

Science Alliance Leadership Training (SALT) Cohort 2 Evaluation Final Report 2017-18

KNOWLEDGE CAPTURE PROGRAM

PAST Foundation

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Science Alliance Leadership Training (SALT): Cohort 2 Evaluation Final Report 2017-18

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Science Alliance Leadership Training (SALT) 2017-2018 Final Program Evaluation Report

Introduction

This report provides a compilation of evaluation data and analysis of the New York Academy of Sciences (NYAS) Science Alliance Leadership Training (SALT) Program beginning in the summer of 2017 and concluding in May 2018. The 2017-18 program involved (30) graduate student participants from fourteen colleges and universities who are pursuing careers in science, technology, engineering and math (STEM) fields. The 2017-18 SALT participants formed the second year cohort (cohort 2) of the program designed to build skills in leadership, communication, conflict resolution, and team dynamics. During the 2017-18 training program, the PAST Foundation conducted evaluation based on observation of the 5-day workshop, analysis of an online, anonymous pre- and post-training questionnaire, and observation of (9) monthly SALT Program webinars that were held beginning in October 2017 through May 2018.

This document includes a final overview of all phases of the program including participation in the monthly webinar sessions (see *Appendix A-Year 1: Table A - SALT Cohort 2 Participation Breakdown by Webinar*, and *Appendix B-Cohort 2: 2017-18 Webinar Reports*). *Appendix C-Cohort 2: Pre/Post Comparative Questionnaire Report* incorporates the interim report submitted in December 2017, providing comparative analysis of the pre/post questionnaire data. *Appendix C--Cohort 2* also presents a description of the pre/post questionnaire methodology, pre/post question sets, aggregated questionnaire response data, and testimonial statements of respondents who voluntarily provided comments on their SALT Program experience.

Recap of Questionnaire Data and Analysis

The pre-training questionnaire included (23) questions and was conducted on July 10, 2017, day one of the on-site, 5-day SALT training program. A preliminary report with aggregate data by question was generated the same day and provided to program facilitators for review, allowing them to gain insights on the group of SALT fellows at the start of the training program. A total of (29) respondents completed the pre-training questionnaire.



The post-training questionnaire was completed by (29) respondents. SALT participants were given a period of 17 days, beginning July 18 and ending on August 3, 2017 for convenience in completing the online questionnaire. The post-questionnaire consisted of (28) questions including questions to provide feedback and comments on the specific activities and content covered during the five-day program. Additionally, nine individuals (31%) responded to the opportunity to provide "testimonials," offering a personal statement about the impact of the SALT training program with the understanding that their personal statement could be used to support outreach to other graduate students to encourage participation in future SALT training events (see *Appendix C-Cohort 2*).

Questionnaire Data Analysis

The SALT fellows were selected from a range of fields with highly diverse career interests. Among the (29) SALT participants, cohort 2 fellows reported membership in (28) professional organizations, including NYAS (n=8). Active membership in professional organizations suggests that SALT fellows began exploration prior to the SALT Program for possible career options and network building (see *Appendix C-Cohort 2*).

Over half of respondents indicated they had submitted a paper for publication in a peerreviewed journal (57%), and/or had either co-authored or held joint authorship with two or more colleagues in publishing a professional paper (59%). These achievements as graduate students suggest that the cohort 2 group shows interest in communication of science within their field. SALT training is intended to provide additional skills to increase confidence and ability to conduct effective communication, including use of media, public relations, and other modes of communicating about emerging and relevant technical and scientific knowledge for broad consumption by the public.

beginning in 2017 and continuing through 2020. It
fellows will enter the field in the next two years,
which suggests that the timing of the SALT
training occurred within a short-term period
immediately preceding completion of their Ph.D.,
and are at a point in their professional
development where they are likely to be seeking,
or currently pursuing employment or post-
doctoral positions.

In response to the question, "Which best reflects your current career interest?" SALT fellows were asked to choose their top three areas of interest. Over half (55%) selected "applied research,"

	SALT Fellows d Date of Award
Year Degree	Number of SALT Fellows
Expected	Fellows
2017	6
2018	11
2019	4
2020	4

All fellows are Ph.D. students and will be entering the field and post-graduate careers beginning in 2017 and continuing through 2020. Table 1 shows that 59% (n=17) of the



followed by just under half indicating an interest in an academic career in higher education (45%). Table 2 presents a list of ten career areas of interests.



Table 2: Which best reflects your current career interest? (Top three)

Respondents were also given the opportunity to list other areas beyond the ten choices offered. These include:

- Science communication (n=4)
- Science writing/Publication (n=3)
- Data science/industry data science (n=2)
- Clinical trials
- Business development
- Research and Development
- Medical communication
- Media/Public Relations

SALT fellows identified multiple goals and expectations about the training experience. Table 3 shows a list of eight pre-defined potential outcomes. Over half of respondents





(62% to 93%) selected seven of the eight options listed. These choices were aligned to the program description and reflect aspirations for gaining leadership skills, associated benefits in success of attaining career goals, augment science expertise and skill sets, as well as building relations for networking among STEM leaders.



Table 3: What attracted you to apply to SALT? (Choose all that apply)





In looking at pre-training expectations for gaining leadership skills, Table 4 shows that 55% of SALT fellows stated that they expected to gain strong leadership skills. Post-training response shows that roughly the same number of individuals (61%) felt that they had grown in their leadership skills by the end of the training. However, when asked about specific aspects of the training, fellows showed significant increases in self-assessment of confidence and in pursuing career related goals. Table 5 shows that SALT fellows saw significant benefits and growth of interpersonal skills in communication and ability to engage effectively with their peers.

Table 4: Do you think you [will gain/gained] strong leadership skills as a result of your experience at SALT?

Pre-Training	Post-Training
55%	61%

Table 5: I strongly agree with the following statements:



Knowledge Capture

During the 5-day SALT workshop participants initiated work on a Leadership Development Plan (LDP). This planning effort will help to guide potential skills, situations, and strategies for engaging more effectively as professionals, supported by ongoing facilitation (webinars) to grow confidence in planning and implementing career goals.

Table 6 shows an increase of 38% from the pre-training expectations of benefits of the SALT Program to the posttraining experience. Fellows reported gaining skills to support attaining career goals. Table 7 also shows posttraining self-assessed gains in reflecting on career aspirations and strategies for professional engagement.

Table 7: In light of the knowledge acquired at SALT, I have... (n-28)







10

(in)(3



In response to open-ended questions, SALT fellows identified additional benefits that they experienced through the training activities. Areas of personal growth include ways in which the training helped to redefine the importance of self-assessment in work settings, and gains in strengthening interpersonal communication skill sets. These include:

- Self-awareness
- Coping with anxiety
- How stress influences behavior
- Learning style preference
- Developing confidence
- Speaking in public
- Courage and openness to try new things
- Challenging oneself
- Understanding leadership through being a team member
- Learning to "fail gracefully"
- Sense of agency

In experiencing teamwork and engaging with others in a cross-disciplinary context, SALT fellows also identified important aspects of strategies that can improve the quality of engagement with colleagues. These insights can help to strengthen skills in managing and leading others engaged in common endeavors to excel in their chosen field and career. These include:

- Understanding group dynamics and team member roles
- Accepting feedback from peers
- Managing group dynamics
- Dealing with challenging personalities
- Working with strong personalities
- Facing uncomfortable situations head on

The overall experience of the 2017 SALT fellows reflects self-assessment of significant gains reported through the pre- and post-questionnaire. In the next section, review of the webinar experience including topics offered for discussion, and patterns of participation are explored for impact on cohort 2 goals and aspirations. These findings will also help to inform future design for the SALT Program in growing and sustaining the goals of the program.



Webinar Participation

The webinars were designed as ongoing, monthly virtual group sessions to support continued engagement with cohort 2 SALT participants. These webinars were intended to provide a forum for exchange of ideas, exploration of career strategy building and particular desired professional skills, as well as a means to provide guidance by the SALT Program facilitation team. Additionally, members of cohort 1 (2016) and cohort 3 (Atlanta, 2017) were invited to participate. The PAST Knowledge Capture Team evaluation focused on tracking cohort 2 patterns of participation, response, and overall interaction in use of a web-based platform as a virtual forum for program goals.

Table 8 presents an overview of the nine webinars by date and topic.

DATE	WEBINAR TITLE	FACILITATOR	PANELISTS
10/11/17	Difficult Conversations with your PI: Essentials of Conflict Resolution In and Out of the Lab	Mattias Birk, Ph.D.	
10/26/17	Organization, Socialization, and Culture: Determining "Fit"	Mateo Cruz	
11/20/17	Personal Branding Panel	Kate Bredbenner	Dr. Kenny Gibbs, Dr. Monica Feliu Mojer, Dr. Maryam Zaringhalam, and Dr. Chris Gunter
12/13/17	Personal Finance	Reuben Advani	
1/30/18	Networking Beyond the Basics	Mary M. Mitchell	
2/09/18*	Six-Month Check-In for Leadership Development Plans (LDP)	Julie Nadel	Yaihara Fortis, Mateo Cruz, and Boyd Branch
4/09/18**	The Job Hunt: How to Tailor CVs, Resumes, and Cover Letters to a Job Description	Arthee Jahangir	
4/16/18	From SALT to The Workforce: An Alumni Panel	Julie Nadel	Carlos M. De Leon Rodriguez, Yue Liu, Mike Veenstra, Mercedes Gyuricza [ALL C1]
5/16/18	How to Quickly Transition into the Workplace and Build a Successful Career	Juliet Hart	
*C2 participai			
**No attenda	nce data available		

Table 8: SALT Webinar Topics 2017-2018



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The PAST Knowledge Capture Team (KC) observation reports appear in *Appendix B-Cohort 2* of this report. Each individual webinar report includes a summary of the topic presented, as well as a description of the activities and/or structured exercises posed by the facilitator. Use of a "chat" window allowed participants to respond to questions posed by the topic facilitator and/or panelists, as well as the SALT Program team. Questions posed, and responses from participants were tracked and presented in the summary webinar reports submitted by the KC Team. Reports were provided to the SALT Team within 10 days of the webinar, providing the SALT Program team with observation data on participation and an overview of particular issues raised by SALT Program participants. These reports were also intended to inform modifications for succeeding webinars to better meet the needs of program participants.

Quantitative attendance data was tracked and is presented in *TABLE A: SALT Cohort 2 – Participation Breakdown by Webinar 2017-18 (see Appendix A – Cohort 2).* Analysis of quantitative data is based on (8) webinars due to lack of data for one webinar (4/9/18) resulting from a technical error that occurred in recording the SALT webinar "chat" and attendance list.

The KC Team webinar reports also included "Recommendations" for increasing effective design/logistics of the webinars. For example, in the first Webinar (October 11, 2017), it was noted that the "chat" box was only visible to the webinar facilitator. In the following webinars beginning with October 26th, the web platform settings were adjusted to allow all SALT participants to view comments, questions, and responses to questions raised by webinar participants. This change increased the impact of a more robust exchange of ideas, experiences, concerns and questions raised by fellow SALT participants as part of the design of the remote online forum.

Overall cohort 2 participation in the SALT webinars ranged from month to month and by topic. Table A shows that at least half (n=15) of cohort 2 SALT alumni attended five to seven of the eight webinars, and 57% attended at least four of the eight webinar sessions.

The highest number of participants occurred during the first webinar (73%) entitled, "Difficult Conversations with your PC: Essentials of Conflict Resolution In and Out of the Lab." This topic was closely aligned to the focus of on-site workshop and may have had high appeal as an extension of the dialogue that occurred during the on-site 5-day program. Beginning with the second webinar and continuing into the second half of the program (10/26/18 – 1/30/18) webinar attendance ranged from 56% to 53%. The last three sessions show a drop in participation from 40% to 20%.

However, in looking at the rate of active participation by each individual, whether attending over half or fewer sessions, active engagement with the facilitator/panelists (e.g., use of the chat tool to comment or engage in virtual discussion) was also tracked to assess interest level in the topic, as well as effective interaction with the SALT Program team. Table A shows that (4) participants were active in all sessions attended, and (3) were active in 80% of



sessions attended. Six participants ranged in engagement from 60% to 70% of the sessions attended, and (7) participants were active in at least half of all sessions attended.

The six-month check-in webinar (2/9/18) was designed to discuss progress with individual's efforts to implement the Leadership Development Plan (LDP). This session was attended by (12) cohort 2 alumni (40%). Of those, 67% (n=8) actively participated in the session sharing progress or posing questions and concerns about their post-SALT training experience. Participants were also given the opportunity to discuss any particular success each individual felt they had in applying new skills to support their LDP strategy for career development. One individual reported attaining a management position in a "Science Mentoring Program" with a national organization based in Washington D.C. Overall, the participants were positive in their remarks and were congratulatory of each other's successes.

Concluding Remarks

The SALT Program has had an impressive impact on graduate student participants as demonstrated in the pre/post questionnaire comparative analysis, with a high percentage of cohort 2 participants reporting post-training increases gained in skills, confidence, and outlook for professional career planning. Webinar participation sustained 57% attendance for four of the eight webinars observed (n=17), and 40% (n=12) reported continued activity directed to implementing their LDP as a component of their career planning activities.

In terms of feedback from the SALT cohort 2 participants, the (9) individuals who provided personal statements about the program, as well as in questionnaire responses (n=29), and in webinar discussion, several common areas of impact were identified by cohort 2 SALT alumni:

- Confidence in assuming a leadership role in working with peers
- Increased awareness of the value of self-assessment as a tool for being an effective leader
- Awareness of self-assessment of personal strengths, including emotional intelligence, to increase capacity to become "strong, empathetic leaders who understand that change begins with them[selves]"
- Use of a different lens through which to assess teamwork and application of more effective strategies for developing team strengths
- Value of assessing different styles of learning to better manage productivity of team members
- Ability of navigate conflict and stresses presented by team members to "optimally collaborate with them to achieve common goals"



(in)(3

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Response to the instructors both on-site and during the webinars was strong, with one individual commenting at the conclusion of the 5-day program that "the instructors put tremendous effort into this program and are invested in what their students are taking from it."

Overall the level of positive experiences in envisioning career aspirations that build on leadership, intuitive understanding of collaboration, and strong communication skills was a broadly reported view among cohort 2 alumni. As one participant observed, "The instructors put us in situations to help us learn things that I don't think could be taught in a typical classroom setting." The demonstrated impact of this program both in qualitative and quantitative analysis shows outcomes of this program are the result of an effective design and strategy for implementation, led by highly experienced and knowledgeable instructors and facilitators associated with the NYAS Science Alliance Leadership Training Program.

Knowledge Capture



APPENDIX:

Science Alliance Leadership Training (SALT) Cohort 2 Evaluation Final Report 2017-18

<u>Appendix A – Cohort 2:</u> TABLE A: SALT Cohort 2 – Participation Breakdown by Webinar

> <u>Appendix B – Cohort 2:</u> 2017-2018 Webinar Bullet Point Reports

<u>Appendix C – Cohort 2:</u> Pre/Post Comparative Questionnaire Report (December 2017)



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Appendix A – Cohort 2:

TABLE A: SALT Cohort 2 – Participation Breakdown by Webinar



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TABLE A: SALT Cohort 2 (n=30) – Participation Breakdown by Webinar 2017-18

			Total Webinars Attended Percent of 8 Attended	∞		Webinars by Date (n=8*)								Percent of Active
First Name	Last Name	Research Field or Discipline		10/11/17	10/26/17	11/20/17	12/13/17	1/30/18	2/09/18	4/09/18*	4/16/18	5/16/18	Engagement in Meetings Attended	
Aida	Verdes	Ecology, Evolutionary Biology and Behavior	2	25%	1		1							100% ACTIVE
Caitlyn	Moore	Cancer, Stem Cells	5	63%	1	1		1	1	1				60% ACTIVE
Camila	Prieto	Cancer Biology	1	13%						1				100% ACTIVE
Deniz	Vurmaz	Point of Care-Biomaterials	2	25%	1		1							0% ACTIVE
Elizabeth (Liz)	Bailey	Biophysical Chemistry	7	88%	1	1	1	1	1			1	1	71% ACTIVE
Elyssa	Bernfeld	Cancer Biology	2	25%	1				1					50% ACTIVE
Jacob	Becraft	Synthetic Biology/Biological Engineering	0	0%										0% ACTIVE
Jinelle	Wint	Neurobiology and Behavior	5	63%	1	1	1	1		1				20% ACTIVE
Joanne Haeun	Lee	Immunotherapy, Mechanobiology	5	63%	1	1		1	1			1		80% ACTIVE
Kristifor (Kris)	Sunderic	Bone Tissue Engineering	7	88%	1	1	1	1	1	1			1	43% ACTIVE
Kristen	Gulino	Microbiome and Bioinformatics	6	75%	1	1	1	1	1	1				50% ACTIVE
Maria	Strangas	Ecology and Evolution	5	63%	1	1	1	1		1				80% ACTIVE
Maria	Carrera-Haro	Immunotherapy	5	63%		1	1		1	1		1		60% ACTIVE
Mayur	Gadiya	Molecular Biology	5	63%	1	1		1	1	1				60% ACTIVE
Megan	Slough	Virology	7	88%	1	1	1	1	1	1			1	71% ACTIVE
Michael	Murphy	DNA Damage Response	0	0%										0% ACTIVE
Michelle	Miron	Immunology	5	63%	1		1	1		1			1	40% ACTIVE
Natalie	Orie	Toxicology	6	75%	1	1	1	1				1	1	50% ACTIVE
Nina	Martin	Immunology and Virology	1	13%			1							0% ACTIVE
Olipriya	Das	Molecular and Cell Biology	2	25%	1			1						50% ACTIVE
Omar	Omar	Post-Transcriptional Gene Regulation	4	50%	1			1	1			1		50% ACTIVE
Patty	Martin	Immunology and Inflammation	3	38%		1	1		1					67% ACTIVE
Samantha	Кее	Neuroscience Cerebellum	5	63%	1	1		1	1				1	80% ACTIVE
Shashirekha	Mundhra	Immunology and Microbial Pathogenesis	2	25%	1		1							50% ACTIVE
Siddharth	Sunilkumar	Toxicology	3	38%	1				1	1				100% ACTIVE
Sofia	Bakogianni	Cancer Biology, Biomedical Sciences	4	50%	1	1		1	1					50% ACTIVE
Trudi	Denoon	Toxicology	5	63%	1	1			1	1		1		40% ACTIVE
Will	Adler	Neuroscience	1	13%			1							0% ACTIVE
Xinglei	Liu	Biochemistry	6	75%	1	1	1	1	1				1	33% ACTIVE
Yangzi Isabel	Tian	Nanoscale Engineering	1	13%		1								100% ACTIVE
~		Total C2 Partie	cipants/\	Vebinar	22	17	16	16	16	12		6	7	Orange Text =
		C2 Active Partic				15	5	6	10	8	*No Data Received	0	2	Interaction with
		Percent Active of Tota				88%	31%	38%	63%	67%	*NG Rec	0	29%	Speaker/SALT Leaders





Appendix B – Cohort 2: 2017-2018 Webinar Bullet Point Reports



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Science Alliance Leadership Training (SALT) Webinars 2017-2018 Bullet Point Report

KNOWLEDGE CAPTURE PROGRAM PAST Foundation

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Science Alliance Leadership Training (SALT) Webinars: Bullet Point Report

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SALT Webinar Bullet Point Report Summary of Participant Comments October 11, 2017 Difficult Conversations with your PI: Essentials of Conflict Resolution In and Out of the Lab Facilitated by Mattias Birk, Ph.D.

Introduction:

This is the first webinar for the monthly series, and 83 participants from the 3 cohorts were invited to attend. A total or (26) participants from Cohort 2 (22) and Cohort 3 (4) attended this webinar. Attendees were able to see the facilitator and PowerPoint presentation, but were unable to see comments and questions posed by the other members of the group. The overall engagement level in this webinar is high, with 18 of the 26 attendees (69%) posting comments and questions in the Chat box. The facilitator recommended further reading to webinar participants at the end of the session, and also shared his contact information should they have additional questions or issues.

Structure:

The facilitator introduced the participants to the basics of conflict resolution, and posed a number of questions to the group about the conflicts they've encountered and the methods they used to try to resolve it. Answers were posted in the chat box, and the facilitator quickly and briefly summarized participant comments, noting that he would not be sharing names to preserve participant confidentiality. Interaction was limited due to the inability of participants to see others' comments. Facilitator shared a variety of techniques to apply to resolving conflicts with the group, and participants asked a variety of questions related to the techniques described (see below).

Questions posed by Facilitator & Responses from Attendees:

What kinds of techniques have you used in trying to resolve conflicts with your PIs? (Chat box comments, n=11)

- Tried to talk to the people involved in the conflict
- Tried to acknowledge others' positions or emotions as valid
- Tried to make requests
- Prior attempts at conflict resolution were unsuccessful

What kind of conflicts have you experienced with your PIs? (Chat box comments, n=11)

- Indifference toward toxic work environment
- Different standards for different students/double standards
- Time of graduation
- Taking credit for student work
- Authorship on papers
- Micromanagement of post doc
- Feeling unheard



Knowledge Capture



- Establishing work-life balance
- PI disengagement and lack of support

Why does conflict exist? (Chat box comments, n=10)

- Personal Differences
 - o Goals
 - o Priorities
 - \circ Perspectives
 - o Personalities
 - o Opinions
 - "Upbringing" [Cultural/Ethnicity]
 - Approaches
- Goals are not aligned
- Self-interest
- Miscommunication

Why is getting all your needs met not a successful strategy? (Chat box comments, n=7)

- Lack of mutual benefit
- One-sided
- Other party will not be satisfied/will not benefit
- Demonstrates fixed mindset
- Demonstrates lack of cooperation
- What do you need to understand to get to the point where you collaborate? (n=9)
 - What the other person needs/wants
 - What the other person cares about
 - Recognition of differing goals/needs
 - Everyone's terms

What is the concrete behavior you'd like your PI to engage in? What do you want? What is the specific action you want your PI to take? (Chat box comments, n=15)

- Stronger supervision
- Interventions to prevent disruptive behavior
- Increase frequency of feedback
- Clear directives
- Greater availability
- More concrete feedback about ideas
- Evidence that PI is listening
- Inclusion in conversations that might be beneficial
- More equity in assigning lab tasks

What might you hear from your advisor that doesn't help you? (Chat box comments, n= 2)

"I expect all my students to be entirely responsible for themselves and their productivity"





Final Exercise

After discussing effective means of communication and conflict resolution, the Facilitator conducted a final exercise with the group. He asked them to post their responses to the following prompts (Chat box comments, n=8):

In 3 sentences spell out:

What I observed is-

The impact it had on me was-

My request is-

Response 1:

- Observed PI has a particular vision for the project but does not communicate it
- Observed PI expects me to generate ideas but only approves of the one that coincides with PI's idea Response 2:
 - Observed inequity in assignment of lab tasks
 - Impact is it takes away from time to conduct research

Response 3:

- Observed PI had a lot of major items of feedback after my group meeting
- Impact is respondent was "caught off guard"
- Request for increased feedback so respondent can gauge improvement

Response 4:

- Observed a persistent, inappropriate student behavior in the lab despite confronting those responsible and bringing concerns to PI
- Impact is feeling words, work, and efforts have no value.
- Request is that PI take serious issues seriously, enforce and code of conduct, and foster an environment of mutual respect as well as reward and recognition.

Response 5:

- Observed PI is very ambiguous
- Impact is frustration due to lack of guidance
- Request that PI to share ideas and provide valuable feedback

Response 6:

- Observed PI appears frustrated during meetings by respondent's lack of understanding
- Impact is level of anxiety in the room really shuts respondent down
- Request that PI rephrase question instead of getting upset

Response 7:

- Observed the lab is being left in a mess
- Impact is that workspace is being disrespected and safety is being compromised

• Request PI clarifies expectations for maintenance and cleanliness in the lab, with consequences Response 8:

- Observed PI wants to be corresponding author in paper student wrote entirely
- Impact is feeling taken advantage
- Request is for PI to be fair





Questions posed by Webinar Attendees (Chat box questions, n=9):

- What can be done if we don't have a Best Alternative to a Negotiated Agreement? (BATNA)
- What if the parties involved choose not to recognize needs and goals?
- What is the best tactic to ask someone up front what they need?
- How do you assertively stop micro-aggression?
- What avenues are available when your PI feels that problems in the lab are the responsibility of the student alone?
- How would you approach resolving old issues that were never resolved compared to present issues?
- What can I do if my PI shuts down and outright says "no" to both my position and my alternatives?
- Is there a particular tone of voice or language to use during negotiation?
- How do you know that having that difficult conversation is not going to make things worse?

NOTE: one respondent started to write a question at the end of the webinar, but was unable to complete it. Respondent said he'd "write it up in an email."

Recommendations

The majority of attendees posted their comments and questions in the chat box, indicating that they were sharing with all webinar participants. Due to the webinar settings, only the panelists (NYAS staff and the Facilitator) were able to see the comments and questions. The Facilitator shared some responses briefly after all were submitted, leaving little opportunity for attendees to absorb the responses and questions posed by other SALT participants. Providing access to posted comments for all attendees (where indicated by the poster), will allow for a more robust exchange of ideas. There is a good deal of commonality to the issues shared, and participants may be encouraged to hear that they are not alone in facing these situations.





SALT Webinar Bullet Point Report Summary of Participant Comments October 26, 2017 Organization, Socialization, and Culture: Determining "Fit" Facilitated by Mateo Cruz

Introduction:

This is the second webinar for the monthly series, and all 83 participants from the 3 SALT cohorts were invited to attend. A total of (n=21) participants attended this webinar: Cohort 1 (n=1), Cohort 2 (n=17) and Cohort 3 (n=3). Attendees were able to see the facilitator and PowerPoint presentation, and after specific requests and some reconfiguration, attendees were also able to see comments and questions posed by the other members of the group. The overall engagement level in this webinar is very high, with 20 of the 21 attendees (95%) posting comments and questions in the provided chat boxes. The facilitator is well known by the attendees, having had extensive interaction with cohort members during the summer training sessions. This webinar began 15 minutes later than scheduled, and additional time was not added at the end for participant questions. The facilitator encouraged participants to reach out on Facebook or through email if they need help.

Structure:

The facilitator reconnected with attendees, asking them to share their name, cohort and one accomplishment achieved since their SALT workshop. After participants shared their accomplishments, the facilitator shared his own recent accomplishment. Throughout the remainder of the webinar, the facilitator discussed organizational structure and culture, reviewed different types of organizational fit, personality, and motives for behavior. Participants were asked to take polls, personality tests and to self-assess at various points during the webinar with the objective of determining organizational culture and their own fit. Some of the participants shared their results, but the majority did not post outcomes in the group chat. Facilitator shared a video, "Hogan Personality Assessments," and recommended that participants watch "The Candidate," a video on YouTube made by Heineken providing insight to the hiring process through the lens of organizational fitness. A URL link was posted in the chat box by NYAS staff.

Questions posed by Facilitator & Responses from Attendees:

Share an accomplishment since your SALT workshop.

(Chat box comments, n=14)

- Had a difficult conversation with Pl/mentor
- Passed candidacy exams
- Worked on Teaching as Research project
- Obtained permission to write and defend thesis
- Took on leadership role at graduate school scientific association
- Had art displayed in a museum
- Put manuscript together
- Stepped out of comfort zone to become more comfortable in leadership roles





- Discussed graduation timeline with advisor
- Had an article published
- Facilitated workshops
- Improved team performance

What phase of the job search process are you in? A) Pre-recruitment; B) Recruitment/job search; C) Selection of organization/job choice; D) New Hire; and E) Moving deeper in, moving up.

(Chat box comments, n=10)

- A) Pre-recruitment (n=9)
- A) Pre-recruitment/B) Recruitment/job search (n=1)

What does $B=f(P \times E)$ mean? [NOTE: facilitator used this to lead into discussion of workplace outcomes.] (Chat box comments, n=5)

• Behavior is a function of person and environment

Questions posed by Webinar Attendees (Chat box questions, n=2):

- Will we have access to the slides after the webinar?
- The Dropbox link isn't working, is that because the webinar is in process?
- Who coined the PE fit types? (Person-Environment)

NOTE: Several attendees posed questions about webinar audio and chat settings. These issues were resolved. None of the questions (3) posted above were addressed.

Recommendations

1. Attendees were excited to have the webinar settings adjusted so they could view all of the comments and questions in the chat box. This provided an opportunity for participants to interact and reconnect with each other. This configuration should be set up before participants join the webinar.

2. The facilitator appeared surprised that he was unable to hear responses from participants, and some participants seemed to expect they would be able to speak to each other and the facilitator. It would be helpful to let future presenters and attendees know how communication is structured for the webinars.

3. The questions posted about access to PowerPoints and Dropbox were not addressed. If there is a point of access for webinar materials, it should be communicated to attendees. It would also be helpful to circulate information about how to access webinar materials to SALT participants unable to attend the webinars.







SALT Webinar Bullet Point Report Summary of Participant Comments November 20, 2017 Personal Branding Panel Facilitator: Kate Bredbenner Speakers: Dr. Kenny Gibbs, Dr. Monica Feliu Mojer, Dr. Maryam Zaringhalam, and Dr. Chris Gunter

Introduction:

This is the third webinar in the monthly series, and all 83 participants from the 3 SALT cohorts were invited to attend. A total of (n=23) participants attended this webinar: Cohort 1 (n=5), Cohort 2 (n=16) and Cohort 3 (n=2). Attendees were able to see the facilitator and the four panelists, and were instructed to post questions and comments in the chat box. Participants were able to see comments and questions posed by the other members of the group. Attendees were informed that the webinar would be recorded and distributed as a podcast to SALT participants. Seven participants (30%) dropped out of the webinar before the halfway-mark. The "chat" engagement level in this webinar is fairly low, with only 6 of the 23 attendees (26%) posting questions and comments in the provided chat box. The structure for this third webinar, with multiple panelists, created more of a dialogue than a Q&A. This resulted in panelists using the chat space to augment the discussion with suggested additional resources, specific references, and contact information regarding issues covered during the discussion.

Structure:

SALT participants were given the opportunity to learn from four scientists on how they use social media platforms to build their professional brand as leaders in their fields. The facilitator, a former SALT participant (Cohort 1), posed questions, several of which were prompted by a former SALT staff member, to the speakers throughout the webinar about their use of social media in their jobs. Panelists shared their Twitter handles and various pertinent URLs with attendees in the chat box. Attendees were specifically given the opportunity to post their own questions to the panel of speakers towards the end of the webinar. Participants posted questions (2), one of which the facilitator brought to the panelists' attention.

Questions posed by Webinar Attendees (Chat box questions, n=2):

- Do any of you integrate across platforms, e.g. Instagram?
- Any tips on engaging communities speaking different languages?
 - Do you tweet the same content in both Spanish and English?

NOTE: Only the question about posting in multiple languages was brought to the attention of the speakers and was addressed.





Recommendations

The webinar was informative and engaging, with lively interaction between SALT staff (both current and former), the facilitator and the four speakers. The opportunity for attendees to engage was limited by time and perhaps by access. Given the fast pace of the chat, it was easy for attendee questions to get overlooked by the volume of text. If webinars with multiple speakers are slated for the future, it might be helpful to allocate the Q&A space specifically for attendees. It might be more effective to allow for a quick review to catch unanswered questions. Unanswered questions could also be addressed in a follow-up email from the presenters to offset the time constraints of the 90-minute webinars.





SALT Webinar Bullet Point Report Summary of Participant Comments December 13, 2017 Personal Finance Facilitated by Reuben Advani

Introduction:

This is the fourth webinar for the monthly series, and all 83 participants from the 3 SALT cohorts were invited to attend. A total of (n=23) participants attended this webinar: Cohort 1 (n=5), Cohort 2 (n=16) and Cohort 3 (n=2). Only (2) participants left the webinar within the first 5 minutes of the presentation; 91% remained engaged for the remainder of the presentation. Attendees were able to see the facilitator and PowerPoint presentation, and attendees were also able to see comments and questions posed by the other members of the group. The overall engagement level in this webinar was fair, with 9 of the 23 attendees (39%) posting comments and questions in the provided chat boxes. The facilitator covered a great deal of material in a short period of time, and participants were invited to pose questions during the final 15 minutes of the presentation. This webinar began 15 minutes later than scheduled due to technical issues, and concluded 15 minutes ahead of the scheduled time. The facilitator encouraged participants to reach out through email with any follow-up questions.

Structure:

The facilitator discussed personal finance strategies with SALT participants, and posed a number of questions to the group, which covered basic financial knowledge. The facilitator ran an exercise on good debt vs. bad debt, posing 4 scenarios. Respondents were asked to think about the scenarios, though none posted responses in the chat box. Later in the presentation, the facilitator posed scenarios around compounding interest and discussed investment strategies, leading to increased chat box activity. Questions posted in the chat box were brought to the attention of the facilitator by NYAS staff, and addressed by the facilitator accordingly. Some questions posted were answered by other SALT participants. The facilitator completed his presentation by summarizing key points in review, reminding participants that whatever path they take, these financial strategies will be helpful.

Questions posed by Facilitator & Responses from Attendees:

- Why is finance important?
- Who said, "An investment in knowledge pays the best investment"?
- What is debt?
- What is interest?
- What is real income, savings rate, savings vs. interest?
- What do you need to conduct transactions?
 - Trust/acceptability in that currency

Questions posed by Webinar Attendees (Chat box questions, n=11):

• Can you share your thoughts on cryptocurrencies as an investment?

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Knowledge Capture



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- What are your thoughts on investing in gold?
- How does one get started on investing and doing research?
- Do you have any advice on retirement accounts, keeping in mind we are graduate students and not able to save a lot of money at this point in our careers?
- What are your thoughts on investing in ethereum?
- What about investment in real estate?
- What is your opinion on starting a Roth IRA with our graduate student salaries?
- Do post-docs get retirement accounts through their universities?
 - Some programs offer post docs a 403(b) [response from SALT attendee]
 - Is it stupid that I don't have an emergency fund saved right now?
 - It is never too late to start as long as you start putting something away every month [response from SALT attendee]
- What is a 403(b), and how is it different from a 401(k)?
- Does NYAS have a stock we can invest in? [posted with :)]







SALT Webinar Bullet Point Report Summary of Participant Comments January 30, 2018 Networking Beyond the Basics Facilitated by Mary M. Mitchell

Introduction:

This is the fifth webinar for the monthly series, and all 83 participants from the 3 SALT cohorts were invited to attend. A total of (n=18) participants attended this webinar: Cohort 1 (n=1), Cohort 2 (n=16) and Cohort 3 (n=1). Only (3) participants left the webinar within the first hour of the 90-minute presentation; 83% remained engaged for the remainder of the presentation. Attendees were able to see the facilitator and PowerPoint presentation, and were also able to see comments posed by the other members of the group (chat box text). The overall engagement level in this webinar was very good, with 11 of the 18 attendees (61%) posting comments in the provided chat boxes. Participants were invited to pose questions throughout the presentation. The facilitator encouraged participants to reach out through email with any follow-up questions following the conclusion of the webinar.

Structure:

The facilitator presented a discussion on general professional etiquette, and an overview of customs in the United States, with the goal of helping these graduate students feel more confident, self-aware, and self-assured when entering the professional world. The facilitator shared her own experience with "Miserable Moments" at networking events, and offered recommendations to help overcome social discomfort. The facilitator provided comments and suggestions including: having a snack before attending events, proper handshaking and introductions, remembering names, how to disengage from a conversation effectively, and writing an appropriate thank you note. While none of the participants posted questions in the chat box, a NYAS staff member asked several questions addressed by the facilitator, with concurrence echoed by attendees in chat box comments. The facilitator completed her presentation with a video on dining manners. There were technical issues with the audio portion, and participants were told they would receive a link to the video and handouts. Participants were asked by the facilitator to practice the social scenarios outlined in handouts sent after the webinar.

Questions and Comments posed by Facilitator & Responses from Attendees:

- Am I the only one who feels like this when I walk into a crowded room? [Facilitator posts picture of Munsch's "The Scream"]
 - \circ 3 participants agreed that they also feel that way
- First thing to remember is "Don't go hungry" (always eat something prior to attending events)
 - 1 participant commented, "Finally had a late lunch and feeling much better"
- Am I the only one who has forgotten names during introductions
 - \circ 5 participants concurred that they too have forgotten peoples' names
 - Absolutely not...really bad at it
 - I sometimes instantly forget as soon as someone tells me their name





- Always thank your host
 - Thank you Julie!

Questions and Comments posed by NYAS staff/Webinar Attendees:

- Being nervous about what I'm going to say makes it hard to pay attention to what others are saying, how can that be alleviated?
 - Seconded by an attendee, "Yes, definitely have the same question"
- I do research before I go [to an event], do you have advice on introducing yourself to someone you admire without being "stalker-ish"?

Observer Comments:

It's been noted that some webinar topics spur more participant interaction than others, and while this webinar garnered a high percentage of chat (61% of participants posted comments, including expressions of gratitude, none of the participants posed questions for the facilitator. The questions asked by the NYAS staff member were effective in both showing interest in the topic and facilitator's expertise, as well as providing pathways for participant comments. It is clear that the questions struck a chord in more than one webinar participant. Should participants show reluctance to ask questions of the facilitator in future webinars, having NYAS staff pose general questions is highly recommended.





SALT Webinar Bullet Point Report Summary of Participant Comments February 9, 2018 Six-Month Check-In for Leadership Development Plans (LDP) Facilitated by Julie Nadel, Yaihara Fortis, Mateo Cruz, and Boyd Branch

Introduction:

This is the sixth webinar for the monthly series and was designed for the SALT Cohort 2 participants as a midyear review of work on LDPs since completing the summer workshop. Only Cohort 2 participants (n=30) were invited to participate in this webinar, and 40% joined the webinar (n=12). Four participants joined the webinar 15 or more minutes passed the start time; however, 100% of the webinar participants remained engaged for the remainder of the session. Attendees were able to see the facilitators and PowerPoint presentation, and were also able to see comments posed by the webinar participants. Participants were invited to share their experiences directly and pose questions throughout the presentation. The overall engagement level in this webinar was good, with (8) of the (12) attendees (67%) posting comments and questions in the webinar chat box; (3) attendees (25%) chose to share a brief summary of their experiences in the past six months in response to questions posed by the facilitators. The facilitators also encouraged participants to reach out through email with any follow-up questions.

Structure:

Julie Nadel provided the participants with the overall framing of the webinar and a brief update on the direction of the SALT program as a whole. Yaihara Fortis reinforced the idea that the purpose of the LDP was to help individuals become the leader they envision, and reviewed the results of the voluntary survey the participants completed via a PowerPoint that presented the data in aggregate form. Attendees were asked to share how they measure progress they have made towards their specific LDP goals, and accomplishments they have achieved that has helped them reach their LDP goals. To offset initial hesitation by Cohort 2 participants in sharing their work to date, the facilitators modeled the process by sharing their accomplishments first before two Cohort 2 participants self-selected to share their experiences via the chat box. Yaihara Fortis reviewed the SALT Cohort 2 participants' self-identified biggest challenges related to LDP, and provided the attendees with tips to overcome such challenges and build confidence.

Facilitators, Mateo Cruz and Boyd Branch, addressed survey responses, focusing on content and concepts in how SALT participants are integrating their LDP goals into their work and everyday lives. Boyd encouraged attendees to take a moment to self reflect and realize they are accomplishing incredible things, and to continue to cultivate confidence skills by "acting like you are good enough." Mateo encouraged attendees to value *learning orientation* and *growth mindset* over *performance mindset*, and provided attendees with tips on how to overcome *imposter syndrome*. The facilitators recommended several readings and discussed the value of continuing to build their *emotional intelligence*, and encouraged attendees to take classes at an improv theater in New York City to continue to gain experience with emotional intelligence skills.







Julie Nadel concluded the webinar by emphasizing the supports and resources available through NYAS, and providing a preview of the upcoming career exploration networking event, the end of summer formal job fair, and the future monthly webinar themes. The session ended with a Q&A open forum at the end of the webinar, with one participant concluding comment.

Questions and Comments posed by Facilitator & Responses from Attendees:

- Would anyone like to share their LDP stories of success?
 - (1) participant commented, "I measured my progress based on the time scale I laid out to accomplish my goals. I started talking more to my mentor and am now working on my manuscript."
 - (1) participant commented, "[I] just accepted a job at the American Museum of Natural History as the manager of the Science Research Mentoring Program. It's a position that works between science research and science education - exactly what I wrote on my LDP! Thanks to Yaihara for talking me through the negotiation and to Julie for introducing me to a million helpful people."
 - (5) participants congratulated their fellow peers on their successes since the SALT training

Comments posed by NYAS staff/Webinar Attendees:

- Boyd Branch encouraged attendees to "blurt out their thoughts" during the Q&A open forum
 - "To practice blurting...I am really happy to see everyone here and listen to all this positive advice"





SALT Webinar Bullet Point Report Summary of Participant Comments April 9, 2018 The Job Hunt: How to Tailor CVs, Resumes, and Cover Letters to a Job Description Facilitated by Arthee Jahangir

Introduction:

This is the seventh webinar for the monthly series (after a two-month hiatus), and all 83 participants from the 3 SALT cohorts were invited to attend. Unfortunately, NYAS was unable to provide specific information on the number of participants who attended this webinar beyond (n=12), a total which most likely included NYAS staff and the presenter. Data on continued engagement of participants was also unavailable. It is unknown whether attendees were able to see the facilitator, however all participants were able to view the PowerPoint and offer questions and comments in the chat box provided. There was one question posted, and two comments offered by SALT participants. The webinar facilitator concluded her presentation approximately 75 minutes, providing 15 minutes for participants to ask questions. The facilitator provided her contact information on the final slide should SALT participants have additional questions.

Structure:

The facilitator discussed strategies for reading job postings, and tailoring CVs, resumes and cover letters effectively. She shared her own experience as a Ph.D. student exploring career options and pathways, as well as a description of the work she does in her position at NYU School of Medicine and her involvement in Women's Leadership Development. The facilitator discussed the wide variety of career pathways available to Ph.D.s in the sciences both in and outside academia. There were three parts to her presentation: Looking at Job Ads, Tailoring Resumes and CVs, and Writing Cover Letters. NYAS staff posed a question during the presentation, which was answered by the facilitator. At the end of the PowerPoint, the question posted in the chat box by a SALT participant was brought to the attention of the facilitator by NYAS staff, who added an additional related question. These were addressed by the facilitator accordingly. The facilitator completed her presentation by summarizing key points in review, reminding participants what to think about to successfully respond to a job ad.

Questions and Comments posed by NYAS Staff/Webinar Attendees (Chat box questions and comments, n=3):

- Is using the same language from a job description in your resume a good idea or a bad idea?
- Can you give an example of what a narrative or story in a cover letter should look like?
 - How can the cover letter look more like a narrative as opposed to a re-summarization of the resume or CV



Observer Comments:

Participant engagement, as defined by comments and questions offered, was somewhat low in this webinar. It is worth noting that engagement in webinars where the facilitator posed questions for the group had higher rates of participation. Facilitator questions encourage additional sharing of experience, and additional offers of suppositions on how to address scenarios sketched out by the facilitators.




SALT Webinar Bullet Point Report Summary of Participant Comments April 16, 2018 From SALT to The Workforce: An Alumni Panel Panelists: Carlos M. De Leon Rodriguez, Yue Liu, Mike Veenstra, Mercedes Gyuricza Facilitated by Julie Nadel

Introduction:

This is the eighth webinar for the monthly series, and all 83 participants from the 3 SALT cohorts were invited to attend. A total of 8 participants attended this webinar: Cohort 1 (n=1), Cohort 2 (n=6) and Cohort 3 (n=1). Two participants joined the webinar 15 or more minutes after the start time; however, 88% (n=7) of the webinar participants remained engaged for the majority of the session. Attendees were invited to pose questions to the panelists via the webinar chat box feature. The overall participant engagement level in this webinar was poor, with (0) of the (8) attendees (0%) posting comments or questions in the webinar chat box. The facilitator also encouraged participants to reach out through email with any follow-up questions, and offered to connect participants to the Panelists.

Structure:

The webinar provided attendees the opportunity to receive feedback and ask questions from past SALT alumni who have successfully transitioned from graduate school to the workforce. Panelists (4) from the first SALT Cohort spoke about how they have utilized skills they've learned in SALT during their transition into the workforce and their careers. Julie Nadel facilitated the webinar and guided the panelist through a set of questions regarding their transition into the workforce.

Questions posed by Facilitator to Cohort 1 Panelists:

- Alumni were asked how they applied what they learned from the SALT workshop
- Alumni were asked to compare their experience to those of their academic peers who did not attend the SALT workshop
- Alumni were asked what experiences they were not prepared for by the SALT workshop
- Alumni were asked if they felt the SALT workshop and leadership skills acquired through the program helped them to prepare for job interviews and receive job offers
- Alumni were asked to share the process of landing a job
 - o Interview process
 - \circ $\,$ Connections made and use of the SALT network $\,$
 - Whether they referred to their SALT experience during the job interview
- Alumni were asked if they used skills gained through their SALT experience differently in the workplace compared to graduate school
- Alumni were asked to identify gaps in their skillsets and share skills they wished they had before attending the SALT workshop
- Alumni were asked to share advice on how to make the transition from graduate school to the workforce





- o Job search tips
- o Resources
- \circ What to take advantage of in graduate school
- Alumni were asked how long it took them to feel comfortable in their new role in the workforce
- Alumni were asked to share anything else that added value as a job candidate, or skills in the workforce, in addition to the resources gained through the SALT webinars and from opportunities at NYAS





SALT Webinar Bullet Point Report Summary of Participant Comments May 16, 2018 How to Quickly Transition into the Workplace and Build a Successful Career Facilitated by Juliet Hart

Introduction:

This is the final webinar for the monthly series (total of 9), and all 85 participants from the 3 SALT cohorts were invited to attend. A total of (n=15) participants attended this webinar: Cohort 1 (n=7), Cohort 2 (n=7) and Cohort 3 (n=1). A Cohort 3 member was recently hired by NYAS as a Program Assistant with access to the webinar's audio and visual features, and was called upon by the facilitator to share her own experience with transition with the group. Only (3) participants left the webinar within the first half of the 90-minute presentation; 80% were engaged for the balance of the remainder of the presentation. Attendees were able to see the facilitator and PowerPoint presentation, but attendees were not able to see comments and questions posed by the other members of the group. The overall engagement level in this webinar was fairly low, with 4 of the 15 attendees (27%) posting comments and questions in the provided chat boxes. Participants were invited to pose questions halfway through the webinar. The webinar facilitator concluded her presentation one hour into the 90-minute webinar, and the session concluded approximately 15 minutes ahead of the scheduled time. The facilitator encouraged participants to reach out through email with any follow-up questions.

Structure:

The facilitator discussed strategies for transitioning from academia into the workforce. She shared her own experience in her career as a scientist, the difficulties with acclimating new staff to how things work, and how that led to her current work with coaching scientists to move up the career ladder. She discussed the factors that may make for a difficult transition, ideas of what to think about when entering the workforce, how to overcome challenges, and how to seek out workplace mentors with webinar participants. The facilitator provided baseline differences between graduate school and the workplace, and the need to develop collaborative and interpersonal skills necessary for working with people who are not necessarily as focused on the science as they may be when in the academic lab. Questions posted in the chat box were brought to the attention of the facilitator by NYAS staff, and addressed by the facilitator accordingly. The facilitator completed her presentation by summarizing key points in review, reminding participants what to think about to successfully transition from academia to the workforce.

Questions and Comments offered by Webinar Attendees (Chat box questions and comments, $n=7^*$):

- Learning how to navigate a company was the hardest part of my transition
- Can you speak a little more about communication and boundaries, e.g. being sent emails over the weekend, and expectation that it would be answered immediately. How would I address this as a new employee? [Note: this question was asked twice 15 minutes apart]





- How do you assemble the pieces of your support system? How do you identify a sponsor and ask them to work with you?
- Your discussion about developing skills along your career path seemed to center around being employed. What if you want to work independently, e.g., starting your own business, startup, consulting firm, agency, etc.?
- How do you implement these ideas in an organization that lacks organizational structure? [Note: this question was asked twice in the final 5 minutes of the webinar, and was not addressed.]

*Note: 2 questions were repeated.

Observer Comments:

Participant engagement, as defined by comments and questions offered, was relatively low in this webinar. Factors may include the fact that participants were not able to see the questions and comments posted by others in the Q&A box, and did not have the visual prompt for asking related questions. It is also noted that engagement in webinars where the facilitator posed questions for the group had higher rates of participation. Facilitator questions encourage additional sharing of experience, and additional offers of suppositions on how to address scenarios sketched out by the facilitators.





Appendix C – Cohort 2:

Pre/Post Comparative Questionnaire Report (December 2017)



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Science Alliance Leadership Training (SALT) Summer 2017 Pre/Post Questionnaire Comparative Report

KNOWLEDGE CAPTURE PROGRAM PAST Foundation

Monica S. Hunter, Ph.D, Director of Research Maria Green Cohen, Assistant Director of Research Kayla Galloway, Research Assistant

December 2017

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Science Alliance Leadership Training (SALT) Summer 2017 Pre/Post Questionnaire Comparative Report

Introduction

This report provides a comparative analysis of the pre- and post-questionnaire conducted as part of the Science Alliance Leadership Training (SALT) Program conducted by The New York Academy of Sciences (NYAS) during the summer of 2017. The five-day training program involved (30) graduate students from fourteen colleges and universities who are pursuing careers in science, technology, engineering and math (STEM) fields. The SALT program is designed to build skills in leadership, communication, conflict resolution, and team dynamics. During the fiveday training program, the PAST Foundation conducted an online, anonymous pre- and posttraining questionnaire, providing SALT fellows the opportunity to voluntarily give input on expectations of the program (pre-training questionnaire), as well as share their experience and impact of the training program at its conclusion (post-training questionnaire).

Methodology

The questionnaires were designed to collect both quantitative and qualitative data consisting of Likert, range and open-ended questions. Appendix A presents the pre/post question sets. The questionnaires were administered via a secure web-based platform (SurveyMethods) designed for conducting confidential and anonymous questionnaires.

The pre-questionnaire included (23) questions and was conducted on the morning of July 10, 2017, day one of the SALT training program. A preliminary report was generated the same day and provided to program facilitators for review, allowing them to gain insights on the group of SALT fellows at the start of the training program. A total of (29) respondents completed the pre-training questionnaire.

The post-training questionnaire was completed by (29) respondents over a period of 17 days, beginning July 18 and ending on August 3, 2017. The post-questionnaire consisted of (28) questions including questions to allow SALT fellows to provide feedback and comments on the specific activities and content covered during the five-day program.



The post-training questionnaire also offered SALT participants the opportunity to provide "testimonials," describing their experience and impact of the training program. Nine individuals (31%) selected this option, providing a personal statement about the impact of the SALT training program with the understanding that their personal statement would be used to support outreach to other graduate students to encourage participation in future SALT training events. Appendix B presents the testimonial statements.

Questionnaire Analysis

The SALT fellows were selected from a range of fields with highly diverse career interests. Among attributes of the SALT fellows, most (76%) had demonstrated a willingness and interest in organizing campus activities, including round tables, speaker presentations, etc., to participate in dialogue and sharing knowledge in areas of academic interest. Additionally, 83% indicated that they had given presentations at professional conferences. Among the (29) SALT participants, fellows reported membership in (28) professional organizations, including NYAS. Active membership in professional organizations suggests that SALT fellows have begun exploring networking interests to gain exposure for possible career development (see Appendix C: SALT Fellow Memberships in Professional Organizations).

Finally, over half of respondents indicated they had submitted a paper for publication in a peer-reviewed journal (57%), and/or had either co-authored or held joint authorship with two or more colleagues in producing a professional paper for publication (59%). These achievements as graduate students suggest that this group of individuals has already begun exploring communication of science within their field, and with additional skills could gain confidence and ability to continue to increase their ability to conduct effective communication, including media, public relations, as well as other modes of communicating about emerging and relevant technical and scientific knowledge for broad consumption by the public.

All fellows are Ph.D. students and will be entering the field and begin building their post-graduate careers beginning in 2017 and continuing through 2020. Table 1 shows that 59% (n=17) of the fellows will enter the field in the next two years, which suggests that the timing of the SALT training occurred within a short-term period immediately preceding completion of their Ph.D., and are at a point in their professional development where they are likely to be seeking, or currently pursuing employment or post-doctoral positions.

TABLE 1: SALT Fellows
Ph.D. Expected Date of Award
(n=29)

Year Degree Expected	Number of SALT Fellows
2017	6
2018	11
2019	4
2020	4
Not Specified	4

44

45

(in)



In response to the pre-training question, "Which best reflects your current career interest?" SALT fellows were asked to choose their top three areas of interest. Over half (55%) selected "applied research," followed by just under half indicating an interest in an academic career in higher education (45%). Table 2 presents a list of ten career areas of interests.



Table 2: Which best reflects your current career interest? Please select top three choices (Pre-training Questionnaire; n=29)

Respondents were also given the opportunity to list other areas beyond the ten choices offered. These include:

- Science communication (n=4)
- Science writing/Publication (n=3)
- Data science/industry data science (n=2)
- Clinical trials
- Business development
- Research and Development
- Medical communication
- Media/Public Relations



While the two top choices were "applied research" or "higher education," interest in careers outside academia/research involve careers in science policy (Domestic Policy, n=10; International Policy, n=4) or entering the political arena (n=4), potentially involving legislation informed by science. Pursuing policy and legislative careers can impact local to national and global issues that are among the most challenging facing society currently and into the future. The possibilities for the SALT fellows to apply their leadership skills in these particular areas show that individual aspirations can potentially impact numerous spheres of influence and levels of impact in communicating science to inform decision makers, become decision makers, and work during their careers to further societal goals to make informed choices.

SALT fellows expressed multiple goals and expectations about the training experience. Table 3 shows a list of eight pre-defined potential outcomes. Over half of respondents (62% to 93%) selected seven of the eight options listed. These choices were aligned to the program description and reflect aspirations for gaining leadership skills, associated benefits in success of attaining career goals, augment science expertise and skill sets, as well as building relations for networking among STEM leaders.



Table 3: What attracted you to apply to SALT? Please choose all that apply (Pre-training Questionnaire; n=29)





In looking at the pre-training expectations for gaining leadership skills, Table 4 shows that 55% of SALT fellows stated that they expected to gain strong leadership skills. Post-training response shows that roughly the same number of individuals (61%) felt that they had grown in their leadership skills by the end of the training. However, when asked about specific aspects of the training, fellows showed significant increases in self-assessment of increased confidence and in pursuing career related goals. Table 5 shows that SALT fellows saw significant benefits and growth of interpersonal skills in communication and ability to engage effectively with their peers.

Table 4: Do you think you [will gain/gained] strong leadership skills as a result of your experience at SALT?

Pre-Training	Post-Training
55%	61%

Table 5: I strongly agree with the following statements:(Post-training Questionnaire; n=28)



Providing a structured process in the form of a Leadership Development Plan (LDP), and facilitation and guidance in exploring potential skills, situations, and strategies for engaging more effectively as professionals helped to grow confidence in planning and implementing career goals.





Table 6 shows an increase of 38% from the pre-training expectations of the SALT Program to the post-training experience. Fellows reported gaining skills to support attaining career goals. Table 7 also shows post-training self-assessed gains in reflecting on career aspirations and strategies for professional engagement.

SALT will hel	at I learned at p me achieve eer goals
Pre-Training	Post-Training
41%	79%

Table 7: In light of the knowledge acquired at SALT, I have ...Please choose all that apply(Post-training Questionnaire; n=28)





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In response to open-ended questions, Salt fellows identified additional benefits that they experienced through the training activities. Areas of personal growth include ways in which the training helped to redefine the importance of self-assessment in work settings, and gains in strengthening interpersonal communication skill sets. These include:

- Self-awareness
- Coping with anxiety
- How stress influences behavior
- Learning style preference
- Developing confidence
- Speaking in public
- Courage and openness to try new things
- Challenging oneself
- Understanding leadership through being a team member
- Learning to "fail gracefully"
- Sense of agency

In experiencing teamwork and engaging with others in a cross-disciplinary context, SALT fellows also identified important aspects of strategies that can improve the quality of engagement with colleagues through insight on managing and leading others engaged in common endeavors. These include:

- Understanding group dynamics and team member roles
- Accepting feedback from peers
- Managing group dynamics
- Dealing with challenging personalities
- Working with strong personalities
- Facing uncomfortable situations head on

The overall experience of the 2017 SALT fellows reflects self-assessment of significant gains reported through the pre- and post-questionnaire. Additionally, the "testimonials," provided by nearly one-third of the SALT participants (n=9) also informs evaluation of impacts and outcomes in very personal terms. These testimonials appear in Appendix C, and reflect an authentic range of perceptions of the impact of the SALT training and potential impacts for career development. Additionally, SALT fellows will have continued support through optional participation in monthly webinars where fellows can share progress with their cohorts in implementing their LDP, and extend their exposure to guided facilitation of career and leadership strategy development. The PAST Foundation will provide support of the webinars offering additional insight on the issues that emerge over time as SALT fellows apply their training and newly formed skills, and explore more impactful engagement in pursuing their professional careers.

Knowledge Capture

APPENDIX:

Science Alliance Leadership Report (SALT) Summer 2017 Pre/Post Questionnaire Comparative Report

> Appendix A: SALT Questionnaires SALT Pre-Implementation Survey Questionnaire SALT Post-Implementation Survey Questionnaire

<u>Appendix B:</u> SALT Fellows Testimonial Statements July 2017

<u>Appendix C:</u> SALT Fellows Membership List of Professional Associations







Appendix A: SALT Questionnaires

SALT Pre-Implementation Questionnaire SALT Post-Implementation Questionnaire



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1.

2.

3.

4.

5.

6.

SALT Program Pre-Training Questionnaire

Page 1 - Profile Questions

degree.

What gender do you identify with?
OMale
OFemale
OOther
What degree are you currently working toward? Please specify the year you expect to earn you
What is your major field of study?
Are you planning to seek a higher degree or post-doc beyond your current program? O Yes O No
Are you a member of a professional association?
O Yes O No
If you are a member of a professional association, please list below.
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	3	Knowledge Capture
7.	Have you given presentations at a professional conference?	
	O Yes O No	
8.	Have you participated in organizing campus events related to your tables)?	field of study (e.g. speakers, panel discussions, round
	O Yes O No	
9.	Have you submitted a research article for publication in a peer-revi	iewed journal?
	O Yes O No	
10.	If you have submitted a research article for publication in a peer-re	viewed journal, were you:
	OAuthor	
	() Co-Author	
	O Lead Author with two or more colleagues	
	O If other, please describe	

11. Which best reflects your current career interest? (Please select up to three options)

□ Academic (K-12)

□ Academic (Higher education)

□ Applied Research



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- Basic Research
- □ Experimental Development
- Clinical Research
- Clinical Practice
- □ Policy (Domestic)
- □ Policy (International)
- Delitics/Legislator
- □ If other, please describe





Knowledge Capture

Page 2 - SALT Program

12. How did you learn about the SALT Program? Please choose all that apply.

- □ Newsletter
- U Website
- Invitation
- □ Academic advisor
- Department posting
- □ Referred by fellow student
- □ If other, please describe briefly

13. What attracted you to apply to SALT? Please choose all that apply.

- □ Gain access to a network of STEM leaders
- Develop stronger leadership skills
- Build confidence in leadership skills
- □ Help achieve career goals
- Expand my views on career options
- Develop skills to augment scientific training
- Establish potential individual opportunities for research collaboration
- Become part of a SALT group network of scientists
- □ If other, please describe briefly



14. What was the most challenging aspect of the SALT application?

- O Leadership essays
- O Letter of reference
- O Completing a 2-page resume
- O Candidate statement
- O Demographics questions
- OPI consent form
- ONothing, the application was easy to complete
- O If other, please describe briefly

15. The communications I received to help me prepare for participation in the SALT Program were helpful.

- O Strongly agree
- OAgree
- ONeutral
- ODisagree
- O Strongly disagree

16. Based on the SALT Program description I anticipate that I will increase my ability to develop leadership skills.

- O Strongly agree
- OAgree
- ONeutral
- ODisagree
- O Strongly disagree





17. Based on the SALT Program description I think the training experience will improve my ability to see myself as a leader in whatever professional career I may pursue.

O Strongly agree

OAgree

ONeutral

- ODisagree
- O Strongly disagree
- 18. Based on the SALT Program description I think the training experience will help me develop strategies to achieve my career goals.

O Strongly agree

OAgree

ONeutral

ODisagree

O Strongly disagree

19. What is the most important skill or experience that you hope to attain from your participation in the SALT Program?

20. What challenges do you anticipate in your process to achieve leadership skills and increase your ability to become a leader?

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- 21. Based on your experience thus far in applying to the SALT Program, what is the likelihood that you will attend future events presented by the Science Alliance?
 - O Highly likely O Somewhat likely
 - ONeutral
 - O Somewhat unlikely
 - OVery unlikely

22. How interested are you in becoming an ambassador of the New York Academy of Sciences?

- OVery interested
- OInterested
- ONeutral
- ONot interested
- 23. How likely are you to recommend the New York Academy of Sciences to other students and colleagues as a resource for professional development?
 - O Highly likely
 - O Somewhat likely
 - ONeutral
 - O Somewhat unlikely
 - OVery unlikely





SALT Program Post-Training Questionnaire

Page 1 - Profile Questions

1. What gender do you identify with?

OMale

OFemale

OOther

2. What is your ethnicity?

- OAsian-American
- **OBlack/African American**
- O Hispanic/Latin(o/a)
- ONative American/Alaskan Native
- OWhite/Caucasian
- O If other, please describe

3. What degree are you currently working toward? Please specify the year you expect to earn your degree.

4. What is your major field of study?





Knowledge Capture

5. Are you planning to seek a higher degree or post-doc beyond your current program?

O Yes O No

6. Which best reflects your current career interest? (Please select up to three options)

- □ Academic (K-12)
- □ Academic (Higher education)
- □ Applied Research
- Basic Research
- Experimental Development
- Clinical Research
- Clinical Practice
- □ Policy (Domestic)
- □ Policy (International)
- Delitics/Legislator
- □ If other, please describe





Page 2 - Overall Program Experience



9. Do you think that after SALT you have access to a strong and diverse network of STEM leaders?

- O Strongly agree
- OAgree
- ONeutral
- ODisagree
- O Strongly disagree

10. Do you think that after SALT you developed stronger leadership skills?

- O Strongly agree
- OAgree
- ONeutral
- ODisagree
- O Strongly disagree





11. After completing SALT, rate your confidence in your ability to step up as leader:

OVery confident

- OConfident
- O Somewhat confident
- O Slightly confident
- O Not at all confident

12. What I learned at SALT will help me achieve my career goals.

O Strongly agree

OAgree

ONeutral

ODisagree

O Strongly disagree

13. In light of the knowledge acquired at SALT, I have (please choose all that apply):

- $\hfill\square$ Altered the course of my career trajectory
- Reinforced my interest in pursuing an academic career
- $\hfill\square$ Reinforced my interest in pursuing a non-academic career
- □ Started to develop other skills to strengthen my scientific training
- Established potential individual opportunities for research collaboration
- Become part of a SALT group network of scientists
- □ None of the above
- □ If other, please describe briefly



14. What's the most valuable idea, skill or lesson that you took away from the SALT Program?

15. What's the most challenging/unexpected but helpful lesson, skill or idea learned at SALT?

16. Please rate your level of agreement or disagreement with the following statements:

	Agree	Neutral	Disagree
I was able to bond with other SALT students during the program	0	0	0
I feel more comfortable now sharing ideas and thoughts with other SALT fellows	0	0	0
I feel more comfortable now communicating with my colleagues and peers	0	0	0
After SALT, I feel more confident about my ability to engage effectively with my colleagues	0	Ο	0

17. If your colleagues were interested in improving their leadership skills, would you recommend SALT to them?

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OYes

ONo

O Not sure





Knowledge Capture

Page 3 - Logistics

18. Use the scale below to rate your overall opinion about the organization and logistics of the SALT program:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
The program ran smoothly	0	0	0	0	0
The program was well organized	0	0	0	0	0
The communications before and during the program were helpful	0	0	0	0	0
The space was appropriate for the exercises	0	Ο	0	0	0









Page 4 - Content

19. Please rate the quality and effectiveness of the individual SALT sessions:

	Excellent	Good	Average	Below average	Poor
Day 1: Improv sessions	0	0	0	0	0
Day 1: SALT + SEISMIC networking session	0	0	0	0	0
Day 1: Keynote lunch: Dr. Sonya Dougal	0	0	Ο	Ο	0
Day 2: History of your name	0	0	0	0	0
Day 2: Managing change	0	0	0	0	0
Day 2: Experiential Learning Theory	0	0	0	0	0
Day 2: Building a Team Charter	0	0	0	0	0
Day 2: B.A.R.T	0	0	0	0	0
Day 2: Build a tower	0	0	0	0	0
Day 2: Spiral	0	0	0	0	0
Day 3: SALT + SEISMIC lunch	0	0	0	Ο	0
Day 3: Preparing for The World Event	0	0	0	0	0
Day 4: Running The World Event	0	0	0	0	0
Day 4: SALT + SEISMIC mentoring session on projects	Ο	0	0	0	0
Day 4: LDP basics	0	0	0	0	0
Day 5: Group debrief session	0	0	0	0	0
Day 5: LDPs readings	0	0	0	0	0
Day 5: Keynote Lunch: Dr. Stephanie Pfirmann	0	0	0	0	0
Day 5: Closing Ceremony	0	0	0	0	0
Day 5: Readings of SEISMIC projects	0	0	0	0	0







20. How confident are you about your Leadership Development Plan (LDP) and your ability to reach your career goals based on the actions/steps identified in your LDP?

OVery confident

OConfident

O Somewhat confident

O Slightly confident

O Not at all confident







Page 5 - Instructors and Speakers

Using the scale below, ra	ite your overall op	inion about the ma	structors.		
	Excellent	Good	Average	Below Average	Poor
The presenter's ability to communicate	0	0	0	0	0
The usefulness of the information you received during the program	0	0	0	0	Ο
The presenter's knowledge on the subject	0	0	0	0	0

21. Using the scale below, rate your overall opinion about the instructors:

22. What did you like most about the SALT Program?

23. What did you like least about the SALT Program?





24. Do you have ideas on how to improve the SALT Program for the future? If so, please use the space below to briefly list your ideas.

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Page 6 - Science Alliance Questions

25. How likely are you to attend future events presented by the Science Alliance?

- O Highly likely
- O Somewhat likely
- ONeutral
- O Somewhat unlikely
- OVery unlikely

26. How interested are you in becoming an ambassador of the New York Academy of Sciences?

- OVery interested
- O Interested
- ONeutral
- ONot interested
- 27. Are there additional ways that The Academy and Science Alliance can support your professional development? Please use the space below to briefly list your ideas.

28. Are you interested in promoting the program by sharing your testimonial to be used in future marketing materials?

O Yes O No



Appendix B: SALT Fellows Testimonial Statements

July 2017



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SALT Alumni Testimonials, July 2017

PhD SALT provided me with a safe and collaborative space in which I was able to push myself to become a better person, communicator, teammate, and leader. This program gave me the boost that I needed to own up to my career aspirations and identify avenues I can take to achieve my goals.

SALT Alumni Testimonials

PhD, Pharmaceutical Sciences with concentration in Toxicology

The SALT program was a beautiful experience. I discovered my strengths and learned to accept and work on my weaknesses. I have no doubt that I am a more confident person, fully capable of achieve any task ahead of me. What's truly amazing, is I've made so many new friends and I'm truly grateful for the opportunity to meet so many wonderful people.

SALT Alumni Testimonials

PhD, Cancer Biology

I had the chance to meet amazing people and to communicate and collaborate with them. The mentors were great and helped us a lot to do our self-assessment and to work better in a team.

SALT Alumni Testimonials

PhD, Biological Engineering with concentration in

This program is like nothing you ever expect. The amount that I

learned about myself and how I impact those around me, it was

simply stunning. This was the most different experience I have

ever had in professional development and I could not

recommend this experience enough!

SALT Alumni Testimonials

PhD, Biomedical Engineering

SALT is a wonderful, deeply educational experience. Among the many things you learn are the importance of understanding the needs and wants of your team in order to optimally collaborate with them to achieve common goals. The instructors put tremendous effort into this program and are invested in what their students are taking from it. I would recommend this program to any young scientist or graduate student.

SALT Alumni Testimonials

PhD, Molecular Cellular

SALT training has not only provided me with the confidence to seek out new leadership opportunities, but also the skill set to become an effective leader. Through this program, I understand the roles that individuals of a team play in the pursuit of a common goal as well as how to benefit from everyone's strength and weakness. Over the course of the program, my fellow SALT trainees and I have endured much together and I am proud to say that I have gain 29 friends in the process.

SALT Alumni Testimonials



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SALT Alumni Testimonials, July 2017

PhD, Pharmaceutical Science with concentration in Toxicology

The SALT Program provided me with a safe environment to see my strengths and weaknesses as a leader. It allowed me the space to do the necessary introspection, without fear of judgment, and it equipped me with the resources for improvement. Although intense, it was very well organized. Among other things, we discussed learning modes, and I saw how my particular learning style, influenced my role as a leader, and the overall impact it could have on the team. Lectures and exercises on team dynamics clearly demonstrated that there are unconscious processes that take place in groups that can definitely affect the performance of the group. There was so much to be learnt from the program, but there were several things that resonated with me: it is vital for a leader to create an environment that is psychologically-safe for group members; it is important that a leader possesses self-awareness, and emotional intelligence; and as a leader, I should also be able to receive and accept feedback, even if it is not positive, in order for me to grow. There were moments of uncertainty for me; I could not figure out exactly what the next step would be, or precisely what I was supposed to accomplish in a given task. There were times when some exercises challenged me, or even left me feeling that I was being broken down BUT because of the secure environment that was created, I learnt to trust the process, to trust the team, and most importantly, I learnt to trust me. This Program is an absolute essential for leaders in Science, since it will not only furnish them with the knowledge and skills necessary to effectively navigate the science environment, but it will help build strong, empathic leaders who understand that change begins with them.

SALT Alumni Testimonials

PhD, Pharmaceutical Science with concentration in Toxicology

SALT was a great experience that I feel every graduate student needs to experience. The program was structured perfectly in order to make us look into ourselves in order to better improve as a leader and definitely a better person. Being an introvert I went into the program with a lot of reservations and a little intrigue. The program was intense and we were kept on our toes through the week. By the end of the week, I had made 33 new friends that I know I can rely on through my career and my life. SALT definitely taught me skills that I know will be extremely useful in how I shape my career as a future leader in the Scientific community.

SALT Alumni Testimonials

SALT Alumni

SALT was an amazing program, unlike any other experience I have participated in. Not only was it a nice break from lab work for a week, I got to meet some incredible people and really learned to connect with them. All of the activities were geared to help scientists come out of their shells, connect with their emotions, and let go when making new friends and connections. The instructors put us in situations to help us learn things that I don't think could be taught in a typical classroom setting. If you are a scientist that has a hard time connecting with your emotions, or forming personal relationships when not discussing science, do this program!

SALT Alumni Testimonials





Appendix C:

SALT Fellows Membership List of Professional Associations



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Professional Association Memberships Identified by July 2017 SALT Participants

American Association for the Advancement of Science AAAS (2)
American Association of Immunologist (AAI) (2)
American Institute of Chemical Engineers (AIChE)
American Chemical Society (2)
American College of Toxicology (ACT)
American Institute of Biological Sciences
American Physical Society
American Society for Biochemistry and Molecular Biology
American Society of Mechanical Engineers
American Thoracic Society
American Public Health Association (APHA)
American Society for Virology (ASV)
Biomedical Engineering Society (2)
Genetics Society of America
Global Invertebrate Genomic Alliance
Korean-American Scientists and Engineers' Association
Mid-Atlantic Society of Toxicology (MASOT) (3)
New York Academy of Sciences (NYAS) (29)*
Optical Society of America
Sociedad Española de Biología Evolutiva
Society for Biomaterials
Society for Neuroscience
Society for the Study of Evolution
Society of Biomedical Engineers
Society of Systematic Biologists
Society of Toxicology (SOT) (3)
Society of Women Engineers
Systematics Association

*All SALT Participants are de facto members of the New York Academy of Sciences

