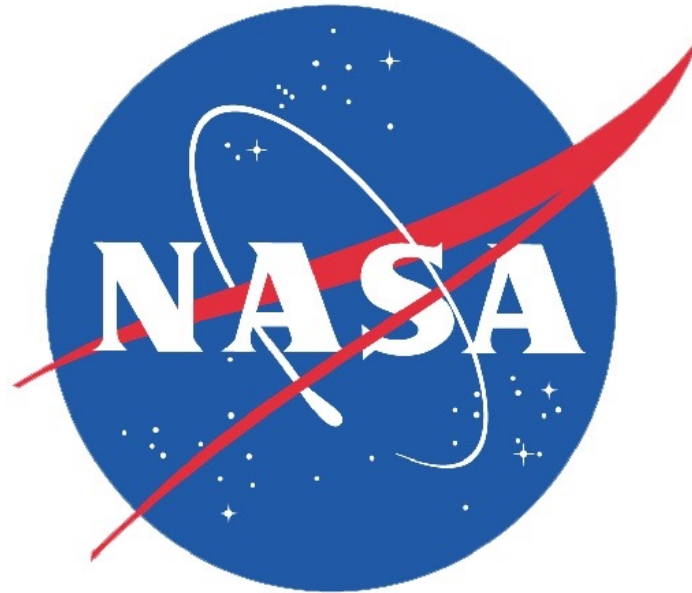


# NASA EPSCoR Opportunities



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# NASA Opportunities

- There are a number of ways to work with NASA
  - Grants - SBIR's, NRA's, NASA Innovative Advanced Concepts, etc.
  - Direct funding/contracts with NASA Directorates
  - Faculty Fellowships, via NASA Centers
  - Student Internships - <https://intern.nasa.gov>
  - Kansas NASA Space Grant Teacher Workshop Program
  - EPSCoR programs



# NASA Opportunities

- Be sure to visit NSPIRES for lots of NASA solicitation information
  - <https://nspires.nasaprs.com/external/>
- I'm going to focus on the EPSCoR opportunities
  - EPSCoR helps states like KS become more competitive
  - EPSCoR opportunities are a great way to start, establish yourself, and find other opportunities



# NASA EPSCoR



- NASA's Established Program to Stimulate Competitive Research (EPSCoR) is about:
  - Helping 26 states that need help being competitive
    - Sadly, 8 (non-EPSCoR) US states get 80% of all federal research dollars



# NASA EPSCoR



- NASA EPSCoR goals include:
  - Establishing long-term, self-sustaining, & nationally-competitive research infrastructure capabilities
  - Addressing research needs common to NASA and Kansas (e.g., aerospace, energy, & bio)



# NASA EPSCoR

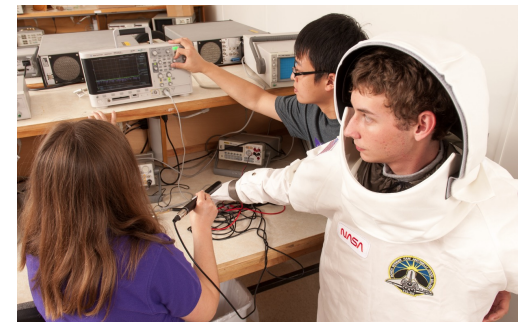


- Kansas efforts are executed through the Kansas NASA EPSCoR Program (KNEP)
  - WSU serves as the EPSCoR lead institution
  - NASA requires all state EPSCoR activities to be run through the lead institution & the director to be listed as the PI
    - Don't panic, the Science-Investigator still gets PI credit
- Along with EPSCoR, WSU also leads NASA Kansas Space Grant Consortium (KSGC)
  - We call the combination *NASA in Kansas*
  - Visit <http://nasainkansas.org/> to learn more about KNEP & KSGC



# Kansas NASA EPSCoR Program

- KNEP funding opportunities include
  - Research Infrastructure Development (RID) awards (PDG & SRI)
  - Notice of Funding Opportunity (NOFO) - replaces the old Cooperative Agreement Notice (CAN)
  - ISS Flight Opportunities (ISS)
  - Rapid Response Research (R3)
- Watch for Requests for Proposals (RFPs), via emails & on the *NASA in Kansas* website
  - <http://nasainkansas.org>
- Submissions are limited by NASA & must come through the KNEP office





# Kansas NASA EPSCoR Program

- Kansas Research Infrastructure Development (RID) efforts annually include
  - Partnership Development Grants (PDG) ~ \$19K each, with ~ 15% match
  - A Seed Research Initiation (SRI) grant ~ \$170K, with ~ 15% match
- Typically includes some additional KBOR support
- Outside collaborations are expected (NASA, industry, etc.)
- Requests for Proposals (RFP's) are typically issued late fall or early spring





# KNEP PDG

- Partnership Development Grants (PDG)
  - A great starting point
  - 2-3 awards per year
  - 1-year, ~ \$19K each, with ~ 15% match
  - Proposals typically due in first-quarter of new year
  - Focus is on establishing a personal NASA connection for continued collaboration
    - Mainly a people-infrastructure development activity
  - Your near- & long-term research plans are also important
  - Must include meaningful travel to NASA Center/s



# KNEP PDG

- Partnership Development Grants (PDG)
  - Your plans need to align with EPSCoR, NASA, & KS needs
  - Efforts should lead to a publication & follow-on proposal
  - Student involvement is critical
    - Student involvement can help you get money & grants
    - Diversity, Equity, and Inclusion (DEI) is also important



# KNEP SRI

- Seed Research Initiation (SRI) grants
  - A logical second step
  - 1 award per year
  - 1-year, ~ \$170K, with ~ 15% match
  - Proposals typically due in first-quarter of new year
  - The goal is to collaborate & evolve promising new research ideas to a less risky level
    - This is a people & capability infrastructure development activity
  - Your near- & long-term research plans are very important
  - Should lead to publications & follow-on proposals
    - Journal & conference papers with your NASA collaborator & students
    - NOFO, NRA, & other non-EPSCoR grants



# KNEP SRI

- Seed Research Initiation (SRI) grants
  - Your plans need to align with EPSCoR, NASA, & KS needs
  - Commercialization aspects are also highly desired
    - Active industry partners
    - Job production outside the universities
    - Intellectual property and revenue generation
    - Technology Readiness Level (TRL) growth
  - Student involvement is critical
    - Student involvement can help you get money & grants
    - Diversity, Equity, and Inclusion (DEI) is important

# KNEP NOFO

- Notice of Funding Opportunity (NOFO) – formally CAN
  - Typically \$750K for 3-years, the number of NASA submissions is limited, & must come through the KNEP office
  - Cost-sharing required (we can sometimes secure KBOR support)
  - Significant collaborations are strongly encouraged (NASA, industry, etc.)
  - This is a people & higher-level research capability infrastructure development activity
  - Watch email & *NASA in Kansas* website (old RFP's are available to review)





# KNEP NOFO

- **A NOFO RFP WAS RECENTLY RELEASED!**
- Proposals are due January 14<sup>th</sup> 2022
  - \$750K for 3-years, with 50% match requirement
- Visit the *NASA in Kansas* website for more details & requirements

<http://nasainkansas.org>



# KNEP Other

- International Space Station (ISS) Flight Opportunity Awards
  - \$100K over 3-years, no cost-sharing
  - Includes sub-orbital flight opportunities (e.g., rockets, near-space balloons, zero-G aircraft, etc.)
- Rapid Response Research (R3) Awards
  - \$100K for one year, no cost-sharing
  - NASA needs are dynamic
- Timings for ISS's & R3's
  - Multiple times per year & remain open till awarded
  - Submissions are limited & must come through the KNEP office
- Watch for RFP's, via emails & the *NASA in Kansas* website



# NASA EPSCoR Proposal Tips

- Write efficiently!
- Recognize that it's not an NSF proposal
- Address all Request for Proposal (RFP) items, in order
  - Don't simply parrot or echo RFP items
  - Show depth & evidence
  - You are in a competition, with many other good investigators
- Effectively convey your near- & long-term plans
- Align your work with EPSCoR, NASA, & KS interests
  - NASA expects a link with one or more mission directorates
  - Check NASA research interest documents (see KNEP webpage, e.g., Appendix A material)
  - Respond to increased student DEI expectations





# NASA EPSCoR Proposal Tips

- Demonstrate a clear focus on EPSCoR specific goals
  - Reviewers are not overly concerned with the technical/scientific merits if NASA is involved
  - EPSCoR goals are the most important thing (slide 4 highlights)
    - An amazing research project will be rejected if it doesn't meet EPSCoR objectives
- Recognize the NASA EPSCoR program is not a place for clearly established projects or researchers
  - Funds are for new efforts, not for those already established & competitive
  - Ultimately the intent is to use EPSCoR to establish or graduate researchers to be competitive for non-EPSCoR opportunities



# NASA EPSCoR Proposal Tips

- NASA collaboration is critical
  - Check Center/Directorate focus & contacts list (visit the [NASA in Kansas](#) webpage)
  - Watch for NASA authors
  - Work hard to make the interactions meaningful, deep, & productive (not just casual emails & conversations)
- Listen to NASA & collaborators - respond to their needs
  - It's difficult to get them to do something they don't want
  - Check NASA webpages for strategic plans, interests, focus, etc.



# NASA EPSCoR Proposal Tips

- Project organization & management is important
  - Multiple co-investigator collaborations are fine
  - However, I strongly suggest you
    - Keep your research team appropriate & simple
    - Make sure you have a viable project management plan
    - Collaborate with other EPSCoR states only when it makes sense
    - Collaborations with non-EPSCoR states is problematic
- Meaningful industry involvement is awesome & very powerful



# NASA EPSCoR Proposal Tips

- Make sure your proposed budgets are real and well-planned
  - Don't create a "casual budget"
  - Don't expect post-award budget changes to be easy or flexible
  - Expenditure rates & balances are watched (issues will affect future award chances)
  - No cost extensions are more difficult to get
- Make sure your travel budget is explained & justified
  - Don't let it look like a vacation, unrelated conference attendance, or an irrelevant trip



# NASA EPSCoR Proposal Tips

- Cost-sharing or match ideas
  - Waived indirect costs can be used, but they:
    - Don't add utility or value to your proposal
    - Can make you less competitive to proposals with actual cash cost-sharing
    - Don't add money to your own research overhead account
  - Your time can be used as match (if not listed as release or billed to NASA)
  - See if your department can commit to use the NASA facility release or pay to cover your students (then department funds can be listed as cost-sharing)



# NASA EPSCoR Proposal Tips

- Cost-sharing or match ideas
  - Use actual lab & software costs as match
  - Department, college, or university support for participating students can be used as match
  - Be careful using established lab rates (don't double charge)
  - Collaborating industry partners can be an excellent cost-sharing source



# NASA EPSCoR Proposal Tips

- Don't forget you are competing, for money, against other good investigators
- You need to submit a proposal that scores better than all the others:
  - *"There can only be one"*
  - Selections are often very close, get every possible point
    - Elaborate, provide detail, identify specifics, etc.
    - Don't parrot the RFP requirements
    - Be efficient in your proposal
  - Keep trying if you don't get selected
    - Proposal review scores and some reviewer feedback is typically shared
    - Use the feedback to improve



# NASA EPSCoR Summary

- Partner Development Grant (PDG)
  - Make strong people connections
- Seed Research Initiation (SRI)
  - Demonstrate new research value
- Notice of Funding Opportunity (NOFO)
  - Establish a high-level & sustainable research capability
- International Space Station (ISS) Flight Opportunities
- Rapid Research Response (R3)





# NASA EPSCoR Summary

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- Focus on EPSCoR's fundamental intent!
- Align your work with NASA & state interests!
- Include strong NASA and other collaborations!
- Think long-term!
- Go the extra distance you need to win, you are in a competition!

# NASA in Kansas



- Thanks for listening, I hope I've helped!
- For further information:
  - Visit the *NASA in Kansas* website – <http://nasainkansas.org>
  - Contact the *NASA in Kansas* office at 316-978-3890 or [nasainkansas@wichita.edu](mailto:nasainkansas@wichita.edu)
  - Email the Director – [scott.miller@wichita.edu](mailto:scott.miller@wichita.edu)
- Questions?

