Regional meetings are excellent opportunities for undergraduate students to learn about toxicology and to interact with a variety of professional toxicologists. However, the scientific programs at these meetings are often at depths beyond an undergraduate audience, and absent targeted recruiting, undergraduates typically attend only as lunch or social event participants. The Faculty United for Toxicology Undergraduate Recruitment and Education (FUTURE) Committee supports Regional Chapters with grants and materials to provide undergraduate programming. Several features of undergraduate-focused programming at the SOT Annual Meeting have been successful at attracting students. "Lunch With An Expert" provides an opportunity for undergraduates to interact with toxicologists from alternative career paths to academia, such as industry or government. Undergraduate poster sessions provide an opportunity to present data that is more preliminary, preparing them to later present at national conferences through practice and critical feedback. An undergraduate breakout session has also proven popular among attendees. An "Introduction to Toxicology" slide set provides an overview of career paths and active learning exercises such as "The Opoids" activity have been used at two regional meetings. Both are available at the SOT website in the Learning Resources area for undergraduate educators. A keynote speaker can provide a career-focused talk that describes a pathway to becoming a professional toxicologist. Participants are subsequently encouraged to apply for the national meeting’s Undergraduate Diversity Program, or, if they have an abstract, the Pfizer SOT Undergraduate Travel Award. A new unified online program assessment survey was used to provide undergraduate feedback for different aspects of each program for the four Regional Chapters awarded grants in 2019-2020. Likert scale and free-form responses indicate high satisfaction with all programs, as do comments such as "enjoying meeting people, ‘enjoyed keynote speakers discussing toxicology and education presentations’, and ‘enjoyed the active learning breakout session.’

INTRODUCTION

Programs for undergraduates at the SOT Annual Meeting, including the Undergraduate Diversity Program, have been a staple for more than 30 years. However, this program is limited in scope by significant travel costs, restrictions on conference space, and lack of awareness among institutions without toxicologists. To increase outreach to undergraduates, the Faculty United for Toxicology Recruitment and Education (FUTURE) Committee partnered with two Regional Chapters in 2017 to support undergraduate-focused programming and Ohio Valley SOT Regional Chapter meetings. During that first year, 44 students attended Regional meetings at a cost of ~$25 per student. Since that time, FUTURE has expanded the program to now soliciting applications to support undergraduate training by Regional Chapters that hold spring 2020 meetings.

One approach to including undergraduates in regional meetings is to adopt portions of time-testing local programming with undergraduate-focused poster awards. This breakout session is modeled on the Committee on Diversity Initiatives (CDI) program at the SOT Annual Meeting, including a "Introduction to Toxicology" slide presentation, a more detailed scientific lecture targeted at an undergraduate level from a renowned scientific speaker who embodies diversity, and an active learning activity focused on a topical toxicological problem, such as opioids or vaping. This year, FUTURE supported four regional meetings during the fall, including those hosted by the Northeast, Central States, Mid-Atlantic, and Michigan Regional Chapters. This allowed highlighting features of four regional meetings featuring FUTURE funding from the past two years. These Regional Chapters have adopted region-specific approaches, depending on the needs of their area. Other innovative approaches we have encouraged expansion of the number of Regional Chapters featuring undergraduate programs. This program will continue next year, with applications for the Fall regional meetings happening soon.

SOT provided $3,000 in funding to enhance undergraduate experiences at six regional SOT meetings in 2019-2020. These funds are managed by SOT’s FUTURE Committee.

IMPACT

> 85 undergraduate students attended the four FUTURE-sponsored regional meetings in Fall of 2019.
> Regional Chapters have also adopted programming developed by other Regional Chapters, such as the Undergraduate Breakout Session.
> The cost per student is ~$25, a tremendous impact per dollar.
> Undergraduate students reported exceptional satisfaction with the programming of the undergraduate programs using the official SOT meeting for undergraduates.
> The Committee for Diversity Initiatives (CDI) core programming is deliverable to undergraduates at regional meetings with minimal staffing.
> Regional SOT meetings provide an opportunity for increased outreach to undergraduates from under-represented institutions and institutions lacking toxicologists.

INCREASING THE PIPELINE OF UNDERGRADUATES INTO TOXICOLOGY

> Identify undergraduate educators within each SOT region willing to develop an Undergraduate Education Initiative in their area.
> Utilize the SOT assessment tool for undergraduate participation in Regional Chapter meetings.
> Encourage dialogue among Regional Chapters of SOT to develop appropriate undergraduate-targeted programming.
> Assess effect of SOT regional program on undergraduate membership as SOT affiliates.
> Assess effect of SOT regional program on registrations of regional undergraduates at the annual SOT meeting.
> Follow up with requests for Toxicology Scholars visits at schools and institutions.
> Provide contact information for undergraduates indicating interest in graduate toxicology programs to graduate program officers.

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