

# Partnerships

To Broaden Participation | Shared Exhibit Materials

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**MRSEC**



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**SACNAS**

Devoted to Advancing Hispanics,  
Chicanos & Native Americans in Science

MRSEC Education Directors' Meeting | November 4<sup>th</sup>, 2016

**Christine C. Broadbridge, Ph.D.; CRISP at Yale/SCSU**

**Carol Jenkins, CRISP EO Coordinator**

# What is SACNAS?

*SACNAS: Society for Advancement of Chicanos/Hispanics and Native Americans in Science.*



**SACNAS** | Devoted to Advancing Hispanics,  
Chicanos & Native Americans in Science

SACNAS is an inclusive organization dedicated to fostering the success of Chicano/Hispanic and Native American scientists, from college students to professionals, in attaining advanced degrees, careers, and positions of leadership in STEM.

**Ideal synergy with the MRSEC mission of broadening participation in STEM**



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# SACNAS is inclusive



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*SACNAS: Society for Advancement of Chicanos/Hispanics  
and Native Americans in Science.*

## Values

- Inclusive of ethnicities, cultures, and scientific disciplines
- Focused on having a real impact through purpose and mission
- Committed to standards of excellence in science and education
- Fully mindful of the importance of students' K-12 experience
- Devoted to full engagement of members in society's work



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# SACNAS and MRSEC have shared values

Wisconsin MRSEC middle school program participants



Nebraska MRSEC Sovereign Native Youth Leadership Academy participants



## MRSECs:

- Address issues of inequitable representation across STEM disciplines
- Broaden participation of groups under-represented in the sciences (MSE focus)
- Foster partnerships between academia & industry
- Strengthen depth of applicant pool for graduate studies, post-docs, & faculty
- Grow partnerships to support professional development for future scientists



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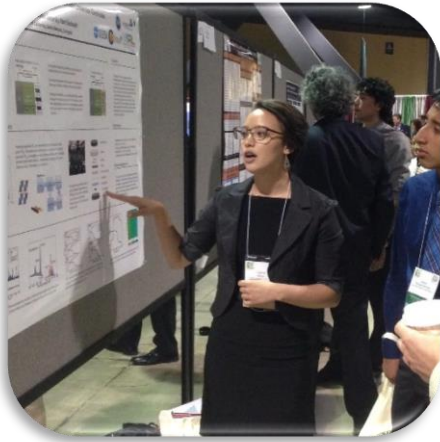
MRSEC



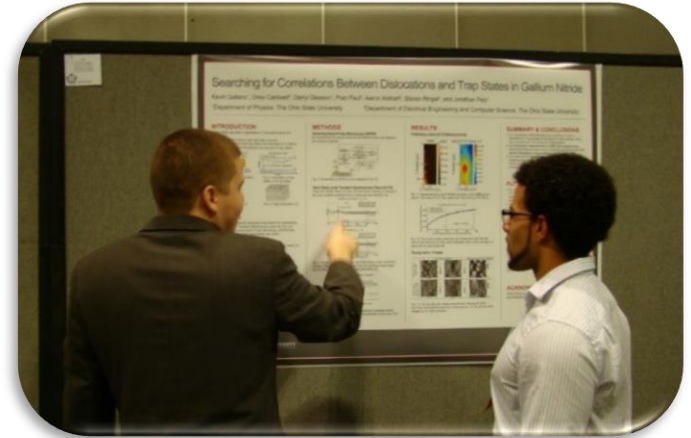
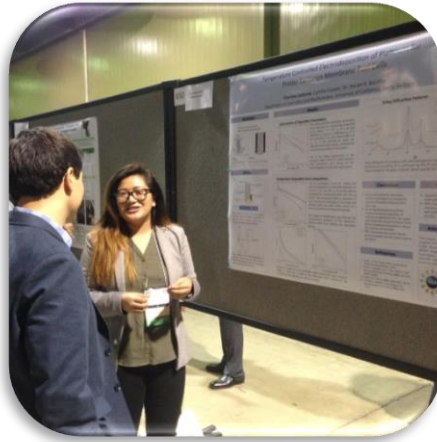
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# How have MRSECs been involved with SACNAS

**Student participation**, research symposia, professional development, exhibit booths



UCSB Chemistry majors **Catrina Wilson** and **Charlene Salamat** presenting REU research conducted in MRSEC labs. **Catrina earned poster award at 2016 SACNAS!**



Ohio State University: NSF funded APS Bridge student **Kevin Galiano** presenting to **Shaun Hampton** (poster award winner) at the 2014 SACNAS Conference.

- 800+ undergraduate and graduate poster presentations, oral presentations with professionals acting as mentors and judges.
- 100+ students recognized with awards.



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# 2014 SACNAS National Conference

Creativity, Vision, & Drive:  
Toward Full Representation in STEM

October 16 – 18, 2014  
Los Angeles Convention Center

## NSF MRSEC: Innovative Materials Science and 21<sup>st</sup> Century Skills through Team Based Interdisciplinary Research

Chair: **Rolando Valdes Aguilar**, PhD, Assistant Professor, Ohio State University



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# Interdisciplinary Collaboration: The Role of Diversity in STEM Innovation



2015 SACNAS  
NATIONAL CONFERENCE  
Washington, DC  
October 29-31, 2015



## NSF MRSEC: Increasing Diversity in Materials Science through Team Based Interdisciplinary Research

Chair: **Christine Broadbridge**, PhD, Yale/SCSU MRSEC

Followed MRSEC Education Directors Meeting – so maximized participation



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# 2016 Session:

## Increasing Understanding of Materials Science – Engineering Materials for Diverse Applications

### Presentations:

**Darlene Taylor**, PhD  
*Stimuli responsive materials*  
North Carolina State University



**Volanda Vasquez**, PhD  
*All that Glitters is Gold*  
Oklahoma State University

**Megan Valentine**, PhD  
*Learning from Nature: How Organisms Create Materials and Humans do it Better*  
University of CA, Santa Barbara (UCSB MRSEC)



**Tania Betancourt**, PhD  
*Activatable Biomaterials: Integration of Synthetic and Natural Polymers for the Detection and Treatment of Cancer*  
Texas State University-San Marcos

Chair: **Miquella Chavez**, Executive Director, Research Triangle MRSEC



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# How have MRSECs been involved with SACNAS

Student participation, research symposia, **professional development**, exhibit booths

## SACNAS 2016



## Long Beach, CA

### Improving the Effectiveness of Mentors

**Dr. Kermin J. Martínez-Hernández**

Assistant Professor – Chemistry, St. John Fisher College, Rochester, NY

**Dr. Lori Adams**

IMSD Program Director and Lecturer - Biology, University of Iowa

**Dr. Amy Prunuske**

Assistant Professor – Biomedical Sciences, University of Minnesota Medical School Duluth

**Dr. Anne Lynn Gillian-Daniel**

Director MRSEC Education/Outreach Group, University of Wisconsin-Madison



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# 2016 Professional Development:

## An Essential Roadmap for Undergraduate Success in Science

### Session Chairs/Presenters:

**Mareshia Donald**, PhD  
*Education/Diversity*  
MIT

**Anique Olivier-Mason**, PhD  
*Education/outreach/diversity*  
Brandeis MRSEC

**Marlina Duncan**, PhD  
*Associate Dean of Diversity Initiatives*  
Brown University



Presenters facilitated a highly interactive “how-to” workshop providing a roadmap for success in undergraduate research



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# How have MRSECs been involved with SACNAS

Student participation, research symposia, professional development,  
**exhibit booths**



2015 Exhibit Booth

**Collaborative** effort showcasing the MRSEC network  
100+ contacts for follow-up! (email me for list!)



2016 Exhibit Booth



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# Collaborative -- Traveling Exhibit



So far includes:

- 6ft, white MRSEC tablecloth
- Laminated maps
- Sign in sheets
- MRSEC banner
- Carrying case
- MRSEC brochures and flyers



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# Updated Exhibit Contents

- Laminated US map with **MRSEC** locations labeled, list of **REU website links** and **MRSEC mailing addresses**
- List of MRSECs categorized based on **research areas**.
- **Binder** including all MRSEC brochures
- **Post card** that lists all of the MRSEC web addresses
- Demos and **freebies** (candy!)



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# Travel Exhibit Next Steps

- Update maps with **live links** provided on a USB drive so students can access the MRSEC websites right at the table!
- Provide **updated** brochures on a thumb drive for additional printing
- Develop **new** materials for printing
- Purchase carrying case that is **easier** to transport
- Package **optimized** demos and freebies
- Consider use for **other BP meetings** (e.g., NSBE, NSBP, MRS)
- Develop methods for **sharing contact lists** with other MRSECs (e.g., develop a shared database)



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# Partnerships

## To Broader Participation | MRSECs & SACNAS

- 100s of contacts with potential REUs, graduate students, and post-docs
- MRSEC student participation in technical sessions, professional development and awards



2008 student award winners  
UCSB LSAMP and MRSEC REU

SACNAS is a model organization deeply committed to broadening participation of under-represented groups in STEM.

MRSECs efforts are perfectly aligned and collaboration maximizes impact.



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