Next Steps Program RFP: Priority Area Announcement Characterization of Rare Melanoma Preclinical Models

Background:

Rare melanoma subtypes such as acral, uveal, mucosal, and pediatric account for a subset of all melanoma diagnoses yet are areas of unmet need due to fewer treatment options and poor patient outcomes compared to cutaneous melanoma. There are also fewer well-characterized preclinical models of these melanoma subtypes. There is critical need to develop and characterize preclinical models of rare melanomas to: 1) advance our biological understanding of rare melanoma subtypes; and 2) facilitate drug discovery, with the goal of identifying new therapeutics for patients with rare melanoma subtypes.

To assist in the identification and development of novel therapies to treat patients with rare melanomas, robust and well annotated preclinical models are essential. Generally, funding for this type of project is not included in many types of grant mechanisms. Therefore, the goal of this Next Step RFP is to provide seed funding to support the characterization of established preclinical models (eg, cell lines, patient-derived xenografts, organoids, and animal models) of rare melanomas. This RFP would require that characterized models and data resulting from this funded research will be made available to the research community to facilitate further research and discovery in rare melanoma subtypes including acral, mucosal, uveal, and pediatric melanoma. This RFP does not support the development of preclinical models of rare melanomas; however, you can contact sdinapoli@curemelanoma.org if you are developing preclinical models of rare melanoma and want to discuss potential funding sources.

Deadline:

LOI must be emailed to sdinapoli@curemelanoma.org by June 30, 2025 at 11:59PM ET. Full applications must be submitted through Proposal Central by July 25, 2025 at 11:59PM ET.

Award Duration:

1-2 years

Funding Level:

Up to \$200,000 total funding

Payment Schedule:

Payments will be released after achieving specific milestone accomplishments clearly outlined in a milestone/timeline plan to be included as part of the application. Payments will be approved after MRA's review of progress and determination that milestones and timelines have been met, at MRA's sole discretion. An initial payment will be released upon full execution of the grant contract.

Timeline:

June 30, 2025: Deadline for LOI July 25, 2025: Applications Due

Early October 2025: Awardees notified (Please note that MRA may adjust notification date without notice to applicants)

November 1, 2025: Anticipated project start date

Funding Priorities and Pertinent Accompanying Information:

The RFP supports:

- Characterization of the following types of rare melanoma preclinical models, with priority for acral, mucosal, uveal, and pediatric melanoma:
 - o Cell lines
 - Patient-derived xenografts
 - o Organoids
 - o Animal models, such as zebrafish and mouse
- Characterizations can include, but are not limited to:
 - Comprehensive genomic, epigenomic, proteomic and other types of molecular analyses;
 - o Drug sensitivity testing (ie: drug repurposing or repositioning studies);
 - CRISPR or other types of genetic manipulation to identify key vulnerabilities;
 - Demonstration that molecular features are conserved between the model and the tumor of origin;
 - o Further optimizing growth conditions

For cell lines and PDX models, proposals should characterize the appropriate number of models that represent the genomic (e.g., for uveal melanoma GNAQ/11 mutations, BAP1 loss, etc.), histological, anatomical, and/or skin color diversity of the rare melanoma subtype being studied and would add to existing models that are currently available.

Proposals must:

- Have preliminary proof that the preclinical models are melanoma AND the indicated rare melanoma subtype;
- Preliminary information to support growth conditions;
- Indicate that the PI of the proposal is the researcher that originally developed the models. However, characterization of the models can be done through collaborations with investigators and core facilities at the PI's institution or through collaborations outside of the PI's institution

The RFP does NOT support:

- Proposals focused on characterizing preclinical models of cutaneous melanoma;
- The generation of new preclinical models. For this RFP, models must already be developed and have a degree of proof that they represent the indicated rare melanoma subtype. You can contact sdinapoli@curemelanoma.org if you are developing preclinical models of rare melanoma and want to discuss potential funding sources;
- Proposals only characterizing a single or very limited cell lines or PDX models;

 Proposals from researchers requesting to characterize preclinical models developed by other laboratories. (As stated above, the PI of the grant application must be the researcher that originally generated the model(s).

Application Process:

Step 1: Letter of Intent

A letter of intent (LOI) must be emailed to Sara DiNapoli (sdinapoli@curemelanoma.org) no later than June 30, 2025 at 11:59 PM ET. The LOI is a maximum of one page that includes 1) a description of the scientific aims; and 2) the members of the study team and the specific role of each participant.

LOIs are used for reviewer recruitment and will not be reviewed. An invitation to submit a full application will NOT be provided after LOI submission. Applicants are encouraged to develop LOI and full application concurrently and submit a full application AFTER successful submission of the LOI.

Step 2: Full applications

Full applications must be submitted through <u>Proposal Central</u> and are due on **July 25, 2025 at 11:59 PM ET**. Late applications **WILL NOT** be accepted under any circumstances.

Eligibility:

Researchers and clinicians within or outside the U.S. working in academic medical centers and universities or other non-profit research institutions are eligible to apply. Applications will **not** be accepted from for-profit companies.

General eligibility requirements:

- MRA encourages applications from a diverse pool of investigators with respect to race, gender, sexual orientation, ethnicity, national origin, and disability. MRA recognizes that diversity in the biomedical research workforce is critical for ensuring that the most creative minds have the opportunity to contribute to realizing our research goals and to ensuring more equitable health outcomes for all.
- Principal Investigators (PIs) must hold a full-time faculty appointment at the level of Assistant Professor (or equivalent) or above. Early-stage career investigators are encouraged to consider this funding opportunity to characterize existing models that will be useful in applying for additional funding through other sources and aid in their career development.
- Fellows/post-docs or those in other training or research support positions are **not** eligible to apply as a PI.
- Individuals employed by state or federal government agencies may reach out to Sara DiNapoli, MRA Director of Scientific Programs (sdinapoli@curemelanoma.org) to determine their eligibility.
- An investigator may apply as PI on only one call for proposals in the Next Steps Program
 in any given calendar year, but they can serve as a co-investigator on another proposal
 in the same calendar year.

- Multiple applications will be accepted from a single institution, provided that each application has a different PI and represents a distinct project.
- Researchers who have not received prior MRA awards but who have projects that fit within the scope of this RFP are eligible to apply.

If there are any questions about eligibility, please contact Sara DiNapoli PhD, Director of Scientific Programs, at sdinapoli@curemelanoma.org, before applying. Applications from PIs who do not meet the eligibility criteria will not be reviewed.

Evaluation Criteria:

Proposals will be evaluated on:

- The uniqueness of the models being characterized (eg, genomics, histology, anatomical locations, skin color) compared to other available models of the subtype;
- Technical feasibility of the experiments to provide the data needed to adequately characterize the preclinical model(s);
- A detailed reagent sharing plan that explains how and when the models will be shared with the research community;
- Qualifications of the research team and adequacy of resources and environment;
- Appropriateness of budget tied to a reasonable milestone/timeline plan (reviewed specifically by MRA staff)

Application Format:

Step 1: Letter of Intent Submission

A one-page letter of intent must be emailed to Sara DiNapoli (sdinapoli@curemelanoma.org) **no** later than June 30, 2025 by 11:59 PM ET. LOIs are used for reviewer recruitment and will not be reviewed. You will receive email confirmation from MRA that your LOI has been received. If you do not receive an email confirmation, please contact Sara DiNapoli. It is a requirement that MRA receives an LOI for your full application to be reviewed.

The one-page LOI must include the following information:

- PI: Name, institution, position title, email address, and phone number in the upper lefthand corner of the document
- Title of proposal
- Brief description of the goal of the project and specific aims
- Nature and rationale for any proposed collaboration and the specific role of each participant
- Names and affiliations of all key personnel

Institutional approval is not required for LOI submission. The maximum length of LOI is one page, to be emailed to sdinapoli@curemelanoma.org.

Step 2: Full Application Submission

Applications must be submitted by 11:59 PM ET on July 25, 2025. Submissions will not be accepted after the deadline. Applicants must use Proposal Central (https://ProposalCentral.com/) and should carefully follow the application instructions. Please note that full applications can be filled out concurrently with LOIs.

Full application submission includes the following steps and components:

- 1. **Title Page:** Enter the project title. The grant title (along with the PI's name and institution) will become public if the award is selected for funding, so it should not contain any proprietary information.
- 2. **Templates and Instructions:** Download RFP and templates.
- 3. Enable Other Users to Access this Proposal: Allow others (e.g., institutional administrators or collaborators) to view, edit, or submit your proposal. Electronic signatures are required to submit the application. The Signing Official from the applicant's institution must be provided at least 'Edit' access on this screen to be able to sign. Please review the Signature Page to confirm the signature roles required and add as appropriate on this page.
 - *Please make sure to grant access to your institution's signing official ahead of time to avoid any last-minute issues with signing and submitting your application. *
- 4. Applicant/PI: Key information about the applicant PI.
- 5. **Organization/Institution:** Key information about the Pl's institution, including name and email address of the signing official who, in addition to the PI, will be contacted if the award is selected for funding. If your institution has a ROR (Research Organization Registry ID), please include.
- 6. **Key Personnel:** List and provide contact information for key persons. Include everyone **except the applicant** who will contribute to the scientific development or execution of the project in a substantive, measurable way whether they receive salaries or compensation under the grant. ORCID ID is required only for the PI.

Descriptions of Key Personnel roles:

Principal Investigator (PI): This is the applicant for this award who will also serve as project leader and primary point of contact for MRA Staff if multiple investigators and collaborators are involved. The PI will ensure that the team complies with the terms of the award, including all reporting, contractual, and financial obligations. Co-PIs are **not** allowed.

Co-Investigator: Co-Is are vital scientific contributors who bring needed expertise to the research team. They commit some level of measurable effort to the project and are, therefore, always designated as Key Personnel whether being compensated or otherwise. Co-Is can be at the same or different institution as the PI.

Collaborator: Play a lesser role in the thinking and logistics of the project than a Principal Investigator or Co-Investigator. Depending on the role and effort, a collaborator may be designated as Key Personnel (although not required) and may be compensated.

Consultant: Provides guidance on specific aspects of the research project, as their expertise applies. A consultant may be designated as Key Personnel (although not required) and may be compensated.

Others: Key Personnel includes individuals who will contribute to the scientific development or execution of the project in a substantive, measurable way. Examples include project managers, technicians, postdoctoral associates, fellows, research assistants, or graduate students.

REQUIRED SUPPORTING DOCUMENTS FOR KEY PERSONNEL (KP)					
Personnel	Include in KP Section	Biosketch	Current/Pending Support	Letter of Support	ORCID ID required
Principal Investigator	Yes (All)	Yes	Yes	N/A	Yes
Co-Investigator	If applicable	Yes	No	Optional	No
Collaborator	If applicable	Yes, if included as KP	No	Optional	No
Project Manager	Optional	Yes, if included as KP	No	No	No
Technician	Optional	Yes, if included as KP	No	No	No
Consultant	If applicable	Yes, if included as KP	No	No	No
Postdoctoral/Fellow	Optional	Yes, if included as KP	No	No	No
Graduate Student	Optional	Yes, if included as KP	No	No	No
Other (eg, Research Assistant)	Optional	Yes, if included as KP	No	No	No

7. **Data and Renewable Reagent Sharing Plan:** In order to promote rapid research advancement, transparency, reproducibility, and collaboration, MRA encourages the open sharing of data and resources generated from its funded awards. Provide information for the types of data and renewable reagents that will be generated as part of the award and how they will be shared.

MRA will incur costs associated with policy compliance, provided these fees (e.g., article processing charges, data storage), are included in the original grant application budget.

8. **Abstracts and Keywords:** Provide a general audience abstract (non-technical) and a technical abstract (2,000 characters, *including spaces*, maximum each) and keywords. Please note: the

general audience abstract will become public if the award is selected for funding, so it should not contain any proprietary information.

- 9. Budget Period Detail: Enter budget details for each award period requested. Awards will not support indirect costs, overhead costs, or other similar institutional charges. Fringe benefits for personnel salaries are allowable. Please also include any costs associated with compliance with MRA's data sharing policy. Furthermore, the budget should align with the milestone/timeline plan proposed in the project description. Therefore, if applying for a 2-year award, the budget does not have to be split evenly over the two years. Please note: MRA recognizes that research studies will need a certain amount of upfront funding support to initiate the project. Therefore, an initial payment upon full execution of the grant award can be included as the first milestone with an associated budget. Applications that do not have a milestone/timeline plan included in the project description will not be reviewed.
- 10. **Budget Summary and Justification:** A summary of the budget details will be shown in this step. In addition, provide sufficient detail for the evaluation of the major portions of the budget that are being requested. If more space is required than is provided in the Proposal Central forms (2,000 characters), applicants may upload the budget justification in document form in step 13.
- 11. **Current and Pending Research Support:** Please list all current and pending support for the Applicant.

Any overlap of current or pending support with the MRA Next Steps proposal must be described and explained. Current and pending support can be added to your (and other Key Personnel's) Professional Profile on Proposal Central by clicking on the 'Professional Profile' tab and going to Step #6: Other Support.

To add your entries, please click on the "+" link and all entries previously saved in your Professional Profile will show. Please select the applicable support and save.

- 12. **Organizational Assurances:** IRB and IACUC approvals, if applicable.
- 13. Upload Attachments: Upload the following:
 - a. Biosketch for PI and Key Personnel: Please upload an NIH format biosketch for yourself and all Key Personnel listed in step #6. Biosketches for research support staff, students, postdocs, and other training positions are not required. Applicants who do not have an NIH biosketch may use the template provided in Proposal Central. Besides publications, MRA welcomes the inclusion of research outputs such as datasets, code, patents, and papers posted to preprint servers.
 - b. **Current and pending research support:** Please enter PI current and pending support directly into Proposal Central in the "Current and Pending Support" section (step #11). Any overlap of current or pending support with the Next Step proposal must be described and explained.
 - c. **Project description:** Must be formatted in Arial 11-point or Times New Roman 12-point font with no less than ½ inch margins. The project description should be **5 pages maximum**, including figures. Project description should include:

1. Project Background (including, but not limited to):

- The need for the models that you have developed to complement existing models that are available and currently being used;
- How the data generated to characterize the models will be useful to advance research and a better understanding of rare melanoma subtypes.

2. Pertinent Preliminary Data (including, but not limited to):

- Tumor sources of the models generated;
- Confirmation that the models are authentic models of the rare melanoma subtype;
- Initial growth conditions and requirements;
- Experiments that have been performed with the models.
- **3. Specific Aims and Experimental Design** including resources available and collaborative efforts.
- **4. Detailed Milestone Plan with Timeline** (Note that the maximum award length is 2 years). Payment schedule in budget should be associated with milestone plan and timeline. This section **must** be included in the project description for application to be reviewed.
- **5. Rationale/Fit** for this proposal to characterize rare melanoma preclinical models that can be used for future studies, including drug testing.
- d. **Literature references:** A list of up to 30 references supporting the project description is allowed, in addition to the 5-page project description.
- e. **Application checklist:** Please complete the checklist to ensure that all application materials are provided, and that the applicant is eligible to apply.
- 14. **PI Data Sheet:** Please enter your ORCID ID and other requested demographic information. If you do not have an ORCID ID, you can register for one at https://orcid.org/register. Please note that requested demographic information will NOT be used by MRA in any way during the selection process. Having such information will help MRA better understand its applicant and awardee pool and detect and address any inequities identified.
- 15. **Validate:** Check for any missing required information.
- 16. **Signature Page(s):** Before submitting the application, an electronic signature is required from both the Applicant/PI and a Signing Official from the applicant's institution. Type your name in the text box and click the green 'Sign' button. A date and time stamp will appear next to the button indicating that the electronic signature was successful. To give the Signing Official access to sign this application, enter their information in Step #3: "Enable other users to access this proposal" and grant them at least "Edit" access.
- 17. **Submit:** Please note that no proposals will be able to be submitted past their deadline. Technical support for the on-line application system is not available after 11:59 p.m. Eastern Time or on weekends.

PLEASE MAKE SURE TO ALLOW ENOUGH ACCESS AHEAD OF TIME TO YOUR INSTITUTION'S SIGNING OFFICIAL TO AVOID ANY LAST-MINUTE ISSUES WITH SIGNING AND SUBMITTING YOUR FULL APPLICATION BY JULY 25, 2025!