NASA’s SMD Bridge Program: 
A Co-created Program that Funds Faculty and Students at Under-resourced Emerging Research Institutions

Nicolle Zellner, Padi Boyd, Steven Villanueva, Vemitra Alexander, Daniella Scalice, Lalitha Balachandran, Jeremias Nuñez, Bri Hart, Eddie Gonzales, and Trena Ferrell
The NASA SMD Bridge Program is a set of funding opportunities for non-R1 institutions to partner with NASA.

**Top Takeaways...**

01. NASA is committed to co-creating the program

02. A virtual community workshop was held in October 2022

03. Important takeaways from community stakeholders were heard

04. Funding for nascent and developed Bridge partnerships

05. Where we are now and what’s coming next

The program is co-designed to expand access within the NASA workforce and within the US STEM communities.
Background and Team

**SMD Bridge Core Team (NASA Headquarters)**

**Name:** Padi Boyd  
**Institution:** NASA Goddard and NASA Headquarters  
**Bio:** Padi is a passionate ally and advocate for diversity, equity, accessibility and inclusion with over 25 years of scientific, technical and managerial experience at NASA, including work in the Hubble Space Telescope, Swift, Kepler and TESS.

**Name:** Steven Villanueva  
**Institution:** NASA Postdoctoral Management Fellow  
**Bio:** Steven Villanueva is an exoplanet scientist who works to understand what role giant planets play in the formation of extrasolar systems around stars outside of our solar system. He has been active in SACNAS since his student days at OSU, and will focus on mentoring for the Bridge Program.

**Name:** Lalitha Balachandran  
**Institution:** University of California, Santa Cruz  
**Bio:** Fourth-year PhD student in Linguistics

**Name:** Jeremias Nunez  
**Institution:** University of Texas, Austin  
**Bio:** Third-year undergraduate in anthropology

**Name:** Vemitra White-Alexander  
**Institution:** OSTEM (SE Regional Office) MSFC  
**Title:** Program Specialist  
**Bio:** Her research interests include STEM engagement, URM students’ persistence and retention in STEM, STEM education and outreach. Previous Director for Educational Outreach Bagley College of Engineering at Mississippi State University; Summer Bridge Program Research Assistant for the college of engineering Diversity Programs and Student Development.

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**Name:** Paulette Woods, Trena Farell

**Former Interns**

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**Former Interns**
Institution-specific Workshop Registration

>400 registrants
>100 participants/day

https://www.hou.usra.edu/meetings/smdfall2022/
What one element would you like to see in NASA’s SMD Bridge Program as it relates to...

<table>
<thead>
<tr>
<th>Community Colleges</th>
<th>HBCU</th>
<th>Accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STEM Mentoring</strong></td>
<td>Corporate incubator program</td>
<td>- Incusivity at all levels</td>
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<tr>
<td>near-peer mentors</td>
<td>Productive partnerships</td>
<td>- Quality mentorship</td>
</tr>
<tr>
<td>mentorship training</td>
<td>local engagement</td>
<td>- Career advancement</td>
</tr>
<tr>
<td>Joint/Co Mentoring</td>
<td>effective advertising</td>
<td>- Job Shadowing Early</td>
</tr>
<tr>
<td>multiple mentors</td>
<td>systemic DEI</td>
<td>- navigating USAjobs.gov</td>
</tr>
<tr>
<td>mentoring cohorts</td>
<td>simplified processes</td>
<td>- Accessibility</td>
</tr>
<tr>
<td>Resources for the mentors</td>
<td>pathways</td>
<td>- mentoring</td>
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<tr>
<td>student-focused methods</td>
<td>partnerships</td>
<td>- Clarity - facility</td>
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<td>student leadership ops</td>
<td>Diversity Consistency</td>
<td>- intro to many career options</td>
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<tr>
<td>mentoring cohorts</td>
<td>development opportunities</td>
<td>- Travel funding</td>
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<td>cc student internships</td>
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<td>- exposure to real career opportunities</td>
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<tr>
<td>Eligibility Flexibility</td>
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<td>- Mentoring, Life coaching</td>
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<td>Simplified application</td>
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<td>- Easy/easier onboarding</td>
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<td>Black STEM organizations</td>
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<td>- part-time possibilities</td>
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<tr>
<td>Planning for Inclusion</td>
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<td>- simplified proposals</td>
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<td>Funding for DEIA work</td>
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<td>- work/life balance</td>
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<td>Faculty student cohorts</td>
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<td>- Wide recruiting net</td>
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<td>Guidance for mentoring</td>
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<td>- promotion and outreach</td>
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<td>High school recruitment</td>
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<td>- flexibility</td>
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<td>Broad Eligibility</td>
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<td>- easy onboarding</td>
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<tr>
<td>less focus on GPA</td>
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<td>- part-time possibilities</td>
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<th>Hispanic Serving Institutions</th>
<th>NASA Existing Programs</th>
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<tr>
<td><strong>Collaboration</strong></td>
<td>Methods of engagement</td>
<td>Means of engagement</td>
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<tr>
<td>Long-Term Support</td>
<td>Proposal Buddies</td>
<td>- listening reciprocity</td>
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<td></td>
<td>Coordination/cooperation</td>
<td>relationship building</td>
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<td>hand offs from K-12</td>
<td>- Sustainable nonextractive</td>
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<td>- respect go slow</td>
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<td>- hybrid/remote research</td>
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<td><strong>Financial support</strong></td>
<td>Collaboration Accessibility</td>
<td>- Means of engagement</td>
</tr>
<tr>
<td>DACA Opportunities</td>
<td>Feedback between programs</td>
<td>- Means of engagement</td>
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The ideal NASA Bridge Program would center the needs of students, faculty, and institutions that have been historically and systematically marginalized.

The ideal NASA Bridge Program would lead a paradigm shift by assuming primary responsibility for building impactful relationships/partnerships with marginalized and underserved communities to diversify its workforce and the STEM community.
Novel Features of the Bridge Program

• Support for new and established partnerships
  • Offer Seed Funding to get teams started (6 pg proposal)
  • Communicate with potential PIs via webinars and office hours
  • Plan Networking Events and Symposia to foster partnerships and build community

• Flexibility for students and faculty at URIs
  • Small (6 pg), Large (10 pg), and Key (15 pg) proposals
  • Flexible due date (open through 3/2025; 2-3 reviews per year)
  • Partnership and research descriptions to meet needs of team (gap years, part-time students, etc.)

• Expect, recognize and reward excellence in mentoring
  • Mentoring plan is required element of the proposal
  • Funding to work with mentoring expert

(majority of funding: students, faculty and research capacity of URI; PI expected to be @URI but not required)
The Bridge does:

• create **long-term research and mentoring partnerships** between NASA researchers and faculty at institutions historically underfunded by NASA. We call these “Under-resourced Institutions” or URIs.
• fund teams **led by URI faculty and co-created with a NASA partner**.
• offer **paid research positions for URI students** on topics relevant to NASA’s Science Mission Directorate (SMD).
• have a call for proposals open: **F.23 SMD Bridge Program Seed Funding (BPSF)**
• focus on **partnership** between URI and NASA, **impacts**, and **mentoring**
• lead to a **full program** in ROSES-2024

The Bridge does not:

• support **individual students** on their academic journey
  ○ a faculty member must partner with a NASA participant, who jointly propose a research partnership involving student research experiences
• promise employment by NASA or related industry
• **require** participation from R1 universities
  ○ R1 people may participate as it enhances the research partnership
  ○ funding can be requested, so long as the majority of funding goes to URI
• **currently** connect to long-term mission commitments
11 Teams Selected in Round 1
Schools w/ only Masters degrees
Many HBCUs, HSIs

38 Proposals Submitted (2 Rounds)
Most are from Masters, R2 schools
Many HBCU, HSI proposals
Several CC, TCU proposals
NASA SMD BRIDGE PROGRAM: An Opportunity for Faculty and Students at non-R1s to Partner with NASA

Purpose: Faculty PI and NASA Co-I
Build and strengthen partnerships between NASA’s Science Mission Directorate (SMD) and emerging research institutions, in any science, engineering, and/or technology area relevant to NASA SMD objectives, by focusing on paid student research experiences and faculty development.

Eligibility: Non-R1 faculty and NASA CS or contractor
Faculty at emerging research institutions include non-research intensive institutions (i.e., non-R1), and many MSIs, HBCUs, TCUs, PUIs, PBIs, HSIs and/or community colleges. Faculty fund their students as well. Proposals must have a NASA Co-I.

Current Status:
Accepting proposals to ROSES23 F.23 Seed Funding
Planning for ROSES24 F.18 Full Program and F.20 Seed Funding

Full Program
ROSES24 F.18
Call opening Spring 2024
Up to $2M/yr for up to 5 yr

Seed Funding
ROSES23 F.23 and ROSES24 F.20
Apply Now!!!
Up to $150k/yr for 1-2 yr

Community Engagement
Symposia, Webinars, Office Hours, Mentor Training
Simplified Proposals, Reimagined Review Process

https://science.nasa.gov/smd-bridge-program/latest-updates
THANK YOU!

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