

2019 TWD Program Directors' Meeting
Bethesda North Marriott Hotel & Conference Center; Rockville, Maryland
July 30 - August 2, 2019 • Program-at-a-Glance

Tuesday, July 30, 2019

1:00P – 7:00P	TWD2019PDM Management Desk Open/Registration Check-in	Grand Ballroom Foyer-Alcove C
3:00P – 4:30P	<i>Posters Installation</i>	Grand Ballroom Foyer/Salon A
4:55P – 5:00P	Welcome to TWD Innovations, Poster Highlights <i>Speaker: Edgardo Falcón, Ph.D.</i>	Grand Ballroom Foyer
5:00P – 5:30P	Bethesda North Marriott-Sponsored Beverage Break	Grand Ballroom Foyer
5:00P – 7:00P	TWD Poster Session A & Networking	Grand Ballroom Foyer/Salon A
7:00P – until	“DMV Dining” – Dinner on Your Own	<i>Bethesda, Rockville, DMV</i>

Wednesday, July 31, 2019

6:00A – 8:00A	“DMV Dining” - Breakfast on Your Own	<i>Bethesda, Rockville, DMV</i>
7:30A – 6:00P	TWD2019PDM Management Desk Open/Registration Check-in	Grand Ballroom Foyer-Alcove C
8:00A – 8:30A	Welcome <i>Speaker: Alison Gammie, Ph.D.</i>	Salon D&E
8:30A – 9:30A	“Message from The Director” <i>Speaker: Jon Lorsch, Ph.D.</i> <i>Moderator: Alison Gammie, Ph.D.</i>	Salon D&E
9:30A – 11:30A	Concurrent Session: Make Your Program Evaluation SMART by Aligning Objectives and Measures of Success <i>Speaker: Nancy Moreno, Ph.D.; Moderator: Michael Sesma, Ph.D.</i>	Salon B&C
	Concurrent Session: Better Outcomes & Greater Efficiency: Evaluation and Assessment in T32 Programs <i>Speaker: Bennett Goldberg, Ph.D.; Moderator: John Laffan, Ph.D.</i>	Salon G&H
11:30A – 12:00P	Bethesda North Marriott-Sponsored Beverage Break	Grand Ballroom Foyer
11:30A – 1:00P	“DMV Dining” - Lunch on Your Own	<i>Bethesda, Rockville, DMV</i>
1:00P – 2:30P	Concurrent Panel: Employing Evidence-based Practices for Training, Mentoring and Disseminating Outcomes <i>Speakers: Elizabeth Watkins, Ph.D., Erin Dolan, Ph.D., Christine Pfund, Ph.D.; Moderator: Kenneth Gibbs, Jr., Ph.D.</i>	Salon B&C
	Concurrent Panel: Focusing on Technical, Operational, and Professional Skills Development <i>Speakers: Giovanna Guerrero-Medina, Ph.D., Sarah Goodwin, Ph.D., Angela DePace, Ph.D.; Moderator: Mercedes Rubio, Ph.D.</i>	Salon G&H
2:30P – 3:45P	Concurrent Panel: Developing Holistic Approaches to Admissions <i>Speakers: Joshua Hall, Ph.D., Roger Chalkley, D.Phil., Marena Wilson-Pham, Ph.D.; Moderator: Anissa Brown, Ph.D.</i>	Salon B&C
	Concurrent Panel: Implementing Curricular Changes <i>Speakers: Susan Strome, Ph.D., Melanie M. Cooper, Ph.D.; Moderator: Desirée Salazar, Ph.D.</i>	Salon G&H
3:45P – 4:15P	Bethesda North Marriott-Sponsored Beverage Break	Grand Ballroom Foyer
4:15P – 5:30P	Promise and Peril in Higher Education: Building an Equitable, Creative, Prosperous, and Sustainable Future through Socially-Directed Science and Technology <i>Speaker: Christine Ortiz, Ph.D.; Moderator: Shiva Singh, Ph.D.</i>	Salon D&E

5:30P – 7:00P	TWD Poster Session B & Networking	Grand Ballroom Foyer/Salon A
7:00P – Until...	“DMV Dining” - Dinner on Your Own	<i>Bethesda, Rockville, DMV</i>

Thursday, August 1, 2019

6:00A – 8:00A	“DMV Dining” - Breakfast on Your Own	<i>Bethesda, Rockville, DMV</i>
7:30A – 6:30P	TWD2019PDM Management Desk Open	Grand Ballroom Foyer- Alcove C
8:00A – 9:30A	TWDPDO: MARC U-STAR , <i>Session Leaders: E. Gavosto, Ph.D., C. Atkins, Ph.D.</i>	Salon F
	TWDPDO: IMSD , <i>Session Leaders: B. Komisaruk, Ph.D., R. Chalkley, D. Phil</i>	Salon B
	TWDPDO: RISE , <i>Session Leader: V. Potluri, Ph.D.</i>	Salon C
	TWDPDO: IPERT/MARC T36 , <i>Session Leader: C. Pribbenow, Ph.D.</i>	Great Falls
	TWDPDO: T32 , <i>Session Leader: A. Berrebi, Ph.D.</i>	Salon G&H
	TWDPDO: Bridges BS & PhD , <i>Session Leader: E. Alexander, Ph.D.</i>	Linden Oak
	TWDPDO: PREP , <i>Session Leaders: J. Hall, Ph.D., J. Lloyd, Ph.D.</i>	Oakley
	TWDPDO: IRACDA , <i>Session Leader: D. Sept, Ph.D.</i>	Timberlawn
9:30A – 9:45A	Bethesda North Marriott-Sponsored Beverage Break	Grand Ballroom Foyer
9:45A – 9:50A	Welcome Day 2 <i>Speaker: Hannah Valantine, M.D., M.R.C.P.</i>	Salon D&E
9:50A – 11:00A	Panel: Emphasizing Diversity and Inclusion as Essential Aspects of Training Excellence <i>Speakers: JoAnn Trejo, Ph.D., M.B.A., Carlos Crespo, Dr.P.H., M.S., FACSM, Sheryllynn Black, Ph.D.; Moderator: Hannah Valantine, M.D., M.R.C.P.</i>	Salon D&E
11:00A – 12:00P	Concurrent Panel: Leading Institutional Change - Becoming Change Agents <i>Speakers: Lourdes Echevoyen, Ph.D., Andrew Campbell, Ph.D., Joey Barnett, Ph.D.; Moderator: Luis Cubano, Ph.D.</i>	Salon B&C
	Concurrent Panel: Building a Strong Mentoring Environment <i>Speakers: M. Graca H. Vicente, Ph.D., Rick McGee, Ph.D., Tiera S. Coston, J.D., Ph.D.; Moderator: Sailaja Koduri, Ph.D.</i>	Salon G&H
12:00P – 1:15P	“DMV Dining” - Lunch on Your Own	<i>Bethesda, Rockville, DMV</i>
1:15P – 2:15P	Concurrent Panel: Teaching Rigor, Transparency and Responsible Conduct of Research <i>Speakers: Rajini Rao, Ph.D., Gabriela Chavira, Ph.D., Isabel Lauren Jackson, Ph.D.; Moderator: Dorit Zuk, Ph.D.</i>	Salon B&C
	Concurrent Panel: Sustaining Diversity Enhancement Programs <i>Speakers: Dolores Bradley Brennan, Ph.D., Linda Tunstad, Ph.D. Moderator: Edgardo Falcón, Ph.D.</i>	Salon G&H
2:15P – 3:30P	Panel: Equitable, Inclusive and Safe Environments <i>Speakers: Kim McCall, Ph.D., Jason Sheltzer, Ph.D., Carol B. Muller, Ph.D.; Moderator: Alison Gammie, Ph.D.</i>	Salon D&E
3:30P – 3:45P	Bethesda North Marriott-Sponsored Beverage Break	Grand Ballroom Foyer
3:45P – 4:45P	NIH Policy on Sexual Harassment <i>Speaker: Carrie D. Wolinetz, Ph.D.; Moderator: Judith Greenberg, Ph.D.</i>	Salon D&E
4:45P – 5:45P	Enhancing Laboratory Safety and the Principles of Safe Research <i>Speaker: Craig Merlic, Ph.D.; Moderator: Jon Lorsch, Ph.D.</i>	Salon D&E
5:45P – 7:15P	TWD Poster Session C & Networking	Grand Ballroom Foyer
7:15P – Until....	“DMV Dining” - Dinner on Your Own	<i>Bethesda, Rockville, DMV</i>

Friday, August 2, 2019

6:00A – 7:30A	“DMV Dining” - Breakfast on Your Own	<i>Bethesda, Rockville, DMV</i>
7:00A – 1:00P	TWD Attendees Luggage Storage	Salon A
7:30A – 8:30A	TWD Program Directors’ Organization (TWDPDO) Meeting <i>Speaker: Henry Wortis, M.D.</i>	Salon D&E
8:30A – 8:45A	Welcome Day 3 <i>Speaker: Desirée Salazar, Ph.D.</i>	Salon D&E
8:45A – 9:00A	Bethesda North Marriott-Sponsored Beverage Break	Grand Ballroom Foyer
9:00A – 10:00A	Concurrent Panel: Preparing Trainees for a Broad Range of Careers <i>Speakers: Cynthia Fuhrmann, Ph.D., Ann Stock, Ph.D., Robert Kelly, Ph.D.; Moderator: Patrick Brown, Ph.D.</i>	Salon D&E
	Concurrent Session: Encouraging Partnerships to Advance Data Science Training <i>Speaker: King Jordan, Ph.D.; Moderator: Veerasamy Ravichandran, Ph.D.</i>	Salon B&C
10:00A – 11:00A	Student Wellness and Resilience <i>Speaker: Sharon Milgram, Ph.D.; Moderator: Michael Sesma, Ph.D.</i>	Salon D&E
11:00A – 11:30A	Current Topics from the Division of Biomedical Research Workforce <i>Speaker: P. Kay Lund, Ph.D. Moderator: Alison Gammie, Ph.D.</i>	Salon D&E
11:30A – 12:30P	Open Mic: TWD Listens/Feedback Session (TWD Staff Panel) <i>Alison Gammie, Ph.D., Michael Sesma, Ph.D., Shiva Singh, Ph.D., Stephanie Constant, Ph.D.</i>	Salon D&E
12:30P – 12:45P	Meeting Recap and Adjourn <i>Speaker: Alison Gammie, Ph.D.</i>	Salon D&E
12:45P – 1:00P	Program Staff Available	Salon B&C

2019 TWD Program Directors’ Meeting is funded in part by awards from the
National Institute of General Medical Sciences of the National Institutes of Health.
[T36GM008637 and U13GM133156]

Welcome Letter

Dear Colleagues,

On behalf of the National Institute of General Medical Sciences (NIGMS), and the FASEB Office of Sponsored Programs, Diversity and Grants Administration, we'd like to welcome you to the Training, Workforce Development and Diversity (TWD) Program Director's Meeting. We're very excited about this meeting, which brings together a community of NIGMS trainers and educators dedicated to developing a diverse pool of scientists who have the skills to successfully transition into careers in the biomedical research workforce.

The meeting is designed to provide members of the NIGMS training community with opportunities to:

- Network – establish new connections and strengthen existing relationships to enhance training, mentoring, diversity, and professional development
- Exchange information, ideas, and innovations – share outcomes, tools, strategies, and effective practices
- Communicate – share training challenges and opportunities, and learn about current NIH/NIGMS policies and priorities

We truly appreciate your commitment, expertise, dedication, and hard work. We look forward to seeing your presentations and talking to you over the course of the next few days.

Welcome and thanks again for your engagement.

Jacquelyn Roberts

Director

Federation of American Societies for Experimental Biology (FASEB)
Office of Sponsored Programs, Diversity and Grants Administration

Alison Gammie

Director

Division of Training, Workforce Development, and Diversity
National Institute of General Medical Sciences (NIGMS)

2019 TWD Program Planning Committee

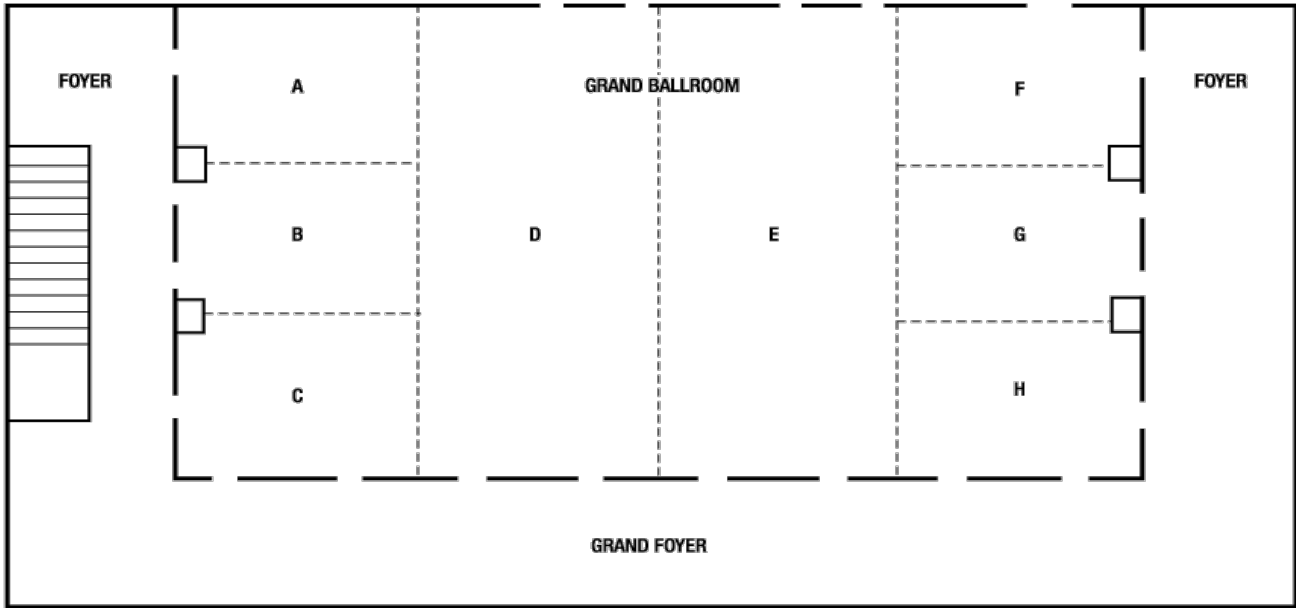
Edgardo Falcón, PhD (National Institutes of Health, National Institute of General Medical Sciences)
Alison Gammie, PhD (National Institutes of Health, National Institute of General Medical Sciences)
Barry Komisaruk, PhD (Rutgers University)
Jacquelyn (Jacquie) Roberts (Federation of American Societies for Experimental Biology)
Eduardo Rosa-Molinar, PhD (The University of Kansas)
Desirée Salazar, PhD (National Institutes of Health, National Institute of General Medical Sciences)
Michael Sesma, PhD (National Institutes of Health, National Institute of General Medical Sciences)
Cordelia Smith (Federation of American Societies for Experimental Biology)
Henry H. Wortis, MD (Tufts University School of Medicine)

2019 TWD Program Directors' Meeting Management

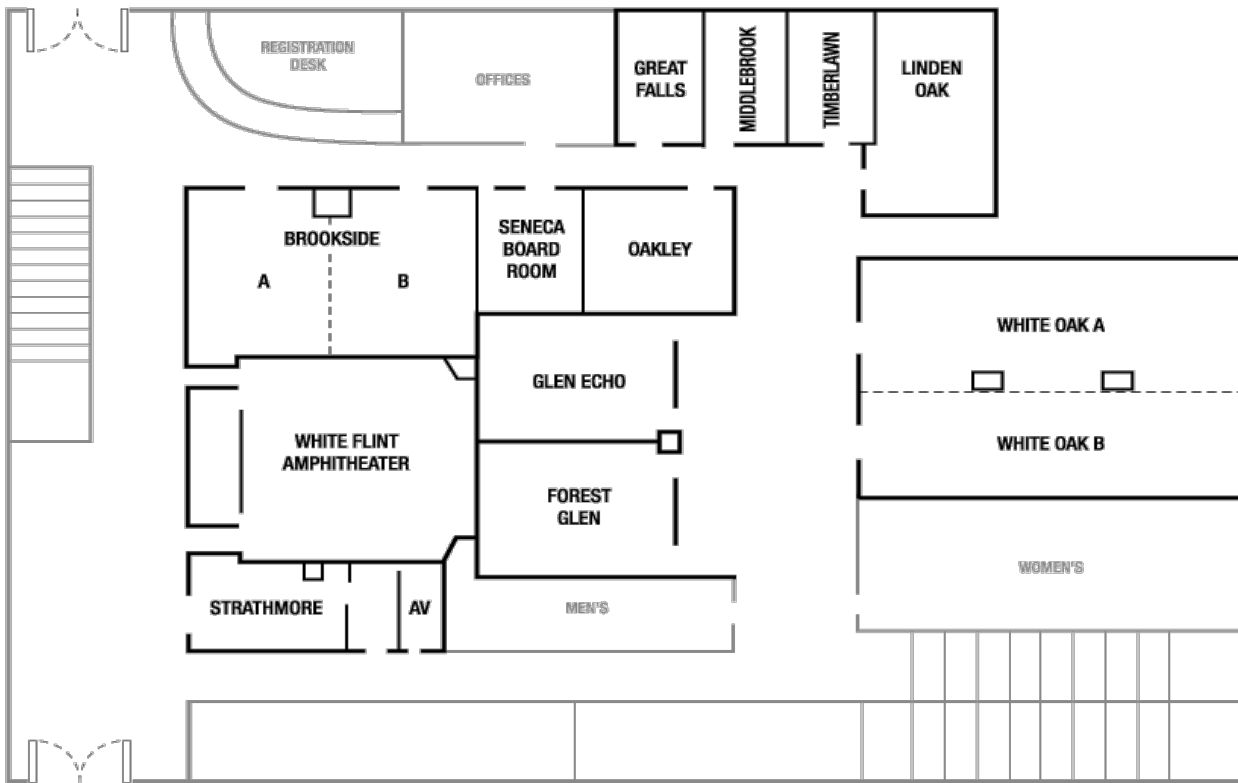
Jacquelyn Roberts (Federation of American Societies for Experimental Biology)
Cordelia Smith (Federation of American Societies for Experimental Biology)

Bethesda North Marriott Hotel & Conference Center

MAIN LEVEL



LOWER LEVEL



Bethesda North Marriott Hotel & Conference Center

Salon D&E	
WE: 8:00a- 8:30a	Welcome Day 1
WE: 8:30a- 9:30a	Message from The Director
WE: 4:15p- 5:30p	Promise and Peril in Higher Education: Building an Equitable, Creative, Prosperous, and Sustainable Future through Socially-Directed Science and Technology
TH: 9:45a- 9:50a	Welcome Day 2
TH: 9:50a- 11:00a	Emphasizing Diversity & Inclusion as Essential Aspects of Training Excellence
TH: 2:15p- 3:30p	Equitable, Inclusive and Safe Environments
TH: 3:45p- 4:45p	NIH Policy on Sexual Harassment
TH: 4:45p- 5:45p	Enhancing Laboratory Safety and the Principles of Safe Research
FR: 7:30a- 8:30a	TWDPDO Meeting
FR: 8:30a- 8:45a	Welcome Day 3
FR: 9:00a- 10:00a	Preparing Trainees for a Broad Range of Careers
FR: 10:00a- 11:00a	Student Wellness & Resilience
FR: 11:00a- 11:30a	Current Topics from the Division of Biomedical Research Workforce

FR: 11:30a- 12:30p	Open Mic: TWD Listens/Feedback Session
FR: 12:30p- 12:45p	Meeting Recap and Adjourn
Salon B&C	
WE: 9:30a- 11:30a	Make Your Program Evaluation SMART by Aligning Objectives & Measures of Success
WE: 1:00p- 2:30p	Employing Evidence-based Practices for Training, Mentoring and Disseminating Outcomes
WE: 2:30p- 3:45p	Developing Holistic Approaches to Admissions
TH: 11:00a- 12:00p	Leading Institutional Change – Becoming Change Agents
TH: 1:15p- 2:15p	Teaching Rigor, Transparency & RCR
FR: 9:00a- 10:00a	Encouraging Partnerships to Advance Data Science Training
Salon G&H	
WE: 9:30a- 11:30a	Better Outcomes & Greater Efficiency: Evaluation and Assessment in T32 Programs
WE: 1:00p- 2:30p	Focusing on Technical, Operational, & Professional Skills Development
WE: 2:30p- 3:45p	Implementing Curricular Changes
TH: 8:00a- 9:30a	TWDPDO: T32

TH: 11:00a- 12:00p	Building a Strong Mentoring Environment
TH: 1:15p- 2:15p	Sustaining Diversity Enhancement Programs
Salon A	
TU: 5:00p- 7:00p	TWD Poster Session & Networking
WE: 5:30p- 7:00p	TWD Poster Session & Networking
TH: 5:45p- 7:15p	TWD Poster Session & Networking
FR: 7:00a- 1:00p	Luggage Storage
Salon B	
TH: 8:00a- 9:30a	TWDPDO: IMSD
Salon C	
TH: 8:00a- 9:30a	TWDPDO: RISE
Salon F	
TH: 8:00a- 9:30a	TWDPDO: MARC U*STAR
Great Falls	
TH: 8:00a- 9:30a	TWDPDO: IPERT/MARC T36
Timberlawn	
TH: 8:00a- 9:30a	TWDPDO: IRACDA
Linden Oak	
TH: 8:00a- 9:30a	TWDPDO: Bridges BS & PhD
Oakley	
TH: 8:00a- 9:30a	TWDPDO: PREP

General Information

TWD 2019 Registration Desk Hours

Location: Convention Registration Desk

Tuesday	1:00P – 7:00P
Wednesday	7:30A – 6:00P
Thursday	7:30A – 6:30P
Friday	7:30A – 11:30A

Managers-on-Duty: Jacquie Roberts and Cordelia Smith

FASEB Emergency Contact Info

Jacquie Roberts – 240.281.8294 (text or call)

Bethesda North Marriott Emergency Contact Info

Dial “0”, front desk; Dial “9-1-1” for urgent emergencies

Internet Access

Guest rooms Wireless:

- Complimentary for Marriott Bonvoy™ members; TWD 2019 attendees can enroll in Marriott Bonvoy™ program at check-in/free-of-charge
- High Speed: \$12.95/day;
- Enhanced High Speed: \$15.95/day

Lobby and public areas: Complimentary Wireless

TWD 2019 Meeting Rooms/Foyer: Complimentary Wireless; Conference passcode will be provided onsite at the meeting.

Audio/Visual Support provided by:

Bethesda North Marriott Hotel & Conference Center


Location: Bethesda North Marriott Hotel & Conference Center

Hotel/Conference Center Parking

- Conference Center Day Guest, fee: \$2.50 hourly, max of \$30 daily
- Parking for Registered Guests, fee: \$17 daily

AM/PM Beverage Breaks

All AM/PM beverage breaks are sponsored by Bethesda North Marriott Hotel & Conference Center.

 **Twitter Hashtag - #TWD2019PDM**

INSTRUCTIONS

There are three ways to use Poll Everywhere: via a **free mobile app**, on a **web browser**, or by **text message**. Poll Everywhere responses are not connected to your registration and are only linked by a participant ID—the only exception is if you enter your login information.

Mobile App

- The Poll Everywhere App is available via the iTunes Store or via Google Play.
- Once installed, you can choose to log in to an existing account (if you have one) or continue without logging in. Do not log in if you would like your responses to be anonymous.
- Click on "I'm Participating" and enter the meeting code username, **twd1** or **twd2**, in the field provided to join a presentation.
- Active polls will automatically display for you to participate.

Web Browser

- Simply open your favorite web browser on your phone or computer and navigate to:
<https://pollev.com/twd1>
or
<https://pollev.com/twd2>
- Active polls will automatically display for you to participate.

Text Messaging

- Text the meeting code: **twd1** or **twd2** to the number **22333** to join.
- As polls are activated, text your responses to the same number (**22333**). You will *not* receive any notice about new polls or when polls close. To change your answer for a poll, first type CLEAR then type your new response.

2019 TWD Program Directors' Meeting Abstracts/Posters Presentation Schedule for TWD Program-Related Posters

POSTER SESSION A: Tuesday, July 30, 5:00P - 7:00P

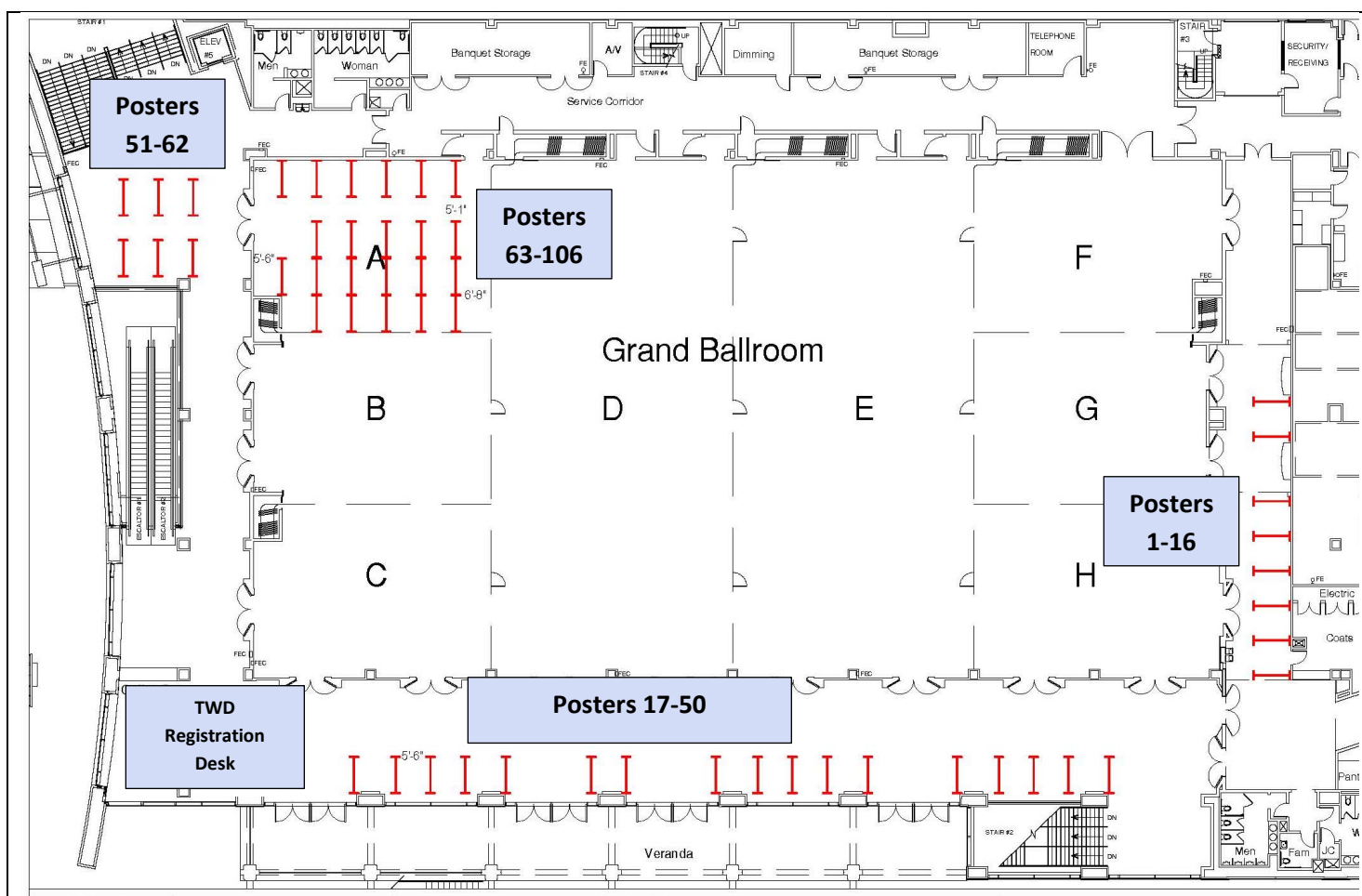
POSTER SESSION B: Wednesday, July 31, 5:30P – 7:00P

POSTER SESSION C: Thursday, August 1, 5:45P – 7:15P

NOTE: All poster presenters may install their posters on their assigned poster board beginning on Tuesday, July 30th at 3:00 p.m. You may leave your posters on the boards throughout the TWD 2019 meeting and the last poster session scheduled on Thursday evening, August 1st.

Posters must be removed from the poster boards following the end of Poster Session C on Thursday evening, August 1st. The poster boards will be removed from the Grand Ballroom Foyer and Salon A on Friday morning, August 2nd.

Posters/Poster Boards Location Map



TWD Program	Poster # / Board Location	TWD Program	Poster # / Board Location
BUILD	1-5 [Grand Ballroom Foyer]	MARC U*STAR	57-62 [Salon A]
NRMN	6-7 [Grand Ballroom Foyer]	PREP	64-68 [Salon A]
IPERT	8-18 [Grand Ballroom Foyer]	Bridges BS	69-74 [Salon A]
T32 Predoctoral	19-35 [Grand Ballroom Foyer]	Bridges PhD	75-77 [Salon A]
T32 Supplements	36-55 [Grand Ballroom Foyer] 96-102 [Salon A]	IMSD	78-86 [Salon A]
IRACDA	56 [Grand Ballroom Foyer]	RISE	87-95 [Salon A]

ABSTRACTS – POSTER SESSION A

TWD Program	Abstract/Poster Title	Author's Last Name	Poster Board #
BUILD	Enhancing Capacity to Address Health Disparities: the ASCEND Community-Based Participatory Research (CBPR) Small Grants Initiative	Silver	2
BUILD	Research Shadowing: High Impact, Low Cost Introduction to Research	Morgan	3
BUILD	Inculcating a Culture of Research Entrepreneurship: Lessons Learned from the ASCEND Student Research Center	Sheikhhattari	4
BUILD	The First Five Years: BUILD Training Program at UMBC	LaCourse	5
NRMN	Programs and Outcomes from the First Five Years of the National Research Mentoring Network	Pfund	6
IPERT	Enhancing Research Training through Empowerment, Resilience, and Civic Engagement	Godreau	8
IPERT	SCOARE Project	Cameron	9
IPERT	The Impact of a Multi-Institutional Collaboration that Provides Mentorship at the Critical Transitions	Ghee	11
IPERT	Enabling NextGen Advanced Biomedical Leadership (ENABL) via Immersive Training Experiences at Cold Spring Harbor Laboratory	Lambert	13
T32 Predoctoral	ADVANCE: A Transition Program to Graduate School	Ricci	20
T32 Predoctoral	Management Matters for Scientists	Muindi	24
T32 Predoctoral	Evaluation of PhD Student Training in the Biological and Biomedical Sciences	Claydon	27
T32 Predoctoral	Skills Development for Diverse Scientific Careers B&BS 550b	Baserga	33
T32 Supplement	Critical Communication Skills for PhD Trainees	Stayart	36
T32 Supplement	Professional Preparedness in Biotechnology	Stock	40
T32 Supplement	Developing Professional and Technical Skills for Diverse Career Paths in Biomolecular Pharmacology	Singh	41
T32 Supplement	The Development of a New Course Titled: Rigorous and Reproducible Design and Data Analysis	Parvin	44
T32 Supplement	A Pilot Program to Assess Burnout and Enhance Resilience and Grit in MSTP Students	Kirby	48
T32 Supplement	A Comprehensive Approach to Graduate Training with Integration of Professional Coaching	Wendell	54
T32 Supplement	SB220 - Quantitative Measurement and Analysis	Dubreuil	98
MARC U*STAR	Doubled Rate of Participation in Mentored Undergraduate Research by Students Who Completed an Alternative, Cross-Disciplinary Freshman Laboratory Course	Julian	58
MARC U*STAR	Facilitating the Development of Science Communication Skills in a Group of MARC U*STAR Trainees	Jonas	60
MARC U*STAR	Recruitment of High-Achieving Native American Students to an NIH-MARC U-STAR Program	Fenster	62
PREP	Facilitating PREP Post-Baccalaureate and IMSD Pre-doctoral Near-Peer Student Interactions: Lessons Learned	Kasman	68
Bridges BS	Student Success Driven by a Summer Enrichment Program for the Pathways to Advanced Degrees in the Life Sciences	Clarke	69
Bridges BS	Northern Arizona University Bridging Arizona Native American Students to Bachelor's Degrees	Ingram	70
Bridges PhD	Group Mentoring at a Distance: Videoconferencing to Promote Deaf Scholar Resilience, Persistence, Retention, and Success	Hauser	77
IMSD	Training Effective Undergraduate Peer Mentors: An Intervention to Increase Student Success Among UR STEM Mentees While Providing Significant Benefits to Mentors	Booton	79
IMSD	Facilitating PREP Post-Baccalaureate and IMSD Pre-doctoral Near-Peer Student Interactions: Lessons Learned	Wright	81
IMSD	Peer Mentor Training for Mentoring PREP and IMSD Trainees	Pereira	82
IMSD, PREP, IRACDA	Creating and Implementing a Communication Plan for the NIH/NIGMS/TWDD Research Training Programs at Virginia Commonwealth University (VCU)	Lloyd	83
RISE	Promoting Team Building, Collaboration and Communication Skills in Graduate Students through Interactive Retreats	Appleyard	87

ABSTRACTS – POSTER SESSION B

TWD Program	Abstract/Poster Title	Author's Last Name	Poster Board #
BUILD	After-EXITO: Community-Based Participatory Research to Improve Alumni Transition from an Intensive Undergraduate Research Program	Crespo	1
NRMN	NRMN-Resource Center: A National Resource for Mentorship, Networking and Professional Development	Vishwanatha	7
IPERT	Building the Postdoc Academy: A Digital Professional Development Program for Postdocs	Chobot Hokanson	10
IPERT	IMPACT Program: Building the Capacity of Biomedical Trainees to Explore and Enhance the Impact of Their Research	Gray	12
IPERT	Breaking the Bias Cycle for Future Scientists: A Workshop to Learn, Experience, and Change	Pribbenow	14
IPERT	I-Trep Program: Fostering Entrepreneurship in Biomedical Research	Thornton	15
IPERT	ToxMSDT: An Innovative Toxicology Research Education Pipeline Program Introducing Underrepresented Undergraduate Students to the Field of Toxicology	Rumbeiha	16
T32 Predoctoral	Increasing Graduate Program Diversity and Enhancing the Student Experience	Audhya	19
T32 Predoctoral	The Program in Enhanced Research Training at OHSU	Maslen	22
T32 Predoctoral	Laboratory Modules to Enhance Biotechnology and Chemistry Biology Interface Training Programs	Strieter	23
T32 Predoctoral	Rigor and Transparency in Graduate Education: Collaboration with the Center for Open Science	Laurie	25
T32 Predoctoral	A Wellness Initiative to Improve Mental Health and Well-being Among Graduate Students	Welch	28
T32 Predoctoral	Gamification Improves Retention of Medical Knowledge for MD-PhD Students During Their PhD Research Years	Seay	29
T32 Predoctoral	NIGMS Training Program in Biomolecular Science and Engineering at Rensselaer Polytechnic Institute (RPI) in Collaboration with the University of Albany	Weaver	30
T32 Predoctoral	A Novel Clinical Skills Program for MD/PhD Candidates	Kedes	31
T32 Predoctoral	Transdisciplinary Predoctoral Training at the Interface of Chemistry and Biology	Judge	32
T32 Predoctoral	Introducing Early-Stage Trainees to Collaborative and International Science	Tullius	34
T32 Predoctoral	A Continuing Clinical Education Course to Maintain Clinical Competencies and Foster New Clinical Knowledge During the Graduate School Years of MD/PhD Training	Geisler	35
T32 Supplement	Hypothesis, Design and Biostatistics	Meredith	37
T32 Supplement	Biomedical Career Development Forum for Pre-doctoral Students at Northwestern University	Radhakrishnan	43
T32 Supplement	Science Communication Credential (SCC) to Enhance PhD Student Communication Skills	Hutchins	45
T32 Supplement	Development and Impact of a Practical Statistics Course Tailored to Graduate Biomedical Scientists	Iñiguez-Lluhi	47
T32 Supplement	Leading and Managing Projects and People	Gould	49
T32 Supplement	Career Exploration and Skills Development	Myat	52
T32 Supplement	Enhanced Career Planning in Molecular, Cell and Development Biology	Strome	55
T32 Supplement	A Laboratory Course in Biophysical Analyses of Protein Therapeutics	Sumida	96
T32 Supplement	A New Hands-on Paradigm for Teaching Experimental and Analytical Methods in Biomedical Sciences	Lecomte	97
T32 Supplement	Computational and Professional Skills for Biomedical Trainees in Therapeutic Sciences	Dubreuil	99
IRACDA	Creating Institutional Culture Change to Better Support Deaf Scientists	Elliott	56
MARC U*STAR	Advanced CURE: CURE-based Course Initiated by Students' Research Questions	Lee	59
MARC U*STAR	Winston Salem State University's Maximizing Access to Research Careers Undergraduate Student Training in Academic Research (MARC U*STAR) Program	Flowers	61

TWD Program	Abstract/Poster Title	Author's Last Name	Poster Board #
PREP, IMSD	Seminar Speakers as a Resource for Helping Trainees Succeed in Their Efforts to Become Scientists	Smith, E.	64
PREP	Creating New Graduate Level Courses for the Postbaccalaureate Research Education Program Scholars	Harrison-Bernard	67
Bridges BS	Bridges to the Baccalaureate at Purchase College	Skrivanek	71
Bridges BS	Enhancing the Student Research Experience at Queensborough Community College	Schneider	73
Bridges BS	Keeping Our Bridges Program Vibrant for 26 Years by Linking Strategies & Best Practices	Crews	74
IMSD	Increasing PhD Programs Diversity: From Single Program Change to Institutional Transformation	Campbell	78
IMSD	Custom Database Solutions for Educational Programs to Encompass Marketing, Management, and Collaboration	De Leon	84
IMSD	Regional Partnership Among Training Programs Benefit Trainee Networking and Program Success	Golding	85
RISE	Science Exploration Workshop to Identify Budding Scientists Amongst Freshman and Sophomores for Recruitment to NIH RISE BS-to-PhD Program	Momand	89
RISE	Master's Program Thesis Proposals in the Sciences: Meeting Students Where They Are	Foster	91
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