<thead>
<tr>
<th></th>
<th>Receipt date</th>
<th>Scientific review</th>
<th>Council</th>
<th>Start date</th>
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<tbody>
<tr>
<td><strong>Receipt date</strong></td>
<td>Jan 17, 2023</td>
<td>May 16, 2023</td>
<td>Jan 16, 2024</td>
<td>May 16, 2024</td>
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<tr>
<td><strong>Scientific review</strong></td>
<td>July 2023</td>
<td>Nov 2023</td>
<td>July 2024</td>
<td>Nov 2024</td>
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<td><strong>Council</strong></td>
<td>Oct 2023</td>
<td>Jan 2024</td>
<td>Oct 2024</td>
<td>Jan 2025</td>
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<tr>
<td><strong>Start date</strong></td>
<td>Dec 2023</td>
<td>April 2024</td>
<td>Dec 2024</td>
<td>April 2025</td>
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Most Common Page Allotment
(6 pages for research strategy)

Background and key knowledge gaps
• One to one and half pages

Recent progress by the PD/PI
• One to one and half pages
• Focus on the past five years

Overview of future research
• Three to four pages

Note that this is different than your R01 components: significance, innovation, approach
Biosketches

Personal Statement
• Tailored to the unique attributes and requirement of MIRA
• Service to the scientific community (beyond your institutional duties)
• When applicable, describe factors that may have reduced productivity

Contributions to Science
• Focus on the past five years (but is not “limited to”)
• Within the NIGMS mission (emphasized in the FOA)
• Supported by NIGMS (emphasized in the FOA)
• List grant citations as acknowledged in the publications (emphasized)

Hypertext (Hyperlinks and URLs)
• Do not use hypertext other than for the PD’s/PI’s my NCBI page

New requirement about biosketch and other support
• An independent attachment of current and pending support required
• Section D eliminated
MIRA Budget Request and Award Level

Budget request
- Follow budget instructions outlined in the FOA
- No detailed budget (only DC, F&A, Total Costs for each year)
- **No inflationary escalations** (per NIH policy)
- Indirect costs should be requested
- Equipment purchase with the $750,000 budget limit
- No prior approval required if annual DC over $500K

New MIRA award levels generally adjusted based on current GM support
- >400K: 12% reduction in general
- $250K - $400K: same, reduced, or slightly increased
- <$250K: increase to $250K in most cases
- Budget for New Investigators will be generally $250K
PD/PI Minimum Effort Requirement

- PD/PI is required to devote at least 51% of the PD/PI’s total research effort to MIRA
- Total research effort should include the PD/PI’s combined research effort at all institutions where the PD/PI holds an appointment
- Express effort in person-months
- NIGMS staff will verify the MIRA research effort requirement met by using the other support documentation and will exclude support for which the purpose is education, training or enhancing workforce diversity
Review Information

Applications are reviewed at Study Sections organized by CSR

- MRAA (https://public.csr.nih.gov/StudySections/DBIB/MGG/MRAA)
- MRAB (https://public.csr.nih.gov/StudySections/DBIB/MBBC/MRAB)
- MRAC (https://public.csr.nih.gov/StudySections/DBIB/CDB/MRAC)
- MRAD (https://public.csr.nih.gov/StudySections/DBIB/CDB/MRAD)
- SEPs as needed

Panels review only MIRA applications

Majority of applications are discussed

Applications are reviewed relative to the PI’s career stage, (e.g., applications from ex-ESIs are clustered together)

An overall impact score provided, no individual criterion scores
## Review Criteria

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<th>Scorable Review Criteria</th>
<th>Significance</th>
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<td>Investigator(s)</td>
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<td></td>
<td>Innovation</td>
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<td></td>
<td>Approach</td>
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<td>Environment</td>
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<tr>
<th>Additional Scorable Review Criteria</th>
<th>Study Timeline; Inclusion Plans</th>
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<tr>
<td></td>
<td>Protections for Human Subjects</td>
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<td></td>
<td>Vertebrate Animals</td>
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<td></td>
<td>Plan for Enhancing Diverse Perspectives</td>
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<td>Biohazards</td>
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<th>Non-scorable Review Considerations</th>
<th>Authentication of Key Resources</th>
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<tr>
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<td>Budget and Period of Support</td>
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<td>Resource Sharing Plans</td>
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Specific Considerations for MIRA Review

• Is the research program substantive and appropriate for long-term pursuit?
• Has the PD/PI been conducting and reporting rigorous, reproducible, transparent, and cost-effective research?
• Does the PD/PI have a record of significant service to the scientific community?
• Are the PD’s/PI’s productivity and impact commensurate with their level of funding and career stage?
• Is there evidence that the freedom and flexibility of the MIRA will lead to innovation?
• Is there a logical plan for sustained progress of this research program?
• Is there evidence that the research program will evolve appropriately?
Specific Considerations for MIRA Review (Cont’d)

Renewals

• For ex-ESI MIRAs, has the PD/PI established a research program with the potential for continued growth and enhanced scientific impact?

• For Est. Inv. MIRAs, has the PD/PI maintained a productive research program with strong evidence of impactful contribution to the field and recognition of new opportunities and directions?
Frequently Asked Questions

Am I eligible if all my NIGMS research funding come from several MPI R01s?

No. The qualifying award must be a single-PI R01 or equivalent.

Why are letters from collaborators not encouraged?

Flexibility of MIRA research (specific techniques, reagents).
Consortium will be rare and extremely well justified.

Can I submit again if my application does not review well?

Yes, if eligible. Subsequent applications will be A0s.

Why are A1s NOT accepted?

The review should focus on the scientific merit instead of responsiveness to the previous review.
Frequently Asked Questions

What should I do if my T2A0 doesn’t score well?

Don’ts

- Do not submit an T2A1 application. It will be a T1A0.
- Do not talk about the previous review in your new application.
- Do not include an introduction page.
- Do not include a progress report publication list.

Dos

- Cite publications in Biosketch under contributions to science (5 areas with 4 papers under each, with grant #s).
- Report progress in section II under Research Strategy: “recent progress by the PD/PI which focuses on the past 5 years.”
Frequently Asked Questions (Cont’d)

What are the common reasons for applications to be returned without review?

- Proposing research outside the scientific mission of NIGMS
- Missing the required attachment of “Current and Pending Support”
- Missing the required attachment of PEDP
- Unallowable hypertext (Hyperlinks and URLs) in application
- Overstuffing: unallowable information in non-page limited sections
- Ineligible Status

Conversion of R01-equivalent GM award(s) to MIRA: 1 FY beyond expiration
Renewal of MIRA: 2 FYs beyond expiration
Questions?