NIH Maximizing Opportunities for Scientific and Academic Independent Careers (MOSAIC) Program

Applicant Webinar – September 14, 2022
Before We Start

• This webinar is being recorded and will be available online. The slides have been posted on the MOSAIC website (video will be posted in the coming weeks)

• Type your questions in the chat box

• There will be Q&A periods during the webinar.
Webinar Participants

NIH Staff

- Kenneth Gibbs, Ph.D., Program Director
- Rebecca Johnson, Ph.D., Scientific Review Officer
- Justin Rosenzweig, Grants Management Team Leader

NIH MOSAIC Scholars

- Theresa Loveless, Ph.D., Associate Project Scientist, University of California, Irvine
- Mallory Perry-Eaddy, Ph.D., RN, CCRN, Assistant Professor, University of Connecticut School of Nursing
- Elias Picazo, Ph.D., Assistant Professor, University of Southern California
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#NIHMOSAIC
Webinar Agenda

• Background & Overall Program Description

• MOSAIC Program Components (Description, Review, Grants Management, Questions)
  o Postdoctoral Career Transition Award to Promote Diversity (K99/R00; PAR-21-271, PAR-21-272, PAR-21-273)
  o Hearing from MOSAIC K99/R00 Scholars!
  o MOSAIC Institutionally-Focused Research Education Award (UE5; PAR-21-277)

• Final Questions
DISCLAIMER

This webinar and accompanying slides are for informational purposes only. They serve as an overview of the NIH MOSAIC Program and are not meant to be comprehensive in coverage of all required components of an application.

Applicants are responsible for following the instructions detailed in the FOAs and any Related Notices (included in the FOA’s Overview Information section).
For example
Department of Health and Human Services

Part 1. Overview Information

<table>
<thead>
<tr>
<th>Participating Organization(s)</th>
<th>National Institutes of Health (NIH)</th>
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<tr>
<td>Components of Participating Organizations</td>
<td>National Institute of General Medical Sciences (NIGMS)</td>
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<td>National Eye Institute (NEI)</td>
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<td>National Heart, Lung, and Blood Institute (NHLBI)</td>
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Maximizing Opportunities for Scientific and Academic Independent Careers (MOSAIC) Postdoctoral Career Transition Award to Promote Diversity (K99/R00 Independent Clinical Trial Not Allowed)

<table>
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<tr>
<th>Activity Code</th>
<th>K99/R00 Career Transition Award/Research Transition Award</th>
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<tr>
<td>Announcement Type</td>
<td>Reissuance of PAR-19-343 - Maximizing Opportunities for Scientific and Academic Independent Careers (MOSAIC) Postdoctoral Career Transition Award to Promote Diversity (K99/R00 - Independent Clinical Trial Not Allowed)</td>
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See Notices of Special Interest associated with this funding opportunity

September 7, 2022 - Notice of Increase to NIGMS K99 Support Levels. See Notice NOT-GM-22-045


July 27, 2022 - Notification to the community of change in maximum salary provided by NINDS K award mechanisms for clinician-scientists. See Notice NOT-NS-23-005
Background and Program Structure
MOSAIC Program Goal

• MOSAIC is designed to facilitate the transition of promising postdoctoral researchers from diverse backgrounds, for example individuals from groups underrepresented in the biomedical research workforce at the faculty level, into independent, tenure-track or equivalent research-intensive faculty positions.

• The overarching goal of the NIH MOSAIC program is to enhance the diversity of independent investigators conducting research within the NIH mission. Program priority is to address documented underrepresentation at the faculty level (e.g., see NIH’s Notice of Interest in Diversity).
Maximizing Opportunities for Scientific and Academic Independent Careers (MOSAIC)

Postdoctoral Career Transition Award to Promote Diversity (K99/R00) – PAR-21-271, -272, and -273
Institutionally Focused Research Education Cooperative Agreement to Promote Diversity (UE5) – PAR-21-277

MOSAIC K99/R00 Applicants

MOSAIC K99/R00 Scholars Participate in Cohorts Organized by UE5

https://www.nigms.nih.gov/training/careerdev/Pages/MOSAIC.aspx
MOSAIC is an NIH-wide Initiative

**NIGMS – lead**

**MOSAIC K99/R00:** NIBIB, NINR, NIMHD, NHGRI, NIA, NIDA, NIAAA, NIEHS, NIDCD, NINDS, NIDDK, NEI, NIAMS, NICHHD

**K99/R00 + UE5:** NIGMS, NHLBI, NLM, NIMH, NIDCR, NCCIH, NIAID, ORWH, OBSSR

**UE5:** SGMRO

**ORWH** **SGMRO** **OBSSR**
2022 Scholars

NIH MOSAIC Scholars

Scholar Demographics: ~78% are women
~75% are Black, Latina/o/x, American Indian, Native Hawaiian, or Pacific Islander

https://www.nigms.nih.gov/training/careerdev/Pages/mosaic-scholars.aspx
MOSAIC UE5 – Common Elements

- Cohort

- Skills Development
  - Faculty search, lab management
  - Grant writing
  - Communication & scientific publishing

- Mentoring and Networking

- Career Visibility & Enhancement

- Institutional Engagement
MOSAIC Postdoctoral Career Transition Award to Promote Diversity (K99/R00 - Independent Clinical Trial Not Allowed);

PAR-21-271
PAR-21-272
PAR-21-273
MOSAIC K99/R00 FOAs

- **PAR-21-271** - Independent Clinical Trial **Not Allowed**
- **PAR-21-272** - **Independent Clinical Trial** **Required**
- **PAR-21-273** - Independent **Basic Experimental Studies with Humans** **Required (BESH)**

Not all NIH Institutes, Centers and Offices (ICOs) participate in each of these Announcements. Applicants should carefully note which ICOs participate in each announcement. ICOs that do not participate in this announcement will not consider applications for funding. Consultation with NIH staff before applying is **strongly encouraged.**
MOSAIC K99/R00 - Goal

• The MOSAIC K99/R00 program is designed to facilitate a timely transition of promising postdoctoral researchers from diverse backgrounds from their mentored, postdoctoral research positions to independent, tenure-track or equivalent research-intensive faculty positions.

• The overarching goal of this program is to enhance the diversity of independent investigators conducting research within the NIH mission. For the purpose of this announcement, institutions are strongly encouraged to identify candidates who will enhance diversity on a national basis (e.g., see the Notice of NIH's of Interest in Diversity).
MOSAIC K99/R00 Considerations – Rewarding Service

• It is widely recognized that scientists from underrepresented groups often assume disproportionate academic service and outreach loads, even during their training, and that these contributions to the research environment are generally not appropriately recognized and rewarded in the measures of career advancement (i.e., "the diversity tax").

• The MOSAIC K99/R00 program seeks to support early career scientists with demonstrated and compelling commitments and contributions to enhancing diversity in the biomedical sciences.
Examples of Contributions to EDI

• Organizer for #BlackInMicrobiology
• Organizational leadership (e.g., SACNAS chapter; scientific society EDI committee)
• Active mentor for undergraduate diversity enhancing program
• Program and departmental service to promote diversity (e.g., committee service; outreach trips to ABRCMS; organizing seminar series to promote diversity)

NIH strongly encourages applications from candidates previously supported by other diversity programs (e.g., diversity supplement, diversity F31 or F99/K00, institutional programs – MARC, RISE, PREP, IMSD)
MOSAIC K99/R00 Considerations – Developmental Award

• Candidates are strongly encouraged to apply no later than the third year of their postdoctoral training to ensure awardees receive maximum benefit from both the K99 phase of the award, and to facilitate a timely transition to independence.

• Because the program aims to support the career development of scholars early in their postdoctoral training, candidates who have not yet published a first-author manuscript during their postdoctoral training, but whose previous and current studies and future plans are likely to support a successful independent research career are encouraged to apply.

• An individual who cannot provide a compelling rationale for at least one year of additional mentored research career development at the time of award is not a strong candidate for this award.
MOSAIC K99/R00 – Eligibility

• Must have a clinical or research doctorate (e.g., Ph.D., M.D.).

• By the time of the award, **must be a US citizen or permanent resident.**

• Individuals must be in **mentored, postdoctoral training positions** to be eligible to apply to the K99/R00 program.

• Must have no more than **4 years** of postdoctoral research experience as of the relevant application due date regardless of whether it is a New or Resubmission application.
COVID-Related Eligibility Extension

- **COVID-related (NOT-GM-22-020):** individuals whose eligibility would normally end with June/July 2022 due dates are allowed to apply for the October/November 2022 due date.

  - *This extension is automatically applied by NIH and does not require prior approval*
MOSAIC K99/R00 – Eligibility

• Only time dedicated to research activities counts toward the 4-year limit.
  o Parental, medical, or other well-justified leave for personal or family situations is not included in the 4-year eligibility limit, nor is clinical training with no research involvement (e.g., full-time clinical residency training).
  o Part-time postdoctoral research training, related to personal or family situations or occurring during a research residency or fellowship, will be prorated accordingly.

• One-year extension for childbirth within the eligibility window (NOT-OD-20-011).

• Applicants seeking an extension of the 4-year eligibility window must contact the relevant Scientific/Research Contact at least 12 weeks before submitting the application.

Applicants are strongly encouraged to consult with NIH scientific/research staff when planning an application. Early contact provides an opportunity for NIH scientific/research staff to provide guidance on program scope and appropriateness of the proposed research and training for potential funding in response to this FOA. Applicants should contact NIH scientific/research staff as early as possible before the due date.

Consult the MOSAIC Answers to FAQs
MOSAIC K99/R00 – Notable differences from the Parent K99/R00
1. **Diversity statement (1-page maximum).** The application must include a diversity statement from the candidate applying for the K99/R00 award (i.e., the postdoctoral fellow). Should include:

- A description of the individual’s commitment to diversity in the biomedical sciences.
- Any **past or present leadership**, mentoring and outreach activities to enhance diversity – especially involving groups underrepresented in the biomedical research enterprise (e.g., certain racial/ethnic groups, persons with disabilities, students from disadvantaged backgrounds, women, and other groups as described in the NIH **Notice of Interest in Diversity**).
- Describe **planned activities** during the career award to develop or enhance skills in working effectively with talented scientists from a wide variety of backgrounds and to promote inclusive and equitable scientific biomedical research environments.

2. **Description of Candidate’s Contribution to Program Goals**

- The sponsoring institution must provide a document on institutional letterhead that explains how the candidate’s participation will further the goals of the career development program to promote **diversity** in health-related research.
- Must be dated and **signed by an institutional official**.

**Applications lacking either attachment will not be reviewed**
MOSAIC K99/R00 – Candidate Section

• “If the candidate is applying for the first time in her/his fourth year of postdoctoral training, explain why support at this stage is appropriate.”

• “Describe how the activities provided by the MOSAIC Institutionally-Focused Research Education Award (UE5) will be integrated into career development activities available at the candidate's home institution to create synergies.”

  - The American Society for Biochemistry and Molecular Biology (ASBMB)
  - The American Society for Cell Biology (ASCB)
  - The Association of American Medical Colleges (AAMC)
Typical UE5 Assignments for MOSAIC K99/R00 Scholars

<table>
<thead>
<tr>
<th>American Society for Cell Biology (ASCB)</th>
<th>American Society for Biochemistry and Molecular Biology (ASBMB)</th>
<th>Association of American Medical Colleges (AAMC)</th>
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<tbody>
<tr>
<td>• Cell biology</td>
<td>• Chemistry, biochemistry, molecular biology</td>
<td>• Minority health and health disparities</td>
</tr>
<tr>
<td>• Developmental biology</td>
<td>• Structural biology</td>
<td>• Clinically related studies</td>
</tr>
<tr>
<td>• Basic neuroscience</td>
<td>• Microbiology and immunology</td>
<td>• Population health</td>
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<tr>
<td></td>
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<td>• Social and behavioral science</td>
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<td></td>
<td></td>
<td>• Medical Technology</td>
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See [Training topics and events](#)  

See [Program details](#)  

See [Yearly curriculum](#)
MOSAIC K99/R00 - Mentor

- Additional instructions for biosketch personal statement
  - Address record of maintaining a record of training in rigorous and unbiased experimental design;
  - Efforts taken to enhance diversity in the biomedical research workforce, and to ensure the research environment is inclusive, safe, and supportive for trainees and early career scientists from all backgrounds;
  - Commitment to fulfilling the need of the trainees to complete their training in a timely fashion with the skills, credentials and experiences to transition into independent careers in the biomedical research workforce.

- “The mentor must describe their willingness to participate in conferences organized by the MOSAIC Institutionally-Focused Research Education Award to Promote Diversity (UE5) to exchange ideas and employ evidence-based approaches to enhance diversity and improve mentoring relationships.”
MOSAIC K99/R00 – Institutional Environment

Description of Institutional Environment section must specifically address:

• Institutional career development resources and activities that will be available to contribute to the candidate’s career development (e.g., an office of postdoctoral affairs, a seminar series for future faculty, etc.).

• Any institutional policies and practices that are expected to contribute to the candidate’s research and career development success, such as policies and procedures to (a) promote diversity and inclusion in the research training environment, (b) ensure that the institution’s facilities are accessible to those with disabilities, (c) foster a positive, supportive, and safe research and training environment, and (d) prevent discriminatory harassment and other discriminatory practices and to appropriately respond to allegations of such discriminatory practices, including providing any required notifications to NIH (e.g., requesting a change of PD/PI status; see NOT-OD-15-152 and NOT-OD-18-172)

• Two-page limit (longer than standard one page)
MOSAIC K99/R00 - Review

• REMINDER: be sure to comply with all FOA instructions

• Reviews managed by a standalone SEP managed by NIGMS Scientific Review Branch, or review groups managed by participating ICs

• Scored Review Criteria (each item gets a score)
  o Candidate
  o Career Development Plan/Career Goals and Objectives
  o Research Plan
  o Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s)
  o Environment & Institutional Commitment to the Candidate

  Some differences vs. other K99s

• Additional Review Criteria (can impact final score)
  o Protections for Human Subjects, Inclusions, Vertebrate Animals, Biohazards

• Additional Review Considerations (not part of final score)
  o Resource Sharing Plans, Training in RCR, Select Agents, Authentications, Budget
Insights from Review

• Candidate
  - Track record and clear justification for additional career development (relative to career stage)
  - Compelling commitment to diversity (e.g., demonstrated track record, proposed and future plans with respect to advancing and promoting diversity in the biomedical research enterprise)

• Career Development Plan/Career Goals and Objectives
  - Clear career development needs (scientific and professional skills), and tailored plans to address those needs; must be shown in both mentor and PI training plans.
  - Integration of the UE5 into career development plans
Insights from Review

- Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s)
  - Tailored plan for candidate’s career development and progression to independence
  - Clear separation / ownership of project going forward
  - Participation in UE5 component of the program
  - For plans with co-mentors, clearly delineate the contributions of the additional mentors, both scientifically and in career development
Insights from Review

• Research Plan
  o Feasible research plan with clear hypotheses, expected results, and alternative approaches
  o Aims should be related but not interdependent
  o **Address both the mentored (K99) and independent (R00) phases**
  o Statistical analysis (e.g., sample size, power analysis) and attention to relevant biological variables
  o Easily understood by scientists in and outside of your specific area of research

*The entire application is reviewed — a rigorous research proposal is necessary but not sufficient*
## MOSAIC K99/R00 – Award Information

<table>
<thead>
<tr>
<th></th>
<th>K99 (Mentored Phase)</th>
<th>R00 (Independent Phase)</th>
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<tbody>
<tr>
<td>Total Costs</td>
<td>Varies by IC</td>
<td>Up to $249,000 per year</td>
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<tr>
<td>Salary</td>
<td>Varies by IC</td>
<td><em>The independent phase institution will submit an application to be administratively reviewed on behalf of the candidate for the R00 award with detailed budget information</em></td>
</tr>
<tr>
<td>Research Support</td>
<td>Varies by IC</td>
<td></td>
</tr>
<tr>
<td>Indirect Costs</td>
<td>8% of modified total direct costs</td>
<td>Consistent with extramural sponsoring institution's indirect cost rate</td>
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The FOA [Award Information Section](#), and [MOSAIC FAQs](#)
## MOSAIC K99/R00 – Timeline

<table>
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<th>Cycle I</th>
<th>Cycle II</th>
<th>Cycle III</th>
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<tr>
<td>Application Due Date (non-AIDS)</td>
<td>February</td>
<td>June</td>
<td>October</td>
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<tr>
<td>Application Due Date (AIDS)</td>
<td>May</td>
<td>September</td>
<td>January</td>
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<tr>
<td>Scientific Merit Review</td>
<td>June/July</td>
<td>October/November</td>
<td>February/March</td>
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<tr>
<td>Advisory Council</td>
<td>September</td>
<td>January</td>
<td>May</td>
</tr>
<tr>
<td>Earliest Start Date</td>
<td>December</td>
<td>April</td>
<td>July</td>
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Use **standard due** dates for K99 applications
Hear from MOSAIC Scholars

- Mallory Perry-Eaddy, Ph.D., RN, CCRN, Assistant Professor, University of Connecticut School of Nursing

- Elias Picazo, Ph.D., Assistant Professor, University of Southern California

- Theresa Loveless, Ph.D., Postdoctoral Scholar, University of California, Irvine
Mallory Perry-Eaddy, Ph.D., RN, CCRN

- Postdoc: Children’s Hospital of Philadelphia
- Faculty: University of Connecticut, School of Nursing
- MOSAIC Society: AAMC
- Project: “Pediatric Recovery After Sepsis Treatment in the Pediatric Intensive Care Unit”
- Contributions to diversity:
  - Co-chair Northern Connecticut Black Nurses Association’s mentoring program
  - CHOP: outreach as part of Postdocs for Diversity in Science (PDS); institutional subcommittee for diversity recruitment
  - Member of diversity council at UConn School of Nursing
Elias Picazo, Ph.D.

• Postdoc: Harvard University
• Faculty: University of Southern California
• MOSAIC Society: ASBMB
• Project: “Strategic Molecular Activations for the Selective Synthesis of 2-Deoxy-Beta-Glycosides, and for the Synthesis of Novel Donor-Acceptor Stenhouse Adducts”

• Contributions to diversity:
  o Leadership roles in Organization for Cultural Diversity in Science (OCDS) in graduate school (e.g., active recruitment and outreach activities)
  o Outreach to central valley as independent faculty to expose students to science research
Theresa Loveless, Ph.D.

- Postdoc: University of California, Irvine
- Faculty: Rice University (2023)
- MOSAIC Society: ASCB
- Project: “Deep cell history tracking: engineering cells that write their detailed life stories into their DNA to study DNA damage”
- Contributions to diversity:
  - Advocacy to promote disability access for the UC Student Association and graduate student/postdoc/academic unions
  - Plans to help future department recruit and support students with disabilities (e.g., use of diversity supplements)
Reminder - consult the MOSAIC Answers to FAQs
Extramural NIH Training Opportunities for Postdocs & Early Career Scientists

NIGMS Division of Training Workforce Development and Diversity

- Parent K99/R00 FOA
- Research Supplements to Promote Diversity

NIH Extramural Research Training Website

NIH Extramural Diversity Website
MOSAIC Institutionally-Focused Research Education Award to Promote Diversity (UE5 - Clinical Trial Not Allowed); PAR-21-277
MOSAIC UE5 - Goal

• The MOSAIC UE5 program is designed to equip MOSAIC K99/R00 scholars with professional skills and provide them with the appropriate mentoring and professional networks to allow them to transition into, advance, and succeed in independent, tenure-track or equivalent research-intensive faculty careers.

• The current MOSAIC UE5 Awardees are:
  ○ The American Society for Cell Biology (ASCB),
  ○ The American Society for Biochemistry and Molecular Biology (ASBMB), and
  ○ The Association of American Medical Colleges (AAMC).
MOSAIC UE5 - Responsiveness

• Awardee organizations must provide career development and mentoring activities *aligned with and appropriate for the disciplinary backgrounds* of scholars supported through the MOSAIC K99/R00 program.

• NIH will specify areas of programmatic need for each receipt date, reflecting the disciplinary backgrounds of the MOSAIC K99/R00 scholars, through a **Notice of Special Interest** to the MOSAIC UE5 announcement.

• Only applications aligned with these areas of need will be accepted for review.
Applications must have a specific focus on providing robust and appropriate mentoring, skills building, networking and professional development in one or more of the following scientific areas of program priority:

- **Neuroscience** related to areas of basic, clinical and translational research, mental health and addiction
- **Microbiology and immunology**

MOSAIC UE5 - Approach

- Develop **cohorts** of MOSAIC K99/R00 scholars based on scientific areas;
- Provide opportunities for MOSAIC scholars to engage in **career development activities** that will foster their progression to and success in independent academic research careers (e.g., courses for skills development);
- Enhance the **scientific and professional networks** of MOSAIC scholars beyond their local institutions;
- Identify and connect scholars with **additional mentors** who can facilitate appropriate career advancement;
- **Organize regular meetings** that provide appropriate leaders at the institutions where MOSAIC scholars conduct research (e.g., postdoctoral research advisors or postdoctoral affairs deans during the mentored research phase; department chairs, deans, or provosts during the independent phase) a forum to **exchange ideas, and share evidence-informed approaches to improve mentoring relationships, promote inclusion and equity in the biomedical research enterprise, and enhance diversity**
- Enhance **institutional accountability** for the scholars' career advancement; and
- Track and publicize **outcomes** (e.g., publicly available websites).
MOSAIC UE5 - Goal

• **Courses for Skills Development**: Support for short courses designed to enhance skills of cohorts of MOSAIC K99/R00 scholars to transition into and advance within independent academic research careers, e.g.,

  - Academic job search strategies
  - Communication skills and scientific publishing
  - Grant proposal preparation
  - Laboratory management, budgeting, hiring, mentoring
  - Managing career challenges and expectations
  - Academic advancement, and balancing teaching, research, and service
  - Life-work balance
MOSAIC UE5 - Goal

• Mentoring Activities

○ Formation of cohesive and mutually supportive cohorts of MOSAIC K99/R00 scholars that span the K99 to R00 award phases.

○ One-on-one and group mentoring in scientific, professional and career development skills and strategies for the cohorts of MOSAIC K99/R00 scholars.

○ Activities to enhance the mentoring networks of MOSAIC scholars that prepare them to successfully navigate the challenges and opportunities associated with a faculty career in academic research-intensive institutions.

○ Activities to enhance the caliber of mentoring and institutional support of MOSAIC K99/R00 scholars, including convening regular meetings with appropriate leaders at the institutions where MOSAIC scholars conduct research to exchange ideas, and employ evidence-based approaches to enhance diversity and improve mentoring relationships.
MOSAIC UE5 - Considerations

• Applicants are expected to identify objectives (i.e., specific, measurable, and obtainable outcomes the program intends to achieve) and to develop plans to implement evidence-informed skills development and mentoring activities that are grounded in the literature and from evaluations of existing relevant programs.

• Clearly describe expected time commitment of MOSAIC K99 scholars.

• NIH will only accept applications that propose career development and mentoring activities aligned with areas of programmatic need will be indicated through Notices of Special Interest (NOSIs) released annually by NIH.

NIGMS does not intend to fund additional MOSAIC UE5 awards – reach out to the program contacts at other ICs (esp. NIMH, NIDA and NIAID) about an application.
MOSAIC UE5 - Considerations

• Funded MOSAIC research education activities should address the career needs of scholars in both the mentored postdoctoral research phase (K99), and independent research phase (R00).

• Program activities should build upon the strengths and assets of MOSAIC K99/R00 scholars and should not reflect deficit-models (i.e., those that focus primarily on remediation of perceived weaknesses) of career development.
MOSAIC UE5 – Eligibility (Organization)

- Eligible Organizations:
  - Nonprofits other than institutions of higher education
  - Multiple organizations can partner for a MOSAIC UE5 application, with one organization serving as Primary Performance Site Location. If multiple organizations partner for an UE5 application, follow all instructions for Consortium/Contractual Arrangements in the SF424 (R&R) Application Guide.

Institutions of higher education are not eligible for the MOSAIC UE5 award

MOSAIC UE5 – Eligibility (Organization)

• Applications are encouraged from organizations composed of biomedical researchers (e.g., scientific societies) with a membership of scientists conducting research within the mission(s) of one or more of the participating NIH institutes or centers, including members with active research project grants from these ICs with:
  
  o Experience serving as a centralized entity to enhance scientific communication and networking among scientists conducting research;
  
  o An established record of providing professional development and networking activities for the next generation of biomedical researchers;
  
  o A demonstrated commitment to enhancing the diversity of the biomedical research workforce, for example, individuals from underrepresented groups; and
  
  o The resources to support the proposed program, e.g., the provision of adequate staff, facilities, and educational capacity.

MOSAIC UE5 – Eligibility (PI)

• PD(s)/PI(s) are expected to be full-time employees of the applicant organization. The PD(s)/PI(s) should have appropriate professional experience in the scientific area in which the application is targeted and be capable of providing both administrative and training leadership to the development and implementation of the proposed program.

• While a faculty member who is a full-time employee of an academic institution cannot serve as a PD/PI, this individual can serve as a member of key personnel (e.g., co-investigator or collaborator, but not an multi-PI).
MOSAIC UE5 – Participants

• NIH MOSAIC K99/R00 scholars are the participants for MOSAIC UE5 programs supported through this FOA.

• NIH will select the MOSAIC K99/R00 scholars and will assign to UE5 awardees up to three times per year (e.g., after each council round).
MOSAIC UE5 – Research Strategy

• Consult the FOA for details
  - Proposed Research Education Program should cite relevant data/report resources in preparing application.
  - Describe the short-, medium-, and long-term goals for participants that the activities are designed to address, and how these outcomes will be measured.
  - *Should include description of organizational setting and current efforts to enhance workforce diversity; cohort formation and activities; courses for skills development; activities for addressing psychosocial and environmental factors associated with persistence; mentorship; and conferences.*
  - Describe how the organization aligns with the areas of programmatic need described in the *Notice of Special Interest*.

MOSAIC UE5 – Research Strategy

• “Describe plans to ensure activities will synergize with, but not duplicate the institutional career development plans developed by the MOSAIC scholars.”
  - NIH anticipates that many of the activities proposed by UE5 will be distinct from career development at institution.
  - Clearly describe how you will identify any potentially duplicated activities and adjust offerings for MOSAIC scholar.

• Applications lacking the following components of Research Education Program Plan will not be reviewed: recruitment plan to enhance diversity; plan for instruction in methods for enhancing reproducibility; plan for instruction in the responsible conduct of research; evaluation plan; dissemination plan.

https://grants.nih.gov/grants/guide/pa-files/PAR-21-277.html#_Section_IV._Application_1
MOSAIC UE5 – Required Attachments

• Advisory Committee. An Advisory Committee is a **required** component of this Research Education program. Applicants must provide a plan for the appointment of an Advisory Committee to monitor progress and relevance of the research education program. The composition, roles, responsibilities, and desired expertise of committee members, frequency of committee meetings, and other relevant information should be included. Describe how the Advisory Committee will evaluate the overall effectiveness of the program. **Proposed Advisory Committee members should be named in the application if they have been invited to participate at the time the application is submitted.**

• **Applications lacking an advisory committee attachment will not be reviewed.**
Organizational Commitment. (Three page maximum) Applications must include a letter from a Senior Administration Official at the applicant organization. This letter should be a signed letter on organizational letterhead, and it should describe the applicant organization’s commitment to the planned program. The letter should provide evidence of commitment to the research education program. Appropriate commitment should include the provision of adequate staff, facilities, and educational resources that can contribute to the planned research education program. The letter should describe how the organization ensures that proper policies, procedures, and oversight are in place to prevent discriminatory harassment and other practices; responds appropriately to allegations of discriminatory practices, including any required notifications to the Department of Health and Human Services Office of Civil Rights (see NOT-OD-15-152); and adopts and follows institutional procedure for requesting NIH prior approval of a change in the status of the Program Director/Principal Investigator (PD/PI) or other senior/key personnel if administrative or disciplinary action is taken that impacts the ability of the PD/PI or other key personnel to continue his/her role on the NIH award described in the research education program application (also see NOT-OD-18-172 regarding policy on change in PD/PI status).

Applications lacking an organizational commitment letter will not be reviewed.

https://grants.nih.gov/grants/guide/pa-files/PAR-21-277.html#_Section_IV._Application_1
MOSAIC UE5 – Review

• REMINDER: be sure to comply with all FOA instructions

• NIGMS Scientific Review Branch will manage reviews (likely by standalone SEP)

• Scored Review Criteria (each item gets a score)
  - Significance
  - Investigator(s)
  - Innovation
  - Approach
  - Environment

  Pay special attention to “Specific for this FOA” criteria

• Additional Review Criteria
  - Recruitment Plan to Enhance Diversity, Training in Methods for Enhancing Reproducibility, Training in RCR
  - Others (e.g., protection for human subjects) – generally not applicable

• Additional Review Considerations (not part of final score)
  - Resource Sharing Plans, Budget
Insights from Review

• Significance
  ○ Clearly detailed opportunities for skill development, enhanced mentoring and professional networking.

• Investigator(s)
  ○ Convincing evidence of PD(s)/PI(s) commitment to enhancing diversity in the biomedical workforce.
  ○ Solid plans for ensuring participating faculty come from diverse backgrounds.

• Innovation
  ○ Evidence that the program is developing or utilizing innovative approaches and current best practices to improve the knowledge/skills of the scholars.
Insights from Review

• **Approach**
  - Convincing plans for professional development of K99/R00 scholars.
  - Evidence for scientific strength of the organization’s membership and alignment with program need.
  - Convincing plans that proposed activities will enhance community among MOSAIC scholars.
  - Appropriate plans and measurable objectives for evaluating effectiveness of proposed activities.
  - Plans for engaging institutional leaders where MOSIAC scholars will conduct research to improve mentoring and career development activities.
Insights from Review

• Environment
  ○ Prior history with other relevant programs demonstrating that the applicant organization can successfully achieve the goals of MOSIAC.
  ○ Evidence that the organization’s membership base is sufficiently large and diverse enough to support the MOSIAC program.
## MOSAIC UE5 – Award Information

<table>
<thead>
<tr>
<th>Category</th>
<th>Budget Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Budget</td>
<td>Average award size is expected to be $250,000 in direct costs per year. Budgets should reflect the fact that the number of MOSAIC scholars is expected to grow through time (e.g., 5 scholars in year one and ~ 25 scholars in year five).</td>
</tr>
<tr>
<td>Award Project Period</td>
<td>Five years</td>
</tr>
<tr>
<td>Personnel</td>
<td>Individuals designing, directing, and implementing the research education program may request salary and fringe benefits appropriate for the person months devoted to the program.</td>
</tr>
</tbody>
</table>
| Participant Costs             | • NIH MOSAIC K99/R00 scholars receive educational experiences supported by an UE5 program but may not receive salary or stipend supplementation from the UE5 program.  
• Funds may be requested for the travel of MOSAIC scholars to UE5 activities.                                                                                          |
| Other Program-Related Expenses| May be included in budget. Limited program evaluation costs are allowed up to a maximum of 5% of direct costs per year for the 5-year project period.                                                                                                                                                                                                 |
| Indirect Costs                | 8% of modified total direct costs                                                                                                                                                                                                                                                                                                                     |
MOSAIC UE5 – Cooperative Agreement

- Cooperative Agreement: A support mechanism used when there will be substantial Federal scientific or programmatic involvement.

- Substantial involvement means that, after award, NIH program staff will assist, guide, coordinate, or participate in project activities.

- Specifics of the substantial involvement are delineated in Section VI.2 of the FOA under “Cooperative Agreement Terms and Conditions of Award”

[Link to NIH website]
MOSAIC UE5 – Cooperative Agreement

• NIH’s purpose is to support and stimulate the recipients’ activities by involvement in and otherwise working jointly with the award recipients in a partnership role

• NIH’s purpose is not to assume direction, prime responsibility, or a dominant role in the activities

• The dominant role and prime responsibility resides with the awardees for the project as a whole, although specific tasks and activities may be shared among the awardees and the NIH

• See Section VI.2 of the FOA for the specifics of the primary responsibilities of the PI(s), the substantial programmatic involvement of NIH staff, the areas of joint responsibility, and how any disputes will be resolved

https://grants.nih.gov/grants/guide/pa-files/PAR-21-277.html#_Section_VI._Award
MOSAIC UE5 – Timeline

• Application Due Date: November
• Scientific Merit Review: February/March
• Advisory Council: May
• Earliest Project Start Date: July
• MOSAIC Scholar Assignment: December/January
MOSAIC UE5 – Questions

Reminder - consult the MOSAIC Answers to FAQs
For more information

FOAs

• UE5 ([PAR-21-277](#)) and K99/R00 ([PAR-21-271](#), [PAR-21-272](#), or [PAR-21-273](#))

MOSAIC Resources

• MOSAIC [Website](#) and [FAQs](#)

NIGMS Contacts

• Program: Kenneth Gibbs ([kenneth.gibbs@nih.gov](mailto:kenneth.gibbs@nih.gov))
• Review: Rebecca Johnson ([JohnsoRe@nigms.nih.gov](mailto:JohnsoRe@nigms.nih.gov))
• Grants Management: Justin Rosenzweig ([rosenzwj@nigms.nih.gov](mailto:rosenzwj@nigms.nih.gov))
• Follow us on Twitter [@NIGMSTraining](https://twitter.com/NIGMSTraining)
Thank you for listening
Best of luck on your applications!