

**55th Annual Student Research Day  
Meharry Medical College  
March 23, 2011**

# **Guidelines for Submission of Abstract**



**Deadline for  
Submission of Abstracts:  
Monday, January 31, 2011**

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Dean, School of Graduate Studies and Research**

# **MEHARRY MEDICAL COLLEGE**

## **2011 Student Research Day Program**

For the past 54 years, Meharry Medical College has presented Student Research Day, a forum for students in all schools of the College to display their research findings to their peers, faculty, administration and visitors. Prizes are given for the best poster presentation by students in the Dental, Graduate and Medical Schools. A grand prize is presented for the best overall student presentation.

The 55th annual Meharry Medical College Student Research Poster Session will be held in the Harold D. West Basic Sciences Center atrium on Wednesday, March 23, 2011. From 9-11:30 a.m., presenters must be available in the West Basic Sciences Center Atrium to describe posters developed from research executed during the previous year. The Student Research Day Award Program and Guest Lecturer will be presented in the West Basic Sciences Center Room M001 immediately after the luncheon.

### **ELIGIBILITY FOR PARTICIPATION**

All Meharry Medical College students who conducted research at Meharry or elsewhere during 2010-2011 are eligible to submit abstracts and present posters in competition for awards.

Post-doctorate, Clinical Fellows and Residents are invited to submit abstracts and present posters for scientific information ONLY.

### **DEADLINE FOR RECEIPT OF ABSTRACTS**

Monday, January 31, 2011

### **ABSTRACT SUBMISSION**

**Preceptor-approved abstracts, NOT EXCEEDING 300 WORDS,** must be submitted in **hard copy form (with preceptor signature) and electronically on Sharepoint.** A confirmation email will be sent to the presenting author to notify them of their abstract and assigned poster board number. In addition to the electronic submission, authors are required to provide a hard copy of their abstract. The hard copy must be delivered to:

Ms. Thyckla T. Gray  
School of Graduate Studies and Research  
Harold D. West Basic Sciences Building, M121  
Meharry Medical College  
Nashville, TN 37208-3599

## INSTRUCTIONS TO AUTHORS

1. Typed abstracts **NOT EXCEEDING 300 WORDS** should be single-spaced with 1-inch margins around. Abstracts must include the following information:

- Titles (IN CAPITAL LETTERS), Author(s) [**Students only** – Bold and Typed in Title Case], Department(s), Institution, City, State and Zip Code.
- Text must include statement(s) on:
  - ✓ The nature of the problem
  - ✓ What is generally known already (historical background)
  - ✓ What was done
  - ✓ How it was done
  - ✓ What was found
  - ✓ What the findings mean
- *Text should not include tables or line drawings*

2. On a separate page below the body of the abstract, list:

- School Affiliation: Dental, Graduate, Medical
- Student Status: Graduate (1<sup>st</sup> year, 2<sup>nd</sup> year, 3<sup>rd</sup> year, or above)
- Name of Institution Where Research Was Conducted, if different from Meharry Medical College
- Sponsor or Mentor: Individual providing funds and laboratory space
- Local Address (Required)
- Local Telephone Number (Required)

3. If your project uses ANIMALS, you MUST submit an official letter or copy thereof from the Institutional Animal Care and Use Committee (IACUC) which states that your project was reviewed and approved.

If your project uses HUMAN SUBJECTS, you MUST submit an official letter or copy thereof from the Institutional Review Board (IRB) stating your project was reviewed and approved.

## SAMPLE ABSTRACT

THE HORSESHOE CRAB NERVOUS SYSTEM AS A MODEL FOR COMPUTER HARDWIRING. **John Smith**, Department of Computer Science, Meharry Medical College, Nashville, TN 37208-3599

The horseshoe crab (*Limulus*) contains an extremely simple nervous consisting of a *corpora pedunculata* and cardiac ganglia. The small numbers of neurons in this system require a large number of axon branches in order to interconnect the various body organs. The objective of our research was to demonstrate that the nervous system branches were so efficient that the pattern of interconnections would serve as a model for design of a superconducting analog computer. Neuronal patterns and interconnections were determined by recording electrophysiological events using a rotating kymograph and supravivally staining the impaled neuron using mood indigo. We found that lateral myelinated neurons running from distal feeler surface to the proximal tail region were one micron in diameter and transmitted impulses at a rate of one kilometer per second. Dendritic branches from these neurons interconnected with the cephalic ganglia and were, therefore, able to control the cardiac pacemaker. These results are consistent with the hypothesis that the *Limulus* nervous system is sophisticated enough to serve as a model for both an analog and digital computer.

This project was supported, in part, by Greenback Foundation Grant B52203.

Presenter's Name: \_\_\_\_\_

School Affiliation: \_\_\_\_\_

Student Status: \_\_\_\_\_

Project Proposal: \_\_\_\_\_

Name of Institution where research was conducted: \_\_\_\_\_

Sponsor or Mentor: \_\_\_\_\_

Department: \_\_\_\_\_

Local Address (Required): \_\_\_\_\_

Local Telephone Number (Required): \_\_\_\_\_

Theme (check as many as apply)

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Neuroscience   | <input type="checkbox"/> Microbiology and Immunology | <input type="checkbox"/> Infectious Disease |
| <input type="checkbox"/> Biochemistry   | <input type="checkbox"/> Cardiovascular Biology      | <input type="checkbox"/> Pharmacology       |
| <input type="checkbox"/> Cancer Biology | <input type="checkbox"/> Toxicology                  |   |

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Preceptor/Mentor Signature

## DIRECTIONS FOR POSTER PREPARATION

The purpose of a poster is to give the observer the background and summary of your research. It should be self-explanatory and leave you free to discuss particular points raised by an interested observer.

The essentials of poster arrangement are as follows:

- A. A bulletin board with your assigned number will be placed in the Harold D. West Basic Sciences Building atrium.  
The poster board surface area is 4' high and 8' long. (If electrical connections are required, a student must submit a request to Ms. Malynda Gaines, extension 6533, by March 8, 2011.) Your poster or display must be attached directly to the bulletin board using push pins or thumb tacks.
- B. Place a banner strip with title, student author(s) and institution where research was conducted at the top of your board space. Lettering should be one or more inches high.
- C. The following items should be included in your poster presentation:
  - (1) A brief introduction providing a historical background of your project. The introduction should conclude with the hypothesis developed from this background and tell why you did the research (what question you are asking).
  - (2) Your experimental design and research techniques. Diagrams illustrating special equipment used with a brief, descriptive legend are helpful (a picture is worth a thousand words). Simple use of colored paper backings can effectively add visual emphasis.
  - (3) Results should be displayed in the form of tables, graphs, illustrations, photographs, etc. Each figure should be numbered sequentially. Each should have a one or two line heading describing the intent of the experiment from which that data was obtained. In a legend beneath the figure should appear detailed information pointing out only the most important data in the figure and conclusions; mention of special methods should be brief and should be placed at the end of the legend. The figure itself should be simple eliminating unnecessary details.
  - (4) A short discussion relating the results to your introduction and discussing the significance of your unique research finding.
  - (5) A summary or list of conclusions.

All items should be printed large enough to be read from a distance. Most photocopy machines can enlarge copy and make large, readable diagrams, graphs and legends.

When you run out of space in the first column below the abstract, begin a new column to the right. It is easier for viewers to scan a poster by systematically reading from top to bottom rather than back and forth in front of the poster.

# GUIDELINES FOR STUDENT PRESENTATIONS

## CONTENT

### Why

The audience needs to understand why you are trying to solve this particular problem. The problem should be answered at the appropriate level, meaning that you will be answering this question to people of all types of backgrounds. Some people will be in your specialty, some will not even have a basic understanding of the type of science that you do. The key is to get your message across at all levels. To accomplish this, remove as much jargon as you can without losing content.

### What/How

Once you have told the audience why you are doing this work, you can now get into what you have done and how you have done it. This is where you can get into details (data, methods, innovations, results, discussion, etc.) of your work; keep your audience in mind. Details are important, but do not lose your audience.

### What Next

Although this can usually be in your summary, it is important to convey that you understand where this research is leading you and that you understand the implications of your work.

## PRESENTATION

### Logical Flow

Each presentation needs a logical flow to best present your work. A typical flow might be the title, introduction, explanation of your work, followed by a summary/conclusion. Remember, each section should flow into the next section.

### Visual Aids/Impact

Effective figures are the key to a successful presentation. Effectiveness comes in a variety of forms. Sometimes scientists go overboard with colors and slides, as they discover the many intricacies of their computer programs. Keep your presentations simple, each figure with a legend and a caption. Colors can have positive and negative impact. Use them for different symbols, but leave background colors simple. However, do not constrict your visual artistry.

For presentations, part of your visual impact is you – how you dress and present yourself. Keep this in mind as you prepare for your presentation.

### Verbal

Articulating your ideas verbally is a key for success in any field and any career. You might be nervous, making it seem difficult to speak. The key to remember is to speak slow and loudly and – RELAX!!! If you are giving an oral presentation, be sure to Practice, Practice, Practice. If you are presenting a poster, run through the key ideas that you want to convey. Remember: RELAX!!!

## **JUDGING CRITERIA FOR RESEARCH POSTERS**

(Original Research – Doctoral, Dental and Medical Students)

### Problem/Purpose:

- a) significance for general health field
- b) clearly stated
- c) questions the study design; answers should be clearly defined
- d) show originality and creativity

### Procedures:

- a) provide data based on an adequate sample size
- b) use correct and appropriate statistical methods
- c) provide valid and reliable data

### Presentation and Content:

- a) title should be brief and clearly displayed
- b) content should reflect the author's familiarity with the specific subject area and related fields
- c) materials should be carefully organized to show relationships and smooth transitions between sections (i.e., Introduction, Methods, Results and Discussion)
- d) style and language should conform to standard English usage
- e) conclusions should be consistent with the evidence

## **JUDGING CRITERIA FOR RESEARCH PROPOSAL POSTERS**

(MSPH Students)

### Background:

- a) literature and practical observations should be clearly and logically presented
- b) information should lead to the question to be investigated
- c) questions should be clearly stated; show originality and creativity, have significance for the general health field

### Proposed procedures:

- a) should be based on an adequate sample size
- b) use correct and appropriate statistical methods
- c) use techniques which are well understood, demonstrably validated, and provide reliable data

### Presentation and Content:

- a) title should be brief and clearly displayed
- b) content should reflect the author's familiarity with the specific subject area and related fields
- c) materials should be carefully organized to show relationships and smooth transitions between sections (i.e., Introduction and Methods)
- d) style and language should conform to standard English usage

## **CATEGORIES FOR PRIZE DESIGNATIONS**

1. Original Research
  - Dental Students (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> Place Awards)
  - Medical Students (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> Place Awards)
  - 1<sup>st</sup> and 2<sup>nd</sup> Year Graduate Students (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> Place Awards)
  - 3<sup>rd</sup> Year and above Graduate Students (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> Place Awards)
  
2. Research Proposals
  - MSPH Students Only (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> Place Awards)
  
3. Grand Prize

## **AWARDS**

- 1) All participants will receive certificates acknowledging their participation.
- 2) First (\$100), second (\$75), and third (\$50) place awards will be given in each category.  
Grand Prize winner receives the C. W. Johnson Award consisting of \$200 and a plaque.