

High School Teen Science Ambassador Program at the Medical University of South Carolina

Program Guide

Session 1 Guide

Exploring the Medical University of South Carolina

Session Description

In this session, the mentor teams will explore the Charleston campus of the Medical University of South Carolina (MUSC). This session is designed to help acquaint ambassadors to the campus and to provide insights into various campus history and departments of interest to the cohort. Lastly, the Ambassadors can familiarize themselves with the members of their mentor teams and strengthen their intracohort bond.

Session Objective

By the end of the session, each Ambassador will **engage in 5 scavenger hunt stops at the MUSC Charleston location.**

| Ambassadors | Near-peer Mentors | Senior Mentors |
|---|---|---|
| <ul style="list-style-type: none">Ambassadors will work with their respective teams to complete the scavenger hunt and navigate to various areas on campus. | <ul style="list-style-type: none">Near-peer mentors will be refreshed on their campus knowledge as they assist the senior mentors in helping their group navigate through the scavenger hunt. | <ul style="list-style-type: none">Senior mentors will use their knowledge of the campus to assist their group in navigating through the scavenger hunt. |

Session Standards and Guidelines

Next Generation Science Standards (NGSS)



MUSC Teen Science Ambassador Program



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This session will focus on the NGSS science and engineering practice of **Asking Questions and Defining Problems**.

Common Core Standards

- Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively. (CCSS.ELA LIT.CCRA.SL.1)
- Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem. (CCSS-RST.11-12.7)

The Universal Design for Learning Guidelines

Provide multiple means of engagement

- | | |
|--|--|
| • <u>Optimize relevance, value, and authenticity</u> | • <u>Promote expectations and beliefs that optimize motivation</u> |
|--|--|

Provide multiple means of representation

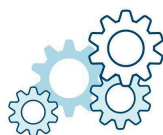
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| • <u>Clarify vocabulary and symbols</u> | • <u>Guide information processing and visualization</u> |
| • <u>Activate or supply background knowledge</u> | |

Provide multiple means of action and expression

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|---|--|
| • <u>Guide appropriate goal-setting</u> | • <u>Facilitate managing information and resources</u> |
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Session Organizer and Learning Organizer

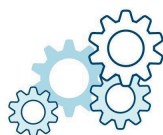
| Time | Activity | Materials |
|---------------|--|---|
| 4:00 – 4:30pm | Pre-session activities <ul style="list-style-type: none"> • Dinner will be served (Ambassadors, Near-peer mentors, Senior mentors, and the program team) • Mentors (Near-peer and Senior) will pick up scavenger hunt materials. | <ul style="list-style-type: none"> • Meeting Schedule projected/visible for mentors • TSAP shirts |



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|---------------|---|--|
| 4:30 – 4:45pm | TSAP Team Announcements <ul style="list-style-type: none"> The program team will give an overview of the TSAP teams. <ul style="list-style-type: none"> What is it? How often will we meet? What will we work on during this time? What to expect from your mentors/mentees? Then TSAP will break off to their first Mentor-Mentee time. <ul style="list-style-type: none"> Mentee/Mentor introductions Create a team name | <ul style="list-style-type: none"> Scavenger packets for each Mentor team |
| 4:45 – 5:45pm | Scavenger Hunt <ul style="list-style-type: none"> Mentor teams will complete the scavenger hunt, with the help of their mentor teams, making their way through five stops on the campus. <ul style="list-style-type: none"> Photos will be taken throughout | <ul style="list-style-type: none"> Potential: Umbrellas depending on the forecast Goosechase app/Kahoot: Phones/other mobile devices |
| 5:45 – 5:50pm | Cohort Time Reflection <ul style="list-style-type: none"> Teams will be swapped into small groups. Possible discussion points for this session: mentee's favorite moment of the day, explanation of what this time is and how it will look week to week, mentee's general interests to prepare to discuss research question the next week | <ul style="list-style-type: none"> Summer activities graphic |
| 5:50 – 6:00pm | Closing <ul style="list-style-type: none"> Introducing next week's session | <ul style="list-style-type: none"> Forms |



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|--|---|--|
| | <ul style="list-style-type: none">Showing where next week's meeting will be held. | |
|--|---|--|

Learning Activities

Our scavenger hunt is powered by our partnership with the [University Student Ambassador Program](#) and expertly coordinated by the [Office of Student Engagement](#). Get ready to delve into the world of science and healthcare at the MUSC campus through a captivating journey guided by our TSAP guides.

Scavenger Hunt Locations (2023):

Institute of Psychiatry Auditorium

Welcome to the Institute of Psychiatry Auditorium, where learning and self-reflection take center stage. Today, we have a special activity planned that will connect you to this auditorium meaningfully.

About the Institute of Psychiatry Auditorium: As you mentioned, we will return to this very place on November 7th for your TSAP graduation. This auditorium holds the promise of celebrating your journey and accomplishments. But for now, it's a space for self-discovery.

Your Activity Today:

- Letters to Yourself (Approximately 12 minutes):**
 - Each of you will receive a card to write a message to your future self. You'll read this letter on your graduation day, reflecting on how far you've come.
 - Take your time to write down your thoughts, hopes, and aspirations. It's a moment to capture your current feelings and dreams.
- Team Name (Approximately 2 minutes):**
 - Now, it's time to come up with a team name that embodies your spirit and unity. Discuss with your teammates and decide on a name that represents your unique journey together.
 - Write your names and your chosen team name on the mailing side of your envelope.
- Team Introductions (Approximately 12 minutes):**



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- To begin practicing for our upcoming graduation, each of you will come up to the podium and introduce yourself. Share your name and your team name with confidence.
- This exercise helps you get comfortable with public speaking and prepares you for the memorable moment when you walk across the graduation stage.

As you embark on these activities, remember that you're not just writing letters or choosing a team name. You're creating lasting memories and connections that will carry you through your TSAP journey.

Take your time to reflect and express yourself. We look forward to seeing you back here on November 7th for your graduation ceremony, where you'll open these letters and celebrate your achievements as Teen Science Ambassadors.

Department of Surgery's Diversity and Inclusion Wall

Welcome to the Department of Surgery's Diversity and Inclusion Wall, a powerful symbol of unity, equity, and the celebration of diversity within the field of surgery. Today, we have a thought-provoking activity planned that will encourage you to reflect on the significance of inclusion.

About the Diversity and Inclusion Wall: This wall is a testament to the Department of Surgery's commitment to fostering a diverse and inclusive environment. It highlights the contributions and achievements of individuals from various backgrounds within the field of surgery, emphasizing the importance of embracing diversity in healthcare.

Your Activity Today:

1. Exploring the Diversity and Inclusion Wall

- Begin by taking a moment to appreciate the Diversity and Inclusion Wall. Observe the stories, achievements, and faces of those who have made significant contributions to the field.
- Feel free to discuss with your fellow team members and TSAP guides what you see and what it means to you.

2. What Does Inclusion Mean to You?



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- Inclusion means different things to different people. It's a concept that goes beyond simple tolerance and encompasses a sense of belonging, respect, and acceptance.
- Take some time to reflect on what inclusion means to you personally. What does it look like in your ideal world, especially within the context of healthcare and surgery?
- Share your thoughts with your team. This is an opportunity for a rich discussion on a vital topic in today's world.

3. QR Code and Location

- At this location, there is a QR code that you can scan to access more information about the Diversity and Inclusion Wall and the stories behind it.
- Feel free to use your smartphones to scan the code and explore additional content related to this inspiring wall.

The Department of Surgery's Diversity and Inclusion Wall reminds us that diversity enhances our understanding and strengthens our communities.

McMahon Lab

Welcome to the McMahon Lab, one of the cutting-edge research facilities here at the Medical University of South Carolina (MUSC). We're thrilled to have you as our guests and to provide you with a glimpse into the exciting world of scientific discovery.

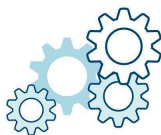
About the McMahon Lab: The McMahon Lab is a hub of scientific inquiry and innovation. It's where researchers dedicate their time and expertise to investigate a wide range of scientific questions, from understanding the intricacies of biology to developing potential solutions to complex medical challenges. Our very own, Shekinah Phillips is a McMahon lab member.

Your Journey in the McMahon Lab:

1. Lab Tour

- Get ready to embark on a tour of the McMahon Lab. You'll have the opportunity to see the state-of-the-art equipment, laboratories, and workspaces where groundbreaking research happens.
- Our TSAP guides will explain the various areas of research and the importance of their work.

2. iSpy Challenge



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- Now, here's a fun twist! We're going to engage you in an "Eye Spy Challenge." While you're in the lab, keep an eye out for specific objects or equipment that your guide will ask you to find.
- This challenge is not only fun but also a great way to test your observation skills and learn more about the tools used in scientific research.
 - Vibratome
 - Atlas Picture of Hippocampus Slice
 - Visualized Rig
 - Field Rig
 - Pipette Puller
 - Carbogen Tank

As you explore the McMahon Lab, remember to ask questions and engage with our TSAP guides. They're here to provide insights, share their passion for science, and help you make the most of this unique experience.

This visit to the McMahon Lab is a fantastic opportunity to see science in action and gain a deeper appreciation for the incredible work that happens behind the scenes at MUSC. Enjoy your time here, and let's dive into the world of scientific discovery together!

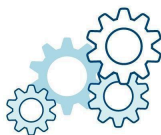
MUSC Healthcare Simulation Center

Welcome to the MUSC Healthcare Simulation Center, a place where healthcare education and training come to life through realistic simulations. We're excited to have you here today to explore this remarkable facility and gain insights into the world of healthcare simulation.

About the MUSC Healthcare Simulation Center: The MUSC Healthcare Simulation Center is at the forefront of healthcare education and training. It serves as a crucial training ground for healthcare professionals, allowing them to practice and refine their skills in a safe and controlled environment. This center plays a vital role in preparing the next generation of medical practitioners.

Your Journey in the Simulation Center:

1. **Center Tour (Approximately 8 minutes):**



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- Get ready to embark on a tour of this state-of-the-art facility. Your TSAP guides will lead you through the different areas of the Simulation Center.
 - You'll have the opportunity to see simulation rooms, high-tech medical equipment, and lifelike patient manikins that breathe, bleed, and respond just like real patients.
2. **Scenario Demonstration (Approximately 4 minutes):**
- One of the highlights of your visit will be a scenario demonstration. The center team will provide you with an immersive experience by showcasing how healthcare professionals train for various medical situations.
 - You'll witness how these simulations are used to teach medical students and healthcare practitioners critical skills, teamwork, and decision-making under pressure.

As you explore the MUSC Healthcare Simulation Center, feel free to ask questions and engage with our TSAP guides. They are here to give you a deeper understanding of the importance of simulation in healthcare education.

This visit offers a unique opportunity to see how healthcare professionals prepare for real-world situations, ensuring that they provide patients with the highest level of care. Enjoy your time here, and let's dive into the world of healthcare simulation together!

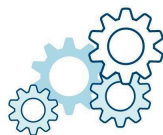
Pearlstone Healing Garden

This beautiful courtyard garden, dedicated in April 2008, is a testament to the commitment of the Hollings Cancer Center to patient care and well-being. The garden is thoughtfully designed, featuring shaded areas, a calming water feature, and accessible paths leading to quiet spaces (please note that the bottom half is currently closed). It's a space intended for patients and their families to find respite and a connection to nature.

Today's Challenges: As you enjoy this unique environment, we have two engaging challenges for your team:

Challenge 1: Team Photo

- Gather your team and your TSAP guides will help you capture a memorable photo to commemorate this special day. It's a moment you'll cherish as you reflect on your journey through MUSC.



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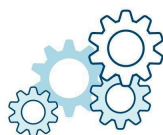
Challenge 2: Alcohol Impairment Goggles

- In the spirit of exploring the diverse research conducted across our campus, including alcohol and cannabis research, we're introducing you to a hands-on experience. Today, you will work as a team while wearing alcohol impairment goggles that simulate the effects of alcohol consumption.
- We have three different sets of goggles, each simulating a different level of impairment.
- Your task is to complete challenges while wearing these goggles, which will give you a glimpse into what it could feel like if you were under the influence of alcohol.
- This exercise is designed to raise awareness about the effects of alcohol and its impact on decision-making and coordination.
- You will have another opportunity to explore these goggles during session 3 of the program, deepening your understanding of the research topic.

We're excited to witness your teamwork and problem-solving skills as you take on these challenges. It's an opportunity not only to learn but also to gain a unique perspective on the impact of alcohol, all while surrounded by the serenity of the Pearlstine Healing Garden. Enjoy your time here, and let's embark on these challenges together!

Sample Schedule (please note that the 12 includes travel time)

| Time | Event | Location |
|------------|---|--|
| 12 minutes | Department of Surgery's Diversity and Inclusion wall <ul style="list-style-type: none">• What does inclusion mean to you?• Location QR code | 4th floor of the Clinical Science Building |
| 12 minutes | Institute of Psychiatry Auditorium <ul style="list-style-type: none">• Team introductions on the stage• Come up with a team name• Letters to yourself | 1st floor of the Institute of Psychiatry (behind front desk) |
| 12 minutes | McMahon Lab <ul style="list-style-type: none">• Lab tour• Eye spy challenge | 4th floor in the Basic Science Building |
| 12 minutes | MUSC Healthcare Simulation Center <ul style="list-style-type: none">• Tour | 2nd floor in the Colbert Library (meet at the check-in window) |



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| | <ul style="list-style-type: none">• Scenario demo | |
| 12 minutes | <p>Pearlstone Healing Garden</p> <ul style="list-style-type: none">• Impartment Goggles• Team photo | 1st floor of the Hollings Cancer Center |

Scavenger Hunt Tips:

- Please stay with your assigned TSAP guide throughout the entire scavenger hunt.
- Pay close attention to the information your guide shares at each location. They are experts in their field!
- Don't be shy to ask questions. This is a fantastic opportunity to learn.
- Keep an eye on the time. Your guide will help ensure you stay on schedule.
- Enjoy every moment of this exciting journey through MUSC!
- Remember, this scavenger hunt is not just about finding clues; it's also about discovering the incredible world of science and healthcare at MUSC. Have a great time, and let's get started!

TSAP guides

The TSAP guides are dynamic MUSC students brimming with enthusiasm to guide our mentor teams through this enriching scavenger hunt. Every mentor team will be matched with 1-2 University Student Ambassadors, your dedicated guides. These guides are poised to keep your team on track, ignite engagement, and foster an inspiring experience throughout the journey.



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2023 Guides

MUSC UNIVERSITY STUDENT AMBASSADORS
TSAP Scavenger Hunt
MEET THE GUIDES


Douglas Johnson
PhD Candidate
Team 1
2022 TSAP Guide
[Check out Douglas' article on AA role models](#)


Jade MacDonald
PhD Candidate
Team 1


Julie Dickerson
MSTP MD-PhD, Long Lab
Team 4
2022 TSAP Guide
[Abney Graduate Fellow Awardee](#)


Kavin Shah
MD Candidate
Team 4


Luke Lancaster
MD Candidate
Team 2

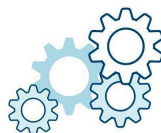

McKenna de Graaf
MD Candidate
Team 3


Sarah Brock
DMD Candidate
Floater


Shash Arashinagundi
DMD Candidate
Team 3
2022 TSAP Guide


Taylor Foggie
DMD Candidate
Team 2


Special thanks to Dr. Dante Pelzer for organizing this opportunity!



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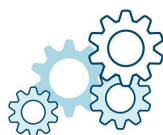
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2023 Profiles

| Team | Name | Favorite MUSC Spot | Hometown | College Major | What inspired you to choose this career path? | Favorite thing about MUSC | Advice for TSAPers |
|------|---|--------------------|-----------------|--|---|---|--|
| 1 | Douglas Johnson (returner) 864-551-9069 | Clyburn Plaza | Greenville, SC | Winthrop University, Biochemistry and Psychology | Medical and microbiology experiences in high school and undergraduate | The people, wonderful peers, professors, and deans who are very supportive. Also not far from the beach to relax! | When choosing schools to attend, how great the program is very important but also choosing a place you enjoy is important too! It's helpful to have a healthy balance of work, study, and time to relax. |
| 1 | Jade MacDonald 919-593-2138 | Urban garden | Chapel Hill, NC | UNC chapel hill, biology and chemistry | My dad | The opportunities to meet students in other programs. | Be aware of burnout- a career that includes higher level education is a marathon, not a sprint! |

| | | | | | | | |
|---|--------------------------------|--|----------------|--|--|--|---|
| 2 | Luke Lancaster 803-203-3669 | MUSC Urban Garden | York, SC | Emory University, Biology Major | I worked in an emergency department after undergraduate and loved the intersection of science and helping others in times of need | The people | Dream big and make goals |
| 2 | Taylor Foggie 864-201-3225 | My favorite spot on campus is the Urban Farm. It's a beautiful way to step away from being inside and enjoy the outdoors and nature a few steps away from class. | Greenville, SC | University of South Carolina - Public Health | I chose dentistry because I love the qualities of being able to combine art and science into the things that we do. I love being able to treat others and help alleviate their pain while making their smile's beautiful in the same aspect. | My favorite thing about MUSC is the people. My cohort is like family to me. We lift each other up and we're always seeking how to become better doctors. | I would say as a high schooler, try to always ask questions and keep an open mind. There is so much that this world has to offer. Never doubt yourself or your abilities! |

| | | | | | | | |
|---|--|-------------------------|----------------|--|---|---|--|
| 3 | McKenna de Graaf 706-664-5921 | The Library or greenway | Augusta, GA | Campbell University : Major in Biology (Pre-Med) | I experienced personal medical experiences that aided in my desire to become a physician. I also have parents that work in the medical field. | The people. Everyone has been so nice and helpful such as peers and professors. | Put yourself out there. Before I applied, I shadowed and worked in medical settings to make sure that the path was right for me. Gaining exposure can help guide you and allow you to see the what goes on behind closed doors. Making career decisions is not easy but venturing out to observe various ones helps you find that desire and goal. |
| 3 | Shashwath Arashinagundi (returner) 864-569-998 | The Greenway | Greenville, SC | Biological Sciences at Clemson | I enjoy working with my hands and making a difference for patients | Having a campus full of people in healthcare that want to make a difference | Run your own race and never get caught up in comparisons or what other people might be doing. |



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| 4 | Kavin Shah 864-382-8462 | Urban Garden | Greenville, SC | Clemson University, Math | Love of science | The faculty | Enjoy life, there is more to it than school. |
| 4 | Julie Dickerson (returner) 919-448-8270 | I like to sit in the greenspace outside of the Warring Library. It is a little less known, but that means that it is quiet and I can sit (or nap!) on a bench without being interrupted. | Chapel Hill, NC | Clemson University, I double majored in Genetics and Biochemistry and minored in music. | I am lucky enough to have been accepted to one of 60ish accredited MSTP programs in the country. The MUSC MD-PhD program has been very supportive and hopes to get all of its students to their dream careers as physician scientists. | In college, I originally thought I wanted to go to medical school. After doing research for a couple of years, I was torn between medical school and graduate school-- luckily, MUSC allows me to do both and earn an MD-PhD degree. | Not everyone's path in science/medicine is the same. If you start in one field, and change your goals, that is perfectly OK. You are currently making big decisions about where to go to college and what to major in, but the only real mistake is staying where you are not happy. |
| F L O A T | Sarah Brock 443-878-5716 | The 3rd floor of the library facing the greenway. | Glenwood, MD | University of Tennessee-Biomedical Engineering | I love the artistic side of healthcare that dentistry offers. | The professors want each of us to succeed. | Even if you know what you want to do right now, don't forget to enjoy the moments leading towards your career. If you have an idea or none at all, it is ok if the path isn't traditional. |

