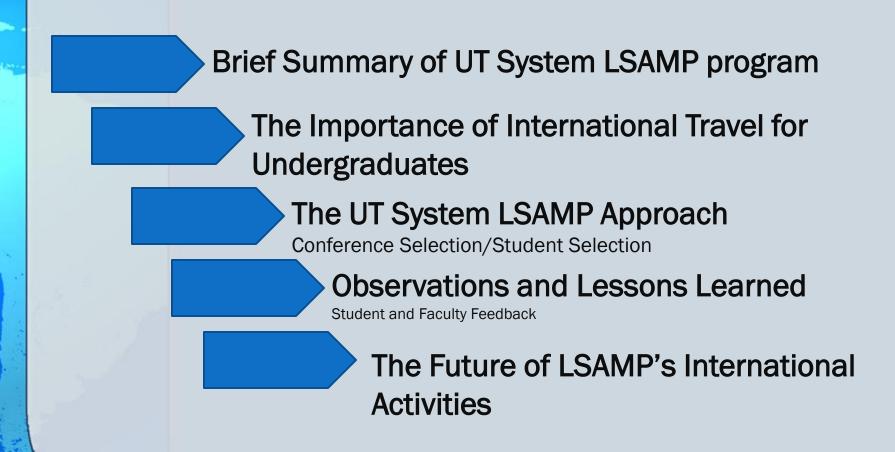


### **Overview**



### The UT System LSAMP program

Graduating high-quality STEM researchers for the past 18 years!

- National Science Foundation (NSF) funding since 1992
- University of Texas System Alliance
  - Nine universities (UT Arlington, UT Austin, UT Brownsville, UT Dallas, UT El Paso, UT Pan American, UT Permian Basin, UT San Antonio, and UT Tyler)
  - Five community colleges (El Paso Community College, Howard College, Midland College, Odessa College, San Antonio College)
- 18 Years of Active Funding
  - Almost 1,500 students have participated as LSAMP Research Scholars
- The Proven Method: Undergraduate Research

# The Importance of International Travel for Undergraduates: An Integral Part of the NSF's Mission

- NSF's strategic goal
  - · Diversity, Learning, and Research Infrastructure
- Five General Categories
  - US participation in global-scale projects and research networks
  - Support for international facilities
  - Linkages to research programs of other countries
  - Support for new scientists and engineers involves many programs that provide US scientists and engineers with opportunities to gain international professional experience, including approaches for post doctorate & early career researchers, graduate students, and undergraduate students
  - International science and engineering information
- NSF undertakes or participates in international activities whenever it contributes to accomplishing its overall goals more effectively

## The UT System LSAMP Approach

#### Conference Selection

- The LSAMP leadership team researches international conference opportunities taking place abroad during each academic year, preferably in October or November
- Conference must have an interdisciplinary theme that includes topics in all STEM disciplines
- Conference must have a focus on international collaboration and benefit to society
- Conference must be an English-speaking conference
- A list of potential conferences is compiled and the LSAMP leadership team meets in March of each year to select which conference to attend

## The UT System LSAMP Approach, cont.

#### Student Selection

- The student must have participated as an LSAMP Scholar during the previous academic year or the current year's Summer Research Academy (SRA)
- Each campus is allowed to select their preferred method of student selection, most common methods are:
  - Essay competitions
    - Importance that UG research has had on their academic career
    - Motivation to attend an international conference
    - How the experience will positively affect their future plans as STEM researchers
  - Poster competitions
  - Faculty mentor nominations

### **Conferences and Attendees**

Conference Location	Conference Name/Date	Number of Students (n=19)	Number of Faculty/Staff
Concepcion, Chile	Pilot / Dec 2007	1	2
Singapore	Futuropolis 2058 / Oct 2008	8	8
Budapest, Hungary	World Science Forum / Nov 2009	10	10
Madrid, Spain	Science in Society/ Nov 2010	9	10

#### **Observations and Lessons Learned**

**Student Perspective (n=19)** 

- 77% report that this was their first international trip
- 61% report not having a passport prior to the trip
- 39% report an interest in studying abroad in the future
- 100% reported that they enjoyed touring local universities and cultural sites
- Most eligible students did not want to attend for several reasons, most common are:
  - Missing one week's worth of classes
  - Fear of being in a foreign country and not knowing the language
  - Lack of funds to support personal expenses of the trip
- Each student who participated in the essay competition did an extensive amount of research on the conference itself, i.e. speakers, workshops, and included that information in their essay.

### **Observations and Lessons Learned**

#### Faculty/Staff Perspective

- Most participants used these conferences as valuable networking opportunities for their research and campus-based programs.
- Each excursion allowed the administrator to mentor their student(s) in a way that could not be achieved through on-campus activities or a laboratory setting.
  - Students were advised on how to socially interact in a conference setting
  - Students were taught how to network with individuals who could provide them future opportunities
  - Students learned how to be culturally sensitive based on their guides' past experience(s) at international conferences
- Extracurricular excursions should take place before the conference start date so students are focused and engaged during sessions.

# Student statistics (n=19)

MS enrolled, 6

BS enrolled, 7

BS graduated, 12

### The Future of LSAMP's International Activities

- More conference and group activities are needed to determine the impact these experiences are having on our students.
- To this point, the feedback has been very positive and the students who have participated have changed their mindset to think globally about working and/or studying abroad.
- Organization is key
- Strong team of patient and dedicated guides is essential
- We expect that our Phase IV data will demonstrate the importance of international opportunities for STEM undergraduates.
- Ultimate goal: encourage our students to expand their horizons and to understand that science and engineering are universal themes that have a global impact on our society

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