

## Approaches towards Diversity, Equity, Inclusion & Belonging (DEIB) by the North American Arabidopsis Steering Committee for ICAR 2020 (converted to ICAR 2021-Virtual, due to Covid)

While NAASC is not a society (we're a small committee comprised almost entirely of faculty volunteers that lacks significant resources) we strive to use DEIB as a lens in our activities.

- NAASC is committed to promoting a global plant sciences community that reflects the true diversity of all its members. For example, since 2004, we have continuously secured funding to specifically expand access and help diversify our community's annual meetings. In 2014, we expanded our Inclusivity Scholars Program (formerly Under-Represented Minorities Program) to become a "cohort program" that strives to establish, maintain, and strengthen longer-term ties amongst scientists that are members of under-represented groups in plant biology and STEM.
- As a small but driven committee, we constantly seek to learn and improve in service to our community. We invite your input and suggestions to help us learn and grow. You can contact us at [arabidopsisconference@gmail.com](mailto:arabidopsisconference@gmail.com)

### NAASC Approaches using a DEIB lens for ICAR 2020 that became ICAR 2021-Virtual

1. **We explicitly stated our Commitment to Diversity and Inclusion for the Community Concurrent Session Competition; the application included this information:**
  - a. Demographic Questions Referring to Symposia Applicant/co-Applicant: The purpose of these questions is to ensure diversity of session leaders & to enable organizers to determine if our outreach & dissemination efforts are effective, and if we need to engage in additional outreach.
  - b. NAASC is committed to promoting a global plant sciences community that reflects the true diversity of all its members. To further this mission, in Feb. 2018, we created the [DiversifyPlantSci online resource](#), a list of plant biologists from under-represented groups to reference for opportunities, including session speakers and organizers. We hope to increase diversity and inclusion by making it easy to expand invitations past one's personal networks.
    - i. DiversifyPlantSci List: <https://tinyurl.com/DiversifyPlantSci>
    - ii. DiversifyPlantSci Database: <https://rdale1.shinyapps.io/diversifyplantsci/>
  - c. You may find these resources useful & we encourage you to consider expanding your network during your proposal development; diversity & representation will be looked upon favorably during the selection process. Information on adding yourself to the list is at the link above.
2. **Community Led/Proposed Concurrent Sessions:** All 36 concurrent sessions (~250 total speakers) were proposed and led by community members; Selection was done across several axes including diversity and inclusion\*; A minimum of 25% of sessions were reserved up front for chairs that were students or postdocs; Session chairs were provided budgets to support speaker recruitment; Early career session chairs were given first priority for travel budgets; Specific funding was sought for speakers that had to travel further distances.
  - a. A community-wide competition generated nearly 100 applications.
  - b. Selected chairs were awarded 2 free conference registrations and travel budgets to be used as they saw fit (this allowed them to recruit speakers).
  - c. In advance, we established funding mechanisms that invited speakers could apply for. Thus, when session chairs invited a speaker, they could simultaneously decide whether to offer them some of

their allotted travel budget OR advise them to apply for one of the lines of funding (the different lines reflected the various funder restrictions; however, we had funding streams that anyone with financial need could apply to.)

- d. The call for applications explicitly stated that proposals would be scored, in part, across diversity and inclusion metrics\*, and that NAASC would monitor proposed speaker lists and retain the right of final approval (to ensure diversity & inclusion at a global level).
- e. \*Diversity & inclusion axes in the application process: session submitters were asked to provide as much information as they could/were willing about themselves & proposed session speakers: *gender, racial group, geography, institution (type and location), topic/theme, sexual orientation (if information is provided)* There was also a free text box for the organizers to optionally add any comments about their session, themselves, and/or proposed speakers.

### 3. Career Stage & Gender Balance for Community Sessions & Platform Speakers

- a. As noted, we held a separate application competition for proposals submitted by students & postdocs to ensure a minimum of 25% sessions by these early career applicants. Ultimately the 59 session chairs self-identified as: 32% students or postdocs; 32% junior/pre-tenure faculty; 31% senior/post-tenure; 5% other career category; 64% identified as women % 36% as men. Across ~250 community session speakers & chairs, self-identification was: 40% students or postdocs; 27% junior/pre-tenure faculty; 26% senior/post-tenure; 8% other career category; 52% identified as women, 44% as men, 3% preferred not to say, & as 1% non-binary or genderqueer.
- b. The 23 invited speakers self-identified as: 52% women, 48% men and were 52% early-mid career and 48% mid-late career.

### 4. Cohort Program for our Inclusivity Scholars Program (ISP, formerly URM) awardees

- a. Beyond access, there are vital needs for inclusion & belonging. Since 2004, NAASC has continuously secured funding (with gratitude to the [US National Science Foundation](#)) to support members of under-represented groups in US STEM to participate in the annual ICAR at home and abroad.
- b. Since ~ 2010, due in large part to the tireless efforts of founding ISP co-chairs Dr. Terri Long & Dr. Siobhan Brady, supported by Dr. Joanna Friesner, NAASC has established & continues to develop the ISP cohort program, an evolving effort to go beyond access and strive towards community.

- 5. **What does this look like?** Making ISP (and ECS, Early Career Scholars) a priority in our funding efforts. Since 2004, NAASC has funded full participation by ISP in ICARs: flights, travel, food, registration, and lodging. Depending on ICAR location and associated costs, full funding packages range from \$2,000-\$5,000 per person. Since 2004, NAASC has funded over 115 ISP individuals to fully participate in ICARs held around the globe, and many more ECS with partial travel funding.

- a. **Budgets reflect priorities:** [Our current NSF award](#) commits 55% of participant support (43% of total direct costs) for direct support of ISP (39%) & Early Career scholars (16%)
- b. **In ~2010 we committed to expand beyond access and strive for inclusion & belonging:** in addition to funding, we organized ISP networking luncheons for awardees & members of NAASC (& invited speakers) so that ISP folks could meet each other & members of the plant science community in an informal setting. At "home" ICARs we set up mentoring by matching NAASC members (& invited speakers, when possible) with ISP awardees that had shared interests or requested the mentors. We established ISP cohort-specific workshops, led by NAASC members or other community volunteers. This evolved into half-day sessions at NAASC-led "home" ICARs where ISP awardees presented their research to NAASC and invited guests, followed by networking activities. We often

- invited NSF program directors to participate, including arranging informal breakfast meetings between ISP awardees and agency representatives. These activities had the objectives to develop networks amongst ISP awardees, NAASC, other senior plant scientists, & members of funding agencies, to break down barriers in access, and to establish and nurture relationships.
- c. In ~2015 we took the ISP cohort program further by coordinating shared travel for ISP awardees so that they had peers to travel with, talk to, & (hopefully) feel a sense of community before they landed in the country where the ICAR was hosted (when outside the US). **To be completely transparent- this coordination takes EFFORT:** to arrange for awardees from across the US to travel, stay in lodging, and attend the conference, together, takes significant coordination. NAASC commits significant staff resources for scheduling, arranging/paying for hotels & flights (up front so awardees didn't have the burden of the costs) & seeks numerous volunteer faculty hours to act as mentors, including during travel & hosting group meals & participating in cohort-supportive activities.
  - d. In the last several years, our cohort program has evolved to include more (virtual) get-togethers, separate from ICAR, to include more ISP awardees. We've had check-ins following significant traumatic events that have affected our cohort members deeply. Following a check-in, the summer of 2020, after the murder of George Floyd, two ISP cohort members were inspired to develop new initiatives to address an unmet need for Black, Indigenous and Latine plant scientists to find each other in predominantly white, academic spaces. Their goals were to cultivate community & belonging, combat isolation & loneliness, develop networks, and increase the visibility & representation of Black, Indigenous and Latine plant scientists.
    - i. Edith Pierre-Jerome created the Front & Center project on Instagram that features Black, Indigenous, & Latine plant scientists in weekly communications (@frontandcenterps)
    - ii. Imani Madison created the invitation-only virtual Discord server, "Adventitious Roots", to enable private connections & a refuge from all too-often hostile academic spaces.
    - iii. Notably: Edith and Imani created these tools & have worked for sustainable funding sources to ensure they can endure, as they advance in their own careers. Unfortunately, it wasn't easy for them to secure this funding as the groups they approached were not able to quickly identify budget sources. A lesson learned is that societies focused on DEIB should strive to maintain flexible funding for DEIB efforts, particularly raised by the community.
  - e. Some feedback from past cohort members:
    - i. Knowing I was not going to be alone both during travel or during the meeting made me feel more comfortable and less anxious.
    - ii. As a faculty cohort leader, I thought the format worked extremely well- we were able to navigate the logistics of attending ICAR (internationally) as a team, which is always less daunting. Sharing meals & other "non-science" events allowed for important conversations (professional & personal) to occur in a meaningful way. The format also allowed for mentoring opportunities on my end that I otherwise may not have had.
    - iii. Having a cohort to navigate the meeting was very useful to me. It allowed me to expand my network and interact with other underrepresented plant biologists.
    - iv. I absolutely felt I was part of a unique group that helped one another throughout the conference. We met for meals, during symposia breaks, and for social outings.
    - v. I enjoyed the group dinner- Dr. Brady led a good discussion about issues or challenges we have faced during careers. The conversation was rich and helpful, and by going around the table to provide an opportunity for everyone to speak about their careers, it allowed everyone to share their thoughts and provided insights into their experiences. This

facilitated other more targeted, focused and personal conversations later in the meeting.

#### 6. 4-Pronged Selection of Plenary & Keynote Speakers & Plenary Topics using a DEIB lens

- a. In alignment with our stated DEIB objectives, NAASC determined up front that we would exclude from consideration speakers that had been a keynote or plenary speaker at any of the last 5 ICARs and ASPB annual main meetings/conferences.
- b. Speaker suggestions and topics were gathered by: community survey; via our external advisory board; consulting the [DiversifyPlantSci](#) database; & surveying recent plant biology publications.
- c. After we developed a draft list of excellent speakers, we assessed the list with a DEIB lens to determine a set of speakers that globally met our DEIB objectives.
- d. Once we had our speaker list, we grouped them into session topics (rather than by selecting topics first, then speakers to fit.) This approach enabled us to identify exciting speakers FIRST whose work may be so new that it doesn't fit into a standard "conference topic box"; it also spurred us to devise creative and integrated session themes for a novel & exciting program.

#### NAASC assessment post ICAR 2021-Virtual:

A demographic that continues to show imbalance is racial & ethnic diversity of conference attendees, which may, in part, reflect the make-up of the plant science community at large.

Attendees self-reported racial/ethnic status across nearly 40 categories; when grouped to 7 major categories this became: 49% (included White in some aspect); 32% (included Asian in some aspect); 9% (preferred not to answer), 6% (included Hispanic or Latinx in some aspect), 4% (included Black or African, in some aspect), 0.5% (wrote in multiple categories), 0.3% (wrote in a new, single category).

**There is clearly more effort & focus needed to enable equal participation & leadership in the plant sciences across several axes including:** racial & ethnic background, geographic location, career stage, LGBTQ identification, among others.

#### Some example post-ICAR 2021 survey comments from attendees

- Very varied, & very often interesting to people from different backgrounds. It was nice to give the power to the community.
- Great, I appreciate the effort that went into bringing in diverse speakers.
- I like the fact that you focused on career stage, especially for young researchers & ECR, in order to increase their visibility & create the opportunity to extend their professional network.
- Thank you for making efforts in demographics!
- This diversity and freshness gave the conference a fresh and exciting feel.
- Since this is my first ICAR, I don't know how it has worked in past years, but I really appreciated seeing gender and racial diversity in the presenters and attendees.