

The Association for Research in Otolaryngology  
**44<sup>th</sup> Annual MidWinter Meeting**



February 20-24, 2021  
**VIRTUAL CONFERENCE**



**ARO.org** **Virtual ARO 2021**

## Executive Summary for the 2021 ARO MidWinter Meeting

The 2021 ARO Virtual MidWinter Meeting was held January 20-24, 2021. The conference hosted several days of pre and post meeting sessions. The conference was a success with 2,064 attendees from 38 different countries around the world. There were a total of 819 submissions.

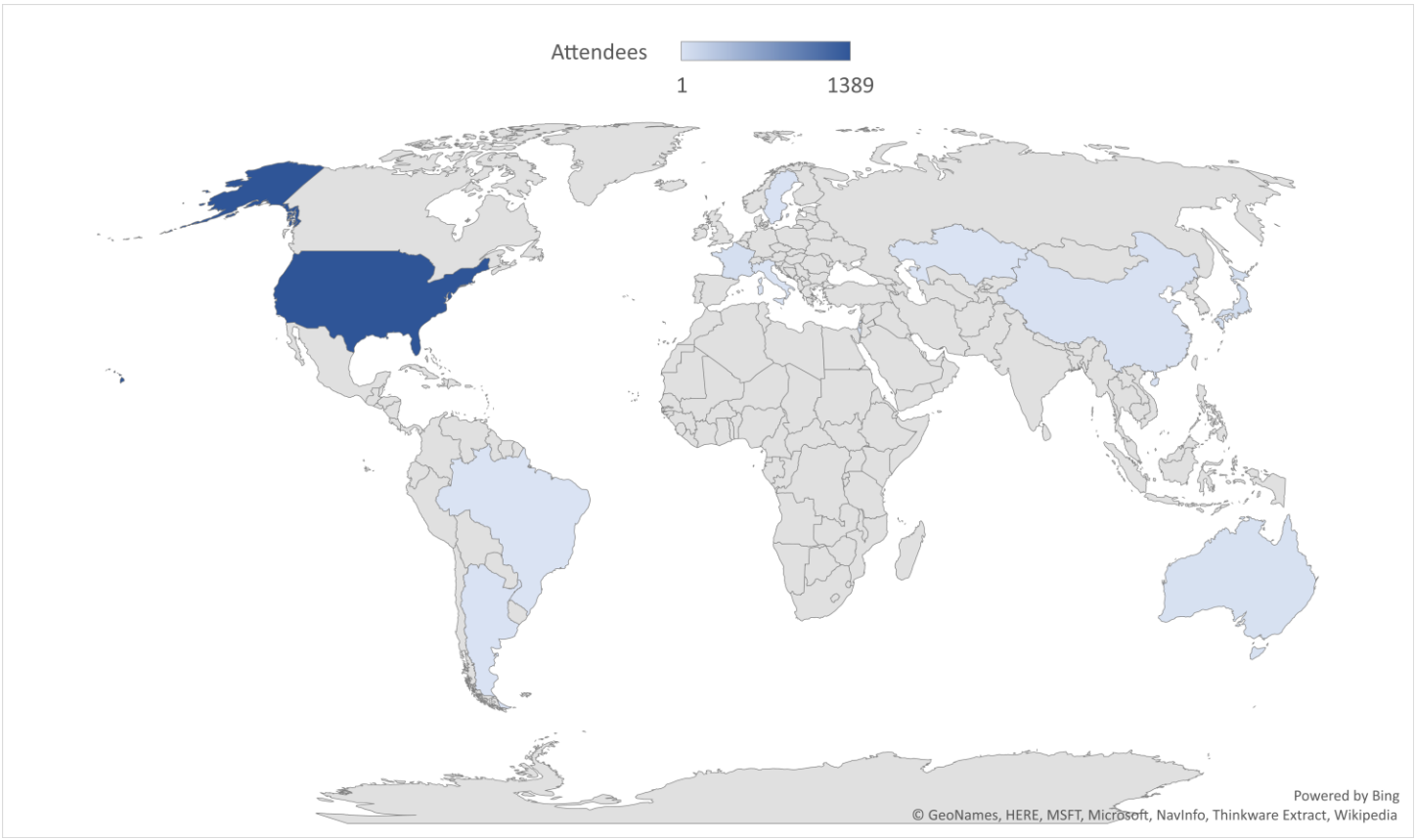
Over the four days of the 2021 ARO MidWinter Meeting, attendees had the opportunity to view 788 posters.

### SCIENCE OF THE MEETING EVALUATION:

Attendees were given the opportunity to complete a post-meeting survey, which yielded the following conclusions regarding educational value, quality of content, and speakers. There were 484 respondents to the evaluation resulting in a response rate of 23.4%. Of those that responded to the meeting evaluation, 84.5% were current ARO members.

### ATTENDANCE:

Registration Type	2021 Total – 2,064	Rate
Regular Member Registration- Early Bird	419	\$150
Regular Member Registration- Standard	342	\$177.50
Non-Member Registration- Early Bird	76	\$260
Non-Member Registration- Standard	141	\$308
Senior Registration	50	\$0
Student/PostDoc & Resident Member Registration	762	\$0
Student/PostDoc & Resident Non-Member Registration- Early Bird	65	\$85
Student/PostDoc & Resident Non-Member Registration- Standard	90	\$100
Undergraduate	119	\$0



Country	2021
Argentina	8
Armenia	0
Australia	24
Austria	16
Bahrain	1
Belgium	31
Brazil	3
Canada	60
Chile	0
China	16
Czech Republic	4
Denmark	31

Finland	4
France	44
Germany	107
Greece	3
Hong Kong	4
Hungary	0
India	1
Ireland	3
Israel	22
Italy	2
Japan	54
Korea, Democratic People's Republic of	0
Kazakhstan	1
Malaysia	0
Netherlands	47
New Zealand	0
Nigeria	1
Philippines	0
Poland	2
Portugal	1
Qatar	1
Saudi Arabia	1
Singapore	3
Slovakia	1
South Africa	1
South Korea	48
Spain	16
Sweden	7
Switzerland	15
Taiwan	5
Turkey	1
United Kingdom	88
United States	1389
U.S. Pacific Islands	0
N/A	0

## 2021 ARO MidWinter Meeting Evaluation Summary

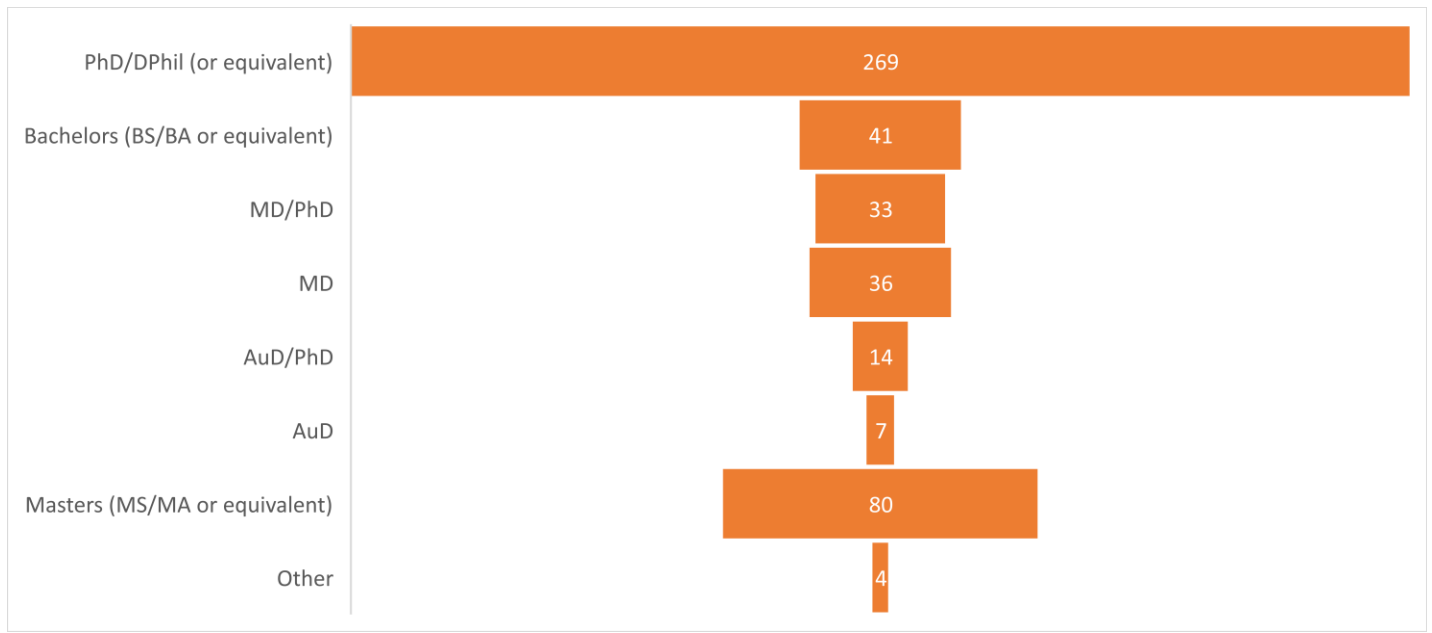
### Respondent Break-Down

\*Total Respondents = 484

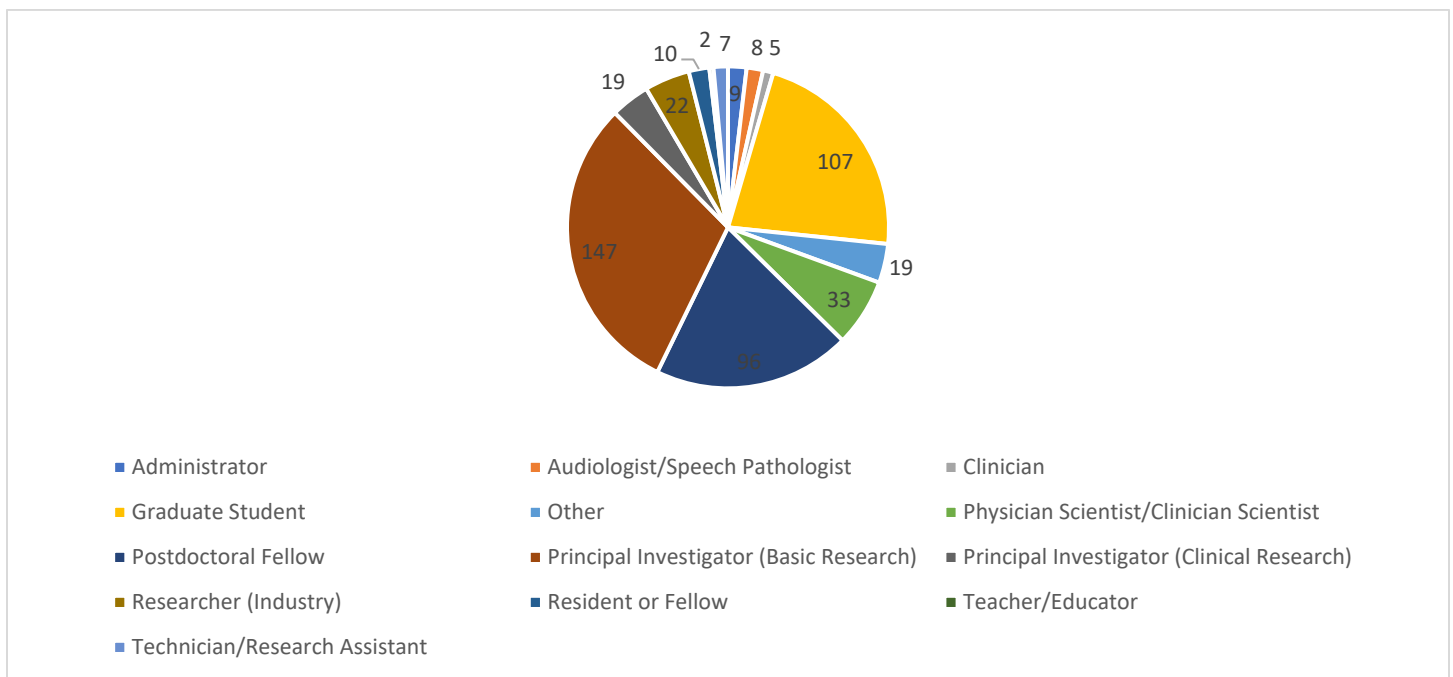
23% of all attendees responded to the evaluation

### General Meeting Questions:

#### Degree Breakdown by Attendee:



#### Attendee Occupation:



**Virtual Meeting:**

Hearing impaired listeners accommodations	53.1% rated Good or Excellent
Other special needs accommodations	41.0% rated Good or Excellent
Timing of the meeting	31.0% rated Good or Excellent 62% had no answer
Closed Captioning	77.5% rated Good or Excellent
Technology Podium presentations	87.9% rated Good or Excellent
Technology Poster sessions	64.2% rated Good or Excellent
Technology Mentoring sessions	84.2% rated Good or Excellent
Technology Workshops	87.5% rated Good or Excellent
Technology Business meeting	83.0% rated Good or Excellent
Technology Awards ceremony	91.6% rated Good or Excellent

**Rate the scientific content of the MWM with respect to the following topics:**

Cochlear /Vestibular Implants, Protheses	42.4% rated Good or Excellent
Perception/Psychophysics	31.3% rated Good or Excellent
Auditory Cortex	28.5% rated Good or Excellent
Auditory Brainstem	34.0% rated Good or Excellent
Auditory Nerve	42.4.% rated Good or Excellent
Inner Ear	67.4% rated Good or Excellent
Middle Ear	12.0% rated Good or Excellent
Outer Ear	7.6% rated Good or Excellent
Mechanotransduction	51.7% rated Good or Excellent
Trauma	27.6% rated Good or Excellent
Repair and Regeneration	53.8% rated Good or Excellent
Synapses	52.4% rated Good or Excellent
Development	37.9% rated Good or Excellent
Aging	46.2% rated Good or Excellent
Genetics	37.2% rated Good or Excellent
Vestibular	31.4% rated Good or Excellent
Clinical Otolaryngology and Audiology	23.4% rated Good or Excellent
Podium Talks (selected from abstracts)	76.6% rated Good or Excellent
Symposium Talks	83.4% rated Good or Excellent
Posters	69.0% rated Good or Excellent

**How would you rate this meeting's organization?**

Podium Sessions (selected from abstracts)	89.7% rated Good or Excellent
Symposium Sessions	86.2% rated Good or Excellent
Poster Session	65.5% rated Good or Excellent
Program Book/Abstract Book	74.5% rated Good or Excellent
Awards Presentation	53.8% rated Good or Excellent
Business Meeting	31.7% rated Good or Excellent
Trivia Night	80.9% rated Good or Excellent
Social Media Communications and website (eg. Twitter)	72.8% rated Good or Excellent

**Session Room Count and Recording Views**

Session Name	Room Count	YouTube Views
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spARO Presents Kathy Buckley	83	115
Mentoring Session 1: Job Search and Independence in Academia (Interview and Negotiation Skill Development)	119	138
Mentoring Session 2: Research and Teaching with Undergraduates	58	58
Diversity and Minority Affairs Roundtable Discussion	65	58
Mentoring Session 3: Clinician Scientist	47	60
Mentoring Session 4: Careers in Industry: Interview and Negotiation Skill Development	79	100
Women and Allies Roundtable Discussion	117	50
Mentoring Session 5: Publishing	99	93
Mentoring Session 6: Careers in Academia	92	102
Funding your Scientific Genius!	76	94
Science Communication Workshop- Designing and delivering effective conference presentations	91	168
Mentoring Session 7: Mentor-Mentee Communication	86	90
Behind the Scenes with Publication	62	74
Mentoring Session 8: Navigating the Grant Landscape	79	58
Planning for the Implementation of Novel Hearing Therapeutics Into Healthcare Systems	93	72
Research and Development Workshop: Translating Pre-Clinical Findings Into Successful Clinical Trials	143	178
Poster Blitz	201	
Travel Awards Recognition	109	1
Hands-On With CCI-MOBILE: A Cochlear Implant and Hearing-Aid Research Platform	49	48
gEAR Workshop	90	123
NIDCD Workshop #1: Applying for NIDCD Training and Career Development Awards	57	33
NIDCD Workshop #2: Early Stage Investigators (ESI) and New Investigators (NI)	47	33
NIDCD Workshop #3: SBIR and STTR Grant Programs from NIH / NIDCD	29	28
Presidential Symposium: "Implantable Prosthesis: Progress, Future Possibilities and Multi-Sensory Integration"	1,377	404
Symposium 1: "Close to Translation: Future Directions in Auditory Implants"	455	276
Symposium 2: "Advancements in Human Brain Measurements to Continuous Speech and Music Stimuli"	293	264
Symposium 3: "The Remarkable Outer Hair Cell: Symposium in Honor of Bill Brownell"	611	316
Podium 4: "Ions, Tip Links, and Stereocilia"	573	341

Podium 5: "Complex Sound Processing and Imaging"	409	199
Podium 6: "Hearing Damage and Listening Difficulties "	456	185
Symposium 7: "Hearing and Donut: Cells and Circuits of the Auditory System - In Memory of Donata Oertel"	456	132
Symposium 8: "3D Printing in Otolaryngology"	271	125
Symposium 9: "The Next Challenges of Vestibular Implantation in Humans"	221	150
Podium 10: "Anatomy and Physiology of the Inner Ear"	587	230
Podium 11: "Factors and Mechanisms Shaping Outcomes"	254	153
Podium 12: "Auditory Development - From the Periphery to the Brain"	451	273
ARO Business Meeting	115	44
Symposium 13: "Emerging Capabilities for Evaluating Human Hearing"	478	170
Symposium 14: "Memorial Linthicum Temporal Bone Histopathology Symposium: Influences on Hearing Loss Research Past, Present and Future"	391	100
Symposium 15: "Non-Sensory Influences on Auditory Learning and Plasticity"	434	151
Award Ceremony	655	126
Podium 16: "Organ of Corti Mechanics: Studies Using Light and Mathematical Models"	295	174
Podium 17: "Speech Communication: Realistic Factors and Measurements"	283	118
Podium 18: "Regeneration of Hair Cells & Synapses"	688	239
Podium 19: "Therapeutics Bonanza"	566	160
Podium 20: "Outcome Assessment"	246	92
Podium 21: "Inhibition, Neuromodulation and Stimulus Encoding in Brainstem and Midbrain"	332	115
Symposium 22: "Hear Here! The Importance of Spatial Hearing Across the Lifespan"	298	86

Symposium 23: "Role of Immune Cells in the Auditory System Development, Pathology and Regeneration"	366	101
Symposium 24: "Putting the Pieces Together: The Hair Cell Transduction Complex"	392	143
Podium 25: "Inner Ear Therapeutics"	481	189
Podium 26: "Psychoacoustics and Related Topics "	317	127
Podium 27: "Vestibular System"	238	93
ARO Trivia Night	87	-
Podium 28: "Gene Expression, Regulation and Inner Ear Therapeutics"	509	157
Podium 29: "Binaural and Spatial Hearing - Psychophysics, Neurophysiology and Models"	286	132
Podium 30: "Recent Advances in Age-Related Hearing Loss" M	356	167
Symposium 31: "Integrating Biology to Innovate Hearing Restoration: How Young Investigators Can Shape the Future"	301	102
Symposium 32: "From Bench to Bedside – Translational Oto-Therapeutic Approaches"	360	103
Symposium 33: "Age-Related Plasticity Changes in the Central Auditory System"	332	146
Podium 34: "Ototoxicity, Noise Damage and Protection"	354	125
Podium 35: "Auditory Cortex and Auditory Perception"	181	99
Podium 36: "Cochlear Synaptopathy & Auditory Nerve Function, New Insights"	306	160
Workshop: Beyond the Brain's Noise: Why neuroscientists ought to be interested in tinnitus.	195	80
gEAR Workshop	145	33

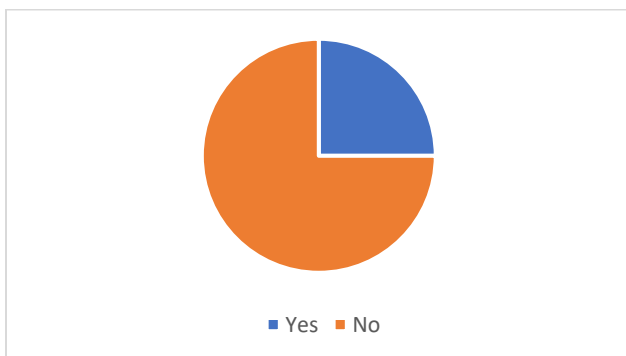
### **Future Virtual Content**

Would you support ARO adding virtual content to future meetings?	100% said Yes
Live streaming of podium talks	73.8% said they would participate
Live streaming of the presidential symposium	73.8% said they would participate
Asynchronous talks – pre-recorded talk paired with live-streamed interactive discussion	54.5% said they would participate
Pre-recorded talks with no live component	30.3% said they would participate
Virtual poster sessions	57.2% said they would participate
Mentoring sessions in virtual format prior to or after the live ARO MidWinter Meeting	39.3% said they would participate
Workshops in virtual format prior to or after the live ARO MidWinter Meeting	46.2% said they would participate
Would you feel comfortable with your presentation being recorded?	30.0% said yes



How long would you want the recorded version to be available through the ARO website?	24 Hours- 1 48 Hours- 7 7 Days- 19 14 Days- 57 Indefinitely- 35 No Preference- 21
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### Overall Workshop Questions:



### How would you rate this year's workshops?

NIDCD Workshop #1 – applying for NIDCD Training and Career Development Awards	71.4% rated Good or Excellent
NIDCD Workshop #2 – Early Stage Investigator (ESI) and New Investigators (NI)	57.1% rated Good or Excellent
NIDCD Workshop #3 – SBIR and STTR Grant Programs from NIH / NIDCD	66.6% rated Good or Excellent
gEAR Workshop	92.3% rated Good or Excellent
Funding Your Scientific Genius!	83.3% rated Good or Excellent
Science Communication Workshop- Designing and delivering effective conference presentations	88.8% rated Good or Excellent
Behind the Scenes with Publication!	83.3% rated Good or Excellent
Graduate Program Open House	75.0% rated Good or Excellent
Beyond the Brain's Noise: Why neuroscientists ought to be interested in tinnitus	66.6% rated Good or Excellent

### Overall Attendance Questions:

Is this your first ARO Meeting?	13% - Yes; 87% - No
How many ARO Meetings have you attended in the past?	1 Meeting = 88 2 Meetings = 57 3 Meetings = 66 4 Meetings = 64 5 Meetings = 144

## Overall spARO Questions:

spARO is the student, postdoc, and medical resident chapter of the Association for Research in Otolaryngology ( <a href="https://www.aro.org/sparo-students-postdocs">https://www.aro.org/sparo-students-postdocs</a> ). Are you a trainee, and therefore automatically a member of spARO?	35.5%- Yes, 65.0%- No
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### What is the most effective way for spARO to communicate their activities? (check all that apply)

21 respondents checked that email is the most effective way for spARO to communicate their activities
3 respondents checked that Facebook is the most effective way for spARO to communicate their activities
2 respondents checked that Instagram is the most effective way for spARO to communicate their activities
3 respondents checked that Twitter is the most effective way for spARO to communicate their activities
3 respondents checked that the ARO/spARO website is the most effective way for spARO to communicate their activities

Did you attend any spARO virtual coffee hours during 2020?	91.0% rated Good or Excellent
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### How would you rate the following mentoring sessions?

Publishing	50.0% rated Good or Excellent
Careers in Industry	44.4% rated Good or Excellent
Clinician Scientist	44.4% rated Good or Excellent
Navigating the Grant Landscape	66.6% rated Good or Excellent
Science Communication	63.6% rated Good or Excellent
Careers in Academia	72.2% rated Good or Excellent
Interviewing and Negotiating Skill Development	73.7% rated Good or Excellent
Job Search and Independence in Academia	61.1% rated Good or Excellent
Mentor-Mentee Communication	61.1% rated Good or Excellent
Teaching and Research with Undergraduates	66.6% rated Good or Excellent
Women and Allies Roundtable	72.0% rated Good or Excellent
Kathy Buckley Comedy Show	84.0% rated Good or Excellent
Diversity and Minority Affairs Roundtable	56.0% rated Good or Excellent
Science and Communication Workshop	60.0% rated Good or Excellent



## ARO 2021 Evaluation Comments

Please Note: All comments from attendees are left unedited

- If you were unhappy with the timing of the virtual programming, what changes would you suggest? [CLICK HERE](#) for results.
- Did you find barriers to in-person meetings? \*[CLICK HERE](#) for results.
- Please write any additional comments about the scientific content of the MidWinter Meeting. [CLICK HERE](#) for results.
- Please write any additional comments about this meeting's organization. [CLICK HERE](#) for results.
- Please write any additional comments about this year's workshops. [CLICK HERE](#) for results.
- Please write any additional comments about the virtual technology. [CLICK HERE](#) for results.
- What factors do you consider when sending members of your group to an in-person ARO MidWinter Meeting? [CLICK HERE](#) for results.
- Did the virtual content of the 2021 MidWinter Meeting allow more members of your group to participate compared to previous in-person meetings? [CLICK HERE](#) for results.
- Would you support virtual presentation options if they reduced cost of attendance? [CLICK HERE](#) for results.
- Do you have additional suggestions for improving access to ARO? [CLICK HERE](#) for results.
- For future ARO meetings, do you have any suggestions for improving accessibility for yourself or other attendees with disabilities or differences? [CLICK HERE](#) for results.
- Did you feel that having non-overlapping spARO events before (rather than during) the MidWinter Meeting allowed you more freedom to attend spARO events? [CLICK HERE](#) for results.
- Do you have any comments on spARO events at the 2020 MidWinter Meeting, or suggestions for future spARO activities? [CLICK HERE](#) for results.