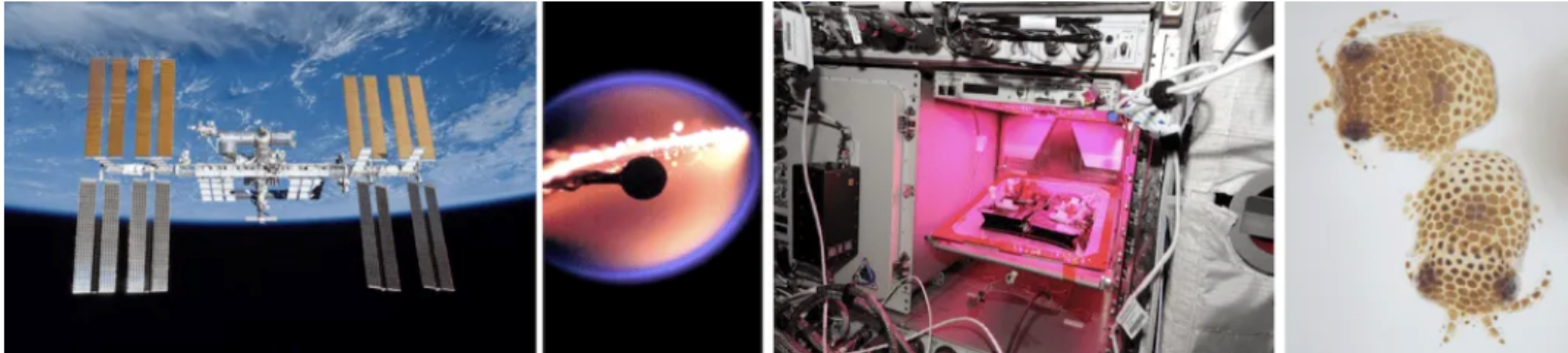




ASGSR Decadal Survey Workshop Series



A once in a decade opportunity....



Over the next two years the National Academies of Science, Engineering and Medicine (NASEM) will be developing the next [Decadal Survey on Life and Physical Sciences Research in space 2023-2032](#), which will serve as a critical framework to shape the upcoming vision and strategy plan for NASA's research efforts in the area of biological and physical sciences in space.

The NASEM Decadal Survey committee will be reviewing the current state of knowledge in areas of space-related biological and physical sciences research, identify the most compelling scientific challenges and frontiers within Biological and Physical Sciences in Space Research, and develop a comprehensive research strategy to advance these areas of NASA's portfolio. The full description of the NASEM Statement of Task [can be found here](#).

To facilitate the development of this survey, the American Society for Gravitational and Space Research (ASGSR) is collaborating with [KnowInnovation](#) hosting a series of workshops to help foster community-wide discussions within and across biological and physical science disciplines. Our primary goal of these workshops is to identify potential Research Campaign issues, or those potentially transformative research topics that could not be done with a normal single grant and that will drive the momentum into potential new and cross-disciplinary areas.

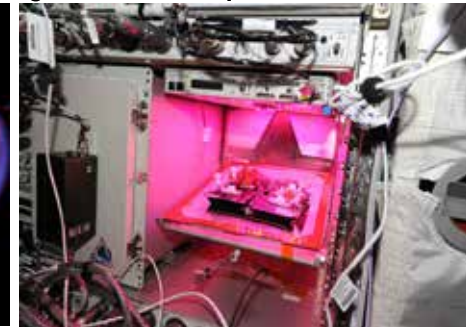
Jamie Foster,
President-Elect, ASGSR
Email: jfoster@ufl.edu

<https://asgsr.org/decadal-survey/>



Partnering with

KNOWINNOVATION



1. Virtual Topical Town Halls

A. Pre-recorded knowledge talks available for participants to familiarize with topics

B. Pre-recorded Plus10 Videos (~5 for each topic) available to watch before town hall

A researcher pretends they are presenting at **ASGSR 2030** and talks about their research results – leaving gaps where the current technology/methods might be lacking

C. At Town Hall start the discussions on how to fill those gaps in the Plus10 talks

Ask the audience what other frontiers of research they see based on current technology and try to identify major question in that area that represent important frontiers

Topics Include:

Animal, Plant, Microbiology, EDIE, Fluid Physics, Complex Fluids, Biophysics, Materials, Combustion and Fundamental Physics



2020 ASGSR Decadal Survey Workshop Series

<https://asgsr.org/decadal-survey/>

Partnering with



**Overall Goal for Town Halls:
Narrow in on the larger Research Campaigns**

1. Virtual Topical Town Halls

- The goal of these Virtual Town Hall events is to engage the larger Biological and Physical Sciences in Space research community and to identify key subjects and larger research campaigns that should be submitted to the Decadal Survey effort as Concept Papers.
- The ideas that are derived from these town halls will be used as a foundation for a series of smaller MicroLab Idea workshops that will occur in December 2020 and January 2021.
- All academic levels are welcome to participate and submit ideas for discussion topics in the Town Halls. You are welcome to participate in multiple events as cross discipline thinking is strongly encouraged.
- Town Halls will be offered in the following categories of Biological and Physical Sciences in Space: Animal, Plant, Microbiology, Fluid Physics, Complex Fluids, Materials, Combustion and Fundamental Physics. Additionally, we will offer a Town Hall focused on Educational topics as well as Diversity, Equity and Inclusion in the Space Sciences.

Want to learn more about these topics?

Please click the button to see talks about current capabilities, space access platforms and a series of Plus10 talks of where some researchers may see their work in 10 years' time.

[Decadal Talks Page](#)

[Register here](#)

Virtual Topical Town Halls 2020

Animal Research:

Nov 12 16:00–18:00 Central

Plant Research:

Nov 17 16:00–18:00 Central

Microbiology Research:

Nov 19 16:00–18:00 Central

Education, Diversity, Inclusion and Equity:

Nov 20 16:00 – 18:00 Central

Fluid Physics; Complex Fluids; Biophysics:

Dec 1 16:00 – 18:00 Central

Materials; Combustion; Fundamental Physics:

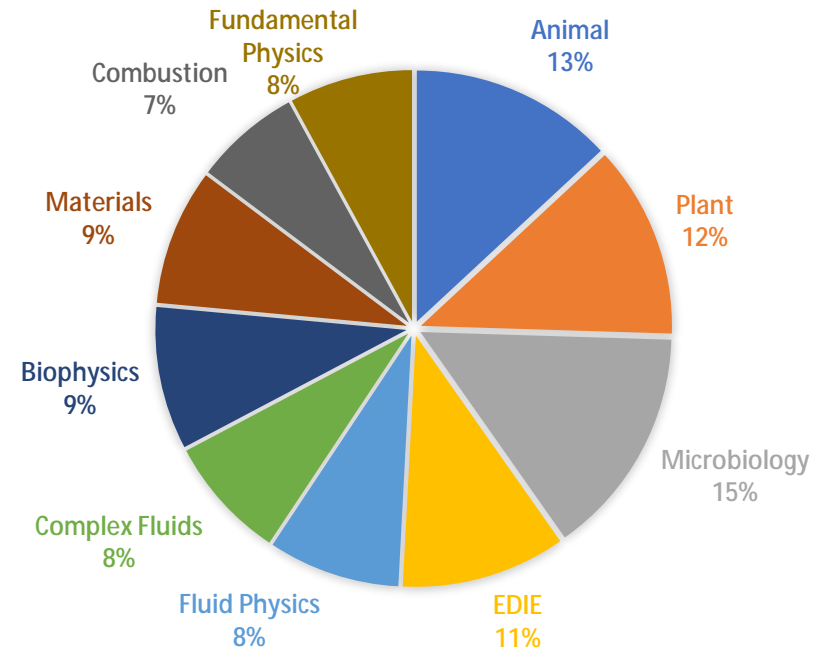
Dec 3 16:00 – 18:00 Central

Outcome Goal of Town Halls: 1) Stimulate discussion; 2) identify vocal and engaged participants; 3) begin to home in on the major research campaign ideas

1. Virtual Topical Town Halls – registration data as of 10/23/20



Career Stage



Town Hall	Participants
Microbiology	106
Animal	94
Plant	89
EDIE	76
Biophysics	66
Materials	63
Fluid Physics	61
Complex Fluids	57
Fundamental Physics	57
Combustion	49
Grand Total	718

~3 town
halls per
person



2020 ASGSR Decadal Survey Workshop Series

<https://asgsr.org/decadal-survey/>

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ASGSR Decadal Survey Workshop Series

Below are the ASGSR-led Town Hall series of technology and forward-thinking talks that can be viewed prior to the start of each Town Hall. After watching the videos, please answer the following: **In your opinion what are the most important ideas or future directions for the next 10 years in Biological and Physical Space Sciences?** Please keep your ideas concise but also specific. Also, most importantly please think beyond your immediate comfort zone as you imagine the great breadth of information needed to achieve long-duration missions to space. Please submit your answers (and keep a copy for yourself) to the Town Hall event.

Animal-Based Research

The ASGSR-led Town Hall for issues related to **animal-based** research in the space life sciences will be held **Nov 12, 2020**.

[Link to the Animal-themed Research Talks](#)

After watching the videos, click the link below to take you to the survey form.

[Submit your ideas](#)

Plant-Based Research

The ASGSR-led Town Hall for issues related to **plant-based** research in the space life sciences will be held **Nov 17, 2020**.

[Link to the Plant-Based Research Talks](#)

After watching the videos, click the link below to take you to the survey form.

[Submit your ideas](#)

Microbiology-Based Research

The ASGSR-led Town Hall for issues related to **microbiology-based** research in the space life sciences will be held **Nov 19, 2020**.

[Link to the Microbiology-themed Research Talks](#)

After watching the videos, click the link below to take you to the survey form.

[Submit your ideas](#)



ASGSR Decadal Survey Town Hall Talks

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Uploads



Plus10 - Chimeric Animals

4 views · 3 days ago

Alysson Muotri discusses using chimeric animals for future Space Biology research

<https://asgsr.org/decadal-talks/>



ASGSR Animal-Research Town Hall

In your opinion, what are the most important ideas or future directions for the next 10 years in Animal Research related to the field Space Life Sciences? What do you envision as a major Research Campaign for Biological and Physical Space Sciences? Please keep your answers concise but also specific. Also, most importantly please think beyond your immediate comfort zone as you imagine the great breadth of information needed to achieve long-duration missions to space.

Please keep a copy of your questions so that you have them available to you during the workshop.

Question or Research Campaign Idea 1

Question or Research Campaign Idea 2

Question or Research Campaign Idea 3

[Print](#)

[Submit](#)

Town Hall Format – logistics by KnowInnovation

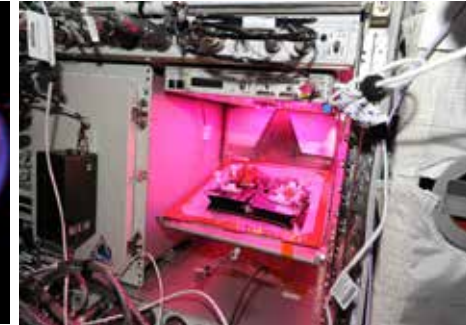
10 min plenary – all participants

Two 45 min break out sessions with 6-8 people each

Ideas and outline gathered in Google Doc



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2. Post-Town Hall Community Surveys (Dec - Jan)

A. Survey all Town Hall participants using a KnowInnovation online platform - Asana

Essentially virtual post-it notes – collected for two weeks after Town Halls.

Asana Platform - Online repository for community ideas

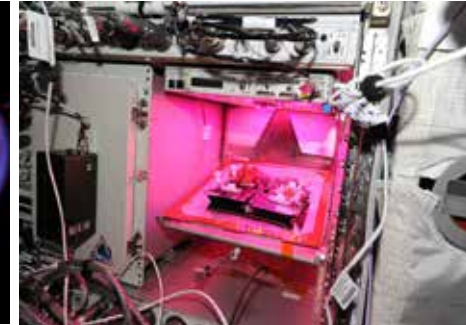
B. Information will be collated, and those larger campaign ideas will serve as the major focus point of the smaller Micro-labs

Anticipate identifying a minimum of 10—15 larger campaign ideas for white papers

Outcome Goal of Surveys: 1) Identify those participants who are very active and invite them to the MicroLab; 2) Identify those larger emerging ideas for each topical areas (e.g. plant research, microbiology, combustion)



Partnering with
KNOWINNOVATION



3. MicroLabs – Highly Interactive workshops (2– 3 h; January)

A. Invite most active participants in Town Halls and Surveys from a wide range of career stages to participate in the Knowinnovation MicroLab workshops

Anticipate ~100 participants in each of the topical MicroLabs
topical researchers and technology experts will be included

Participants will participate in a series of break out groups and share information with
larger MicroLab

B. Using the major campaign ideas from the Town Halls and Surveys to start developing critical areas that need to be represented in the Decadal Survey

Outcome Goals of MicroLabs: 1) Identify the Champions who will lead the major campaign Concept Paper writing effort; 2) Generate outlines for the larger Research Campaign Ideas and identify the writing team.

Follow Up - From February – May 2021 ASGSR will follow to ensure ideas have been captured in concept papers.