



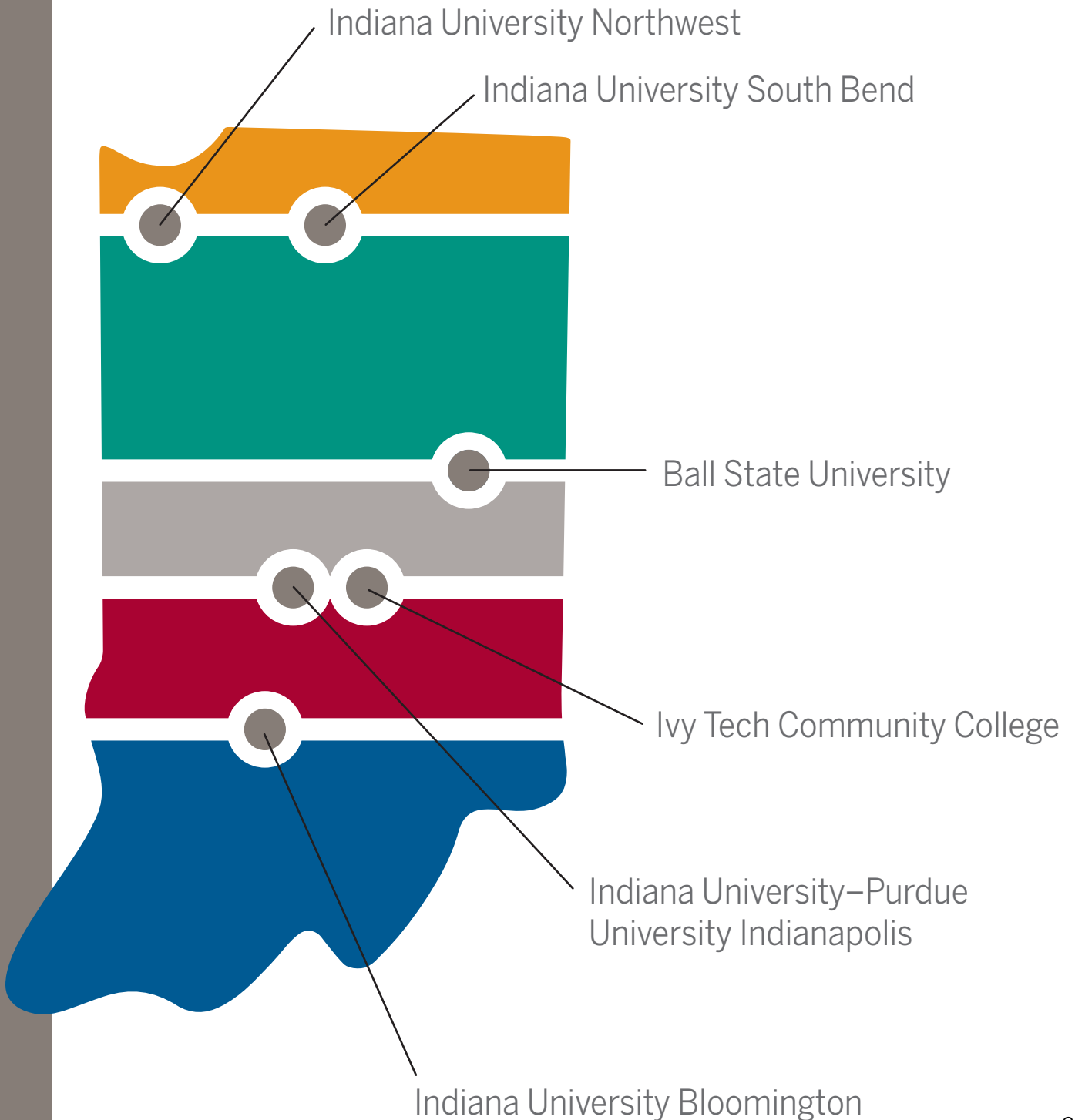
## IN LSAMP Undergraduate Research Poster Session

### ***Welcome to the inaugural IN LSAMP Undergraduate Research Poster Session!***

We are pleased you are joining us to celebrate this collection of undergraduate research being hosted at our partner institution, Ivy Tech Community College.

We also extend a warm welcome to the undergraduate students presenting from the KY WV LSAMP. We look forward to sharing resources across the Midwest through our partnership with the Louis Stokes Midwest Regional Center of Excellence (LSMRCE) and growing a tradition of engaging across our state borders. Let us celebrate the accomplishments of our students and join together to support broadening participation of underrepresented minority students in STEM by supporting their research through your investment of time and interest in their research.

This poster session will spotlight undergraduate research conducted by IN LSAMP scholars across five of the IN LSAMP campuses: Indiana University Bloomington, Ball State University, Indiana University Northwest, IUPUI, and Indiana University South Bend. Additionally, scholars from Ivy Tech Community College were welcomed into labs at IUPUI. Research was conducted under the guidance of our IN LSAMP faculty mentors alongside graduate students in state-of-the-art laboratories. Today approximately 43 undergraduate research posters will be showcased from six institutions.



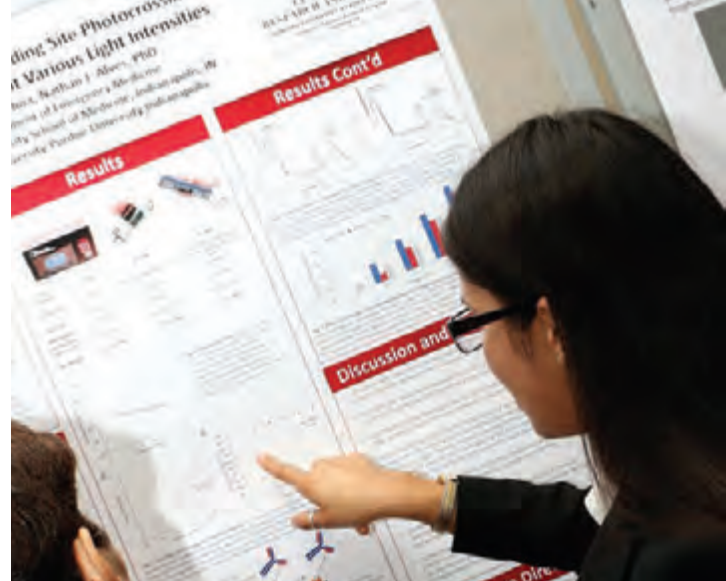
# Undergraduate Research Poster Locations

**The research showcase posters will be displayed in Room 119 from 3:00 to 4:30 p.m. We encourage the audience to meet the presenters and learn more about their exciting summer research.**

The undergraduate research showcases were conducted at IN LSAMP campuses and were supported by the National Science Foundation under Grant No. HRD 1618408, 2016-2022. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

The members of the IN LSAMP program are thankful for the continued support of the National Science Foundation and for the opportunities it provides to our students.

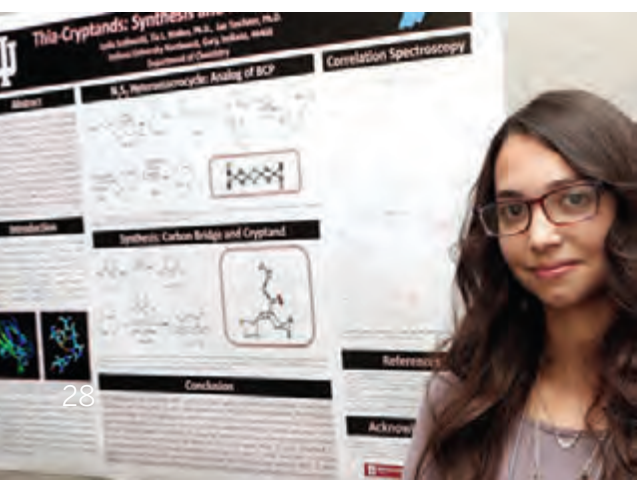
PRESENTER (Last, First) Campus	POSTER NUMBER	AREA	POSTER TITLE
<b>Adams, Kierra</b> Ball State University	12	Biology	Genetic Engineering to Produce DCAs Using Candida Viswanathii through CRISPR Modification
<b>Adebowale, Lyunade</b> IUPUI	25	Chemistry	LC-MS/MS Detects Urobilinoids from Feces in Fly Guts
<b>Aidoo, Opeibea</b> IUPUI	43	Biology	Differential Regulation of Dyrk1a at the Perinatal Stage in Down Syndrome Mice
<b>Appel, Monica</b> Ball State University	10	Computer Science	Sphero in the Classroom
<b>Baird, Joseph</b> West Virginia State University	11	Biology	Genome Wide Association (GWA) Studies on Triglyceride Levels Due to the Diet Supplemented with Chili Peppers on <i>Drosophila melanogaster</i>
<b>Barrios, Charles</b> Ball State University	7	Chemistry	Synthesis of New Thermosensitive Copolymers for the Modification of Polysaccharides
<b>Belcher, Samantha</b> West Virginia State University	13	Biology	Genome Wide Association Studies on Feeding Effects of <i>Nigella sativa</i> on <i>Drosophila melanogaster</i>
<b>Carey, William</b> IU Northwest	14	Chemistry	Examining Excessive Ca <sup>2+</sup> /Mg <sup>2+</sup> in NW Indiana Rainwater
<b>Coe, Kalee</b> IUPUI	6	Biotechnology	Repeated Mild Traumatic Brain Injury Causes Chronic Glial Activation in the Cortex of Adult Male Mice
<b>Dantzler, Maurice</b> Ball State University	15	Biology	Herpetological Surveys of Red Tail Land Conservancy Properties
<b>Diggs, Amber</b> Ball State University	16	Biology	Overexpression and Purification of T7-RNA Polymerase for RNA In Vitro Synthesis
<b>Elmalh, Eva</b> IU Northwest	17	Biology	Prevalence of Colistin-resistant Bacteria in Sanitary Sewage and the Environment
<b>Ethfagha, Cheikh</b> IUPUI	18	Biology	Engineering an Acetolactate Synthase Variant Exhibiting Acetohydroxyacid Synthase Activity
<b>Fagnon, Mahussi</b> IUPUI	19	Biology	Comparing Thromboelastography (TEG) and Turbidity Measurements to Monitor Clot Formation of Native and FITC-tagged Fibrinogen



PRESENTER (Last, First) Campus	POSTER NUMBER	AREA	POSTER TITLE
<b>Garcia, Cesar</b> <i>IU Northwest</i>	1	Geology	Microplastics in Beach Sediment along Indiana Shores of Lake Michigan.
<b>Gorski, Giovanna</b> <i>IU South Bend</i>	20	Computer Science	vCARE: Application of Geotagging to Improve Delivery of Public Health Services
<b>Ihano, Winnie</b> <i>IU South Bend</i>	21	Biochemistry	Characterization of Adenosine Deaminase (ADA) Mutants in Severe Combined Immunodeficiency (SCID)
<b>Jackson, Alero</b> <i>IU Northwest</i>	22	Biology	Quantification of Antibiotic Resistance in Enteric Bacteria Isolated from Untreated Sewage
<b>Jean-Baptiste, Stacey</b> <i>IU South Bend</i>	23	Biological Sciences	Electrocatalytic Oxidation of Aminothiols Using Modified Electrodes with Gold Nanoparticles
<b>Johnson, Crystal</b> <i>IUPUI</i>	24	Biotechnology	Spinophilin Protein-protein Interactions in the Striatum Subsequent to Psychostimulant Administration
<b>Jones, Jessica</b> <i>IU South Bend</i>	2	Biological Sciences	Effects of Arbuscular Mycorrhizal Fungi on Plant Growth and Survival
<b>Jones, Keon</b> <i>IU South Bend</i>	8	Biological Sciences	The Effect of EF-P Post-translational Modifications on Cell Physiology in <i>E. coli</i>
<b>Laws, Kaylin</b> <i>Ball State University</i>	26	Biology	Investigation of Reducing Highly Cross-linked Inverse Vulcanized Sulfur Polymers
<b>Lloyd, Adam</b> <i>Ball State</i>	27	Biology	Synthesis of Substituted Pyrazolines as Inhibitors of Bacterial Invasion
<b>Makanjuola, Emmanuel</b> <i>IUPUI</i>	28	Chemistry	Quantifying ACCH Domain Stability via Differential Scanning Fluorimetry
<b>Marks-Burns, Jazmin</b> <i>Ball State University</i>	29	Biology	Investigating the Effects of PUS5 Deletion on Mitochondrial Encoded Protein Expression in <i>Candida albicans</i> and <i>Saccharomyces cerevisiae</i>
<b>McGee, Conor</b> <i>IU South Bend</i>	30	Chemistry	Calculating Lower and Upper Bounds to the Overlap Integral
<b>Mena, Rebeca</b> <i>Ball State University</i>	31	Chemistry	Microplate-based Colorimetric Detection of Free Hydrogen Sulfide Produced by mitoNEET and Cysteine



PRESENTER (Last, First) Campus	POSTER NUMBER	AREA	POSTER TITLE
<b>Mitchell, David</b> <i>IU South Bend</i>	32	Biology	Pollinator Diversity and Abundance in Neighboring Urban Wetlands
<b>Molina, Deanna</b> <i>IU Bloomington</i>	3	Neuroscience	The Impact of Video Game Mechanics on Memory and Learning
<b>Montalvo-Hernandez, Carlos</b> <i>IUPUI</i>	33	Engineering	All-in-one Pothole Machine
<b>Moreno, Christian</b> <i>IU South Bend</i>	34	Chemistry	Development of Tool to Operate on Periodic Trends
<b>N'Guetta, Pierre-Emmanuel</b> <i>IU South Bend</i>	35	Biology	Engineering a FABulous Fluorescent Glyphosate Biosensor Using Phosphate-binding Protein (PhnD)
<b>Nkurunziza, Lionnel</b> <i>IUPUI</i>	36	Neuroscience	The Attentional Set Shifting Task as a Measure of Cognitive Flexibility in Wistar Rats and Alcohol-preferring P Rats
<b>Nnatubeugo, Chimere</b> <i>Ball State University</i>	4	Biochemistry	Allosteric Regulation of Glutamate Dehydrogenase 1 by MitoNEET
<b>Ochoa Medina, Celia</b> <i>IUPUI</i>	37	Biomedical Engineering	UV Nucleotide Binding Site Photocrosslinking of Antibodies at Various Light Intensities
<b>Olchawa, Nicholas</b> <i>IU Northwest</i>	38	Biology	Me31B Role in mRNA Regulation
<b>Roberts, TyLynn</b> <i>IUPUI</i>	5	Biology	Determining Accurate Dyrk1a Levels in Developing Down Syndrome Mouse Brain
<b>Rodriguez, Jose</b> <i>Ball State University</i>	39	Chemistry	Investigation of the Impact of Cyano Substituents on the Reactivity of Oxypyridinium Salts
<b>Rodriguez, Salvador Valle</b> <i>Ivy Tech Community College</i>	9	Engineering	Electrodeposition of Germanium Telluride
<b>Sanchez, Pedro</b> <i>IUPUI</i>	40	Biology	Initial Studies for a Structure—Functional Analysis of <i>Phanerochaete chrysosporium</i> Desaturase
<b>Valdez, Sinai</b> <i>IUPUI</i>	44	Biology	Short-term Pharmacologic Inhibition of RAGE Suppresses Bone Turnover and Muscle Atrophy in Aging
<b>Walker, Princess</b> <i>Ball State University</i>	41	Biochemistry	Modification of Poly(s-dvb) Using Maleimide
<b>Williams, Brooklyn</b> <i>IUPUI</i>	42	Biology	The Role of Actin Binding Protein in Cellular Protrusions



# Gratitude

*We thank the conference volunteers who give generously of their time to support broadening diversity in STEM!*

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*With your support, this research is possible.*



## Conference Program

The conference program is accessible on the IN LSAMP website.

<http://insamp/conferenceprogram>

## Program Changes and Cancellations

The conference sponsors reserve the right to make changes in programs and speakers. Changes and cancellations will be posted at the registration desk.

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# STEM CAREER AND RESOURCE FAIR

October 19, 2018  
4:30–7:00 p.m.

Ivy Tech Community College  
Culinary and Conference Center  
2820 N. Meridian St.  
Indianapolis, IN 46208  
Second Floor Ballroom

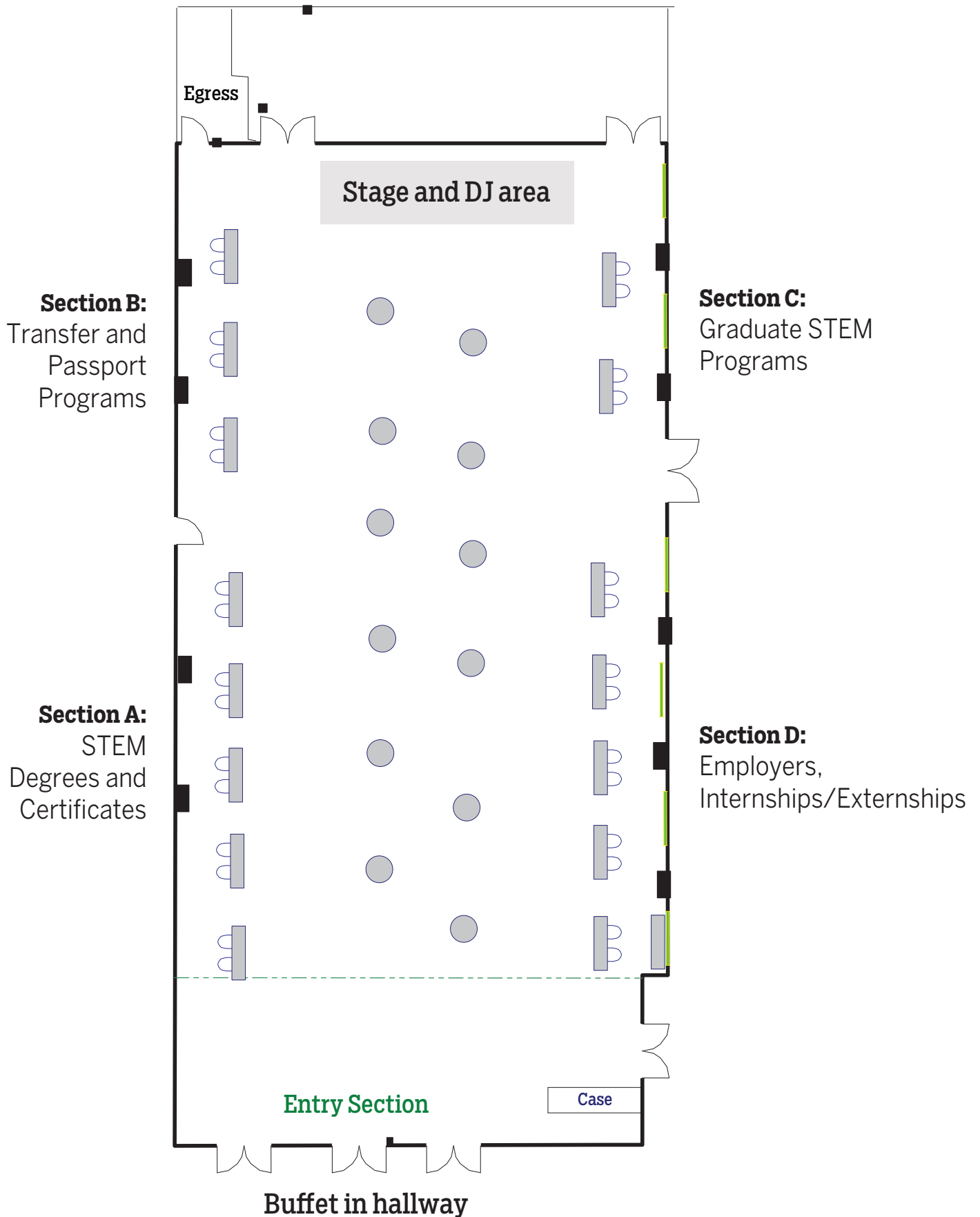
**Facilitator:** Brian Thomas, KIPNspire founder, will host professional development activities designed to build confidence and networks to support students from across Indiana and the IN LSAMP alliance as they pursue a future in STEM.



IN LSAMP

# STEM Career and Resource Fair

Ballroom 212







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