INSIGHTSEERS: EARLY CAREER OPPORTUNITY TO OBSERVE THE INSIGHT SCIENCE TEAM AT WORK. I. J. Daubar[1], S. Stanley[2], J. Irving[3], A. G. Marusiak[4], P. Morgan[5], B. Fernando[6], A. Mittelholz[7], M. P. Golombek[4], C. L. Johnson[8,9], C. Newman[10], M. Baker[11], C. Beghein[12], E. Bozdag[5]. [1]Brown University, RI, USA (ingrid_daubar@brown.edu). [2]Applied Physics Lab, Johns Hopkins University, MD, USA. [3]University of Bristol, UK. [4]Jet Propulsion Laboratory, California Institute of Technology, CA, USA. [5]Colorado School of Mines, CO, USA. [6]University of Oxford, UK. [7]ETH Zurich, Switzerland. [8]Planetary Science Institute, AZ, USA. [9]University of British Columbia, Canada. [10]Aeolis Research, AZ, USA. [11]John Hopkins University, MD, USA. [12]UCLA, CA, USA.

Introduction: The InSight mission is currently exploring the interior and surface of Mars [1]. The team is also exploring ways to expand and diversify team access and professional development opportunities for early career scientists. To these ends, we instituted the InSightSeer program. InSightSeers are early-career researchers who are invited to observe one of our science team meetings, which are normally restricted to science team members and affiliates only. The goals of the program are to expose senior graduate students and postdocs to the experience of working on an interplanetary mission team, provide insight into the work and team dynamics that take place on missions, offer networking opportunities with experienced mission scientists, and help early career scientists make informed decisions about their career paths. This was modeled on pilot "Observer" programs conducted by other missions such as Europa Clipper, Dragonfly, and Psyche. The program works closely with the InSight Diversity and Inclusion Working Group (DIWG) [2], a subgroup of the science team, to support inclusivity and encourage diversity in the field. It is a goal of this program to provide opportunities to and increase participation from groups that are traditionally underrepresented in planetary science missions.

Recruitment and selection: The opportunity is advertised widely and internationally in social media and newsletters, with targeted recruitment at US minority-serving institutions. The program aims to select early career scientists who could potentially benefit the most from this opportunity, while increasing diversity in terms of their backgrounds, nationalities, and institutions. Applications were reviewed by a committee of InSight science team members and assessed via a rubric based on the goals of the program.

We have now hosted three rounds of InSightSeers for a total of 49 participants (Fig. 1) from numerous institutions in over a dozen countries. This includes

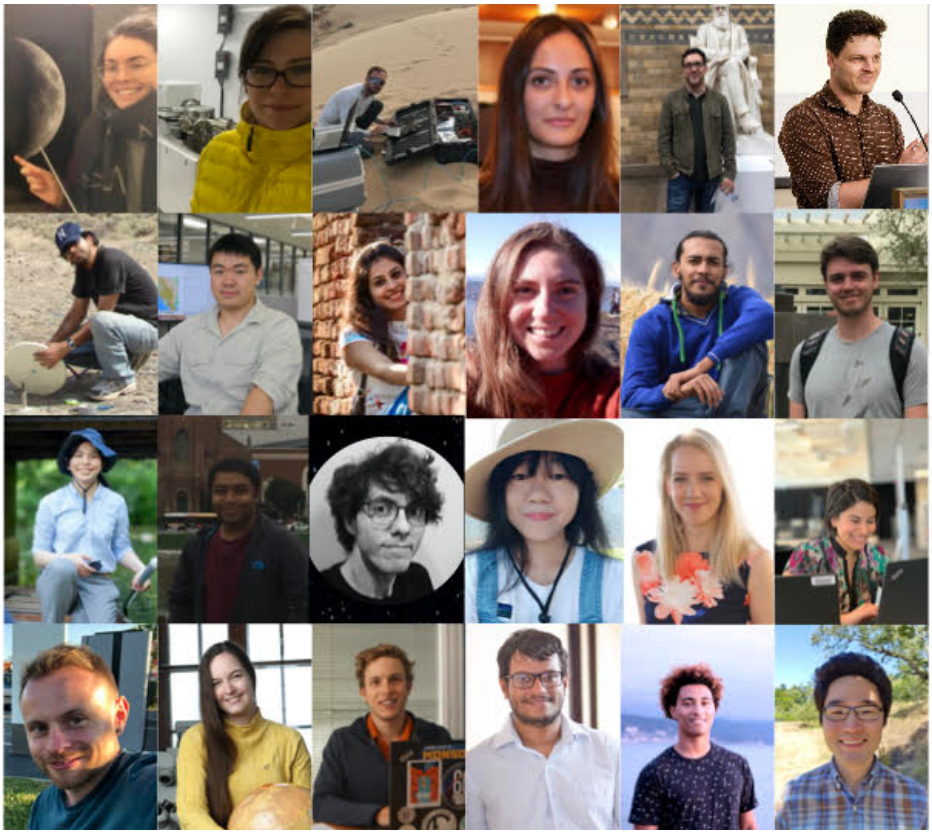

Fig. 1: *InSightSeers who observed the 21st InSight science team meeting.*

countries and institutions that would not normally have opportunities to interact with NASA missions, including unique opportunities for students from more engineering-oriented universities to get more insight into scientific space missions. It was important to us to extend this opportunity to international applicants, especially given the international nature of the InSight science team. All science team meetings with InSightSeer participation have been virtual thus far due to the COVID-19 pandemic.

Participation: *Before the meeting:* InSightSeers are matched with mentors from the science team based on their backgrounds and research interests. Individual one-on-one virtual meetings are held before the science team meetings. To introduce them to the mission, we compiled a welcome packet with background information about the mission, science, instruments, and team. We also organized a live “InSight 101” session of overview talks and Q&A prior to the start of the meetings, which were recorded and made available to InSightSeers as well as the full science team. We have since realized these materials are also highly useful to new team members, an example of how organizing this program has benefited the mission internally as well. InSightSeers are required to comply with the mission Rules of the Road and refrain from sharing any of the information from the meeting publicly.

During the meeting: InSightSeers are encouraged to attend the entire meeting remotely, just like members of the science team. We introduce them at the beginning with brief biographies. During the week of the meeting, InSightSeers have access to the team Slack workspace and a virtual poster and meeting area to ask questions and participate in breakout discussions. Mentors are in contact through the week. InSightSeers are encouraged to ask questions on Slack or through their mentors, so as not to disrupt the meeting.

After the meeting: Based on feedback received through post-meeting surveys (Fig. 2), we believe this program has been highly successful. We have received positive feedback from both participants and science team members. In our post-meeting surveys, 100% of respondents said their goals were accomplished well or very well. Some specific feedback included:

“It was immensely helpful. Not only I have a better idea on how missions and space exploration overall works, but I also met people currently working with it that can assist me in advancing in my career.”

“I'm very grateful for the opportunity. I learned a lot, and met many interesting people. This was, for sure, a very important moment in my early career.”

“I feel much more confident in being able to write a successful proposal to be a participating scientist on future missions, and I know I will continue to see and work with other Insight Seers in the future. This was an excellent learning and networking opportunity. I felt very included and welcomed. I felt comfortable asking questions, and there were ample opportunities to connect with other scientists.”

“I see this experience as a key step for my future career planning. I'll definitely consider applying to postdoctoral positions at NASA.”

“As an early career researcher, this experience enabled me to meet and see how collaborations on a multi-discipline, international group of scientists come together to analyze a dataset in a group effort.”

Future plans: We continue to gather feedback to improve the program. We hope to obtain funding to expand this program to in-person participation for a more effective experience.

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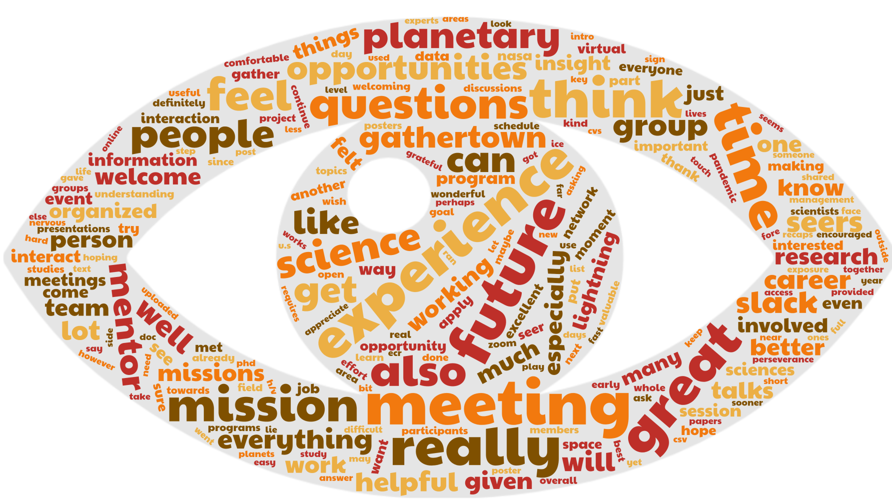

Fig. 2. Word cloud of feedback received from InSightSeers after their experience observing an InSight science team meeting. (Made with wordclouds.com)

References: [1] W.B. Banerdt *et al.* (2020) *Nat. Geosci.* **13**, 183–189. [2] A. Marusiak *et al.* (2022) LPSC, this conference.