

SAG 16 Update: NExSS Biosignatures Workshop

Presented by: Shawn Domagal-Goldman

NASA Goddard Space Flight Center

January 2, 2017



Video (3) Start

Nikole David Des Marais Shawn Domagal-go L...

Telecon Number

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Inside the US: 1-844-467-4685
 Passcode: 5947549553#
 Outside the US: Give your country to Michael Toillion for number/passcode.

Chat (Everyone) Attendees (27)

The chat history has been cleared

MARY PARENTEAU: <http://online.liebertpub.com/doi/pdfplus/10.1089/15311070260192246>

MARY PARENTEAU: Free download of Des Marais et al., 2002

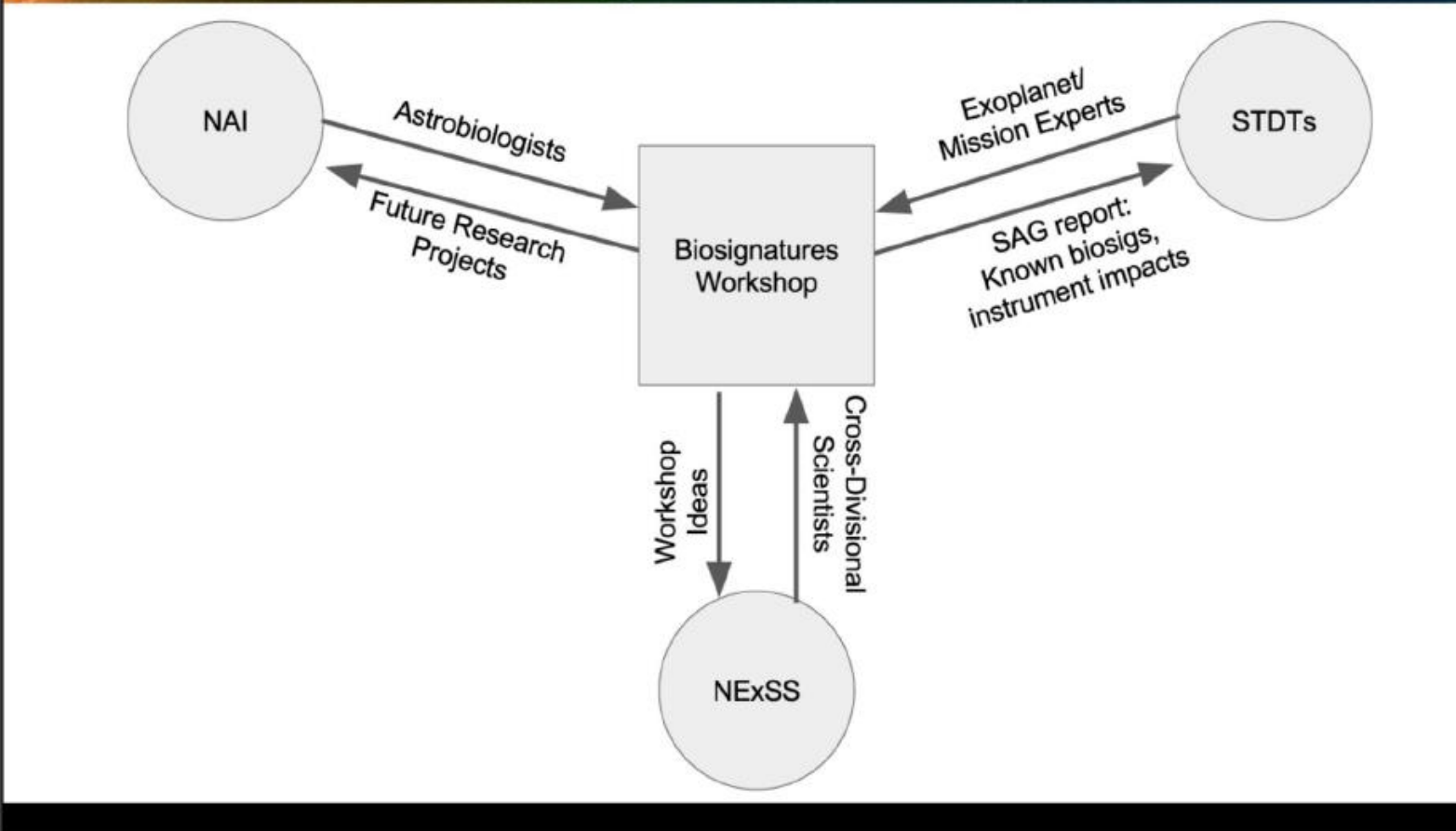
Sonny Harman: yup!

Don Hood: yup!

Audio Bridge

Participants (20)

- Alternative Earths ...
- Andrew Rushby
- Andrew Rushby 2
- Debajyoti
- Don Hood
- Eddie Schwieterman
- Karl Stapelfeldt
- LSU - Nicki Button,...
- Maggie
- Maria
- Markus Rabus
- Norio Narita 2
- Renyu Hu



The workshop focused around three goals:

1. **State of the Science Review:** What are known remotely-observable biosignatures, the processes that produce them, and their known non-biological sources?
2. **Advancing the Science of Biosignatures:** How can we develop a more comprehensive conceptual framework for identifying additional biosignatures and their possible abiotic mimics?
3. **Confidence Standards for Biosignature Observation and Interpretation:** What paradigm informed by both scientists and technologists could establish confidence standards for biosignature detection?

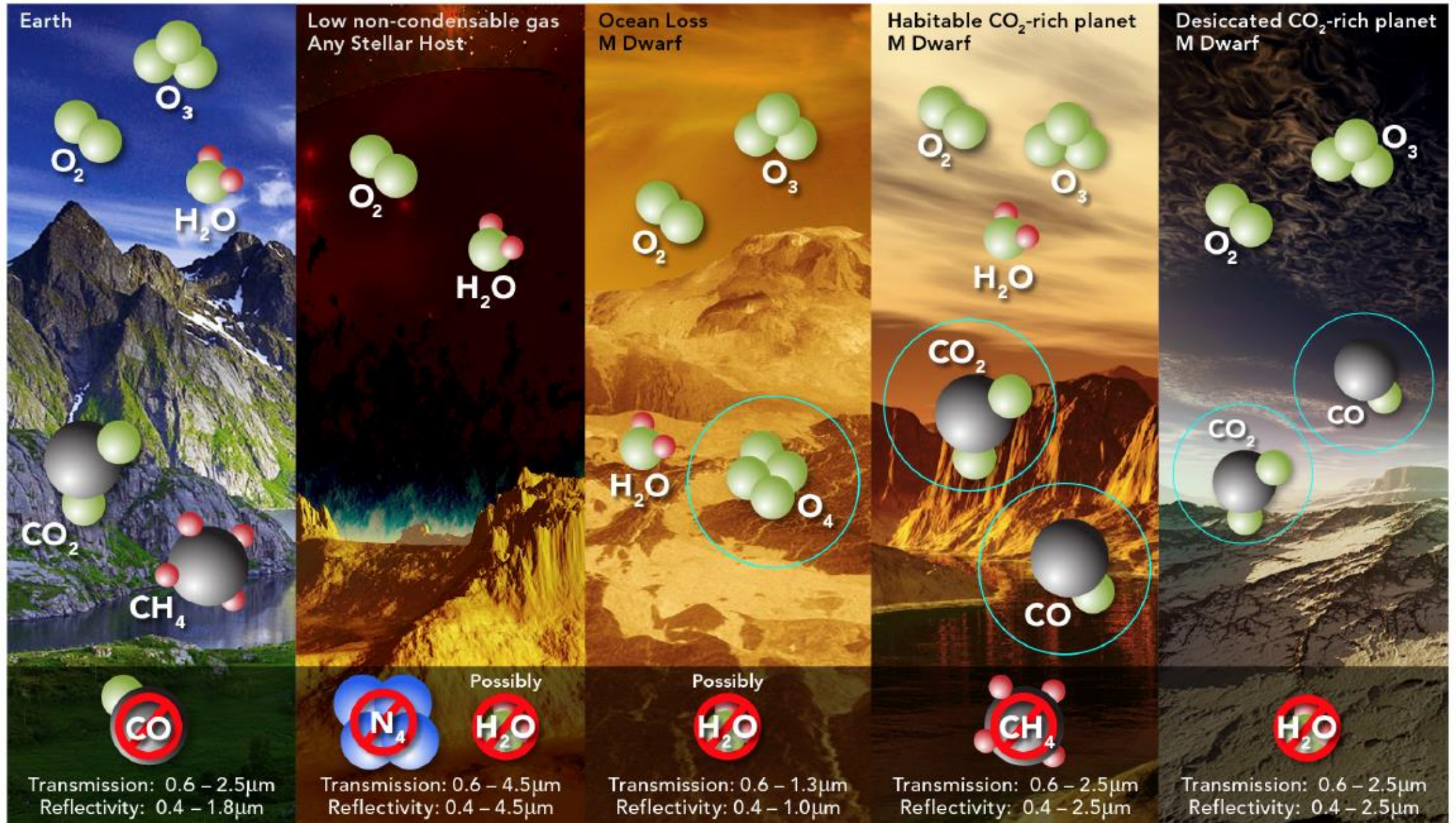
Workshop/SAG 16 Report Document Outline

- Chapter 1: Introduction/Review of Prior Work
Eddie Schwieterman (eschweit@astro.washington.edu)
Hilairy Hartnett (h.hartnett.@asu.edu)
- Chapter 2: Detailed lessons learned from O2
Vikki Meadows (vsm@astro.washington.edu)
Chris Reinhard (chris.reinhard@eas.gatech.edu)
- Chapter 3: A framework(s) for current biosignature theory
David Catling (dcatling@uw.edu)

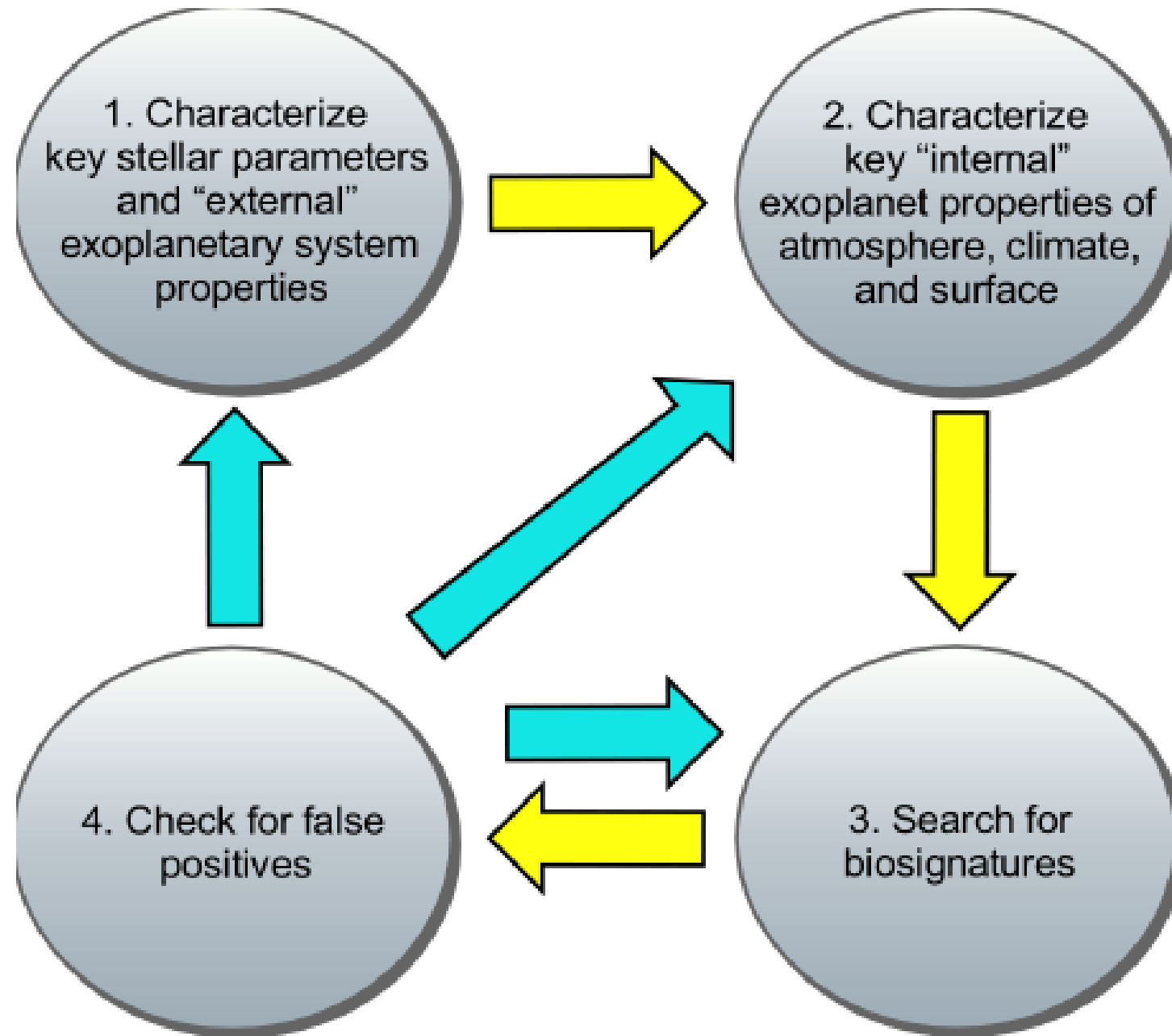
Workshop/SAG 16 Report Document Outline

- Chapter 4: Future development of novel biosignatures and biosignature frameworks
Bill Moore (william.moore@hampton.edu)
Sara Walker (sara.i.walker@asu.edu)
- Chapter 5: Biosignatures Roadmap
Yuka Fujii (yuka.fujii.ebihara@gmail.com)

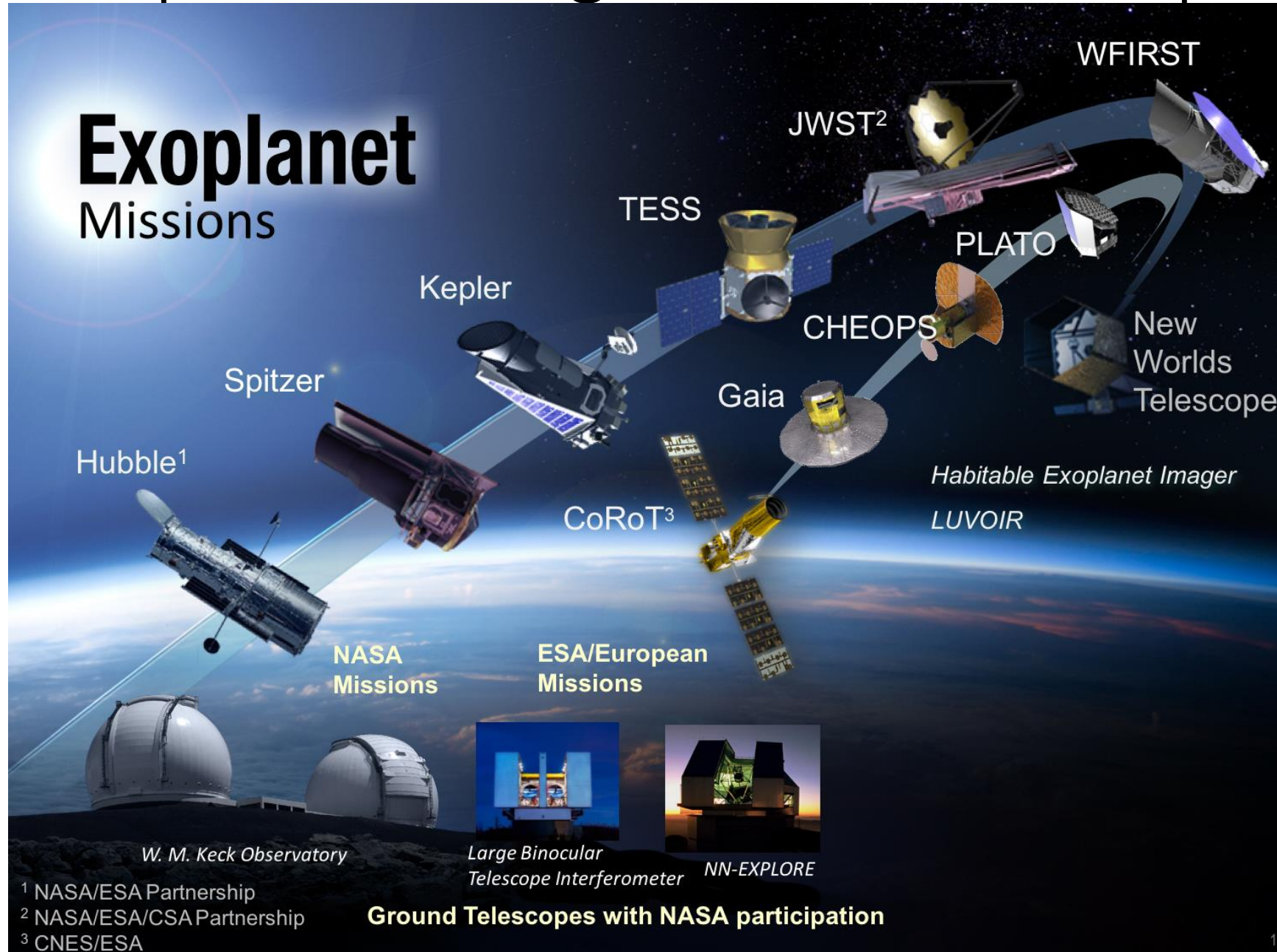
Chapter 2: Lessons from O₂



Chapter 3: Biosignatures Framework



Chapter 5: Biosignatures Roadmap



What happens in parallel to this lineup of missions?

What kinds of research do we need?

What new collaborations do we need?