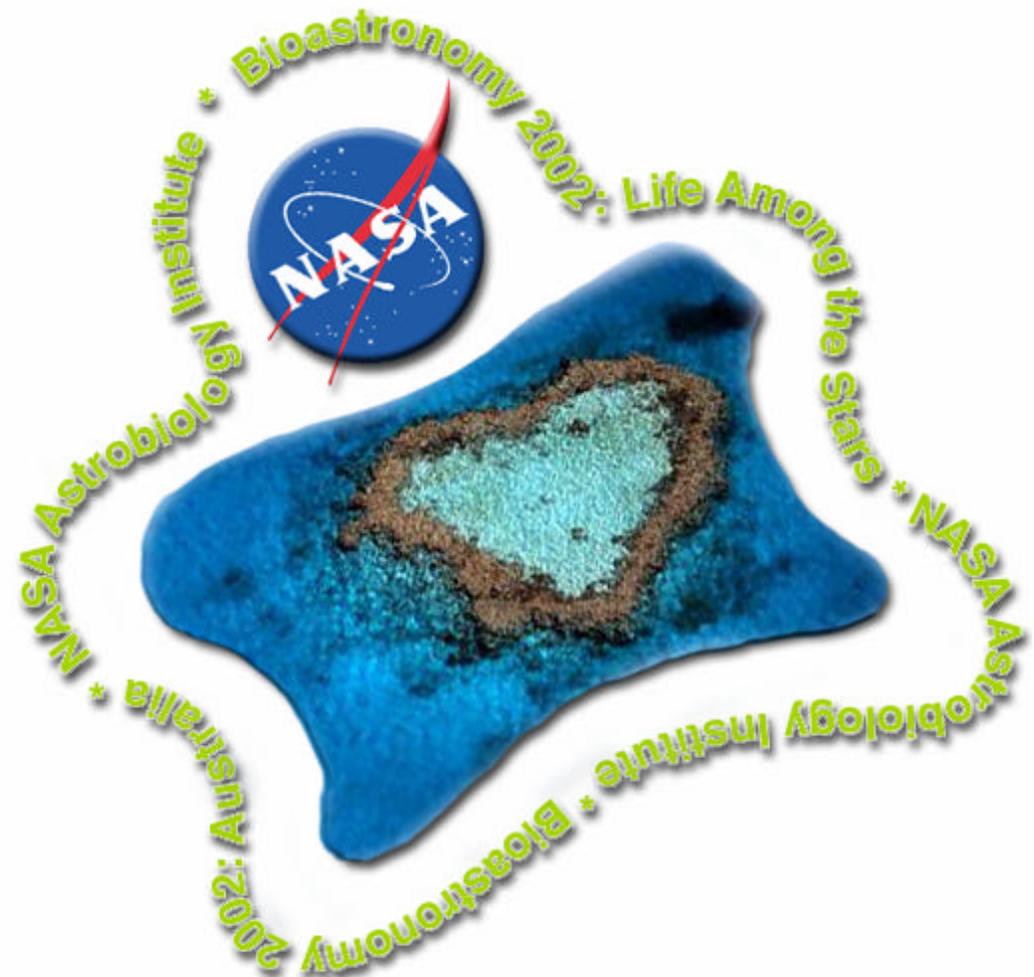


The NASA Astrobiology Institute: Reaching Within and Beyond

Bioastronomy 2002: Life Among the Stars

July 8-12, 2002

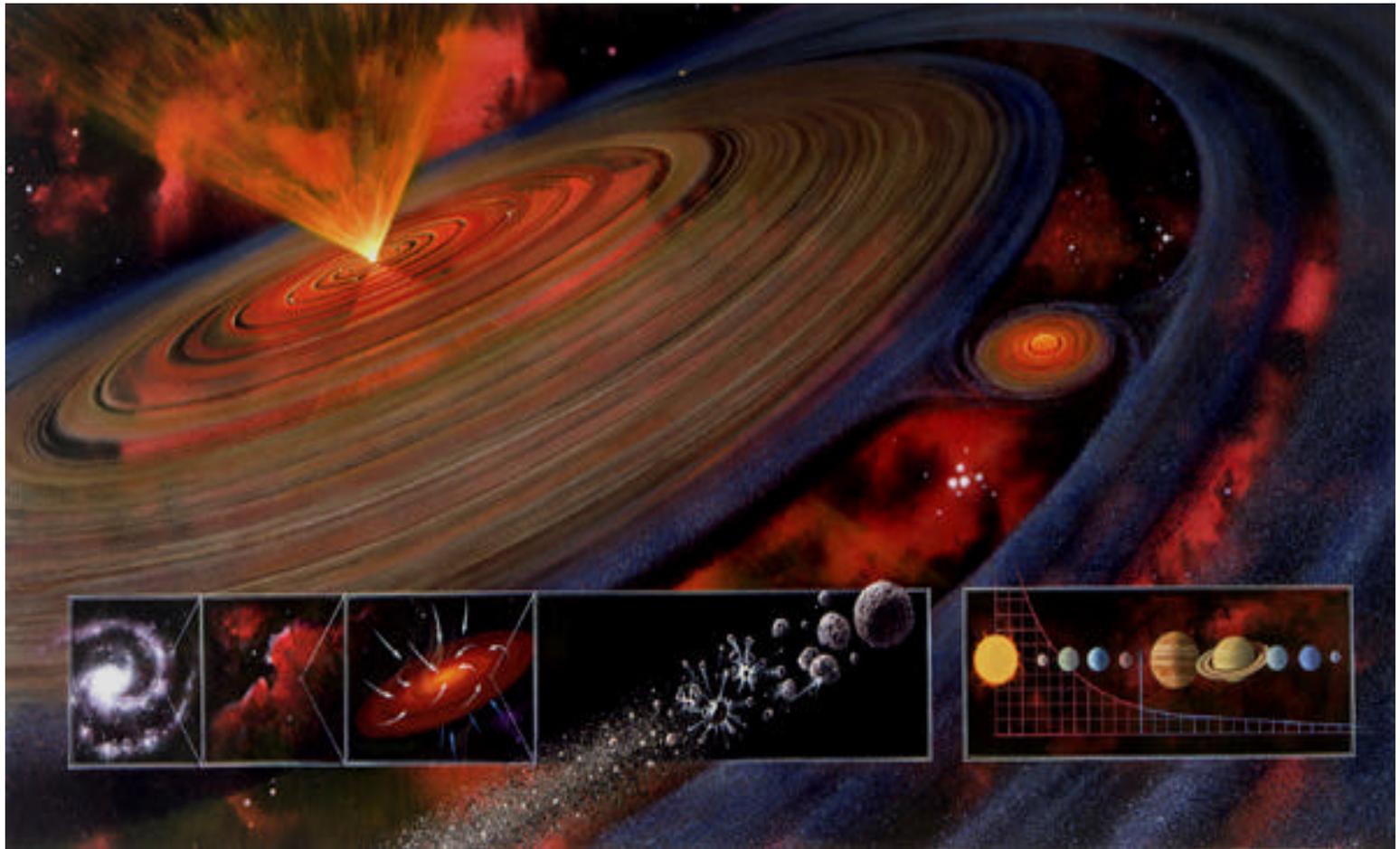
Rosalind A. Grymes,
Deputy Director
Kristina Wilmoth,
Education & Public
Outreach Manager
NASA Astrobiology Institute





Habitable Worlds

NASA Astrobiology Institute



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BioAstro
July 8, 02
[KW:jf]



Early Earth

NASA Astrobiology Institute



3

BioAstro
July 8, 02
[KW:jf]



Emergence of Life

NASA Astrobiology Institute



Artist: Peter Sawyers © NASA, Smithsonian



Life on Earth...

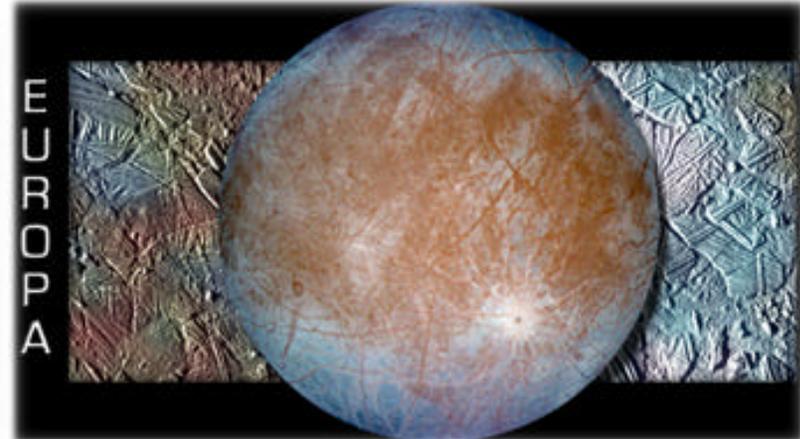
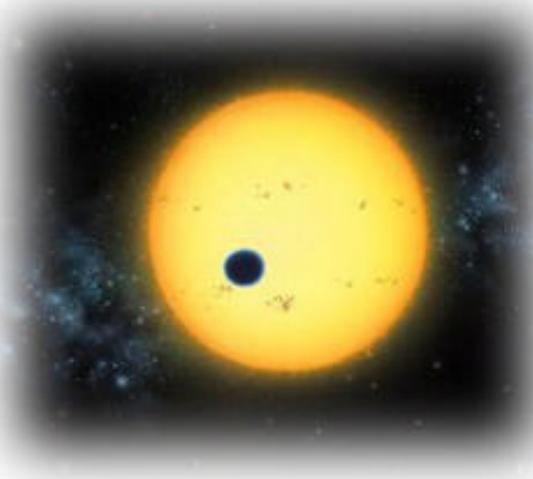
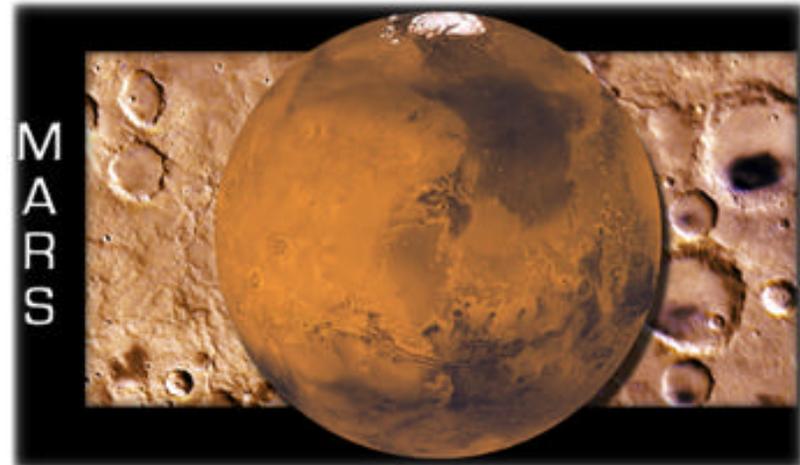
NASA Astrobiology Institute





... and Beyond

NASA Astrobiology Institute



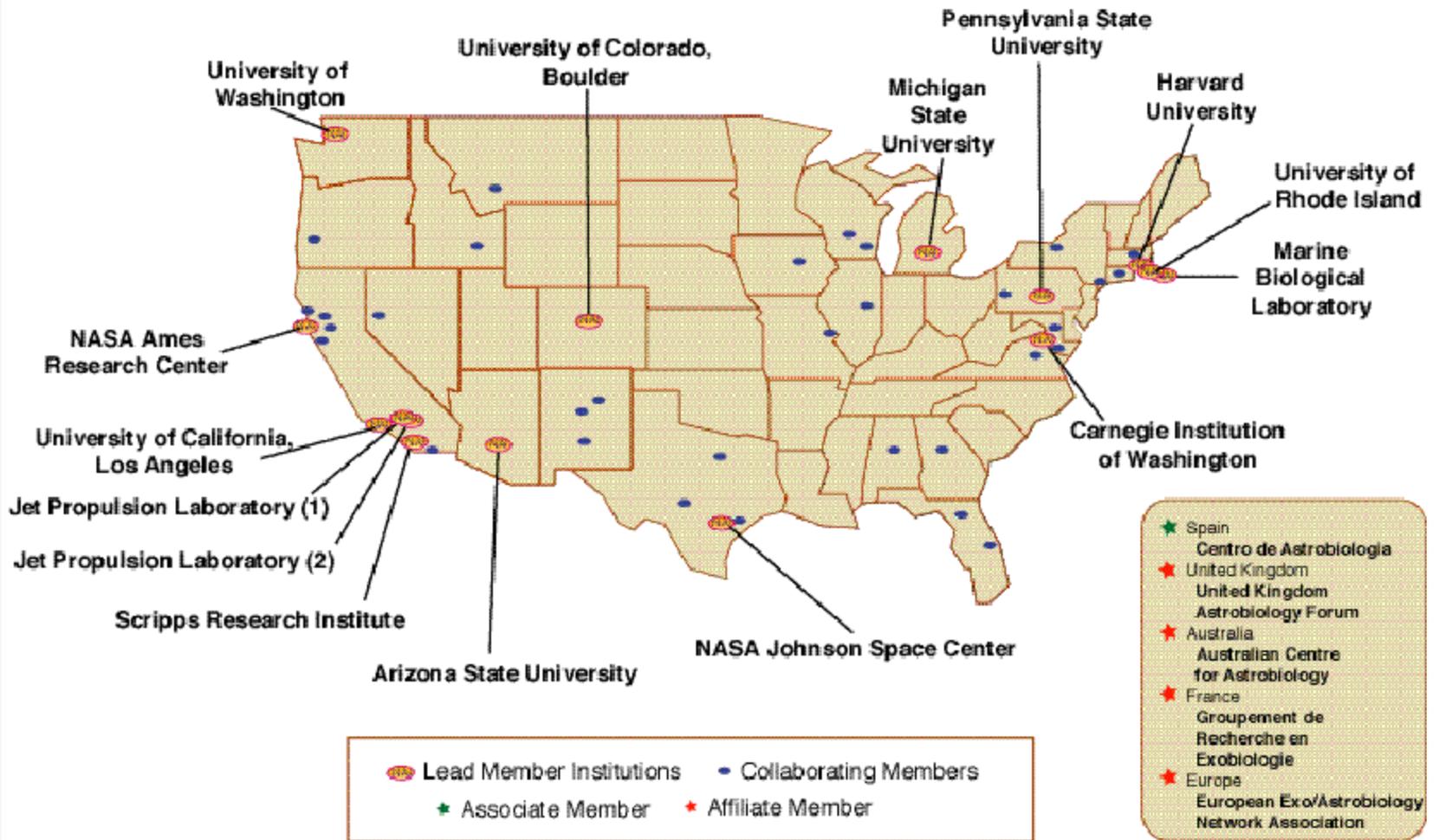
6

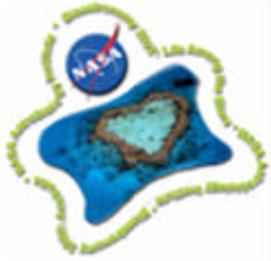
BioAstro
July 8, 02
[KW:jf]



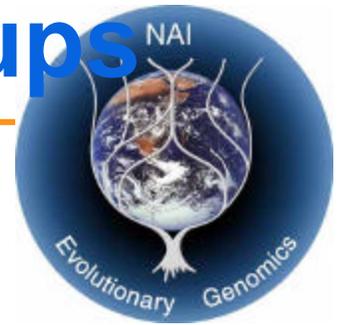
Map

NASA Astrobiology Institute



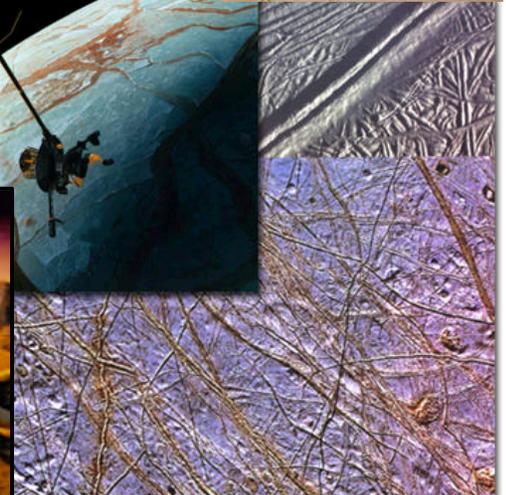


Connecting the Scientific Community: NAI Focus Groups



NASA Astrobiology Institute

- Ecogenomics
- Mission to Early Earth
- Mars
- EvoGenomics
- Europa
- Astromaterials
- Titan





Connecting Education Communities: NAI EPO

NASA Astrobiology Institute

Astrobiology is a growing community

Growing communities need new members

Astrobiology is inter-generational science

Training is an inherent part of our mission

**Science literacy is an
important part of our future**

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[KW:jf]



NAI EPO Involvement

NASA Astrobiology Institute

- An individual or two is identified to lead education and public outreach projects and programs at each of our Lead Teams
- The EPO Leads then solicit involvement from other researchers on their team
- Together, they create materials and programs to present Astrobiology in their communities

ASU



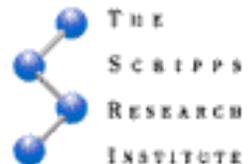
JPL

UCLA



University of Rhode Island

UNIVERSITY OF WASHINGTON



Colorado



MICHIGAN STATE UNIVERSITY

CARNEGIE INSTITUTION OF WASHINGTON



NAI Education & Public Outreach Program

- Formal Education
 - Teachers & Students
 - Informal Education
 - Museums & community groups
 - Public Outreach
 - Media & other public communications
 - Local, national, and even international where possible
- **Multi-pronged approach contributing to science literacy (and to general awareness of astrobiology)**



Formal Education

NASA Astrobiology Institute



- Educator's Resource Guide
- Set of 5 activities
- Grades 5-10
- Available in pdf on our website for download (available to the international community)

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[KW:jf]



Formal Education

NASA Astrobiology Institute



Astronomy
Biology
Geology
Atmospheric Science

- Online, interactive astrobiology mission
- Students learn about and build habitable planets
- Career information

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Formal Education

NASA Astrobiology Institute

- Contribute to other curriculum projects
- Teacher Workshops
- Student Workshops



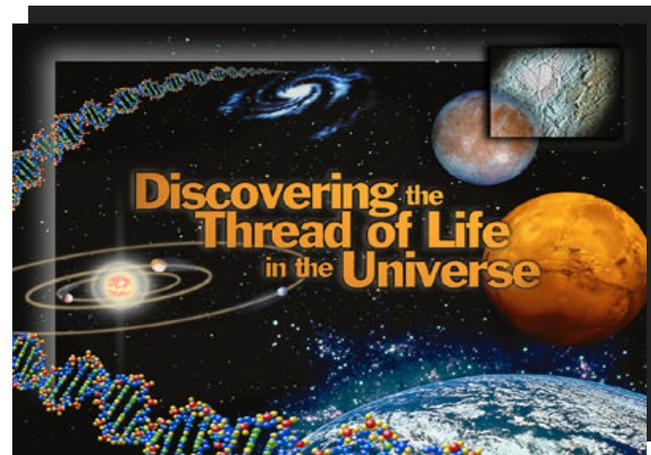
NSA





Informal Education & Public Outreach

- Museums
 - Workshops and lectures
 - Exhibits
 - Planetarium shows
- Youth, Adult & Community Groups
 - Talks and presentations at Scout meetings, Rotary clubs, science clubs
 - Elderhostels
- Media and Public Broadcasting
 - Television programs
 - Press conferences
 - Newspaper and magazine articles
 - Book publications
 - Presentations to media producers





NAI EPO Assumptions

- **Scientists need to be involved in EPO**
- **Impact on research time must be minimized**
- **Astrobiology has broad application**
- **Partnership & Collaboration are essential for success**



Motivation for Scientists' Involvement

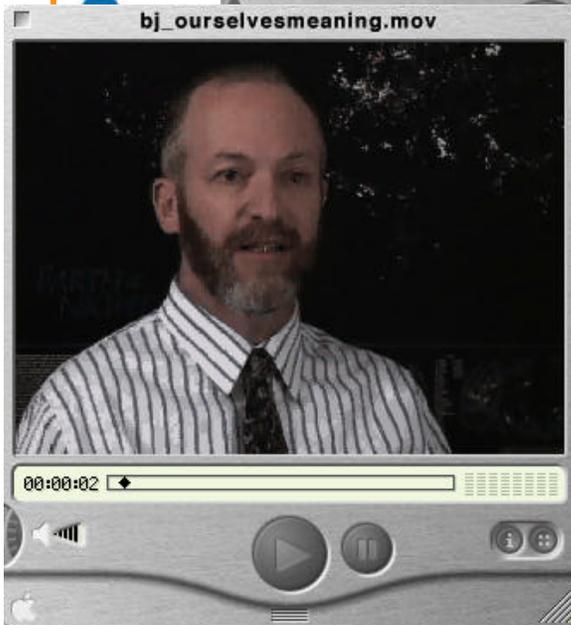
- Scientists involvement should improve science education by bringing current and accurate scientific information to education
- Required by some funding sources
- Helps build societal recognition of importance of science (leading to crucial dollars for support)
- Brings future collaborators and researchers who will make the new discoveries





Astrobiology in Action: Video Collection Project

NASA Astrobiology



- Minimize impact on research time
- Provide many products/uses
- Can be tailored for multiple audiences
- Bring researchers into more classrooms/venues
- Offer critical role models



NAI's EPO Connections

NASA Astrobiology Institute

The screenshot shows the NASA Astrobiology Institute website. At the top, it says "NASA ASTROBIOLOGY INSTITUTE" with the NASA logo. Below that is a search bar and a navigation menu with links for "Seminar Series", "Announcements", "Events", "News Links", and "Features". The main section is titled "ASK AN ASTROBIOLOGIST" and features a "Featured Experts" section with the Penn State logo and the text "Who actually answers your questions? Meet the researchers of the NAI Penn State Lead Team...". Below this is a "Select a Category" dropdown menu. The bottom of the page has two columns: "Featured Questions" with an image of a person in a scuba suit and the text "What would you find at the bottom of the ocean? Explore the newest Hawaiian volcano that is still growing UNDERWATER!...", and "Becoming an Astrobiologist" with the text "Learn more about personalities in Astrobiology." and a logo of green dots.

<http://nai.arc.nasa.gov>



NAI's EPO Career Connections

Biographies and Video Clips

Click on an image to view video clip.

Photo

Name



[Bruce Jakoby](#)



[David Wynn-Williams](#)

Meet David Wynn-Williams, microbiologist at the British Antarctic Survey. Explore his research through his groundbreaking research.



[Robert Hazen](#)



[Teresa Lonergan](#)

[More Profiles](#)

• Career questions led to *Astrobiology Pathfinder*

• Students can find out more about opportunities and courses as well as read/view profiles of current astrobiologists

NASA ASTROBIOLOGY INSTITUTE

Home | Seminal Series | Announcements | Events | News Links | Features

NAI ASTROBIOLOGY PATHFINDER

The Astrobiology Pathfinder will be an interactive database that helps you to find Astrobiology related courses, programs and internships available to you in your local area. You can use these opportunities to chart your path to become an astrobiologist.

How can I become an Astrobiologist?

Choose an Education Level:

Choose a state:

Choose a scientific area of interest:

For Teachers
For Students
Ask an Astrobiologist
Astrobiology@Ames
Related Links
Site Map

Perfo



Astrobiology is popular...

- Hello. I have one question in mind...
 - What do you need for type of "training", to be an astrobiologist, except being a mathematical genius and know a lot about physics? [sic]
 - Asked by: skytrek
- On average, what is the salary of an Astrobiologist?
 - Asked by: keebler

Students think astrobiologists are all geniuses who might be rich too.



Why EPO?

Astrobiology is a growing community: we can assist and enhance this growth through the dissemination of information

Growing communities need new members: membership is highly desirable; we simply have to make it manageable

Astrobiology is inter-generational science: from children through grandparents, we must capitalize on every opportunity to tell the astrobiology story



Why EPO?

Science literacy is an important part of our future: Astrobiology is a captivating story which may provide our citizens with the impetus to learn more about the world around them



Thank you for getting involved

March 13, 2001

Astrobiology Institute
MS 240-1
NASA Ames Research Center
Moffettfield, CA 94035-1000

Dear Helen Matsos (or any other official),

First off, thank you for taking time out of your day to read my letter. Presently I am a sophomore at High School and attending Del Valle HS in El Paso, TX.

Recently I have been distraught as to what career I will pursue and what college or university will best suit me. I've received many letters from university's and colleges but it confuses me even more as to which one to attend. I always enjoyed science and astronomy. Last year I was considering going to study to become a lawyer, but now the thought does not appeal to me. While watching the news two years ago I heard about astrobiologists, my love of space and the extraterrestrial overwhtiring me, I looked it up on the Internet and found an expense of dates and information that ignited my curiosity.

Now I know that I will not be able to chase any other career until I have searched this subject more. My interests are deep in astrobiology as a career. This is my life's future I am searching.

I beg you to send me a brief description of the diverse fields in astrobiology and what colleges have those fields. If at all possible I would like to know what courses should be taken for those fields.

If you have any other useful information such as other people to contact and their addresses, or even where astrobiologists actually work. I implore you to send it to me. I would hate to make an error in my job choice and regret it later. Otherwise I may have to look into law schools, although I do enjoy the culinary arts a lot. Though, a scientist is still my first choice.

With Sincerity, Appreciation, and Apologies

Fabian Aguilar
8734 Clavel
El Paso, TX 79907
(915) 859-3350