

LET'S TALK RESEARCH

Beyond NSF:

A workshop about proposing to NIH, DOE, NASA, USDA, & EPA

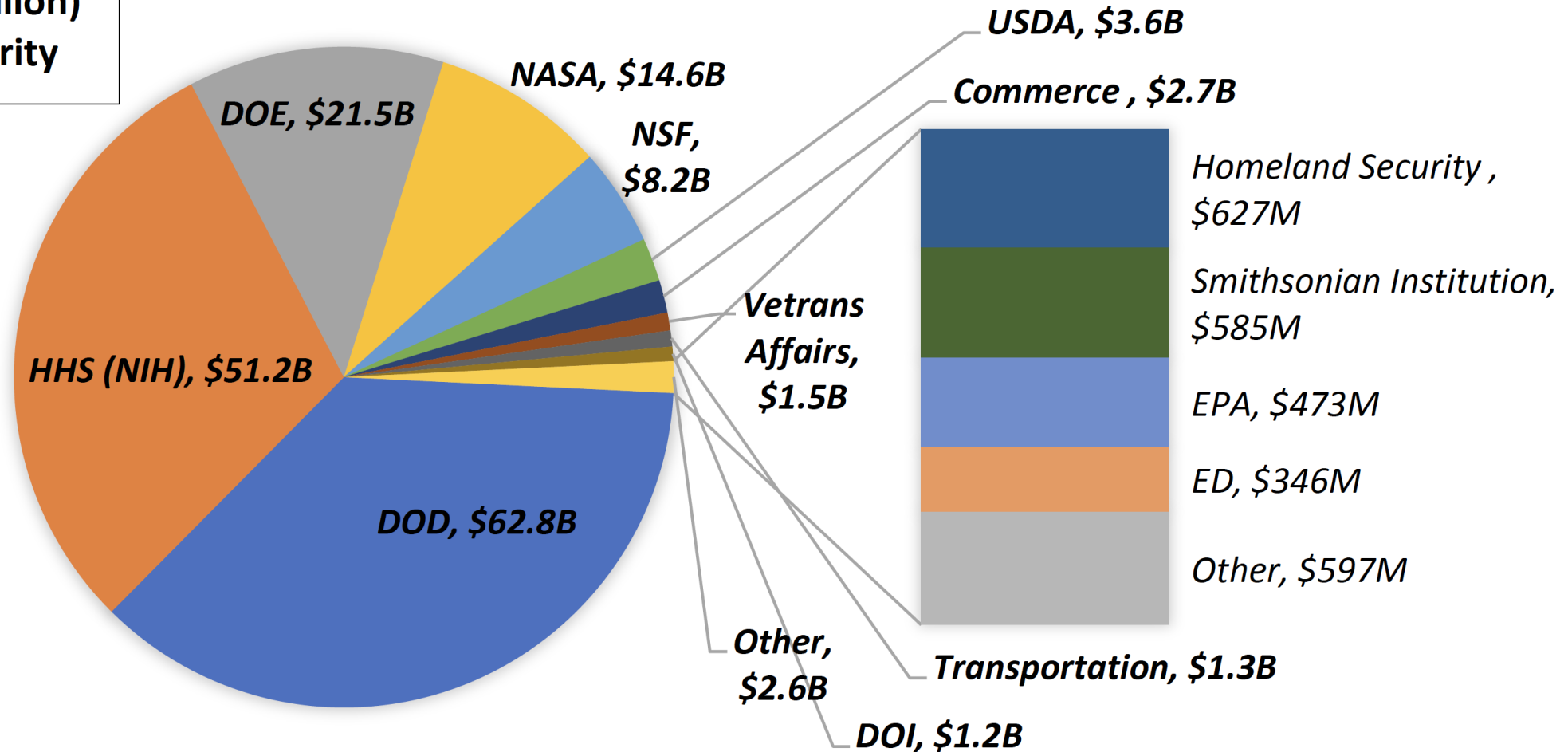
OFFICE OF THE VICE CHANCELLOR FOR RESEARCH &
DEAN OF THE GRADUATE SCHOOL

Time: 10 am -12 pm, March 3, 2023
Location: Student Center Auditorium, SIUC



TOTAL REQUESTED R&D BY AGENCY, FY22

Total R&D = \$171.3B (billion)
estimated budget authority



Panelists

- ▶ **Dr. Ryan M. Campbell** (Associate Director, Center for Archaeological Investigations; Adjunct Assistant Professor, Anthropology)
- ▶ **Dr. Farhan H. Chowdhury** (Associate Professor, School of Mechanical, Aerospace, and Materials Engineering)
- ▶ **Dr. Satya Harpalani** (Associate Dean and Professor, College of Engineering, Computing, Technology and Mathematics)
- ▶ **Dr. Liliana Lefticariu** (Professor, School of Earth Systems and Sustainability)
- ▶ **Dr. Jia Liu** (Associate Professor, School of Civil, Environmental and Infrastructure Engineering)



LET'S TALK RESEARCH

Beyond NSF: National Institutes of Health (NIH)

PRESENTED BY: DR. FARHAN H. CHOWDHURY
ASSOCIATE PROFESSOR, SCHOOL OF MECHANICAL, AEROSPACE,
AND MATERIALS ENGINEERING, SIUC





NIH's mission is to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.

List of Institutes and Center at NIH

NCI	NEI	NHLBI
NHGRI	NIA	NIAAA
NIAID	NIAMS	NIBIB
NICHD	NIDCD	NIDCR
NIDDK	NIDA	NIEHS
NIGMS	NIMH	NIMHD
NINDS	NINR	NLM
CC	CIT	CSR
FIC	NCATS	NCCIH

Budget- FY 20

Amounts in thousands of dollars

FY	NCI ¹¹	NHLBI	NIDCR	NIDDK ¹	NINDS ²	NIAID ¹²	NIGMS	NICHD ³	NEI	NIEHS ⁴	NIA	NIAMS	NIDCD
2020 ^{12, 21}	6,440,442	3,624,258	477,429	2,210,889	2,444,687	5,885,470	2,937,218	1,556,879	824,090	883,598	3,543,673	624,889	490,692

Total Budget- \$ 45.178 billion

<https://www.nih.gov/institutes-nih/list-institutes-centers>

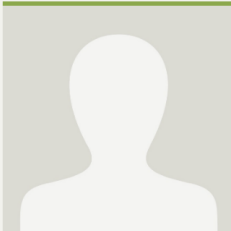
<https://www.nih.gov/about-nih/what-we-do/nih-almanac/appropriations-section-1>

CSR is Organized into Review Branches

Review Branches			
Aging and Neurodegeneration	AN	Integrative and Cognitive Neuroscience	ICN
Bioengineering, Biodata, and Biomodeling Technologies	BBBT	Immunology and Infectious Diseases A	IIDA
		Immunology and Infectious Diseases B	IIDB
Basic Neuroscience	BN	Imaging, Surgery, and Bioengineering	ISB
Biobehavioral Processes	BP	Integrative Vascular Biology and Hematology	IVBH
Basic and Translational Cancer	BTC	Kidney, Urology, and Digestive Systems	KUDS
Clinical Care and Health Interventions	CCHI	Macromolecular Biophysics and Biological Chemistry	MBBC
Cell and Developmental Biology	CDB	Molecular and Cellular Sciences and Technologies	MCST
Cancer Diagnosis, Prevention & Therapeutics	CDPT	Molecular Genetics and Genomics	MGG
Clinical Neuroscience	CN	Musculoskeletal, Skin, and Oral Sciences	MSOS
Cancer Therapeutics	CTH	Neurotechnology and Vision	NV
Disease Control and Applied Immunology	DCAI	Respiratory, Cardiac, and Circulatory Sciences	RCCS
Endocrine and Metabolic Systems	EMS	Social and Community Influences Across the Lifecourse	SCIL
Epidemiology and Population Health	EPH		
Health Services and Systems	HSS		

Study Sections			
Biology and Development of the Eye	BDE	Development-1	DEV1
Cellular Mechanisms in Aging and Development	CMAD	Development-2	DEV2
Cell Structure and Function-1	CSF-1	Maximizing Investigators' Research Award C	MRAC
Cellular Signaling and Regulatory Systems	CSRS	Maximizing Investigators' Research Award D	MRAD

Development - 2 Study Section – DEV2



Dr. Rass Shayiq
Scientific Review Officer
shayiqr@mail.nih.gov
301-435-2359

Reporting Avenues for Concerns Related to Integrity or Fairness

The Development-2 [DEV2] study section reviews applications covering a wide range of topics in developmental biology using diverse animal models. Cell biological, biochemical, genetic, imaging and molecular approaches to developmental problems at the level of cells, tissues, organs and the whole organism are appropriate. Emphasis is on pattern formation, stem cell biology, evolution, birth defects, and early embryonic development.

The List of Reviewers lists all present, whether standing members or temporary, to provide the full scope of expertise present on that date. Lists are posted 30 days before the meeting and are tentative, pending any last minute changes.

Review Dates

- > List of Reviewers on 02/06/2023
- > List of Reviewers on 10/11/2022
- > List of Reviewers on 06/06/2022

Membership Panel

The membership panel is a list of chartered members only.

> View Membership Panel

NIH RePORTER provides details about reporting Expenditure and Outcomes

<https://report.nih.gov/>

The screenshot shows the NIH RePORTER website homepage. At the top is a navigation bar with links: Research, Organizations, Workforce, Funding, Reports, Links and Data, About, Contact, and FAQ. Below the navigation bar is the NIH RePORT logo and the text "Research Portfolio Online Reporting Tools". The main heading is "RePORTER". Below this is a search bar with the placeholder text "RePORTER Quick Search..." and a "Search" button. A paragraph of text explains the RePORTER module: "The RePORTER Expenditures and Results (RePORTER) module allows users to search a repository of NIH-funded research projects and access publications and patents resulting from NIH funding. Enter just about anything in the RePORTER Quick Search box above (text, PI names, project numbers, fiscal year, agency) or launch the Advanced Search to precisely configure searches using separate search fields." Below this text are two buttons: "RePORTER Home" and "Advanced Search". At the bottom, there is a row of five icons with labels: "RePORTER" (magnifying glass icon), "Matchmaker" (network icon), "Awards by Location" (globe icon), "Categorical Spending" (dollar sign icon), and "NIH Data Book" (bar chart icon).

Research Organizations Workforce Funding Reports Links and Data About Contact FAQ

NIH RePORT
Research Portfolio Online Reporting Tools

RePORTER

RePORTER Quick Search... Search

The RePORT Expenditures and Results (RePORTER) module allows users to search a repository of NIH-funded research projects and access publications and patents resulting from NIH funding. Enter just about anything in the RePORTER Quick Search box above (text, PI names, project numbers, fiscal year, agency) or launch the Advanced Search to precisely configure searches using separate search fields.

RePORTER Home Advanced Search

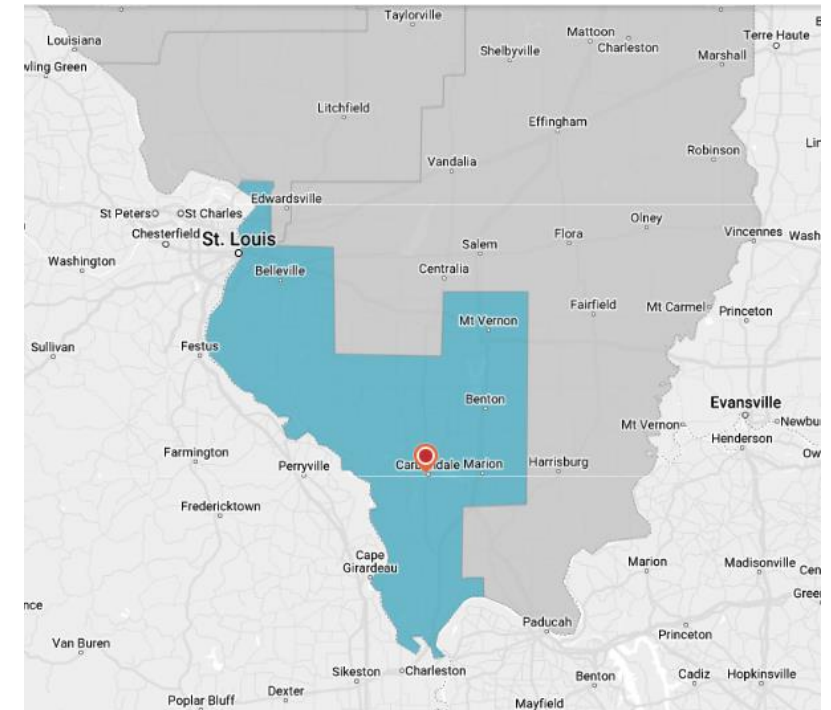
RePORTER Matchmaker Awards by Location Categorical Spending NIH Data Book

Congressional District: IL-12

FY Year: 2022

Projects: 12

Budget: \$4,035,130



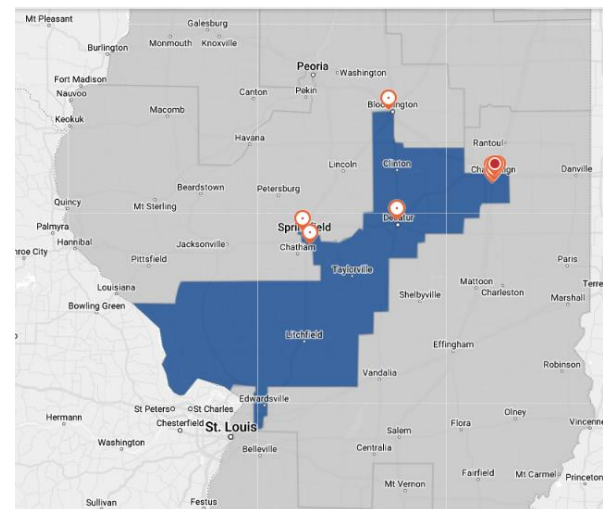
By Organization	By IC	By PI	By Location	By Funding Mechanism	Data
<p>Note: Although this list can be sorted by the amount of funding each organization receives, these data should not be interpreted as a ranking of institutions by NIH. NIH's use of multiple principal investigator awards makes calculations of the total funding received by individual departments impractical and there are multiple ways in which the funding data can be aggregated across universities' schools and departments that can alter the ordering of institutions.</p> <p>Prior to 2011, NIH reported the dollar amount of administrative supplements but, because they are supplements to existing projects, did not count these supplements as "awards". As a result, every year there may have been a small number of organizations that received NIH funding but appear in this table as having "0" (zero) awards.</p> <p>These data do not include projects funded by the American Recovery and Reinvestment Act of 2009. For a list of those projects, please visit https://report.nih.gov/recovery.</p> <p>For consistency in reporting on past fiscal years, this site uses frozen information for past fiscal years, and this may differ from current information displayed on RePORTER. Upon completion of each fiscal year, research and development contract records are integrated with frozen grant records and posted in December. Institutions may review their grant records and request updates.</p>					
<input checked="" type="radio"/> Show All <input type="radio"/> Group By System/Main Campus ^{BETA} EXPORT TABLE					
Organization	City	State	Country	Awards	Funding
SOUTHERN ILLINOIS UNIVERSITY CARBONDALE	CARBONDALE	IL	UNITED STATES	12	\$4,035,130

Congressional District: IL-13

FY Year: 2022

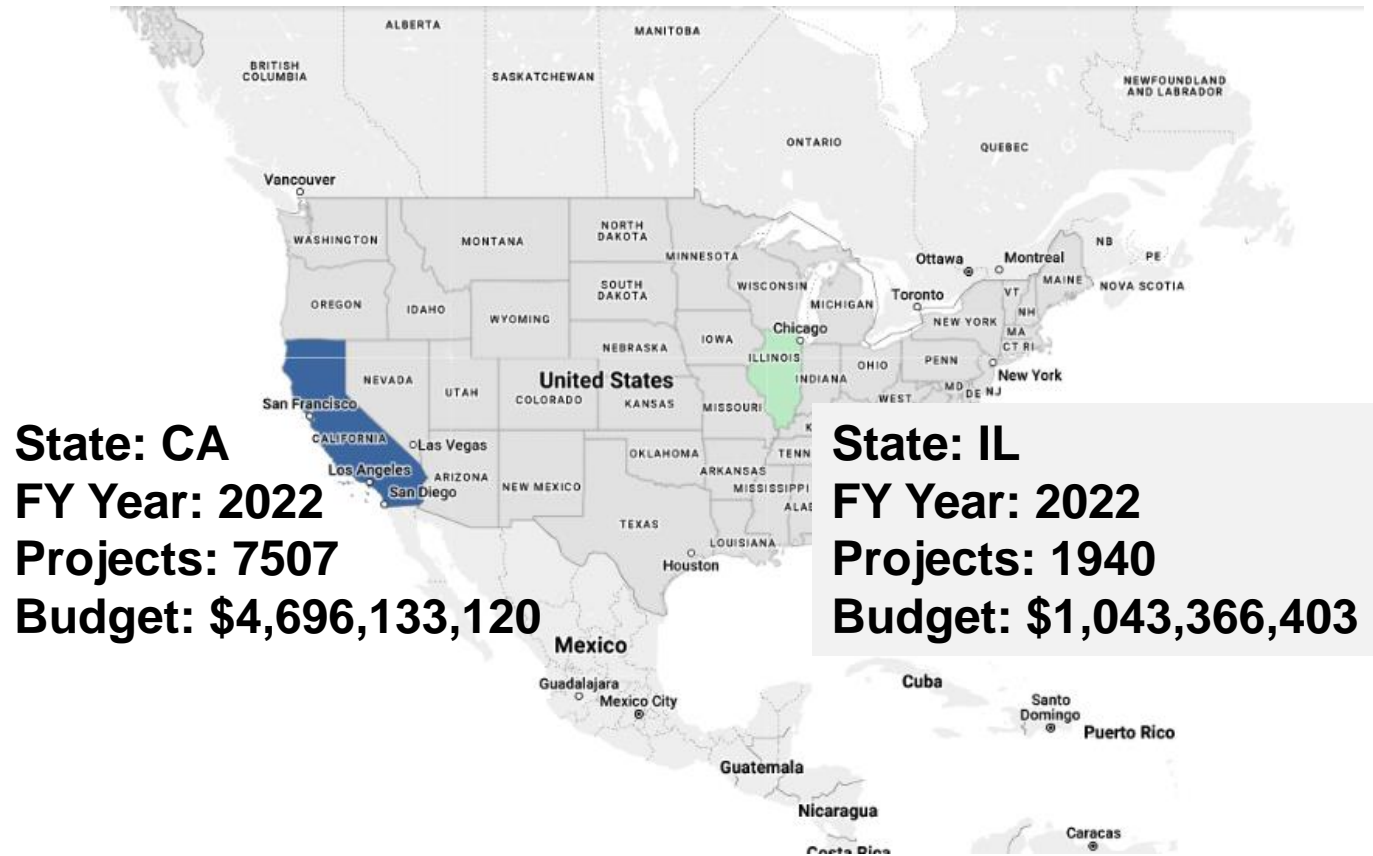
Projects: 231

Budget: \$101,981,023



<input checked="" type="radio"/> Show All <input type="radio"/> Group By System/Main Campus ^{BETA} EXPORT TABLE					
Organization	City	State	Country	Awards	Funding
ACOUSTIC MEDSYSTEMS, INC.	Savoy	IL	UNITED STATES	2	\$1,065,361
CARLE FOUNDATION	URBANA	IL	UNITED STATES	1	\$1,938,046
CHESTNUT HEALTH SYSTEMS, INC.	BLOOMINGTON	IL	UNITED STATES	4	\$3,000,605
DECATUR MEMORIAL HOSPITAL	DECATUR	IL	UNITED STATES	1	\$3,495,818
NEUROLUX, INC.	CHAMPAIGN	IL	UNITED STATES	3	\$1,972,720
PHI OPTICS, INC.	CHAMPAIGN	IL	UNITED STATES	2	\$1,119,309
SIMBIOSYS, INC.	CHAMPAIGN	IL	UNITED STATES	1	\$2,000,000
SOUTHERN ILLINOIS UNIVERSITY SCH OF MED	SPRINGFIELD	IL	UNITED STATES	6	\$2,345,863
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN	CHAMPAIGN	IL	UNITED STATES	211	\$85,043,301

Comparing IL to CA for funded NIH Grants



How to apply- Video Tutorials

<https://grants.nih.gov/grants/how-to-apply-application-guide/video/index.htm>

Type of Grants

The following groupings represent the main types of grant funding we provide:

- Research Grants (R series)
- Career Development Awards (K series)
- Research Training and Fellowships (T & F series)
- Program Project/Center Grants (P series)
- Resource Grants (various series)
- Trans-NIH Programs
- Inactive Programs (Archive)

https://grants.nih.gov/grants/funding/funding_program.htm

https://grants.nih.gov/grants/funding/ac_search_results.htm

Type of Grants (Cont.)

R01	<p>NIH Research Project Grant Program (R01)</p> <ul style="list-style-type: none">• Used to support a discrete, specified, circumscribed research project• NIH's most commonly used grant program• No specific dollar limit unless specified in FOA• Advance permission required for \$500K or more (direct costs) in any year• Generally awarded for 3-5 years• Utilized by all ICs• See parent FOAs: PA-20-183 (Clinical Trial Required), PA-20-184 (Basic Experimental Studies with Humans Required), and PA-20-185 (Clinical Trial Not Allowed)
R03	<p>NIH Small Grant Program (R03):</p> <ul style="list-style-type: none">• Provides limited funding for a short period of time to support a variety of types of projects, including: pilot or feasibility studies, collection of preliminary data, secondary analysis of existing data, small, self-contained research projects, development of new research technology, etc.• Limited to two years of funding• Direct costs generally up to \$50,000 per year• Not renewable• Utilized by more than half of the NIH ICs• See parent FOA: PA-20-200

Type of Grants (Cont.)

R15	<p>NIH Academic Research Enhancement Award (AREA)</p> <ul style="list-style-type: none">• Support small research projects in the biomedical and behavioral sciences conducted by undergraduate and/or graduate students and faculty in institutions of higher education that have not been major recipients of NIH research grant funds• Eligibility limited (see R15)• Direct cost limited to \$300,000 over entire project period• Project period limited to up to 3 years• All NIH ICs utilize except FIC and NCATS
R21	<p>NIH Exploratory/Developmental Research Grant Award (R21)</p> <ul style="list-style-type: none">• Encourages new, exploratory and developmental research projects by providing support for the early stages of project development. Sometimes used for pilot and feasibility studies.• Limited to up to two years of funding• Combined budget for direct costs for the two year project period usually may not exceed \$275,000.• No preliminary data is generally required• Most ICs utilize• See parent FOAs: PA-20-194 (Clinical Trial Required), PA-20-195 (Clinical Trial Not Allowed), and PA-20-196 (Basic Experimental Studies with Humans Required)

Funding Opportunity Announcement (FOA) Number: PA-20-185

Part 1. Overview Information

Participating Organization(s)	National Institutes of Health (NIH)
Components of Participating Organizations	<p>NATIONAL INSTITUTES OF HEALTH (NIH)</p> <p>National Eye Institute (NEI)</p> <p>National Heart, Lung, and Blood Institute (NHLBI)</p> <p>National Human Genome Research Institute (NHGRI)</p> <p>National Institute on Aging (NIA)</p> <p>National Institute on Alcohol Abuse and Alcoholism (NIAAA)</p> <p>National Institute of Allergy and Infectious Diseases (NIAID)</p> <p>National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)</p> <p>National Institute of Biomedical Imaging and Bioengineering (NIBIB)</p> <p>Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)</p> <p>National Institute on Deafness and Other Communication Disorders (NIDCD)</p> <p>National Institute of Dental and Craniofacial Research (NIDCR)</p> <p>National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)</p> <p>National Institute on Drug Abuse (NIDA)</p> <p>National Institute of Environmental Health Sciences (NIEHS)</p> <p>National Institute of General Medical Sciences (NIGMS)</p> <p>National Institute of Mental Health (NIMH)</p> <p>National Institute of Neurological Disorders and Stroke (NINDS)</p> <p>National Institute of Nursing Research (NINR)</p> <p>National Institute on Minority Health and Health Disparities (NIMHD)</p> <p>National Library of Medicine (NLM)</p> <p>National Center for Complementary and Integrative Health (NCCIH)</p> <p>Division of Program Coordination, Planning and Strategic Initiatives, Office of Research Infrastructure Programs (ORIP)</p> <p>National Cancer Institute (NCI)</p> <p>Note: Not all NIH Institutes and Centers (ICs) participate in Parent Announcements. Applicants should carefully note which ICs participate in this announcement and view their respective areas of research interest at the R01 IC-Specific Scientific Interests and Contact website. ICs that do not participate in this announcement will not consider applications for funding.</p>

Key Dates

Posted Date	May 05, 2020
Open Date (Earliest Submission Date)	May 05, 2020
Letter of Intent Due Date(s)	Not applicable
Application Due Date(s)	<p>Standard dates apply.</p> <p>The first application due date for this FOA is June 5, 2020.</p> <p>All applications are due by 5:00 PM local time of applicant organization. All types of non-AIDS applications allowed for this funding opportunity announcement are due on the listed date(s).</p> <p>Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.</p>
AIDS Application Due Date(s)	<p>Standard AIDS dates apply.</p> <p>All applications are due by 5:00 PM local time of applicant organization. All types of AIDS and AIDS-related applications allowed for this funding opportunity announcement are due on the listed date(s).</p> <p>The first AIDS application due date for this FOA is September 7, 2020.</p> <p>Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.</p>
Scientific Merit Review	Standard dates apply
Advisory Council Review	Standard dates apply
Earliest Start Date	Standard dates apply
Expiration Date	May 08, 2023
Due Dates for E.O. 12372	Not Applicable

<https://grants.nih.gov/grants/guide/pa-files/PA-20-185.html>

Standard Dates

Activity Codes	Program Description	Cycle I Due Date	Cycle II Due Date	Cycle III Due Date
R01 <i>new</i>	Research Grants	February 5	June 5	October 5
R01 <i>renewal, resubmission, revision</i>	Research Grants	March 5	July 5	November 5

Review and Award Cycles

	Cycle I	Cycle II	Cycle III
Application Due Dates	January 25 - May 7	May 25 - September 7	September 25 - January 7
Scientific Merit Review	June - July	October - November	February - March
Advisory Council Round	August or October *	January	May
Earliest Project Start Date	September or December *	April	July

<https://grants.nih.gov/grants/how-to-apply-application-guide/due-dates-and-submission-policies/due-dates.htm>

Sample Applications and Summary Statements

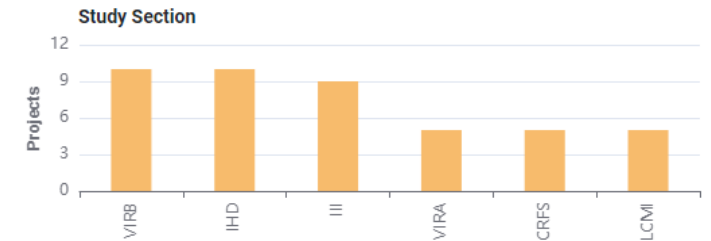
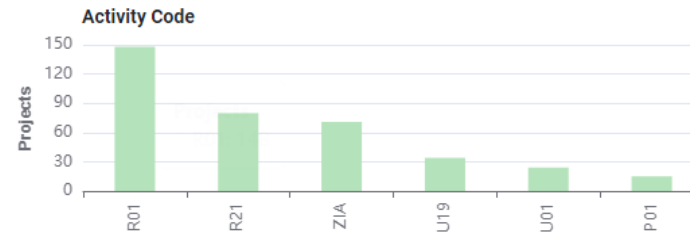
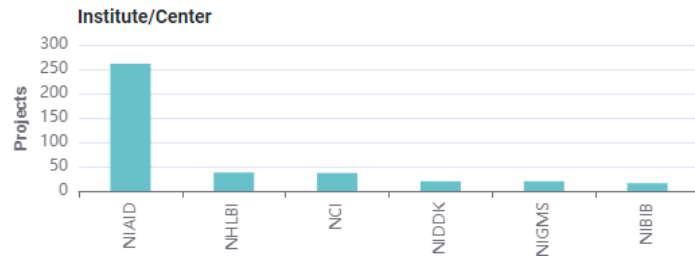
- Research grants: R01, R03, R21, R15
- Small Business grants: R41, R42, R43, R44
- Training and Career grants: K01, K08, F31
- U01
- Data Sharing Plan
- Genomic Data Sharing Plan
- Rigor and Reproducibility

<https://www.niaid.nih.gov/grants-contracts/sample-applications>

Matchmaker


You can submit scientific texts to determine which similar projects that have been funded by the NIH.

Example:





Open MIKE Blog

(Connecting the Investigator to the NIH Perspective)


 **National Institutes of Health**
Office of Extramural Research

**extramural
NEXUS**

Search ... 

NIH Grants & Funding | Blog Policies | Contact | RSS Feeds [SUBSCRIBE](#) 

[HOME](#) [OPEN MIKE](#) [MORE TOP STORIES](#) [NEW RESOURCES](#) [TIPS BEFORE YOU SUBMIT](#) [YOU ASK, WE ANSWER](#)



OPEN MIKE


Helping connect you with the NIH perspective, and helping connect us with yours.


Encouraging Use of the PHS Assignment Request Form in Applications

By Mike Lauer January 27, 2023

You have likely come across the Public Health Service (PHS) assignment request form when putting together your grant application. It's optional, but we encourage applicants to fill it out.

[application forms](#), [Peer review](#)

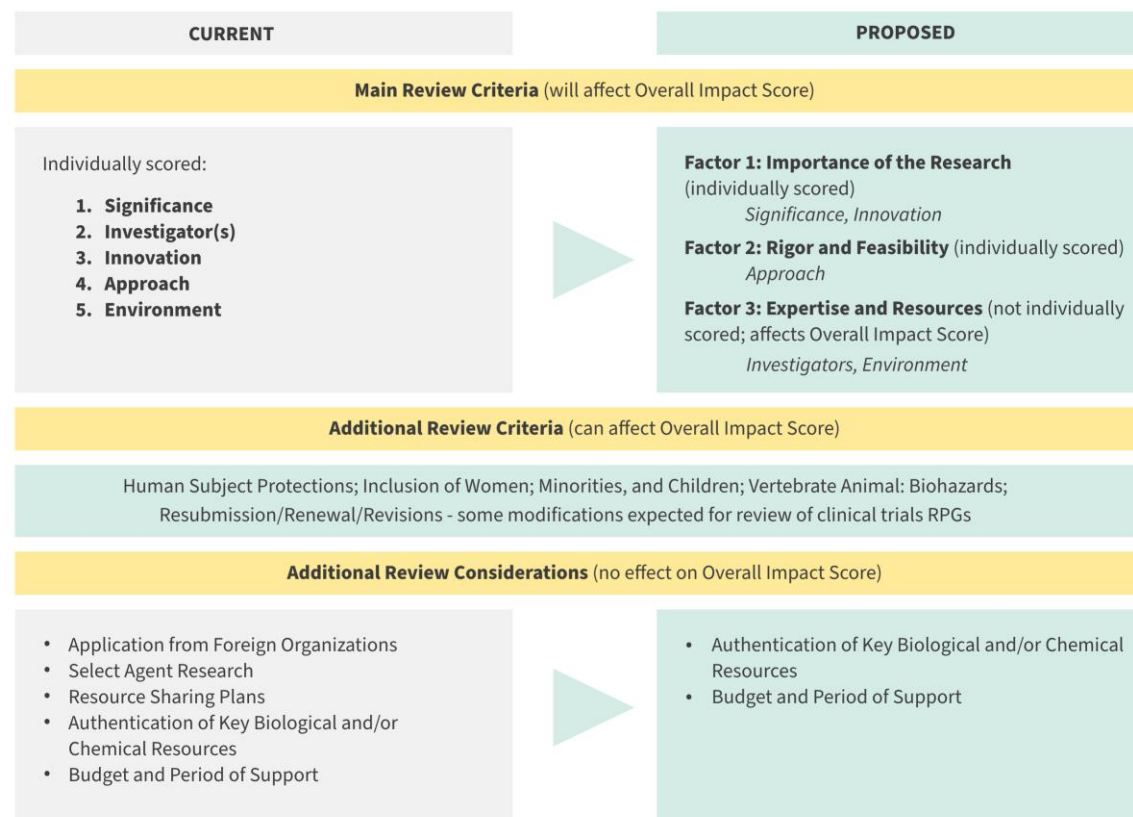
 **Comments**



Dr. Michael Lauer is NIH's Deputy Director for Extramural Research, serving as the principal scientific leader and advisor to the NIH Director on the NIH extramural research program.

<https://nexus.od.nih.gov/all/category/open-mike/>

Proposed Changes in Review Criteria



<https://nexus.od.nih.gov/all/2022/12/08/update-on-simplifying-review-criteria-a-request-for-information/>
<https://grants.nih.gov/grants/guide/notice-files/NOT-OD-23-034.html>

Thank You

Thank You in many languages:

- Dankie
- Gracias
- شكراً
- धन्यवाद
- Спасибо
- Merci
- Takk
- Köszönjük
- Terima kasih
- Grazie
- Dziękujemy
- Dėkojame
- Ďakujeme
- Vielen Dank
- Paldies
- Kiitos
- Täname teid
- 谢谢
- Tak
- 感謝您
- Obrigado
- Teşekkür ederiz
- Σας Ευχαριστούμ
- 감사합니다
- ขอบคุณ
- Bedankt
- Děkujeme vám
- ありがとうございます
- Tack

LET'S TALK RESEARCH

Beyond NSF: United States Department of Energy (USDOE)

PRESENTED BY: DR. SATYA HARPALANI

ASSOCIATE DEAN AND PROFESSOR, COLLEGE OF ENGINEERING,
COMPUTING, TECHNOLOGY AND MATHEMATICS



Let us talk US DOE

a bit about my experience with US DOE (*since joining SIU in 2002*)

- Served as PI for **10** DOE projects (one grant and nine contracts)
- Responsible for total funding from **DOE to SIU: \$2.27M**
- Two of ten awarded directly to SIU
- Eight where SIU was a sub-contractor (total of contracts: **~\$81M**)
- Most DOE **contracts** require matching funds . . . secured **~\$600K** in State funding, **\$320K** from energy industry (BP and ConocoPhillips) and generosity of SIU

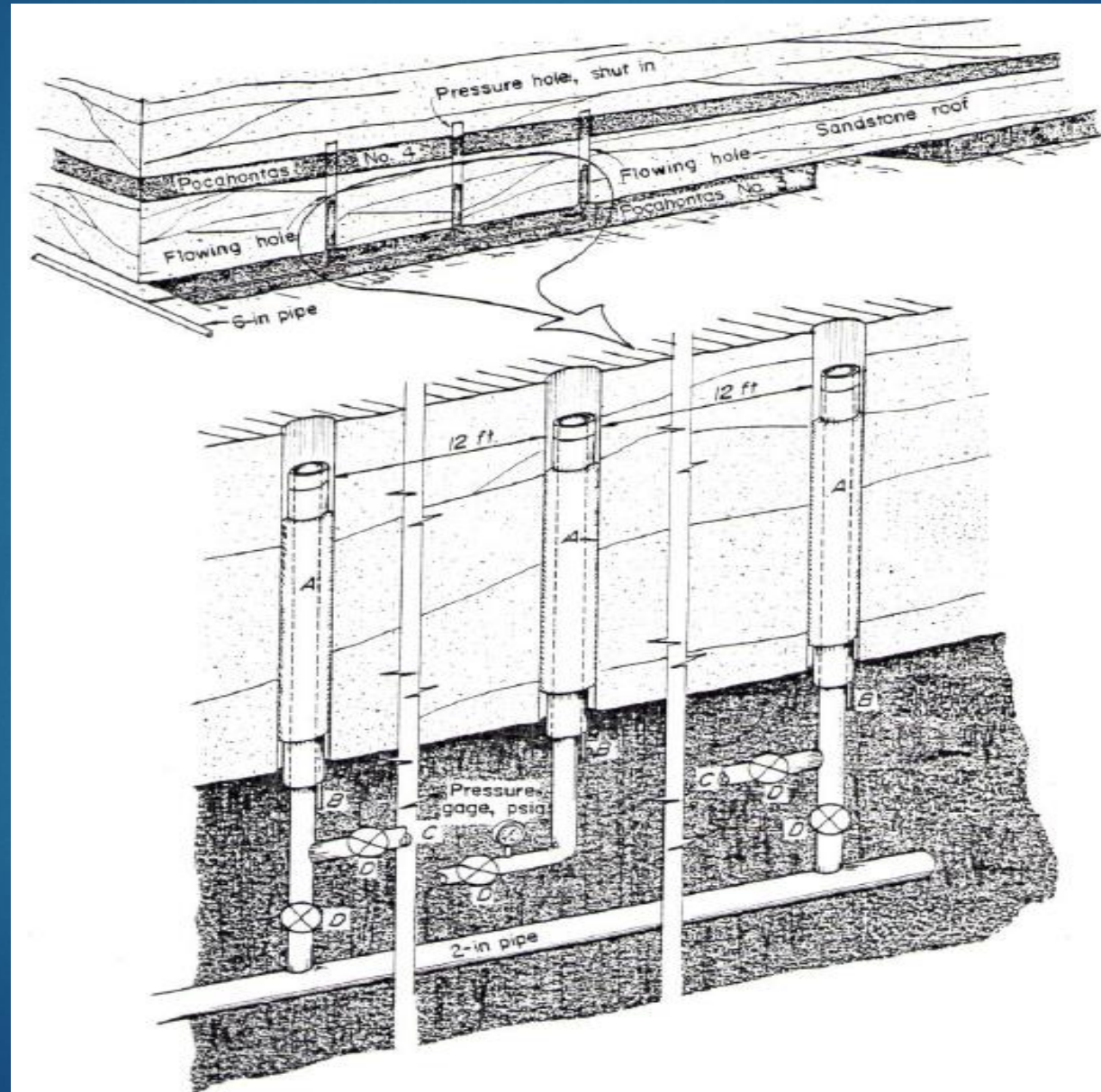
Focus on Topic of Research

- OK to expand into areas that are related but not diversify into completely different and unrelated areas – dilution of knowledge.

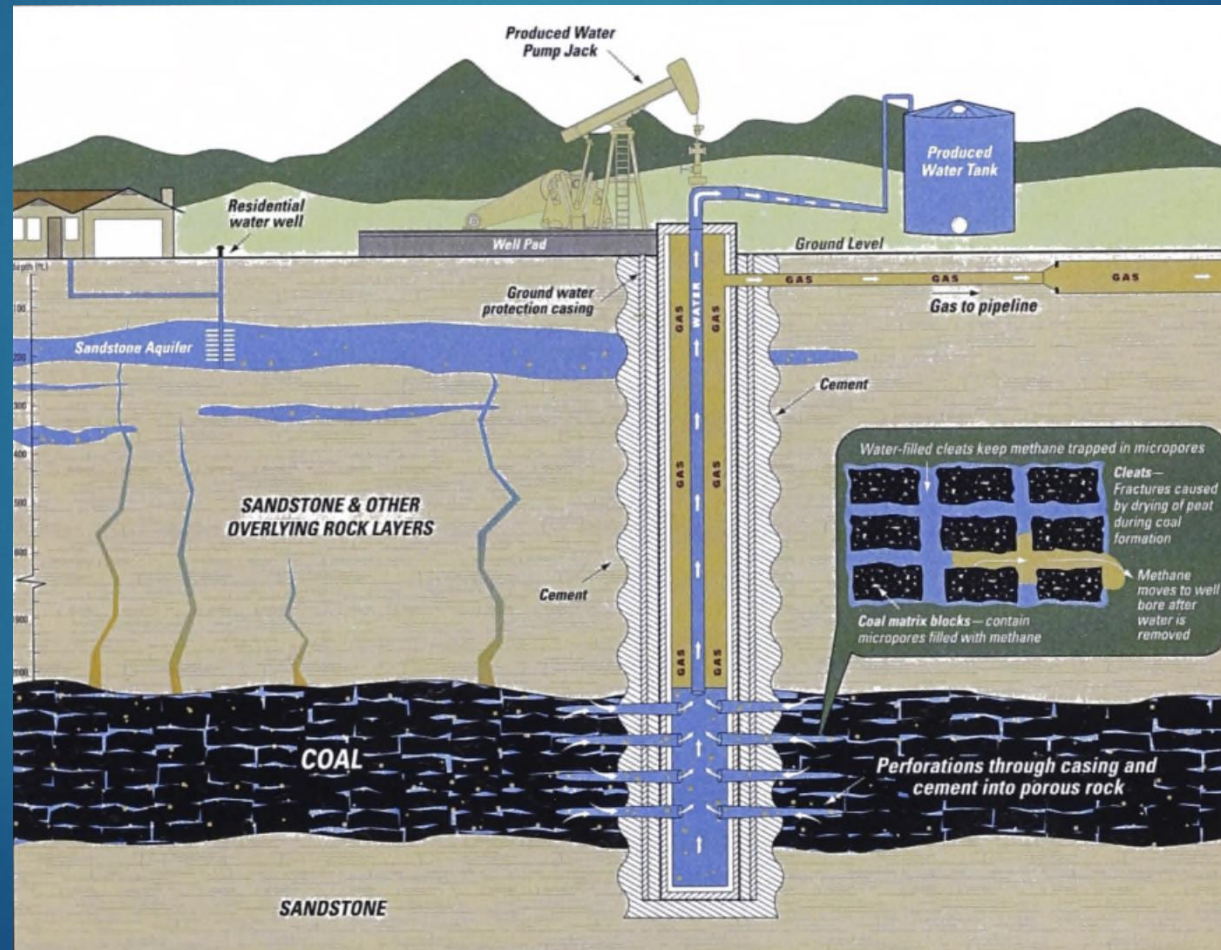
basically, depth helps

- The thrust of my research has always been flow in deep rocks, but many and varied applications.

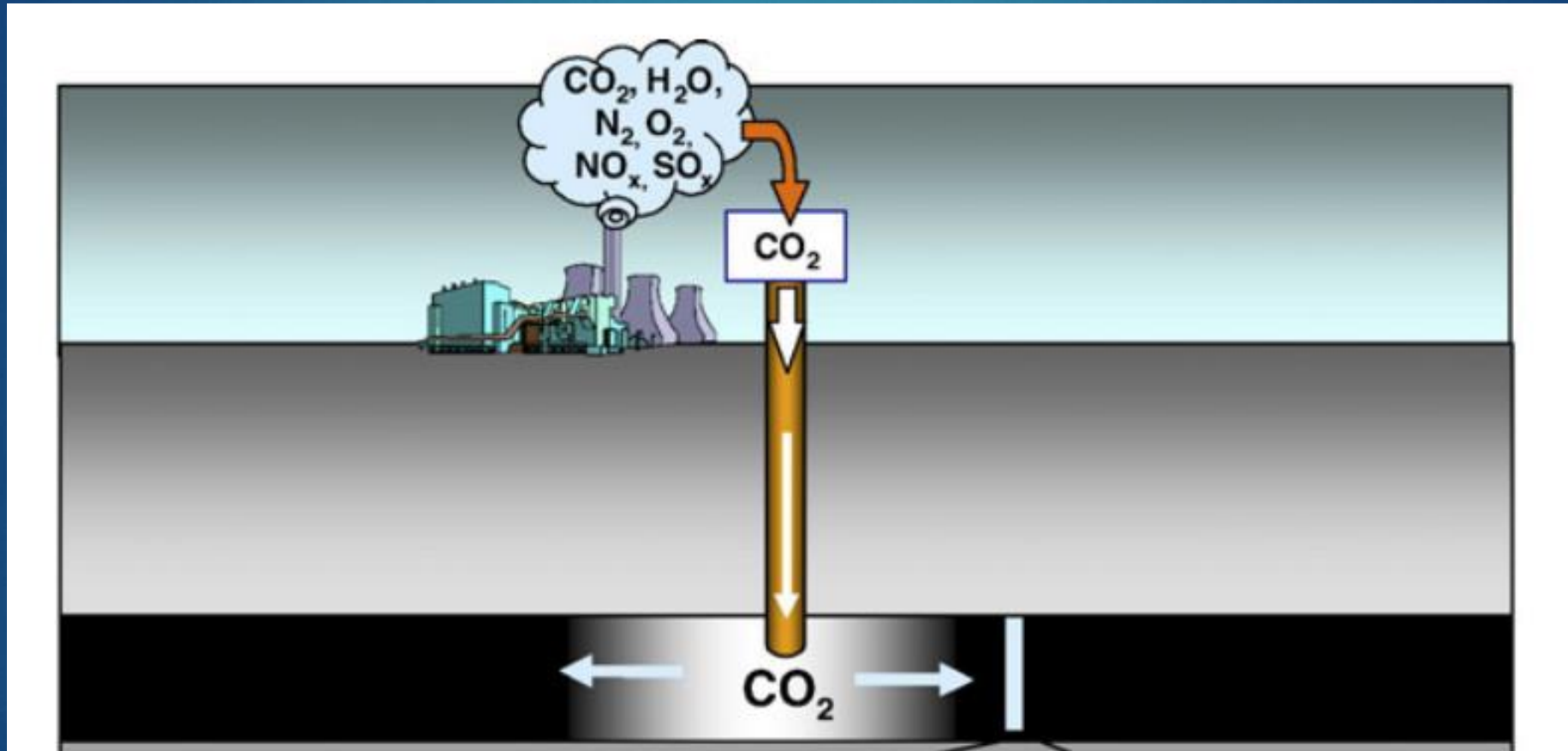
1981-85: Gas Migration in Coal and Sandstone (*mine safety*)



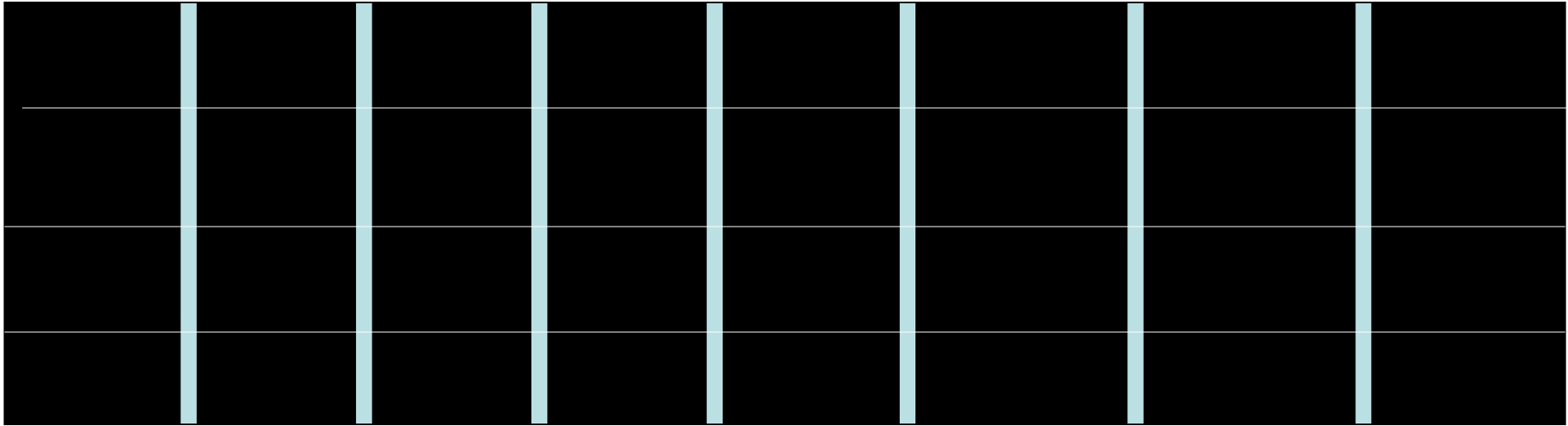
1987-99: 4,000 Natural Gas Wells in Colorado/New Mexico Coal
2000-05: 11,000 wells in Wyoming
2005-15: 28,000 Shale Gas Wells



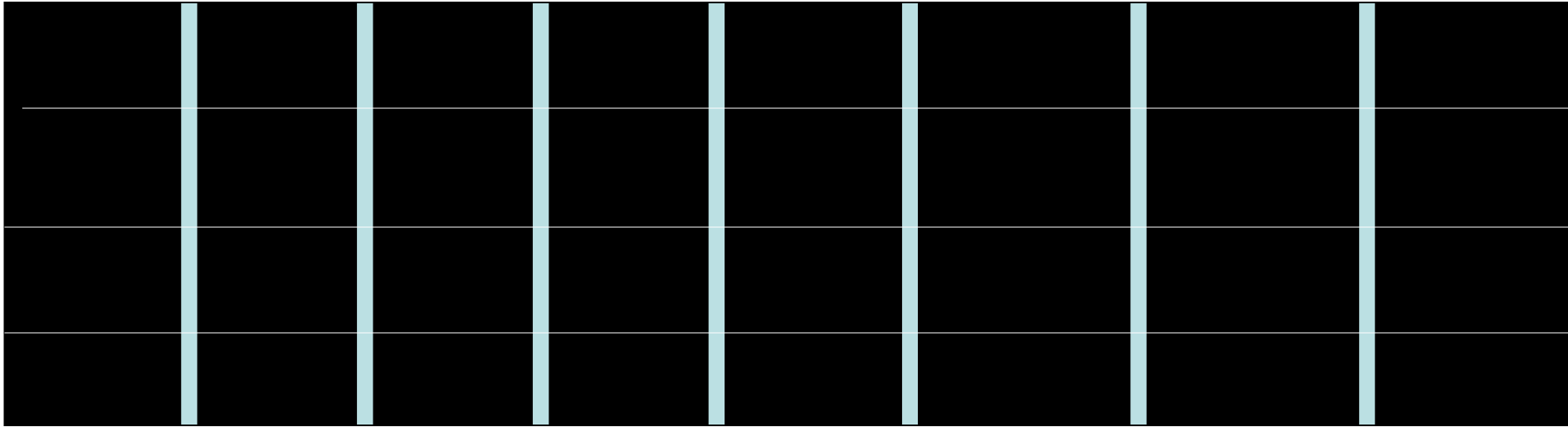
2002-12: CO₂ Storage in Coal *taking gas out versus putting in (6 DOE Projects)*



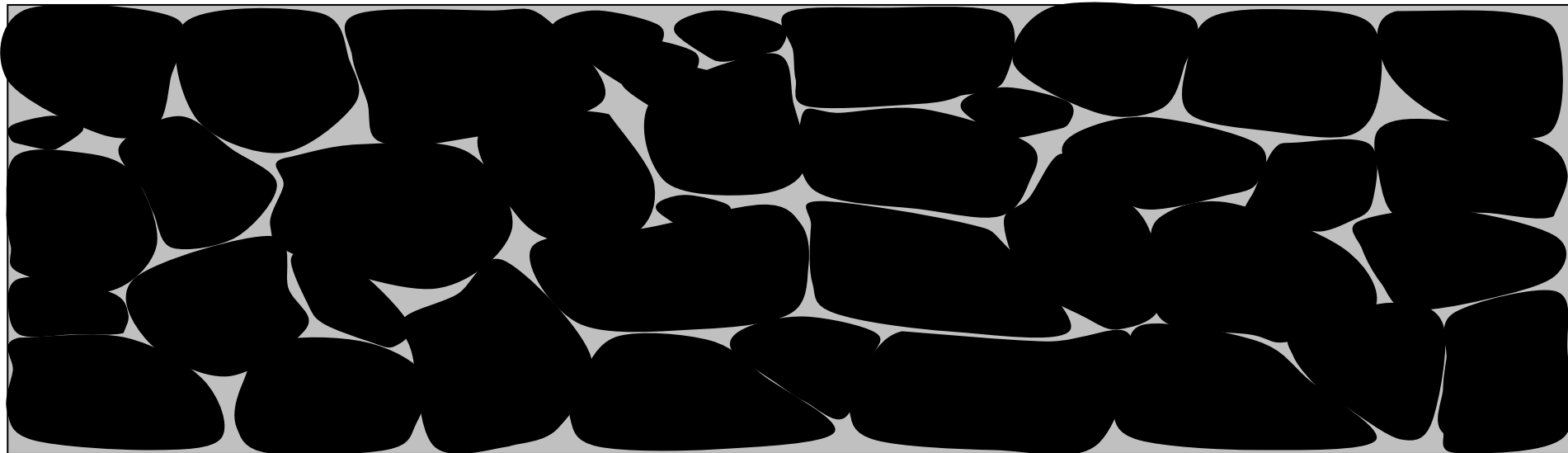
virgin coal looks something like this



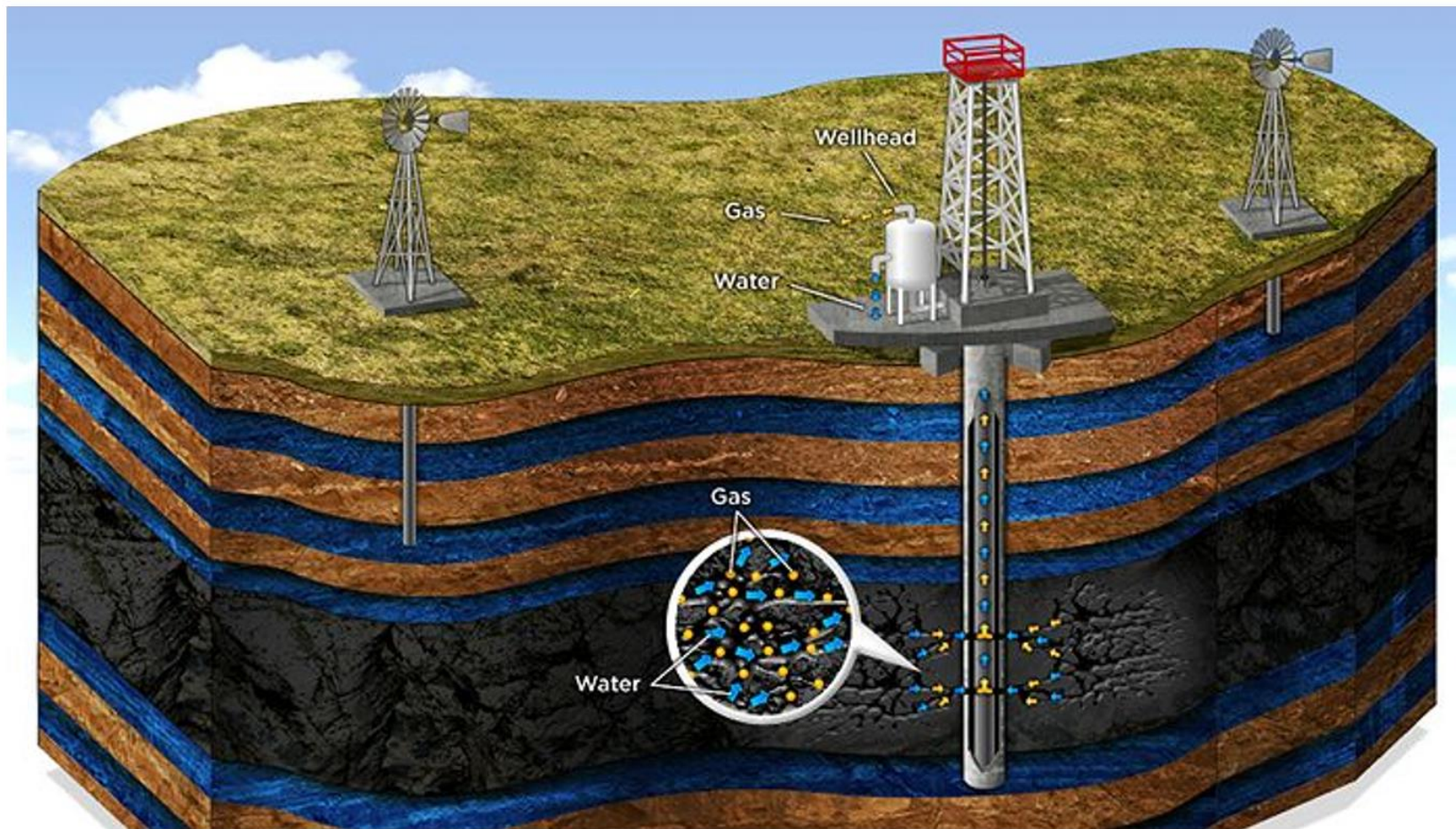
virgin coal looks something like this



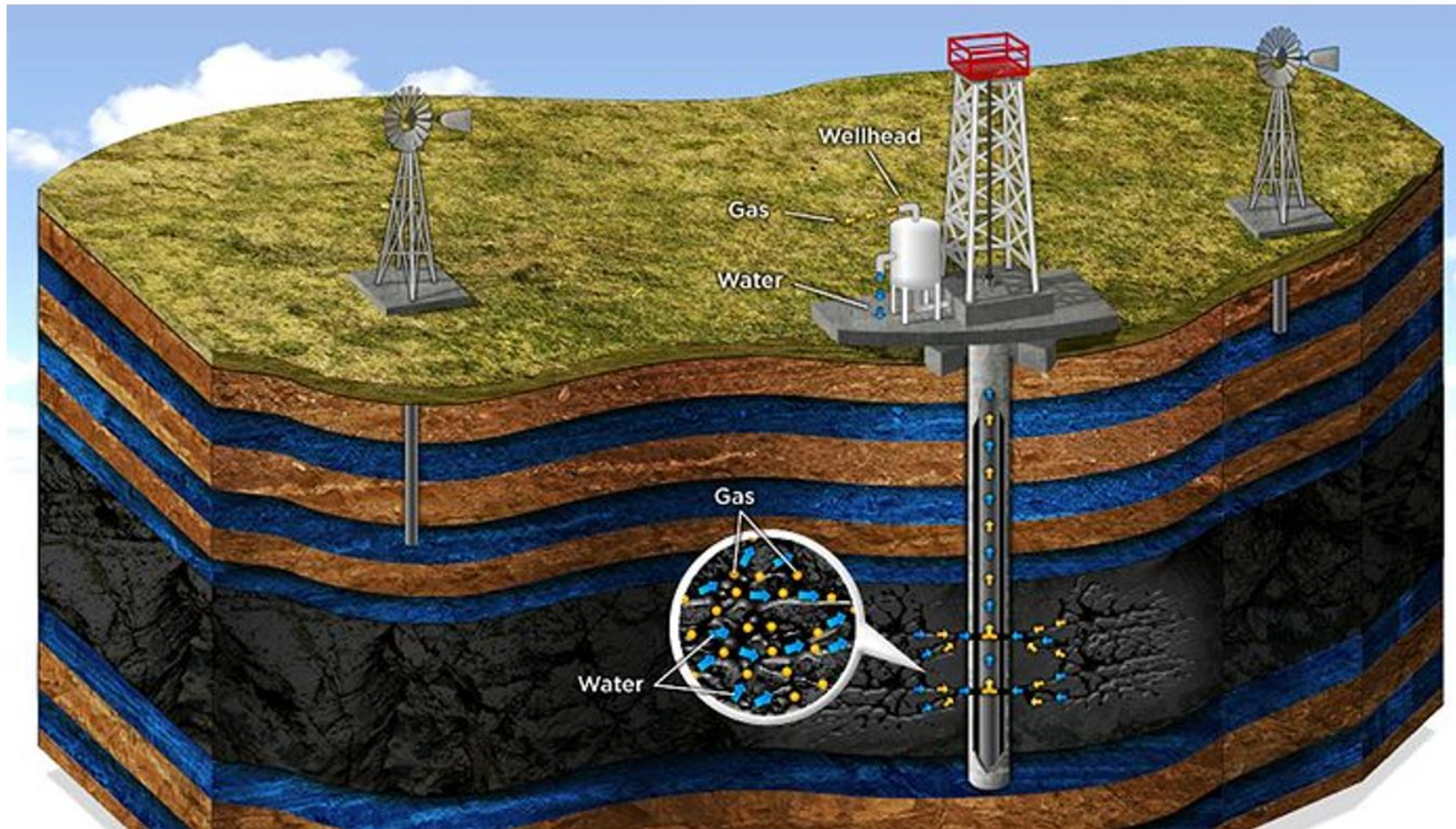
after taking the gas out, ends up looking like this. . .



Post-Gas Production: Re-charging Coal with Natural Gas: Microbial *in-place* CTG Conversion (2 DOE Projects)



Current Effort: Potential of *in place* Conversion of Coal to Hydrogen (-2 DOE Projects)



suggestions . . . contd.

- OK to expand into areas that are related but not diversify into completely different and unrelated areas – dilution of knowledge.

basically, depth helps

- I am a believer of *evolution*. The thrust of my research has always been flow in deep rocks.
- Appropriate partnerships – colleagues within SIU and outside. Industry is looking for assistance as long as you speak the industry language – not terribly easy for professors . . . but doable.
- OK to start small – DOE awards for junior faculty. Once you prove yourself, follow-up funding is significantly easier.
- OK to start as a subcontractor in a large pool of players, including some big names – get to know who is who and who is doing what.

Start with soul searching

- Where are your current strengths?
is there scope of growth?
- Do you wish to develop new strengths?
- Or, find partners who complement your strengths – team formation?

find your comfort zone

coupled with opportunities

Start with soul searching

- Where are your current strengths?
is there scope of growth?
- Do you wish to develop new strengths?
- Or, find partners who complement your strengths – team formation?

find your comfort zone

coupled with opportunities

follow politics – commitment to research and directions!!



potential opportunities

Inflation Reduction Act of 2022

pour \$369 billion into promoting clean energy sources and fighting climate change over up to a decade

President Biden signed a **\$1 trillion infrastructure bill** into law Monday, enacting a key piece of his domestic spending agenda that will funnel billions to states and local governments to upgrade outdated roads, bridges, transit systems and more.

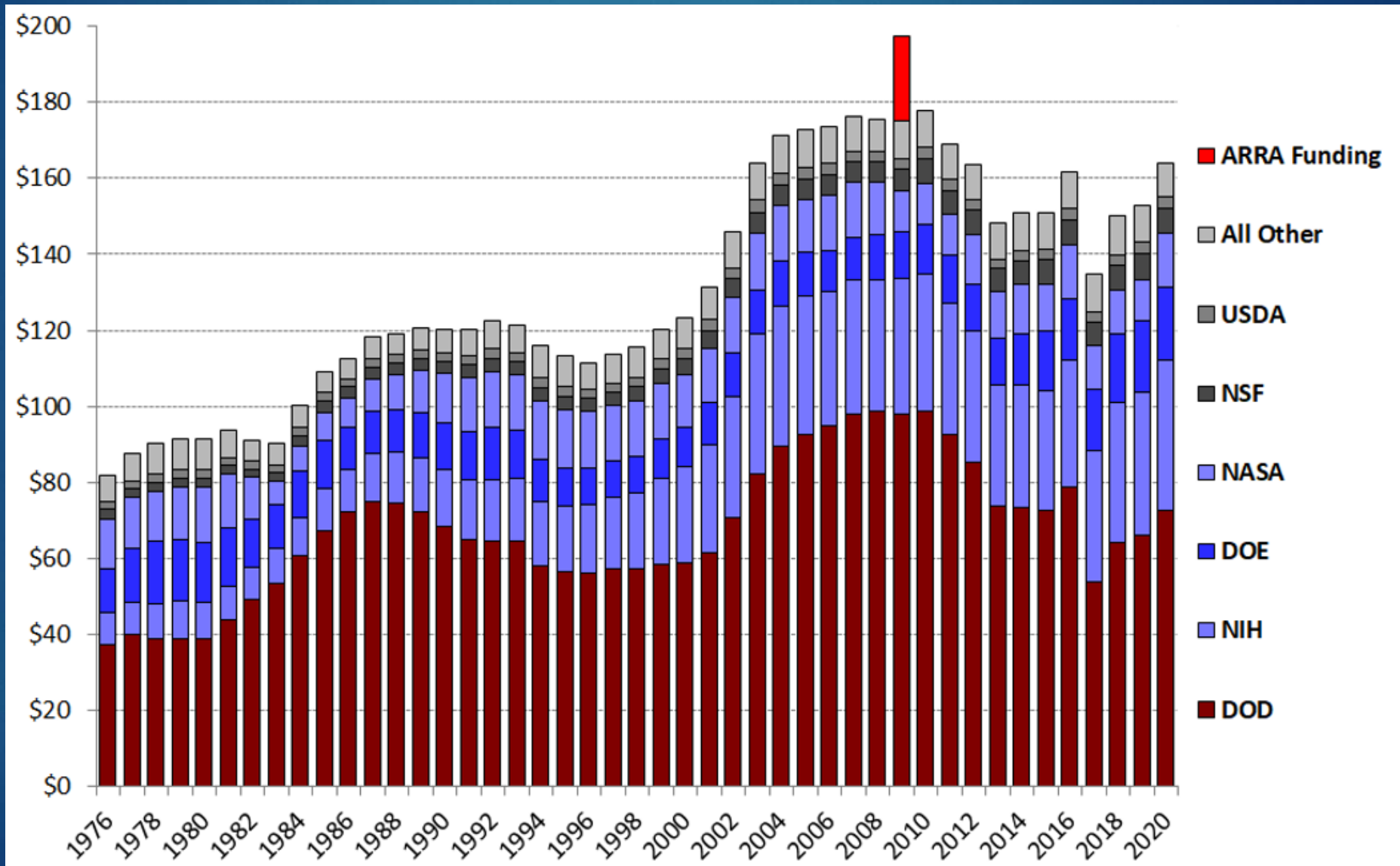
potential opportunities

potential opportunities

The CHIPS Act of 2022 has a total **cost** of \$79.344 billion over 10 years. House passage of the CHIPS Act of 2022 (H.R. 4346), legislation that would provide \$52 billion for semiconductor manufacturing incentives and research investment.

\$9.5 billion in federal clean hydrogen funding on the table
The bipartisan infrastructure law passed last year includes **\$500 million in grant funding for clean hydrogen projects**, plus \$1 billion for research and development into electrolyzers that can use electricity from renewable sources to convert water to hydrogen. Feb 24, 2022

Trends in R&D Funding (*billions, 2020 dollars*)



Energy Communities Workshop, SIU

September 29, 2022

- Quote from DOE Team:
 - ✓ These are *unprecedented* times for all federal agencies
 - ✓ Funding *difficult to access*, but keep at it; dividends are big
 - ✓ Build *partnerships*, implement and grow
 - ✓ Include *community* building/restoring – lot of funding
 - ✓ \$100M for *workforce/manpower* development
 - ✓ \$750M for *clean energy* manufacturing, recycling
 - ✓ \$250B for *repurposing and redeveloping energy*
 - ✓ Funds set aside for southern Illinois – *12th* out of 25 in the nation

Hydrogen Economy

- *\$9B is only down payment* at this time.
- Anticipated total - *\$62B* over ten years.
- Hydrogen research kickoff – synchronizing production and demand, October 8, 10:08 am. Attend such political meetings, if possible.

Up and Coming Areas

- Clean Energy
- Renewable Energy
- Hydrogen Economy: Current goal is *111*, that is, **one** kg of hydrogen for **one** dollar in **one** decade
- Clean energy materials
- Rare earth elements and critical minerals
- Energy efficiency
- .
- .
- Electrification of America

Required Components

- Economic Revitalization
- Community Building/Involvement
- Environmental Justice
- DEI Statement

Concluding Remarks

- Be prepared
 - ✓ Monument of patience at SIU to submit a DOE *contract* proposal
 - ✓ Lot of hard work
 - ✓ Lot of supporting material
 - ✓ Plan to be on your own – VCR promising more assistance, which is good news although the level and quality of assistance remains to be seen/felt
 - ✓ Some say, DOE is overly specific. I say, fairly general and inclusive
example: a recent solicitation had 16 Areas of Interest (AOI) and some with subset areas. Theme is specific but, within the theme, a lot is included
 - ✓ DOE likes to see industrial participation, multi-institutional and multi-disciplinary teams, and more recently, ML/DS component
 - ✓ Strong economic revitalization and environmental justice plan

concluding remarks . . . contd.

- OK to fail initially
- Most do not give enough credit to DOE but they do remember – when considering repeat and improved proposals
- Start early – identify team members, every member's role, have virtual meetings every two weeks initially and every week during last three/four weeks
- Matching \$\$ required – typically 20% of total, translating to 25% of DOE share. Some *funny* money ok but some real \$\$ help. Start with Director, Dean and VCR. Industry match, even in-kind, a big plus

thank you and
good luck

happy to help in any way

satya@siu.edu

LET'S TALK RESEARCH

Beyond NSF: National Aeronautics and Space Administration (NASA)

PRESENTED BY: DR. LILIANA LEFTICARIU

PROFESSOR, SCHOOL OF EARTH SYSTEMS AND SUSTAINABILITY, SIUC



- ▶ ***“It’s important to remind ourselves that we have the most glorious jobs in the world. We are all paid to figure out how the universe began and how it evolves. We’re paid to try to figure out how the night sky, full of galaxies and stars and planets, came to be. And we’re paid to try to find life elsewhere in the universe. What could be better than that?”***

- Paul Hertz, Director of Astrophysics Division

RESEARCH

~10,000 U.S. Scientists Funded
~3,000 Competitively Selected Awards
~\$600M Awarded Annually

TECHNOLOGY DEVELOPMENT

~\$397M Invested Annually

EARTH OBSERVATIONS

24 Operating Missions
23 Upcoming Missions

MISSIONS

134 Missions from
formulation through
extended operations

NASA

Science by the NUMBERS

SMALLSATS/ CUBESATS

57 Science Missions
10 Technology Demos

SOUNDING ROCKETS

11 Science Missions Launched
43 In Development

BALLOONS

2 Missions Launched
52 Missions in Development

Introduction

▶ NASA VISION

- ▶ *Exploring the secrets of the universe for the benefit of all, including the origin and evolution of the universe and seeking to understand the Earth as an interconnected system.*

▶ NASA MISSION

- ▶ *NASA explores the unknown in air and space, innovates for the benefit of humanity, and inspires the world through discovery.*

▶ SMD VISION

- ▶ *To lead a globally interconnected program of scientific discovery that encourages innovation, positively impacts people's lives, and is a source of inspiration.*

▶ SMD MISSION

- ▶ *Discover the secrets of the universe. Search for life elsewhere. Protect and improve life on Earth and in space.*

SCIENCE MISSION DIRECTORATE

Core Values

49

- ▶ LEADERSHIP
- ▶ EXCELLENCE
- ▶ INTEGRITY
- ▶ TEAMWORK
- ▶ SAFETY
- ▶ INCLUSION



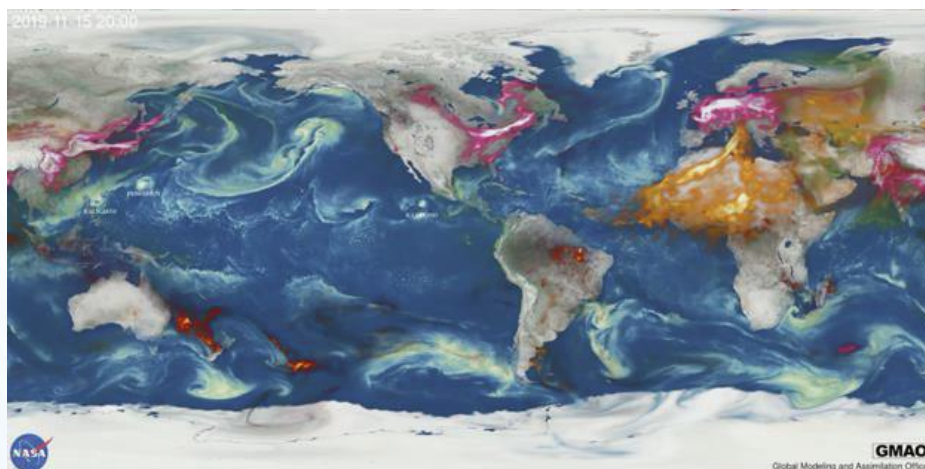


Astrophysics

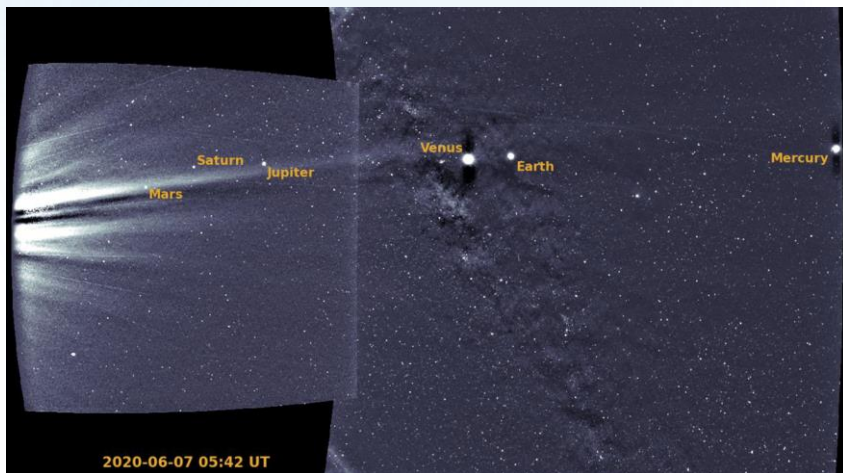


Biological and Physical Sciences

Earth Science



Heliophysics



Planetary Science





PRIORITY 1 EXPLORATION AND SCIENTIFIC DISCOVERY

STRATEGY 1.1: Execute a balanced science program based on discipline-specific guidance from the National Academies of Sciences, Engineering, and Medicine, Administration priorities, and direction from Congress.

STRATEGY 1.2: Participate as a key partner and enabler in the agency's exploration initiative, focusing on scientific research of, on, and from the Moon, lunar orbit, Mars, and beyond.

STRATEGY 1.3: Advance discovery in emerging fields by identifying and exploiting cross-disciplinary opportunities between traditional science disciplines

STRATEGY 1.4: Develop a Directorate-wide, target-user focused approach to applied programs, including Earth Science Applications, Space Weather, Planetary Defense, and Space Situational Awareness.



PRIORITY 2 INNOVATION

STRATEGY 2.1: Foster a culture that encourages innovation and entrepreneurship across all elements of the SMD portfolio.

STRATEGY 2.2: Foster a culture that encourages collaboration in pursuit of common goals.

STRATEGY 2.3: Enhance our focus on high intellectual risk/high impact research investments.

STRATEGY 2.4: Drive innovation in focused technology areas to capitalize on the rapid evolution of commercial capabilities.

STRATEGY 2.5: Ensure NASA's science data are accessible to all and produce practical benefits to society.



PRIORITY 3 INTERCONNECTIVITY AND PARTNERSHIPS

STRATEGY 3.1: Actively engage with the NASA Centers to make more informed strategic decisions that further NASA's scientific goals and are aligned with each Center's unique capabilities.

STRATEGY 3.2: Actively seek collaborations with international partners based on their unique capabilities and mutual scientific goals.

STRATEGY 3.3: Actively engage with other federal agencies to make more informed decisions, cooperate in scientific research, and pursue partnerships that further national interests.

STRATEGY 3.4: Provide increasing opportunities for research institutions, including academia and non-profits, to contribute to SMD's mission.

STRATEGY 3.5: Pursue public-private partnerships in support of shared interests with industry.

SMD Principles for Commercial Partnerships

1. Develop strategic partnerships that leverage the unique strengths of each contributor to drive scientific progress.
2. Actively pursue partnerships that innovate both in *what* we do with commercial partners as well as in *how* we do it.
3. Continually assess and evolve partnership models, recognizing that experimentation is key and that some experiments may fail.
4. Evaluate the success of traditional and nontraditional partnerships by determining if these result in “enabling new science” and in “more science per dollar.”
5. Encourage and assess potential obstacles to Principal Investigator adoption of commercial solutions to illustrate market demand from the science community.
6. Leverage existing commercial capacity, demand, and expertise, while exploring emerging business areas where early adoption can support domestic growth and competitiveness.
7. Build on investments in partnerships across NASA and other parts of the government, sharing NASA best practices.
8. Accept some additional risk responsibly in the interest of establishing affordable, high-value domestic capabilities.



PRIORITY 4 INSPIRATION

STRATEGY 4.1: Increase the diversity of thought and backgrounds represented across the entire SMD portfolio through a more inclusive environment.

STRATEGY 4.2: Advance equity in the scientific competition process to develop a scientific community that reflects the diversity of the Nation.

STRATEGY 4.3: Purposefully and actively engage with audiences and learners of all ages to share the story of NASA's integrated science program.

Example: NASA Earth Science Division

- ▶ NASA's Earth Science Division (ESD) missions help us **to understand** our planet's interconnected systems, from a global scale down to minute processes.
- ▶ ESD delivers the **technology, expertise, global observations**, and **applications** that help us map the myriad connections between our planet's vital processes and the climate effects of ongoing natural and human-caused changes.
- ▶ Using observations from satellites, instruments on the International Space Station, airplanes, balloons, ships and on land, ESD researchers **collect data** about the science of our planet's atmospheric motion and composition; land cover, land use and vegetation; ocean currents, temperatures and upper-ocean life; and ice on land and sea. These data sets, which cover even the most remote areas of Earth, are freely and openly available to anyone.
- ▶ ESD offers **end-to-end development, launch, data collection, analysis**, and **application of its missions**, including those with partners in U.S. and international government, and the private sector. ESD also sponsors research and extends science and technology education to learners of all ages, inspiring the next generation of explorers.

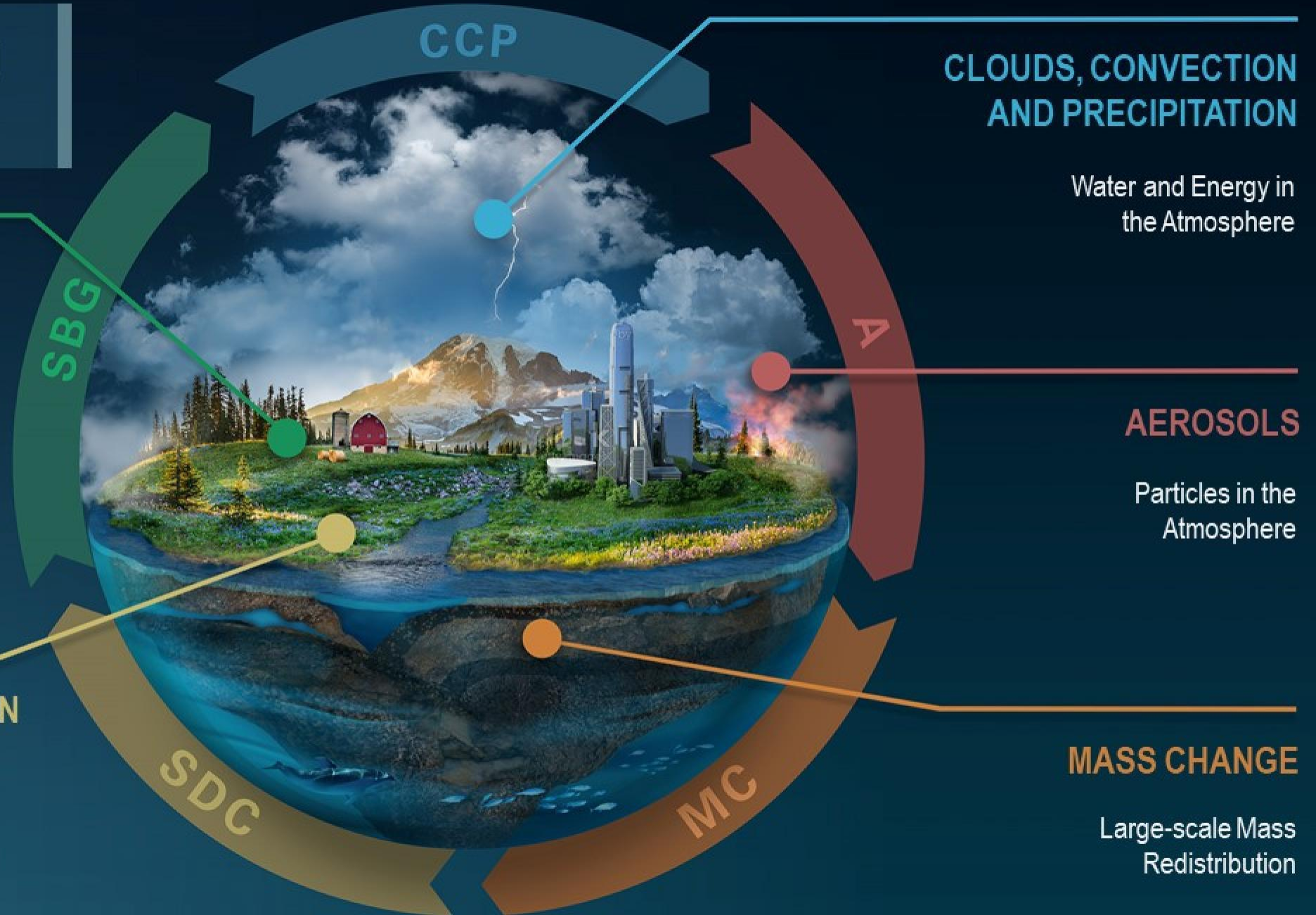
EARTH SYSTEM OBSERVATORY

SURFACE BIOLOGY AND GEOLOGY

Earth Surface & Ecosystems

SURFACE DEFORMATION AND CHANGE

Earth Surface Dynamics





EARTH FLEET

INVEST/CUBESATS

- CIRIS 2023
- NACHOS 2022
- CTIM 2022
- NACHOS-2 2022
- SNOOPI* 2022
- MURI-FO* 2022
- HYTI* 2023

JPSS INSTRUMENTS

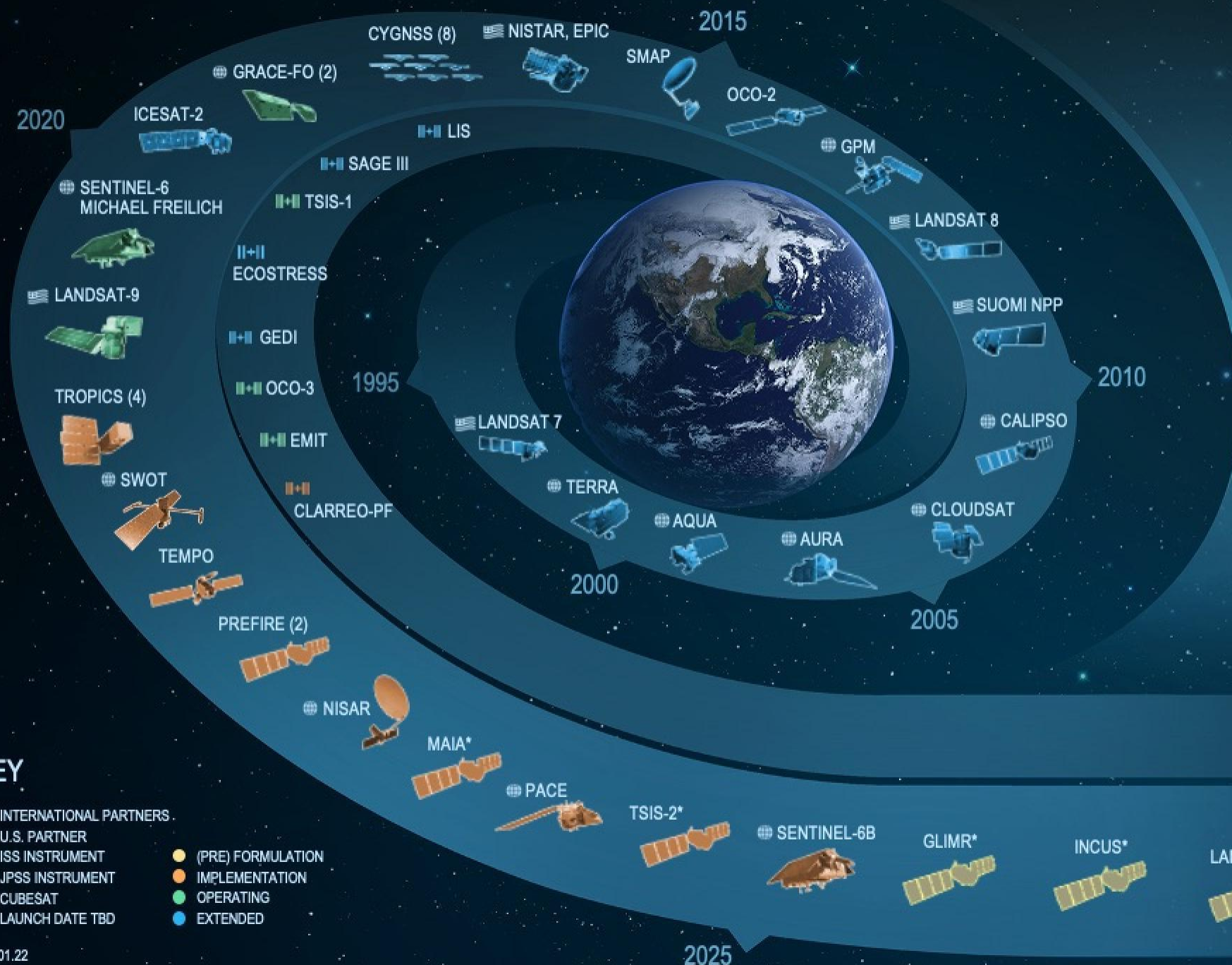
- OMPS-LIMB 2022
- LIBERA 2027
- OMPS-LIMB 2027
- OMPS-LIMB 2032

ISS INSTRUMENTS

MISSIONS

KEY

- INTERNATIONAL PARTNERS
- U.S. PARTNER
- ISS INSTRUMENT
- JPSS INSTRUMENT
- CUBESAT
- LAUNCH DATE TBD
- (PRE) FORMULATION
- IMPLEMENTATION
- OPERATING
- EXTENDED

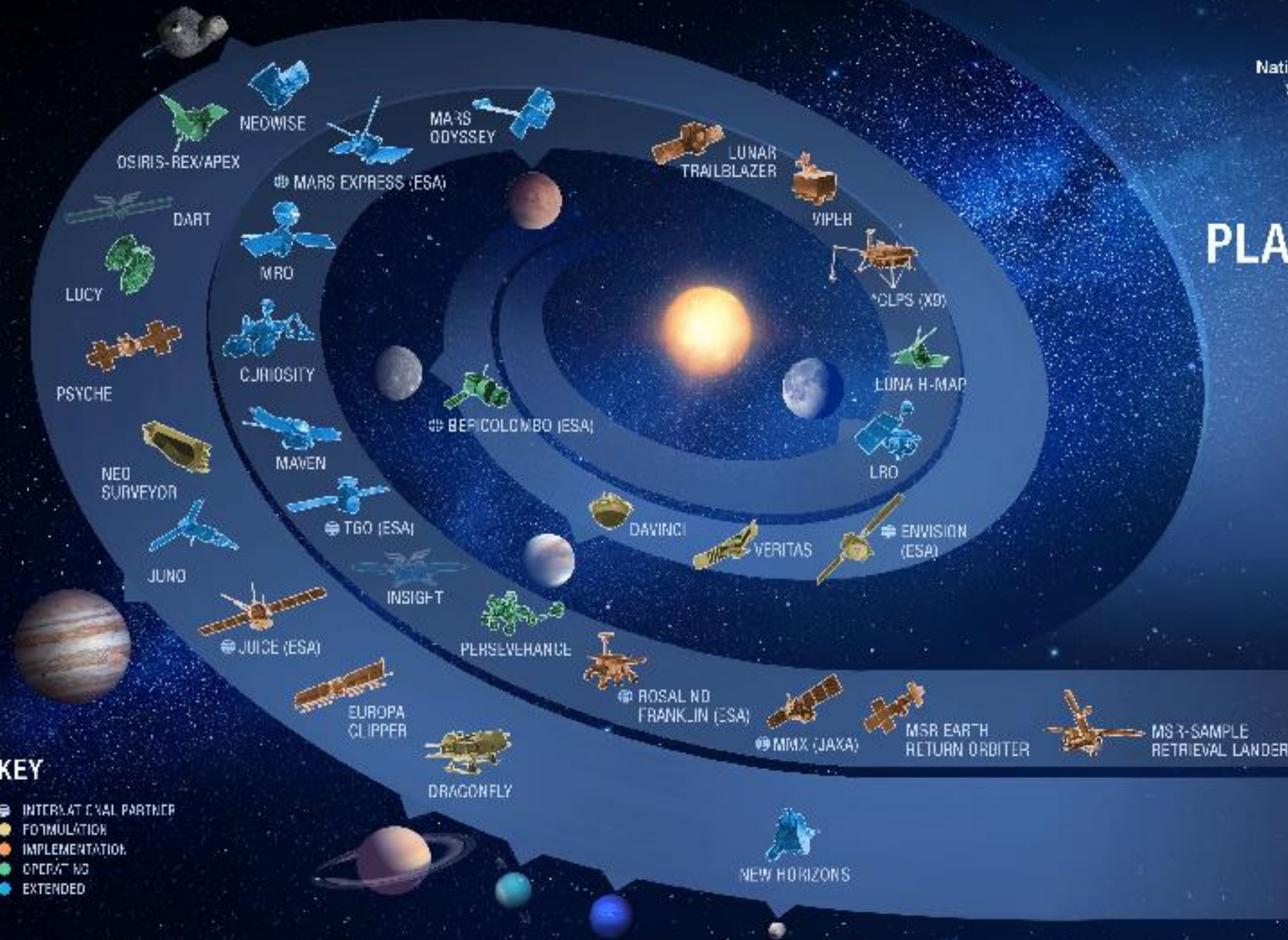




PLANETARY FLEET

KEY

- INTERNATIONAL PARTNER
- FORMULATION
- IMPLEMENTATION
- OPERATING
- EXTENDED



MOON & MARS

SOLAR SYSTEM

NASA is embarking on a new era of space exploration in which humans will travel deeper into the solar system than ever before. The International Space Station is the centerpiece for space operations. Serving as a test bed for research and new technologies, the space station is a steppingstone toward future exploration destinations. The commercial industry will transport cargo and eventually crew to the space station while NASA focuses on developing the Orion Multi-Purpose Crew Vehicle, Space Launch System, and advanced exploration systems that will enable a sustainable human presence to destinations such as the moon, near-Earth asteroids and Mars.

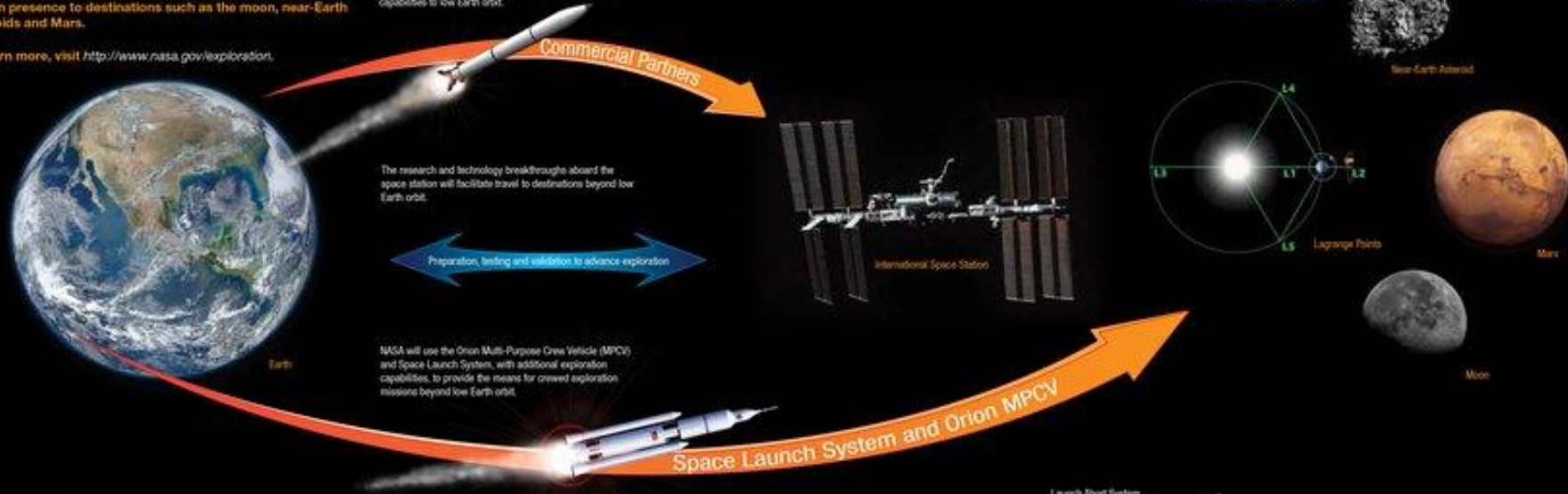
To learn more, visit <http://www.nasa.gov/exploration>.

The Future of American Human SPACEFLIGHT

Following NASA's innovative partnership activities and investments in U.S. commercial launch capabilities, the agency has purchased cargo transportation services to and from the Space Station and will continue to partner in the development of crew transportation capabilities to low Earth orbit.

"This is the next chapter that we can write together here at NASA. We will partner with industry. We will invest in cutting-edge research and technology. We will set far-reaching milestones and provide the resources to reach those milestones. And step by step, we will push the boundaries not only of where we can go but what we can do..."

— President Barack Obama



Destinations

Lagrange Points

Lagrange Points are microgravity destinations beyond low Earth orbit that provide opportunities for construction, fueling and repair of complex in-space systems. These points in space can serve as a gateway to reaching multiple destinations in our solar system.

Near-Earth Asteroids

These near-Earth objects may provide answers to some of humankind's most compelling questions, such as these: How did the solar system form? Where did Earth's water and other organic materials come from?

Moon

Earth's nearest neighbor provides significant opportunities for commercial and international collaboration and has critical resources needed to sustain human explorers.

Mars

Mars provides the best opportunity to demonstrate that humans can live for extended — even permanent — stays beyond low Earth orbit. The technology and space systems required to transport and sustain explorers on Mars will expand scientific knowledge and drive technological innovation.

Commercial Spaceflight Development

NASA is investing financial and technical resources to stimulate efforts within the commercial industry to develop and demonstrate cargo and crew space transportation capabilities to and from low Earth orbit.

Cargo Partners



Commercial Company: Space Exploration Technologies (SpaceX)

Spacecraft: Dragon (Cargo)

Launch Vehicle: Falcon 9



Commercial Company: Orbital Sciences Corporation (Orbital)

Spacecraft: Cygnus

Launch Vehicle: Antares

Funded Crew Partners



Commercial Company: Blue Origin

Spacecraft: Crew Transportation System

Launch Vehicle: Initial — Atlas V
Final — New Reusable Booster System



Commercial Company: Sierra Nevada Corporation

Spacecraft: Dream Chaser

Launch Vehicle: Atlas V



Commercial Company: SpaceX

Spacecraft: Dragon (Crew)

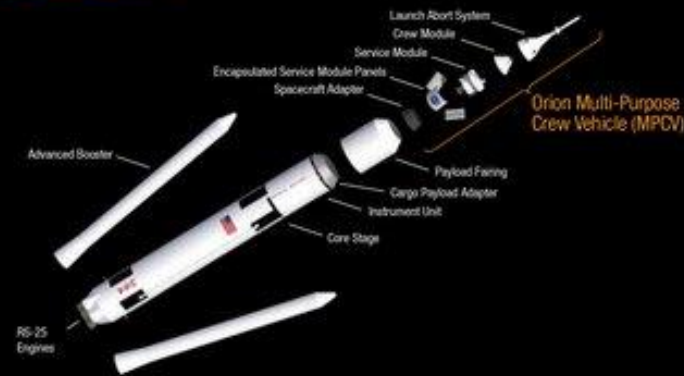
Launch Vehicle: Falcon 9



Commercial Company: The Boeing Company

Spacecraft: Orion Space Transportation (OST-100)

Launch Vehicle: Initial — Atlas V



Human Spaceflight Capabilities

NASA is developing next-generation spaceflight technology to explore multiple destinations throughout the solar system. New technology systems include the following:



Mobile Extravehicular Activity and Robotic Platform



Deep Space Habitation



Advanced Spacecrafts



Advanced Space Communication



Advanced In-Space Propulsion



In-Situ Resource Utilization



Human Robotic Systems



Launch Vehicle	Saturn V	Space Shuttle	Space Launch System	Evolved Lift Capability
Years	1967–1973	1981–2011	First upward launch planned for 2017	To be determined
Height	111 m (363 ft)	56 m (184 ft) (Orbiter 122 ft)	97 m (318 ft)	→ 113 m (370 ft)
Lift Capability to Low Earth Orbit	118 metric tons	28 metric tons (to 28.5° inclination)	72 metric tons	→ 130 metric tons
Crew/Capsule Capacity	Apollo Spacecraft	Orbiter	Orion MPCV	Cargo Configuration Shown

National Aeronautics and Space Administration



NASA Solicitation and Proposal Integrated Review and Evaluation System

61

Welcome to NASA Solicitation and Proposal Integrated Review and Evaluation System

NASA Research Opportunities

Registration Information

Help | NASA Web Sites

release of various research announcements in a wide range of science and technology disciplines. NASA uses a peer review process to evaluate and select research proposals submitted in response to these research announcements. Researchers can help NASA achieve national research objectives by submitting research proposals and conducting awarded research.

Solicitations

NSPIRES now allow users to [SEARCH](#) for and view Proposals and NOIs [due in 30 days](#), [FUTURE](#), and [OPEN, CLOSED/PAST](#) NASA research announcements. The full text of the Solicitation Announcements and information about selected proposals, if available, can be viewed and downloaded.

Proposals/NOI Due in the Next 30 days

Showing 1 to 15 of 15 entries

Search:

Title	Number	Sponsor Org	NOI Due	Prop Due
A.54 Earth Venture Suborbital-4	NNH22ZDA001N-EVS4	NASA-HQ:SMD:ES	--	02/28/2023
A.30 Plankton, Aerosol, Cloud, ocean Ecosystem (PACE) Mission Validation	NNH22ZDA001N-PACE	NASA-HQ:SMD:ES	--	03/07/2023
NASA Innovative Advanced Concepts (NIAC) Phase III	80HQTR23NOA01-23NIAC_A3	NASA-HQ:STMD:NIAC	--	03/08/2023
B.3 Heliophysics Theory, Modeling and Simulations	NNH22ZDA001N-HTMS	NASA-HQ:SMD:HP	--	03/14/2023
D.13 Astrophysics Pioneers	NNH22ZDA001N-PIONEERS	NASA-HQ:SMD:AP	--	03/16/2023
D.15 Lisa Preparatory Science	NNH22ZDA001N-LPS	NASA-HQ:SMD:AP	--	03/16/2023
D.5 Neil Gehrels Swift Observatory General Investigator - Cycle 19	NNH22ZDA001N-SWIFT	NASA-HQ:SMD:AP	--	03/17/2023
D.14 Nancy Grace Roman Space Telescope Research and Support Participation Opportunities	NNH22ZDA001N-ROMAN	NASA-HQ:SMD:AP	--	03/21/2023
A.44 Commercial Smallsat Data Scientific Analysis	NNH22ZDA001N-CSDSA	NASA-HQ:SMD:ES	--	03/23/2023

Solicitations and selected proposals for years prior to NSPIRES implementation, January 1, 2005, were posted manually; therefore, some postings for years 2000-2004 may not be as complete as those posted through the NSPIRES system from 2005 to the present.

Member Login

[Forgot Password?](#)

[Create an Account](#)

Site News

CAGE Code News Item

In order to submit a proposal, an organization must have a valid SAM registration. This process can take several days so please begin well in advance of the proposal due date. Organizations that do not have a valid Cage Code must contact the NSPIRES Help Desk immediately in order to finalize organization registration.

[Continue Reading >](#)

Regulations and Guidance for Dnnnnere

Solicitation # / Keyword(s)

1

Showing 1 to 25 of 3,067 records



Clear

Search

Default Filters

▼ Status

☒ All

☐ Due in 30 Days (16)

☐ Future (0)

☐ Open (197)

☐ Closed (1358)

☐ Past (1496)

▼ Type

☒ All

☐ AN (2)

☐ AO (111)

☐ BAA (13)

☐ CAN (151)

☐ FELLOWSHIP (33)

☐ NRA (2560)

☐ OTHER (63)

☐ RFI (134)

▼ Category

☒ All

☐ Omnibus (77)

☐ Program Element (2233)

☐ Stand Alone (757)

▼ Fiscal Years

☒ All

☐ 2023 (182)

☐ 2022 (212)

☐ 2021 (205)

☐ 2020 (202)

☐ 2019 (180)

☐ 2018 (181)

☐ 2017 (176)

☐ 2016 (176)

☐ 2015 (172)

☐ 2014 (161)

☐ Archived (1220)

Status	Solicitation Title	Solicitation #	Released	NOI Due	Proposal Due
Due in 30 days	A.30 Plankton, Aerosol, Cloud, ocean Ecosystem (PACE) Mission Validation	NNH22ZDA001N-PACE	2022-02-14	--	2023-03-07
Due in 30 days	A.40 Earth Science Applications: Ecological Conservation	NNH22ZDA001N-ECON	2022-02-14	2023-03-14	2023-04-14
Due in 30 days	A.44 Commercial Smallsat Data Scientific Analysis	NNH22ZDA001N-CSDSA	2022-02-14	--	See Details
Due in 30 days	A.54 Earth Venture Suborbital-4	NNH22ZDA001N-EVS4	2022-02-14	--	2023-02-28
Due in 30 days	B.2 Heliophysics Supporting Research	NNH23ZDA001N-HSR	2023-02-14	--	2023-03-28
Due in 30 days	B.3 Heliophysics Theory, Modeling and Simulations	NNH22ZDA001N-HTMS	2022-02-14	--	See Details
Due in 30 days	D.13 Astrophysics Pioneers	NNH22ZDA001N-PIONEERS	2022-02-14	2023-01-27	2023-03-16
Due in 30 days	D.14 Nancy Grace Roman Space Telescope Research and Support Participation Opportunities	NNH22ZDA001N-ROMAN	2022-02-14	2023-01-20	2023-03-21
Due in 30 days	D.15 Lisa Preparatory Science	NNH22ZDA001N-LPS	2022-02-14	2023-01-20	2023-03-16
Due in 30 days	D.16 Astrophysics Decadal Survey Precursor Science	NNH22ZDA001N-ADSPS	2022-02-14	2023-01-20	2023-03-24
Due in 30 days	D.5 Neil Gehrels Swift Observatory General Investigator - Cycle 19	NNH22ZDA001N-SWIFT	2022-02-14	--	2023-03-17
Due in 30 days	DRAFT Announcement of Opportunity New Frontiers 5: Comments due March 3 2023	NNH23ZDA006J	2023-01-10	--	--
Due in 30 days	Early Career Faculty (ECF23)	80HQTR23NOA01-23ECF_B1	2023-02-16	2023-03-16	2023-04-13
Due in 30 days	F.3 Exoplanets Research	NNH23ZDA001N-XRP	2023-02-14	--	2023-03-28
Due in 30 days	Lunar Surface Technology Research (LuSTR) Opportunities	80HQTR23NOA01-23LUSTR_B5	2023-01-24	2023-03-22	2023-04-24
Due in 30 days	NASA Innovative Advanced Concepts (NIAC) Phase III	80HQTR23NOA01-23NIAC_A3	2023-02-06	--	2023-03-08
Open	2021 NASA TEAMS ENGAGING AFFILIATED MUSEUMS AND INFORMAL INSTITUTIONS (2021 TEAM II NOFO)	NNH21ZHA002N	2021-04-19	--	--
Open	2023 Dual Use Technology Development at Marshall Space Flight Center	80MSFC23M0001	2022-12-01	--	--
Open	2023 Established Program to Stimulate Competitive Research (EPSCoR) International Space Station (ISS) Flight Opportunity	NNH23ZHA010C	2023-01-05	--	2023-04-05
Open	2023 HERO Appendix A: NASA Human Research Program Omnibus Opportunity	NNJ23ZSA001N-OMNIBUS	2022-11-30	--	See Details
Open	2023 Human Exploration Research Opportunities (HERO) Overview	NNJ23ZSA001N	2022-11-30	--	--
Open	A.10 Sea Level Change Science Team	NNH23ZDA001N-SLCST	2023-02-14	--	--
Open	A.11 Surface Water and Ocean Topography (SWOT) Science Team: due dates TBD	NNH23ZDA001N-SWOTST	2023-02-14	--	--
Open	A.12 Ocean Surface Topography Science Team: not solicited in ROSES-2023	NNH23ZDA001N-OSTST	2023-02-14	--	--
Open	A.13 Ocean Vector Winds Science Team: not solicited in ROSES-2023	NNH23ZDA001N-OVWST	2023-02-14	--	--

Early Career Faculty (ECF23)

Number: 80HQTR23NOA01-23ECF_B1 Directorate: Space Technology Mission Directorate Type: NASA Research Announcement

▼ Dates

Label	Date	Option
Release	Feb 16, 2023	
23ECF_NOI NOIs Due	Mar 16, 2023 05:00:00 PM Eastern Daylight Time	Create
23ECF Proposals Due	Apr 13, 2023 05:00:00 PM Eastern Daylight Time	Create

Notices

No notice available.

[Back](#)

▼ Documents

Announcement Documents

Title
> SpaceTech-REDDI-2023 Solicitation (as amended on December 13, 2022)
> ST-REDDI-2023 Appendix B1 - ECF23

Other Documents

Title
> ECF23 Frequently Asked Questions FINAL
> ECF23 Technical FAQ - Topic 1 (as of February 16, 2023)
> ECF23 Technical FAQ - Topic 2 (as of February 16, 2023)
> ECF23 Technical FAQ - Topic 3 (as of February 16, 2023)

Omnibus Information

> [Space Technology Research, Development, Demonstration, and Infusion-2023 \(SpaceTech-REDDI-2023\)](#)

Status	Solicitation Title	Solicitation #	Released	NOI Due	Proposal Due
Open	2021 NASA TEAMS ENGAGING AFFILIATED MUSEUMS AND INFORMAL INSTITUTIONS (2021 TEAM II NOFO)	NNH21ZHA002N	2021-04-19	--	--
Open	2023 Dual Use Technology Development at Marshall Space Flight Center	80MSFC23M0001	2022-12-01	--	--
Open	2023 Established Program to Stimulate Competitive Research (EPSCoR) International Space Station (ISS) Flight Opportunity	NNH23ZHA010C	2023-01-05	--	2023-04-05
Open	2023 HERO Appendix A: NASA Human Research Program Omnibus Opportunity	NNJ23ZSA001N-OMNIBUS	2022-11-30	--	See Details
Open	2023 Human Exploration Research Opportunities (HERO) Overview	NNJ23ZSA001N	2022-11-30	--	--
Open	A.10 Sea Level Change Science Team	NNH23ZDA001N-SLCST	2023-02-14	--	--
Open	A.11 Surface Water and Ocean Topography (SWOT) Science Team: due dates TBD	NNH23ZDA001N-SWOTST	2023-02-14	--	--
Open	A.12 Ocean Surface Topography Science Team: not solicited in ROSES-2023	NNH23ZDA001N-OSTST	2023-02-14	--	--
Open	A.13 Ocean Vector Winds Science Team: not solicited in ROSES-2023	NNH23ZDA001N-OVWST	2023-02-14	--	--
Open	A.14 Modeling, Analysis, and Prediction	NNH23ZDA001N-MAP	2023-02-14	--	--
Open	A.15 Cryospheric Science	NNH23ZDA001N-CRYO	2023-02-14	--	--
Open	A.16 Solar Irradiance Science Team	NNH23ZDA001N-SIST	2023-02-14	--	--
Open	A.17 Atmospheric Composition: Upper Atmosphere Research Program: not solicited in ROSES-2023	NNH23ZDA001N-UARP	2023-02-14	--	--
Open	A.18 Atmospheric Composition: Radiation Sciences Program: not solicited in ROSES-2023	NNH23ZDA001N-RSP	2023-02-14	--	--
Open	A.19 Atmospheric Composition: Atmospheric Composition Modeling and Analysis Program: not solicited in ROSES-2023	NNH23ZDA001N-ACMAP	2023-02-14	--	--
Open	A.2 Land Cover/Land Use Change - Multi-Source Land Imaging	NNH23ZDA001N-LCLUC	2023-02-14	--	2023-03-30
Open	A.20 Atmospheric Composition: Tropospheric Composition Program: not solicited in ROSES-2023	NNH23ZDA001N-TCP	2023-02-14	--	--
Open	A.21 Terrestrial Hydrology: not solicited in ROSES-2023	NNH23ZDA001N-THP	2023-02-14	--	--
Open	A.22 Soil Moisture Active-Passive Mission Science Team	NNH23ZDA001N-SMAP	2023-02-14	--	--
Open	A.23 Weather and Atmospheric Dynamics: due dates TBD	NNH23ZDA001N-WAD	2023-02-14	--	--
Open	A.24 Earth Surface and Interior	NNH23ZDA001N-ESI	2023-02-14	--	--
Open	A.24 Rapid Response and Novel Research in Earth Science	NNH22ZDA001N-RRNES	2022-02-14	--	2023-03-29
Open	A.25 Rapid Response and Novel Research in Earth Science	NNH23ZDA001N-RRNES	2023-02-14	--	--
<div>Home</div>					
Open	A.27 NASA-ISRO Synthetic Aperture Radar (NISAR) Mission Operations Science Team: due dates TBD	NNH23ZDA001N-NISAR	2023-02-14	--	--
Open	A.28 Global Navigation Satellite System Research	NNH23ZDA001N-GNSS	2023-02-14	--	--
Open	A.29 GRACE-FO Science Team	NNH23ZDA001N-GRACEFO	2023-02-14	--	--
Open	A.3 Ocean Biology and Biogeochemistry: due dates TBD	NNH23ZDA001N-OBBI	2023-02-14	--	--
Open	A.30 SAGE III/ISS Science Team	NNH23ZDA001N-SAGEIII	2023-02-14	--	--
Open	A.31 Science Team for the OCO Missions	NNH23ZDA001N-OCOST	2023-02-14	--	--
Open	A.32 Earth Surface Mineral Dust Source Investigation (EMIT) Science Team: due dates TBD	NNH23ZDA001N-EMIT	2023-02-14	--	--
Open	A.33 Understanding Changes in High Mountain Asia	NNH23ZDA001N-HMA	2023-02-14	--	--
Open	A.34 The Science of Terra, Aqua, Suomi-NPP, and JPSS Series Satellites: not solicited in ROSES-2023	NNH23ZDA001N-TASNP	2023-02-14	--	--
Open	A.35 Airborne Instrument Technology Transition: not solicited in ROSES-2023	NNH23ZDA001N-AIIT	2023-02-14	--	--
Open	A.36 Earth Science U.S. Participating Investigator: not solicited in ROSES-2023	NNH23ZDA001N-EUSPI	2023-02-14	--	--
Open	A.37 Interdisciplinary Research in Earth Science: not solicited in ROSES-2023	NNH23ZDA001N-IDS	2023-02-14	--	--
Open	A.38 PACE Science and Applications Team: due dates TBD	NNH23ZDA001N-PACE	2023-02-14	--	--
Open	A.39 Early Career Investigator Program in Earth Science: due dates TBD	NNH23ZDA001N-ECIPES	2023-02-14	--	--
Open	A.4 Terrestrial Ecology: Not Solicited in ROSES-2023	NNH23ZDA001N-TE	2023-02-14	--	--
Open	A.40 The GLOBE Implementation Office: due dates TBD	NNH23ZDA001N-GLOBE	2023-02-14	--	--
Open	A.41 Earth Science Applications: Water Resources: not solicited in ROSES-2023	NNH23ZDA001N-WATER	2023-02-14	--	--
Open	A.42 Earth Science Applications: Agriculture: not solicited in ROSES-2023	NNH23ZDA001N-AG	2023-02-14	--	--
Open	A.43 Earth Science Applications: SERVIR: not solicited in ROSES-2023	NNH23ZDA001N-SERVIR	2023-02-14	--	--
Open	A.44 Earth Science Applications: Disasters: not solicited in ROSES-2023	NNH23ZDA001N-DISASTERS	2023-02-14	--	--
Open	A.45 Earth Science Applications: Health and Air Quality: not solicited in ROSES-2023	NNH23ZDA001N-HAQ	2023-02-14	--	--
Open	A.46 Earth Science Applications: Ecological Conservation Impact Assessment	NNH23ZDA001N-ECIA	2023-02-14	--	--
Open	A.47 Earth Science Applications: Equity and Environmental Justice: due dates TBD	NNH23ZDA001N-EEJ	2023-02-14	--	--
Open	A.48 Earth Science Applications: Wildland Fires: due dates TBD	NNH23ZDA001N-WF	2023-02-14	--	--
Open	A.49 Advancing Collaborative Connections for Earth System Science: not solicited in ROSES-2023	NNH23ZDA001N-ACCESS	2023-02-14	--	--
Open	A.5 Carbon Cycle Science: due dates TBD	NNH23ZDA001N-CCS	2023-02-14	--	--

Status	Solicitation Title	Solicitation #	Released	NOI Due	Proposal Due
Open	A.50 Citizen Science for Earth Systems Programs: not solicited in ROSES-2023	NNH23ZDA001N-CSESP	2023-02-14	--	--
Open	A.51 Commercial Smallsat Data Acquisition New Vendor Onramp Evaluation: due dates TBD	NNH23ZDA001N-CNVOE	2023-02-14	--	--
Open	A.51 Applications-Oriented Augmentations for Research and Analysis	NNH22ZDA001N-AA4RA	2022-02-14	--	2023-03-29
Open	A.52 Commercial Smallsat Data Scientific Analysis: not solicited in ROSES-2023	NNH23ZDA001N-CSDSA	2023-02-14	--	--
Open	A.53 Instrument Incubator Program: due dates TBD	NNH23ZDA001N-IIP	2023-02-14	--	--
Open	A.53 Technology Development for Support of Wildfire Science and Disaster Mitigation	NNH22ZDA001N-FIRET	2022-02-14	--	See Details
Open	A.54 Advanced Component Technology: not solicited in ROSES-2023	NNH23ZDA001N-ACT	2023-02-14	--	--
Open	A.55 In-space Validation of Earth Science Technologies: due dates TBD	NNH23ZDA001N-INVEST	2023-02-14	--	--
Open	A.56 Sustainable Land Imaging - Technology: due dates TBD	NNH23ZDA001N-SLIT	2023-02-14	--	--
Open	A.57 Decadal Survey Incubation: not solicited in ROSES-2023	NNH23ZDA001N-DSI	2023-02-14	--	--
Open	A.58 Advanced Information Systems Technology: due dates TBD	NNH23ZDA001N-AIST	2023-02-14	--	--
Open	A.59 Technology Development for Support of Wildfire Science, Management, and Disaster Mitigation: due dates TBD	NNH23ZDA001N-FIRET	2023-02-14	--	--
Open	A.6 Carbon Monitoring System: due dates TBD	NNH23ZDA001N-CMS	2023-02-14	--	--
Open	A.7 Biodiversity: Not Solicited in ROSES-2023	NNH23ZDA001N-BIODIV	2023-02-14	--	--
Open	A.8 Physical Oceanography: Not Solicited in ROSES-2023	NNH23ZDA001N-PO	2023-02-14	--	--
Open	A.9 Ocean Salinity Science Team: not solicited in ROSES-2023	NNH23ZDA001N-OSST	2023-02-14	--	--
Open	Announcement for Partnership Proposals (AFPP) to Advance Tipping Point Technologies	80HQTR23SOA02	2022-02-14	--	See Details
Open	B.10 Heliophysics Flight Opportunities Studies	NNH23ZDA001N-HFOS	2023-02-14	--	--
Open	B.11 Heliophysics Flight Opportunities for Research and Technology: due dates TBD	NNH23ZDA001N-HFORT	2023-02-14	--	--
Open	B.12 Heliophysics Data Environment Enhancements: not solicited in ROSES-2023	NNH23ZDA001N-HDEE	2023-02-14	--	--
<div>Home</div>					
Open	B.13 Heliophysics U.S. Participating Investigator: not solicited in ROSES-2023	NNH23ZDA001N-HUSPI	2023-02-14	--	--
Open	B.14 Heliophysics Early Career Investigator Program: not solicited in ROSES-2023	NNH23ZDA001N-ECIP	2023-02-14	--	--
Open	B.15 Heliophysics Innovation in Technology and Science	NNH23ZDA001N-HITS	2023-02-14	--	2024-03-29
Open	B.15 Heliophysics Innovation in Technology and Science	NNH22ZDA001N-HITS	2022-02-14	--	2023-03-29
Open	B.16 Heliophysics Artificial Intelligence/Machine Learning-Ready Data	NNH23ZDA001N-HARD	2023-02-14	--	--
Open	B.17 Interdisciplinary Science for Eclipse: not solicited in ROSES-2023	NNH23ZDA001N-ECLIPSE	2023-02-14	--	--
Open	B.18 Living With a Star Tools and Methods: not solicited in ROSES-2023	NNH23ZDA001N-LWSTM	2023-02-14	--	--
Open	B.19 Heliophysics Living with a Star Infrastructure: not solicited in ROSES-2023	NNH23ZDA001N-HLWSIS	2023-02-14	--	--
Open	B.20 Heliophysics Tools and Methods	NNH23ZDA001N-HTM	2023-02-14	--	--
Open	B.20 Heliophysics Tools and Methods	NNH22ZDA001N-HTM	2022-02-14	--	2023-03-29
Open	B.21 Heliophysics Citizen Science Investigations: due dates TBD	NNH23ZDA001N-HCSI	2023-02-14	--	--
Open	B.22 Space Weather Centers of Excellence: not solicited in ROSES-2023	NNH23ZDA001N-SWXC	2023-02-14	--	--
Open	B.23 Solar Orbiter Guest Investigators	NNH23ZDA001N-SOGI	2023-02-14	--	--
Open	B.3 Heliophysics Theory, Modeling and Simulations: not solicited in ROSES-2023	NNH23ZDA001N-HTMS	2023-02-14	--	--
Open	B.4 Heliophysics Guest Investigators - Open	NNH23ZDA001N-HGIO	2023-02-14	--	--
Open	B.5 Living with a Star Science: due dates TBD	NNH23ZDA001N-LWS	2023-02-14	--	--
Open	B.6 Living with a Star Strategic Capabilities: not solicited in ROSES-2023	NNH23ZDA001N-LWSSC	2023-02-14	--	--
Open	B.7 Space Weather Science Applications Research-to-Operations-to-Research	NNH23ZDA001N-SWR202R	2023-02-14	--	--
Open	B.8 Heliophysics Technology and Instrument Development for Science	NNH23ZDA001N-HTIDS	2023-02-14	--	--
Open	B.9 Heliophysics Low Cost Access to Space: due dates TBD	NNH23ZDA001N-HLCAS	2023-02-14	--	--
Open	C.10 Cassini Data Analysis Program	NNH23ZDA001N-CDAP	2023-02-14	--	--
Open	C.11 Discovery Data Analysis	NNH23ZDA001N-DDAP	2023-02-14	--	--
Open	C.12 Planetary Instrument Concepts for the Advancement of Solar System Observations	NNH22ZDA001N-PICASSO	2022-02-14	--	2023-03-29
Open	C.12 Planetary Instrument Concepts for the Advancement of Solar System Observations	NNH23ZDA001N-PICASSO	2023-02-14	--	--
Open	C.13 Maturation of Instruments for Solar System Exploration: Not Solicited in ROSES-2023	NNH23ZDA001N-MATISSE	2023-02-14	--	--
Open	C.14 Planetary Science and Technology Through Analog Research	NNH23ZDA001N-PSTAR	2023-02-14	--	--
Open	C.15 Planetary Protection Research	NNH23ZDA001N-PPR	2023-02-14	--	--
Open	C.16 Laboratory Analysis of Returned Samples	NNH22ZDA001N-LARS	2022-02-14	--	2023-03-29
Open	C.16 Laboratory Analysis of Returned Samples	NNH23ZDA001N-LARS	2023-02-14	--	2024-03-29

Show 50 entries

First Previous 1 2 3 4 Next Last

Filter by:

Status	Solicitation Title	Solicitation #	Released	NOI Due	Proposal Due
Open	C.17 Planetary Science Enabling Facilities: Not Solicited in ROSES-2023	NNH23ZDA001N-PSEF	2023-02-14	--	--
Open	C.18 Planetary Science Early Career Award	NNH23ZDA001N-ECA	2023-02-14	--	--
Open	C.19 Development and Advancement of Lunar Instrumentation	NNH23ZDA001N-DALI	2023-02-14	--	--
Open	C.2 Emerging Worlds	NNH22ZDA001N-EW	2022-02-14	--	2023-03-29
Open	C.2 Emerging Worlds	NNH23ZDA001N-EW	2023-02-14	--	2024-03-29
Open	C.20 Interdisciplinary Consortia for Astrobiology Research: Not Solicited in ROSES-2023	NNH23ZDA001N-ICAR	2023-02-14	--	--
Open	C.21 Yearly Opportunities for Research in Planetary Defense	NNH23ZDA001N-YORPD	2023-02-14	--	--
Open	C.22 Precursor Science Investigations for Europa: Not Solicited in ROSES-2023	NNH23ZDA001N-PSIE	2023-02-14	--	--
Open	C.23 Analog Activities to Support Artemis Lunar Operations	NNH23ZDA001N-DRATS	2023-02-14	--	--
Open	C.25 Artemis III Geology Team	NNH22ZDA001N-A3GT	2022-02-14	--	2023-02-24
Open	C.3 Solar System Workings	NNH22ZDA001N-SSW	2022-02-14	--	2023-03-29
Open	C.3 Solar System Workings	NNH23ZDA001N-SSW	2023-02-14	--	2024-03-29
Open	C.4 Planetary Data Archiving and Restoration	NNH22ZDA001N-PDAR	2022-02-14	--	2023-03-29
Open	C.4 Planetary Data Archiving, Restoration and Tools	NNH23ZDA001N-PDART	2023-02-14	--	2024-03-29
Open	C.5 Exobiology	NNH22ZDA001N-EXO	2022-02-14	--	2023-03-29
Open	C.5 Exobiology	NNH23ZDA001N-EXO	2023-02-14	--	2024-03-29
Open	C.6 Solar System Observations	NNH22ZDA001N-SSO	2022-02-14	--	2023-03-29
Open	C.6 Solar System Observations	NNH23ZDA001N-SSO	2023-02-14	--	2024-03-29
Open	C.7 New Frontiers Data Analysis Program	NNH23ZDA001N-NFDAP	2023-02-14	--	--
Open	C.8 Lunar Data Analysis	NNH23ZDA001N-LDAP	2023-02-14	--	--
Open	C.9 Mars Data Analysis	NNH23ZDA001N-MDAP	2023-02-14	--	--

Home Login

Open	D.11 NICER General Observer - Cycle 6	NNH23ZDA001N-NICER	2023-02-14	--	--
Open	D.12 Theoretical and Computational Astrophysics Networks: Not Solicited in ROSES-2023	NNH23ZDA001N-TCAN	2023-02-14	--	--
Open	D.13 Astrophysics Pioneers: due dates TBD	NNH23ZDA001N-PIONEERS	2023-02-14	--	--
Open	D.14 Nancy Grace Roman Space Telescope Research and Support Participation Opportunities: Not Solicited in ROSES-2023	NNH23ZDA001N-ROMAN	2023-02-14	--	--
Open	D.15 LISA Preparatory Science: Not Solicited in ROSES-2023	NNH23ZDA001N-LPS	2023-02-14	--	--
Open	D.16 Astrophysics Decadal Survey Precursor Science: due dates TBD	NNH23ZDA001N-ADSPS	2023-02-14	--	--
Open	D.17 IXPE General Observer - Cycle 1: due dates TBD	NNH23ZDA001N-IXPE	2023-02-14	--	--
Open	D.18 Extreme Precision Radial Velocity Foundation Science	NNH22ZDA001N-EPRV	2022-02-14	--	2023-02-16
Open	D.19 Ultraviolet Transient Astronomy Satellite Participating Scientists	NNH22ZDA001N-UTASPS	2022-02-14	2023-01-23	2023-03-31
Open	D.2 Astrophysics Data Analysis	NNH23ZDA001N-ADAP	2023-02-14	2023-03-31	--
Open	D.3 Astrophysics Research and Analysis	NNH23ZDA001N-APRA	2023-02-14	--	--
Open	D.4 Astrophysics Theory	NNH23ZDA001N-ATP	2023-02-14	--	--
Open	D.5 Neil Gehrels Swift Observatory General Investigator - Cycle 20	NNH23ZDA001N-SWIFT	2023-02-14	--	--
Open	D.5 University Student Research Challenge (USRC2)	NNH21ZEA001N-USRC2	2021-10-04	--	See Details
Open	D.6 Fermi General Investigator - Cycle 17	NNH23ZDA001N-FERMI	2023-02-14	--	--
Open	D.7 Strategic Astrophysics Technology	NNH23ZDA001N-SAT	2023-02-14	--	--
Open	D.8 Nancy Grace Roman Technology Fellowships for Early Career Researchers	NNH23ZDA001N-RTE	2023-02-14	--	--
Open	D.9 NuSTAR General Observer - Cycle 10	NNH23ZDA001N-NUSTAR	2023-02-14	--	--
Open	E.10 Space Biology: Animal Studies: due dates TBD	NNH23ZDA001N-SBAS	2023-02-14	--	--
Open	E.11 Research Pathfinder for Beyond Low Earth Orbit Space Biology Investigations: due dates TBD	NNH23ZDA001N-SBBLEO	2023-02-14	--	--
Open	E.2 Biophysics: Not Solicited in ROSES-2023	NNH23ZDA001N-BIOPHYS	2023-02-14	--	--
Open	E.3 Soft Matter Physics: due dates TBD	NNH23ZDA001N-SMP	2023-02-14	--	--
Open	E.4 Combustion Science: due dates TBD	NNH23ZDA001N-CS	2023-02-14	--	--
Open	E.5 Fluid Physics: due dates TBD	NNH23ZDA001N-FLUPHYS	2023-02-14	--	--
Open	E.6 Fundamental Physics: due dates TBD	NNH23ZDA001N-FUNPHYS	2023-02-14	--	--
Open	E.7 Materials Science: due dates TBD	NNH23ZDA001N-MATSCI	2023-02-14	--	--
Open	E.8 Physical Sciences Informatics: due dates TBD	NNH23ZDA001N-PSI	2023-02-14	--	--

Show 50 entries

First Previous 1 2 3 4 Next Last

Show 50 entries

First Previous 1 2 3 4 Next Last

Filter by:

Status	Solicitation Title	Solicitation #	Released	NOI Due	Proposal Due
Open	E.9 Space Biology Research Studies	NNH23ZDA001N-SBR	2022-02-14	--	2023-02-22
Open	E.9 Space Biology: Plant Studies: due dates TBD	NNH23ZDA001N-SBPS	2023-02-14	--	--
Open	ENGAGEMENT OPPORTUNITIES IN NASA STEM 2022 (EONS-2022)	NNH22ZDA001N	2021-11-15	--	--
Open	ENGAGEMENT OPPORTUNITIES IN NASA STEM FY2023 (EONS-2023)	NNH23ZHA001N	2022-11-14	--	--
Open	F.10 Payloads and Research Investigations on the Surface of the Moon: due dates TBD	NNH23ZDA001N-PRISM	2023-02-14	--	--
Open	F.11 Stand-Alone Landing Site-Agnostic Payloads and Research Investigations on the Surface of the Moon: due dates TBD	NNH23ZDA001N-SALSA	2023-02-14	--	--
Open	F.12 Artemis Deployed Instruments Program - First Crewed Landing: due dates TBD	NNH23ZDA001N-ADI1	2023-02-14	--	--
Open	F.13 Lunar Terrain Vehicle Instruments Program: due dates TBD	NNH23ZDA001N-LTVI	2023-02-14	--	--
Open	F.14 Transform to Open Science Training: Not Solicited in ROSES-2023	NNH23ZDA001N-TOPST	2023-02-14	--	--
Open	F.15 High Priority Open-Source Science	NNH22ZDA001N-HPOSS	2022-02-14	--	2023-03-29
Open	F.15 High Priority Open-Source Science: due dates TBD	NNH23ZDA001N-HPOSS	2023-02-14	--	--
Open	F.16 Supplement for Scientific Software Platforms: due dates TBD	NNH23ZDA001N-S4SPPT	2023-02-14	--	--
Open	F.17 Economic, Social, and Policy Analyses of Orbital Debris and Space Sustainability	NNH23ZDA001N-EPAOD	2023-02-14	--	--
Open	F.18 NASA Innovation Corps Pilot	NNH22ZDA001N-ICOR	2022-02-14	--	2023-03-29
Open	F.18 NASA Innovation Corps: due dates TBD	NNH23ZDA001N-ICOR	2023-02-14	--	--
Open	F.19 Multidomain Reusable Artificial Intelligence Tools: due dates TBD	NNH23ZDA001N-MDRAIT	2023-02-14	--	--
Open	F.2 Topical Workshops, Symposia, and Conferences	NNH22ZDA001N-TWSC	2022-02-14	--	2023-05-12
Open	F.2 Topical Workshops, Symposia, and Conferences: no longer offered in ROSES	NNH23ZDA001N-TWSC	2023-02-14	--	--
Open	F.20 SMD Bridge Program: due dates TBD	NNH23ZDA001N-BRIDGE	2023-02-14	--	--
Open	F.21 Artemis Deployed Instruments Program - Second Crewed Landing: due dates TBD	NNH23ZDA001N-ADI2	2023-02-14	--	--
Open	F.4 Habitable Worlds	NNH23ZDA001N-HW	2023-02-14	--	--

Home Login

Open	F.7 Support for Open-Source Tools, Frameworks, and Libraries: due dates TBD	NNH23ZDA001N-OSTFL	2023-02-14	--	--
Open	F.8 Supplemental Open Source Software Awards	NNH22ZDA001N-SOSS	2022-02-14	--	2023-03-29
Open	F.8 Supplemental Open-Source Software Awards: due dates TBD	NNH23ZDA001N-SOSS	2023-02-14	--	--
Open	F.9 Citizen Science Seed Funding Program	NNH23ZDA001N-CSSFP	2023-02-14	--	--
Open	F.99 Principal Investigator Organization Change	NNH22ZDA001N-PIMOVE22	2022-02-14	--	2023-03-29
Open	MUREP Curriculum Awards (MCA)	NNH23ZHA001N-MCA	2023-01-30	--	2023-05-01
Open	MUREP Space Technology Artemis Research (M-STAR)	NNH23ZHA001N-MSTAR	2023-02-07	--	2023-04-10
Open	MUREP Women's Colleges and Universities (MUREP WCU)	NNH23ZHA001N-WCU	2023-01-17	--	2023-04-17
Open	NASA Unsolicited Proposals	UNSOL_FY2023	2022-10-03	--	2023-09-30
Open	PL Launchpad Workshop 2023	NNH23ZDA008L	2023-02-02	2023-04-14	--
Open	Request for Information: Commercially Enabled Rapid Space Science (CERISS) Capabilities	NNH22ZDA0014L	2022-07-26	2023-03-31	--
Open	Request for Information: Commercially Enabled Rapid Space Science (CERISS) Scientist Utilization & Needs	NNH23ZDA003L	2022-11-29	2023-03-31	--
Open	Request for Information: DRAFT Federal Strategy to Advance an Integrated U.S. Greenhouse Gas Monitoring and Information System (GHGMISS)	NNH23ZDA009L	2023-02-27	2023-04-04	--
Open	Research Opportunities for International Space Station Utilization	NNJ13ZBG001N	2012-11-14	--	2024-12-31
Open	RESEARCH OPPORTUNITIES IN AERONAUTICS 2021 (ROA-2021)	NNH21ZEA001N	2021-09-01	--	--
Open	RESEARCH OPPORTUNITIES IN AERONAUTICS - 2023 (ROA-2023)	NNH23ZEA001N	2022-11-01	--	--
Open	Research Opportunities in Physical Sciences (ROPS)	NNH20ZDA012N	2020-09-01	--	--
Open	Research Opportunities in Space and Earth Sciences 2022 (ROSES-2022)	NNH22ZDA001N	2022-02-14	--	--
Open	Research Opportunities in Space and Earth Sciences 2023 (ROSES-2023)	NNH23ZDA001N	2023-02-14	--	--
Open	Science Mission Directorate Single-Source - by invitation only (2023)	SMDSS23	2023-01-01	--	2023-12-31
Open	Space Technology Announcement of Collaboration Opportunity (ACO)	80HQTR22SOA01	2022-02-14	--	See Details
Open	Space Technology Research, Development, Demonstration, and Infusion-2023 (SpaceTech-REDDI-2023)	80HQTR23NOA01	2022-10-01	--	--
Open	Third Stand Alone Missions of Opportunity Notice (SALMON-3)	NNH17ZDA004O	2017-03-22	--	--
Open	XMM-Newton C Targets for Fiscal Year 23	XMMNCT_FY23	2022-10-01	--	2023-09-30

Young investigators

NASA Postdoctoral Fellowship

The Space Science and Astrobiology Division has a long and successful history of stewarding promising young scientists through their post-doctoral experience. A post-doctoral fellowship at NASA Ames provides not only a creative and stimulating research environment but also the opportunity to interact with ongoing and future missions, and to interface with the diverse scientific and technological expertise at Ames. The high standing of Ames scientists in their fields has allowed them to serve as valuable mentors and to provide contacts leading Fellows to productive careers as next-generation leaders in Space and Earth science disciplines, both within NASA and in the academic community.

The [NASA Postdoctoral Program](#) (NPP) supports NASA's goal to expand scientific understanding of the Earth, the Solar System, and the universe in which we live. Selected by a competitive peer-review process, NASA Postdoctoral Program Fellows complete one- to three-year Fellowship appointments that advance NASA's missions in many fields of research.

The NPP fellowship (and the National Research Council (NRC) fellowship before that) offers an opportunity for NASA to lure in the "best of the best." This is exemplified by the myriad past graduates from these post-doctoral programs at Ames who have since become NASA civil servant space scientists, both at NASA Ames and at other Centers. Such Ames alumni include [Chris McKay](#), [Louis Allamandola](#), [Scott Sandford](#), [Farid Salama](#), [Jeff Cuzzi](#), [Dave Des Marais](#), [Robert Haberle](#), [Kevin Zahnle](#), [Tom Greene](#), [Tony Colaprete](#), [Jeff Hollingsworth](#), [Andy Mattioda](#), [Melinda Kahre](#), [Ella Sciamma-O'Brien](#), [Naseem Rangwala](#), [Amanda Brecht](#), and many more.

In addition, past Ames postdocs have become eminent academic community leaders in institutions such as USRA, Stanford, Penn State, Carnegie, Univ. Colorado, Cornell, Princeton and UCSC, to name a few. Several past Ames postdocs have also been awarded prestigious [awards](#). Our connections with nearby universities (Stanford, UC Santa Cruz, UC Berkeley, San Jose State, and Santa Clara University) will continue to provide an important additional benefit to Ames NPP Fellows.

The Space Science and Astrobiology Division at NASA Ames will continue its tradition of using the Fellowships as an important educational experience and a training ground to provide future leaders for NASA and the academic community.

Student Fellowships

Internships & Fellowships

NASA Internships and Fellowships for students

Students (high school to graduate level) interested in working at NASA Ames can explore the different internship and fellowship opportunities and apply to different NASA programs (and also centers) with only one application at intern.nasa.gov.

Resources for students and postdocs

The “[Learn Science](#)” webpage contains a selection of opportunities for students (high school to graduate level), post-doctoral fellows, early career researchers, and their mentors. The list includes summer programs and scholarships for undergraduates and graduate students, post-doctoral fellowships, special programs for early career researchers, faculty members, and senior scientists. Some of these programs occur only at NASA centers, but others support students or scientists at universities. Some are funded through NASA’s Science Mission Directorate, but many are sponsored either by other directorates within NASA, the NASA Office of Education, or non-NASA organizations. Programs that cater to more than one group are listed in both relevant sections.



Find Your Place in Space
NASA'S INTERNSHIP PROGRAMS
NASA Office of STEM Engagement

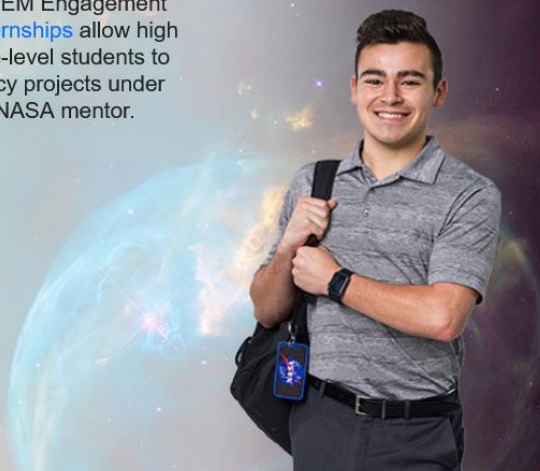
NOTICES AND
UPDATES

68

INTERN

NASA Office of STEM Engagement (OSTEM) paid [internships](#) allow high school and college-level students to contribute to agency projects under the guidance of a NASA mentor.

[LEARN MORE](#)



PATHWAYS INTERN

The [Pathways](#) program offers current students and recent graduates paid internships that are direct pipelines to full-time employment at NASA upon graduation. Launch your career with a Pathways internship.

[LEARN MORE](#)



FELLOW

NASA Fellowships allow graduate-level students to pursue research projects in response to the agency's current research priorities.

[LEARN MORE](#)



INTERNATIONAL INTERN

University students from participating countries may intern through the agency's International Internships Project. Students work with other interns under the guidance of a NASA mentor.

[LEARN MORE](#)



Internships, Fellowships, and Scholarships at NASA



**FIND
YOUR
PLACE
IN SPACE!**

Nearly 18,000 of the nation's top scientists, engineers, and business professionals work across the United States at our 10 center locations, our Shared Services Center, or one of our smaller test and research facilities.

Internships, Fellowships, and Scholarships at NASA



NASA Community College
Aerospace Scholars



Artemis Student
Challenges



NASA MINDS
Undergraduate Student
Design



NASA STEM
stem.nasa.gov

For Researchers

[Overview](#) [FAQ](#) [Solicitations](#) [SMD Bridge Program](#) [ROSES Blog](#) [NAC Science Committee](#) [NASA Postdoc Program](#) [More ▾](#)

Volunteer to be a Reviewer

Welcome to the volunteer reviewer page!

To increase the pool of un-conflicted reviewers we are seeking subject matter experts (SMEs) to engage in discussions at a virtual panel meeting or provide external reviews. While a significant time commitment, serving as a reviewer allows one to learn what's new in the field, get first-hand experience with our review process, and network with colleagues. New researchers including post doctoral fellows and sometimes upper level graduate students are welcome. Just follow the links below to the volunteer review forms and indicate the fields in which you consider yourself to be a subject matter expert and click the boxes. If your expertise matches our program needs NASA will contact you to discuss potential review assignments. Qualified SMEs may, and are encouraged, to volunteer to one or more program reviewer call. If you volunteered in a prior year and were not invited or were invited but not available, please complete a new form(s). Use the following the links to current program-specific volunteer review forms. NASA periodically updates this page to remove or add volunteer links.

Please direct questions or corrections on this page to SARA@nasa.gov.

We are currently seeking reviewers for:

For Researchers

- [Advisory Committees](#)
- [Announcement of Opportunity](#)
- [Community Town Hall Meetings](#)
- [Dual-Anonymous Peer Review](#)
- [Grant Stats](#)
- [How To Guide](#)
- [Library and Useful Links](#)
- [NASA Workforce Study](#)
- [New PI Resources](#)
- [No Due Date Programs](#)
- [OSDMP FAQ \(ROSES-2023\)](#)
- [Old \(ROSES-2022\) DMP FAQ](#)
- [Program Officers List](#)
- [ROSES Blog](#)

- [Modeling Analysis and Prediction \(ROSES A.14\)](#)
- [Plankton, Aerosol, Cloud, ocean Ecosystem \(PACE\) Mission Validation \(ROSES A.38\)](#)
- [Artemis III Geology Team \(ROSES C.25\)](#)
- [Heliophysics Supporting Research \(ROSES B.2\)](#)
- [Heliophysics Theory, Modeling, and Simulations \(ROSES B.3\)](#)
- [Emerging Worlds \(ROSES C.2\)](#)
- [Solar System Workings \(ROSES C.3\)](#)
- [Planetary Data Archiving, Restoration, and Tools \(ROSES C.4\)](#)
- [Exobiology \(ROSES C.5\)](#)
- [Solar System Observations \(ROSES C.6\)](#)
- [Lunar Data Analysis \(ROSES C.8\)](#)
- [Planetary Instrument Concepts for the Advancement of Solar System Observations \(PICASSO\) \(ROSES C.12\)](#)
- [MatISSE and C.22 DALI \(high-TRL planetary instrument programs\)](#)
- [Astrophysics Data Analysis Program \(Appendix D.2 of the annual ROSES NRA\)](#)
- [Astrophysics Research and Analysis \(ROSES program element D.3\)](#)
- [Astrophysics Theory \(ROSES D.4\)](#)
- [Exoplanet Research Program \(ROSES F.3\)](#)
- [Habitable Worlds \(ROSES F.4\)](#)
- [Astrophysics Decadal Survey Precursor Science](#)
- [Earth Surface and Interior and Space Geodesy Programs](#)
- [Ecological Conservation Impact Assessment](#)
- [Future Investigators in NASA Earth and Space Science and Technology \(FINESST\) —Earth Science](#)
- [Future Investigators in NASA Earth and Space Science and Technology \(FINESST\) —Space Science](#)
- [Modeling Analysis and Prediction](#)
- [Yearly Opportunities for Research in Planetary Defense](#)

Please direct questions or corrections on this page to SARA@nasa.gov

70

- [ROSES Blog](#)
- [ROSES Budget Reduction](#)
- [ROSES FAQ](#)
- [Scientific Information Policy](#)
- [Solicitations and Announcements](#)
- [Volunteer to Review Proposals](#)
- [Work-Life Balance](#)
- [Contact SARA](#)



For Researchers

Overview

FAQ

Solicitations

SMD Bridge Program

ROSES Blog

NAC Science Committee

NASA Postdoc Program

More ▼

How To Guide

This page should lower your blood pressure if we do it right. Tell us what would be most useful. [Contact SARA](#).

▪ [NSPIRES guides and hints](#)

How to Keep up With Changes to ROSES & NSPIRES

ROSES, our omnibus solicitation for proposals, is constantly being amended, clarified, and updated. To learn of new program elements that are added and keep up with amendments to existing ones proposers are strongly encouraged to subscribe to:

1. The SMD mailing lists (by logging in at <http://nspires.nasaprs.com/> and checking the appropriate boxes under "Account Management" and "Email Subscriptions"),
2. The ROSES-2022 blog for amendments, clarifications, and corrections at <http://science.nasa.gov/researchers/sara/grant-solicitations/ROSES-2022/> and
3. The ROSES due date Google calendar. Instructions are at <https://science.nasa.gov/researchers/sara/library-and-useful-links> (link from the words due date calendar).

Finally, please review the frequently asked questions about ROSES at <http://science.nasa.gov/researchers/sara/faqs/>.

For Researchers

- > [Advisory Committees](#)
- > [Announcement of Opportunity](#)
- > [Community Town Hall Meetings](#)
- > [Dual-Anonymous Peer Review](#)
- > [Grant Stats](#)
- > [How To Guide](#)
- > [Library and Useful Links](#)
- > [NASA Workforce Study](#)
- > [New PI Resources](#)
- > [No Due Date Programs](#)
- > [OSDMP FAQ \(ROSES-2023\)](#)
- > [Old \(ROSES-2022\) DMP FAQ](#)



Library (and useful links)

Documents

- ✓ [PSD Technology Plan](#)
- ✓ [ISFM Implementation Plan](#)
- ✓ [Astrophysics Division Inclusion Plan Pilot Program – February 2022](#)
- ✓ [NASA Guidelines for Promoting Scientific and Research Integrity](#)
- ✓ [NSPIRES team member commitment guide](#)
- ✓ [SMD Policy on Peer Review Conflicts of Interest \(SPD-01A\)](#)
- ✓ [SMD Policy on Late Proposals \(SPD-02A\)](#)
- ✓ [SMD Policy on Reconsideration \(SPD-09C\)](#)
- ✓ [SPD 15 Center Community Service Policy](#)
- ✓ [SPD-16 Civil Servant Peer Review Conflict of Interest](#)
- ✓ [SMD Policy on Peer Review \(SPD-22\)](#)
- ✓ [SPD-26B Communications for Missions \(updated and signed\)](#)
- ✓ [SPD-29 External Websites, Original with Erratum](#)
- ✓ [SPD 31 Student Collaboration](#)
- ✓ [SPD-33 Citizen Science](#)
- ✓ [How to Submit a Step-1 Proposal](#)
- ✓ [How to Submit a Step-2 Proposal](#)
- ✓ [How to Subscribe to the ROSES-2023 Due Date Calendars](#)
- ✓ [ROSES Peer Review plenary example slides 2021](#)
- ✓ [Example ROSES Panel evaluation](#)
- ✓ [SMD Codes of Conduct for Review Panels](#)

For Researchers

- > [Advisory Committees](#)
- > [Announcement of Opportunity](#)
- > [Community Town Hall Meetings](#)
- > [Dual-Anonymous Peer Review](#)
- > [Grant Stats](#)
- > [How To Guide](#)
- > [Library and Useful Links](#)
- > [NASA Workforce Study](#)
- > [New PI Resources](#)
- > [No Due Date Programs](#)
- > [OSDMP FAQ \(ROSES-2023\)](#)
- > [Old \(ROSES-2022\) DMP FAQ](#)
- > [Program Officers List](#)
- > [ROSES Blog](#)
- > [ROSES Budget Redaction](#)
- > [ROSES FAQ](#)
- > [Scientific Information Policy](#)
- > [Solicitations and Announcements](#)
- > [Volunteer to Review Proposals](#)
- > [Work-Life Balance](#)

LET'S TALK RESEARCH

**Beyond NSF:
United States Department of Agriculture
(USDA)**

**PRESENTED BY: DR. RYAN CAMPBELL
ASSOCIATE DIRECTOR & INTERIM CURATOR
CENTER FOR ARCHAEOLOGICAL INVESTIGATIONS, SIUC**



CENTER FOR ARCHAEOLOGICAL INVESTIGATIONS

618-453-5031
mjwagner@siu.edu

About CAI

Faculty and Staff

Research

Curation

CAI in the News

Contact Us

Contact Us

**Center for Archaeological
Investigations**

Faner Hall, Mail Code 4527
Carbondale, IL 62901
618-453-5031 | F: 618-453-8467
mjwagner@siu.edu



The **Center for Archaeological Investigations (CAI)** is the premiere archaeological research center in southern Illinois. Our research staff are focused on developing research projects that provide students with experiential learning opportunities to help prepare them for careers in archaeology and related fields. Since 1978, the CAI's research agenda has been recognized internationally for the contributions that our staff have made within the field of archaeology.

The **CAI** is committed to protecting and understanding the cultural patrimony of the Americas and to facilitating national and international archaeological research. To fulfill these goals, we have a [C.O.R.E. Mission](#), which includes Curation, Outreach, Research, and Education...[read more>>](#)

JOIN OUR PROGRAM!

APPLY NOW

FIELD SCHOOL



Each summer, the CAI in collaboration with the Department of Anthropology offers a course in archaeological field methods...

[Read More](#)

CURRENT RESEARCH





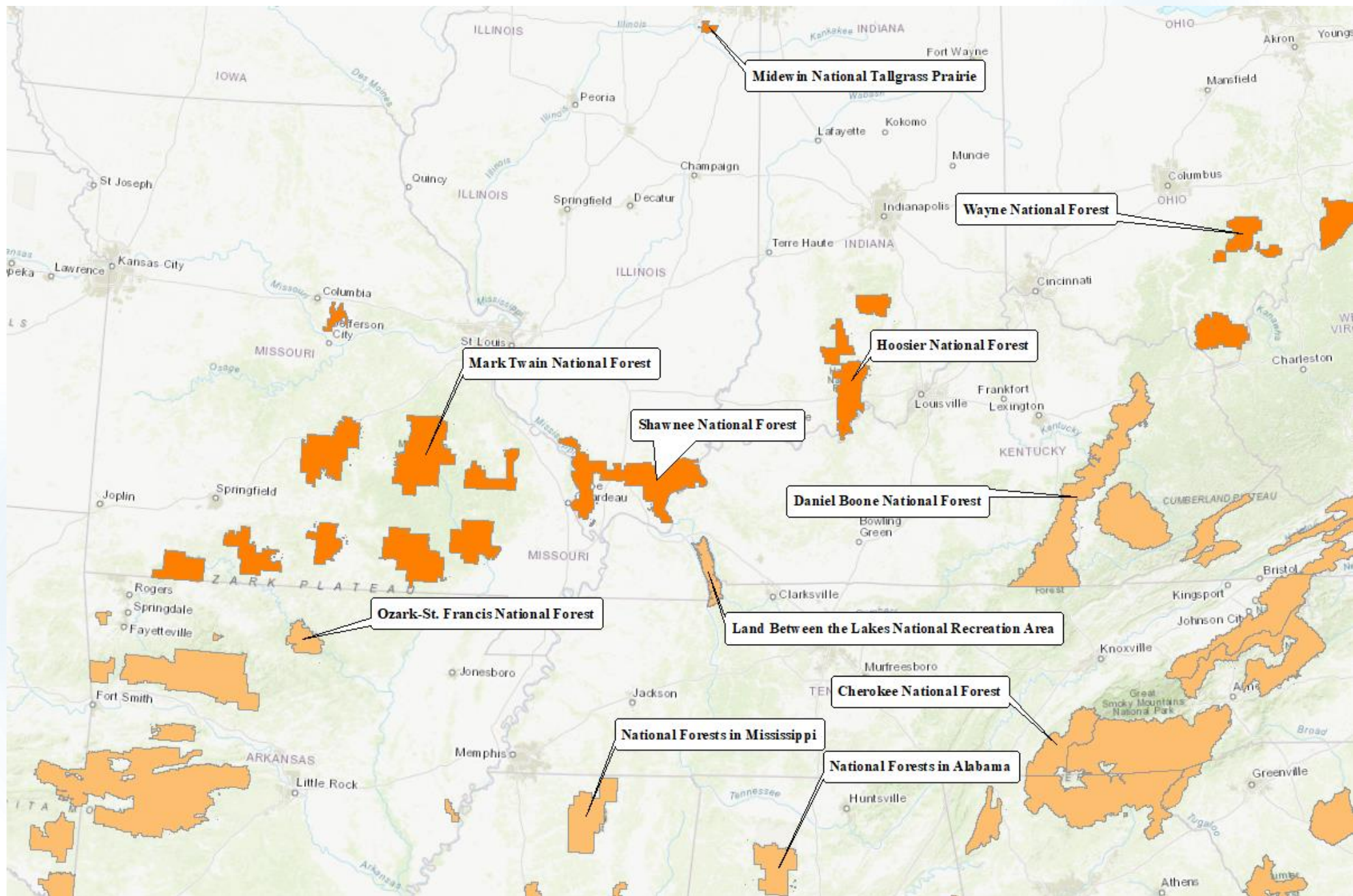
**United States
Department of
Agriculture**

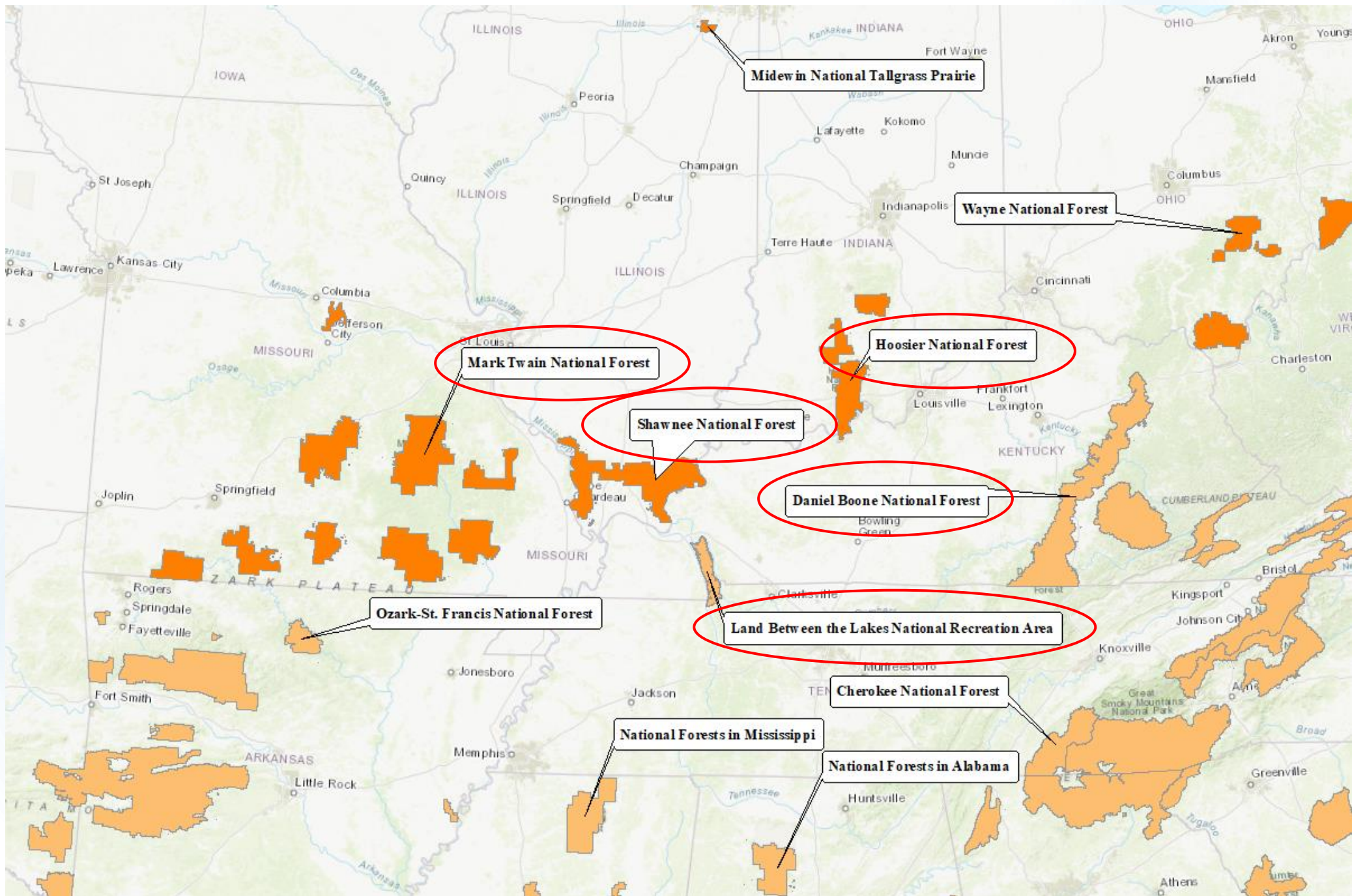




- ▶ The mission of the Forest Service is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

Motto: Caring for the Land and Serving People





NEPA – National Environmental Policy Act

79

NEPA requirements provide agencies with funding source for research

Environmental Assessment (EA) – a comprehensive study that identifies environmental impacts of land development. Each Agency has their own procedures for EAs.



SIU
CARBONDALE

The NEPA umbrella

80



- Clean Air Act
- Clean Water Act
- Environmental Justice Executive Order
- Noise ordinances
- U.S. Department of Transportation Act of 1966; Section 4(f)
- Section 106 of the National Historic Preservation Act
- Contaminated materials and substances
- Endangered Species Act
- Coastal Zone Management Act
- Migratory Bird Treaty Act
- Protection of Wetlands Executive Order
- Patuxent Research Refuge Executive Order
- Floodplain Management Executive Order
- Federal Flood Risk Management Executive Order
- Limited English Proficiency Executive Order
- Military Construction and Appropriations Act
- State Environmental Laws
- Local Environmental Laws

USDAFS Projects Requiring NEPA review

81



Prescribed fire



Logging



Trail maintenance

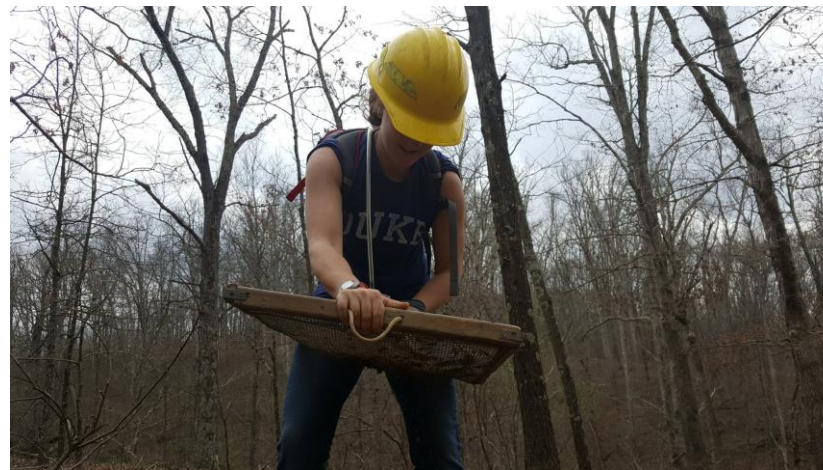


Campground and recreation areas

NEPA Review – Areas (Opportunities)

82

- ▶ Botany
- ▶ Wildlife
- ▶ Fisheries
- ▶ Soils
- ▶ Hydrology
- ▶ Archaeology (Heritage)
- ▶ Timber
- ▶ Lands
- ▶ Recreation
- ▶ Visual Impacts



KNOW YOUR PROGRAM MANAGER

- ▶ Heritage Program – Archaeology
- ▶ Natural Resource Program – Botany, Wildlife, Fisheries, Soils, Hydrology
- ▶ Recreation Program
- ▶ Lands Program – Realty
- ▶ Engineering Program
- ▶ Timber Program – Forestry

► **Master Participating Agreement**

- Outlines the framework for each project conducted
- Work with Program Manager and OSPA to develop.
- Challenge Cost-Share Agreements
 - Require 20% matching funds – i.e. matching salary and overhead
- Public Land Corps Act – allows students who work on these projects to receive PLC noncompetitive hiring status after 640 hours of work on Forest Service project.

► **Supplemental Project Agreement (SPA)**

- Includes a list of specific goals (tasks) to be completed under the grant
- Financial Plan (Budget)
- Proposals for each SPA should be brief and include enough information to justify the project goals.
- Submitted through OSPA with

Tips:

- ▶ Get to know the Program Manager for your research area
- ▶ Learn the Agency's Lingo - Acronyms
- ▶ Be Flexible and Adjust Your Research Design to Meet the Needs of the Agency
- ▶ Be of Service – Consider your knowledge and research skills to be a service that you are providing to the agency
- ▶ Coordinate with other researchers at SIU to more effectively assist the Forest Service

LET'S TALK RESEARCH

Beyond NSF: United States Environmental Protection Agency (USEPA)

PRESENTED BY: DR. JIA LIU

ASSOCIATE PROFESSOR, SCHOOL OF CIVIL, ENVIRONMENTAL AND INFRASTRUCTURE
ENGINEERING, SIUC



Outline

- How grants help EPA achieve its mission
- Types of grants awarded by EPA
- Examples of EPA grant programs and applications



Grants Support EPA's Mission

- ▶ EPA partners with state, tribal, and local governments; institutions of higher education; non-profit organizations; and other eligible entities to **protect human health and the environment**. EPA's systematic process of awarding federal grants helps EPA leverage local expertise that is critical to helping the Agency achieve its mission. Every year, EPA awards a significant portion of its budget in grants to its state, tribal, local, educational, non-profit, and other partners.

Generally, EPA's authority to award grants is described in environmental program statutes, including, but not limited to the:

- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or commonly known as Superfund)
- Clean Air Act
- Clean Water Act
- Federal Insecticide, Fungicide, and Rodenticide Act
- Safe Drinking Water Act
- Toxic Substances Control Act



Types of Grants

EPA awards different types of grants under its numerous grant programs:

- ▶ **Discretionary Grants**

In a discretionary grant, EPA retains considerable authority in selecting the recipient, determining the amount of the award, and/or negotiating and approving the grant work plan.

- ▶ **Non-Discretionary Grants**

Also known as formula grants, awarded primarily to state, tribal, and local governments.

- ▶ **Continuing Environmental Program (CEP) Grants**

Most CEP grants are awarded non-competitively to governmental units each year to support ongoing state, tribal, and local environmental programs.

Examples of EPA grant programs and applications

92

- ▶ Research Funding Opportunities: Science to Achieve Results (STAR) Program
- ▶ Great Lakes Funding
- ▶ P3 Program

Specific EPA Grant Programs

<https://www.epa.gov/grants/specific-epa-grant-programs>

Research Funding Opportunities

**Science to Achieve Results (STAR)
Program (0.4 – 2 M)**

National Priorities (1-3.5 M)

**Innovative Water Technology Grant
Program (1 M)**

**Small Business Innovative Research
(SBIR) Program**

Research Grant Areas

- ▶ Air Research Grants
- ▶ Climate Change Research Grants
- ▶ Ecosystems Research Grants
- ▶ Health Research Grants
- ▶ Safer Chemicals Research Grants
- ▶ Sustainability Research Grants
- ▶ Water Research Grants

**Research
Funding Opportunities**



Science to Achieve Results (STAR) Program



94

- ▶ A competitive, peer-reviewed research program that provides access to the nation's best scientists and engineers in academic and other nonprofit research institutions.
- ▶ The STAR program funds research on the environmental and public health effects of air quality, environmental changes, water quality and quantity, hazardous waste, toxic substances, and pesticides.
- ▶ Since its inception in 1995, EPA's STAR program has **awarded more than 7,600 research grants** nationwide. The program funds individual research projects and establishes large research centers (2-10 M) in specific areas of national concern.
- ▶ Additionally, the STAR program supports the development of researchers and young scientists across their careers through regular and early career research opportunities.

Great Lakes Funding

Great Lakes
RESTORATION



95

- ▶ Includes competitive grant funding for planning, research, monitoring, outreach and implementation projects in furtherance of the Great Lakes Restoration Initiative and the Great Lakes Water Quality Agreement (e.g., 0.5 - 6 M)
- ▶ **Focus areas**
 - Toxic Substances and Areas of Concern
 - Invasive Species
 - Nonpoint Source Pollution Impacts on Nearshore Health
 - Habitats and Species
 - Foundations for Future Restoration Actions

P3 Program



96

- ▶ P3 stands for People, Prosperity and the Planet
- ▶ P3 is a competitive grants program that provides opportunities to teams of undergraduate and graduate students.
- ▶ P3 has transitioned to a single phased program, with awards of individual grants of \$75,000 for two years.
- ▶ These projects promote a shift towards more environmentally benign products, processes, and systems with the aim of improving quality of life, promoting economic prosperity, and protecting the planet.
- ▶ Since 2004, The P3 program has involved thousands of students and provided more than \$18 M in **funding for over 800 projects**, at more than 330 institutions in all 50 states and Puerto Rico.

- ▶ 20th Annual P3 Awards: A National Student Design Competition Focusing on People, Prosperity and the Planet Request for Applications (RFA)
- ▶ Solicitation Opening Date: **October 4, 2022**
Solicitation Closing Date: **February 1, 2023: 11:59:59** pm Eastern Time

► **PFASs Removal by Photocatalysis for Water Reuse**

EPA Grant Number: SU839460 (Phase I), SV840022 (Phase II)

Phase I: \$14,959, Phase II: \$75,000

15th Annual P3 Grant

Awarded to: Jia Liu, Michael J. Lydy, Boyd Goodson, Jane Geisler-Lee

Student Investigators: Chunjie Xia, Md Hadiuzzaman, Andrew Derby, Max E. Gemeinhardt, Tristin Eckert, Kierstin Lipe, Fengtian Gu

► **HAB Early Mitigation by Magnetic Photocatalysts**

EPA Grant Number: SU840174 (Phase I), SV840420 (Phase II)

Phase I: \$24,991, Phase II: \$100,000

17th Annual P3 Grant

Awarded to: Jia Liu, Ruopu Li, Ning Yang (previously: Kang Chen), Boyd Goodson

Student Investigators: Chunjie Xia, Pratima Adhikari, Sudip Baral, Ishani M. Senanayake, Margaret D. Pugh, Luis Prado, Bader A. Alshammari, Nafeesa Khan, Sushmita Regmi, Di Wu, Emily O'Brien, Elle E. Lanier

- ▶ Funding Opportunity Announcement
 - 15th: Solicitation Opening Date: December 21, 2017*
Solicitation Closing Date: February 7, 2018
 - 17th: Solicitation Opening Date: October 1, 2019*
Solicitation Closing Date: November 19, 2019

P3-Q1 - Air Quality

P3-Q2 - Safe and Sustainable Water Resources

P3-Q3 - Sustainable and Healthy Communities

P3-Q4 - Chemical Safety

Proposal Preparation

e.g., 56 Pages for Phase I; 84 Pages for Phase II

- ▶ Application for Federal Assistance SF-424 Form
- ▶ Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance
- ▶ EPA Key Contacts Form (only Phase II)
- ▶ Budget Information Form (only Phase II)
- ▶ Project Narrative Files
- Table of Contents
- Abstract (2 pages) (only Phase I)

▶ **Phase I**

▶ Research Plan (12 pages)

- ▶ Section 1: Proposed Research
- ▶ Section 2: Relationship of Challenge to Sustainability (P3)
- ▶ Section 3: Educational and Interdisciplinary Aspects of Research
- ▶ Section 4: Project Management
- ▶ Partnership

Phase II

EXECUTIVE SUMMARY (5 pages)

- A. Description and Objective of Research
- B. Summary of Results (Outputs/Outcomes)
- C. Conclusions
- D. Proposed Phase II Objectives and Strategies
- E. Publications/Presentations
- F. Supplemental Keywords
- G. Relevant Websites

Phase II

BODY OF THE PROJECT REPORT

A. Summary of Phase I Results (6 pages)

B. Proposal for Phase II - P3 Phase II Project Description (9 pages)

Proposal Quality (Innovation; scientific soundness, feasibility, appropriateness, and trade-offs; goals and objectives; end users; partnerships)

Relationship of Challenge to the P3 Approach (Embodiment of the P3 approach; Benefit from environmental and economic outcomes; Implementation, adoption, transferability, and viability)

Educational and Interdisciplinary Aspects of Research (Educational benefits; Plan, audiences, teaching methods and materials; Demonstration of appropriateness for an interdisciplinary team)

Budget and Project Management

Quality Assurance Statement (2 pages)

Scientific Data Management Plan (2 pages)

References

SUPPORTING DOCUMENTATION

Letters of Intent/Support (e.g., 6 letters)

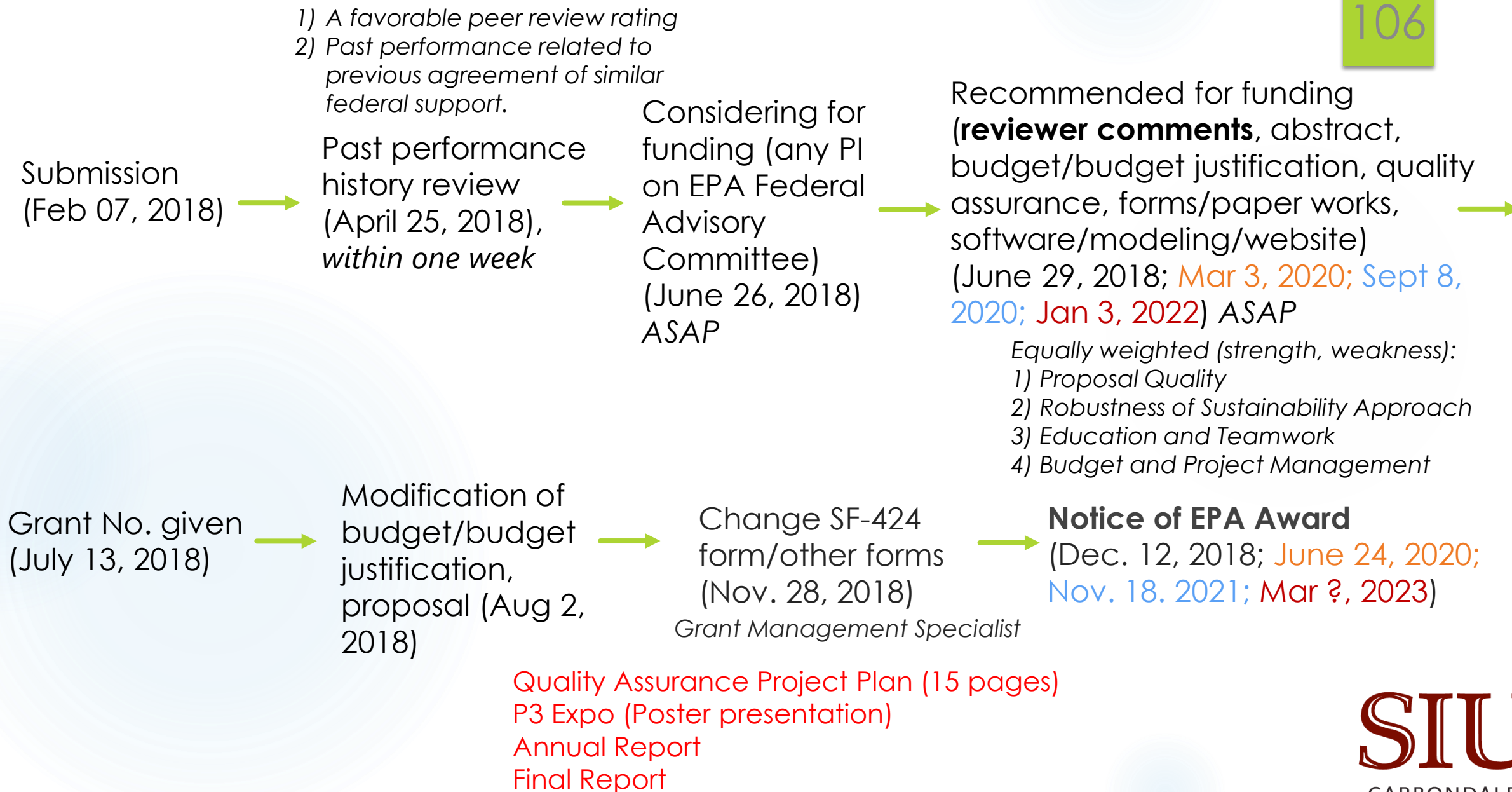
BUDGET

BUDGET JUSTIFICATION

RELEVANCE (1 page, only Phase II)

RESUMES (2 page/person)

CURRENT AND PENDING SUPPORT



► **P3 Program Contact**

Angela Page (page.angelad@epa.gov)
Office of Science Advisor, Policy & Engagement
Office of Research and Development
Washington, DC
Telephone: 202-564-7957

Hayley Aja (spatz.kyle@epa.gov)
Project Officer, Extramural Research Branch

Kyle Spatz (aja.hayley@epa.gov)
Program Analyst, Extramural Research and Partnerships; Research and Development;
Science Advisor, Policy and Engagement; Equitable Resilience Builder

- ▶ Sign up for the Research Grants Listserv at
<https://www.epa.gov/research-grants/research-grants-listserv>



Thank you for
your attention.

QUESTIONS?