

PREPARING YOUR MARC ACSM ABSTRACT

1. You must complete all the fields in the Online Submission Form.
2. Prepare your abstract document following the ABSTRACT FORMAT instructions provided below. Abstracts must be prepared using **Microsoft Word only**. Abstracts will NOT be accepted if submitted using a different software application.
3. All student abstracts must have a faculty sponsor. Only ONLINE submissions will be accepted.
4. **Final abstracts submissions: DUE by 11:59PM on Friday, September 6th, 2024. The ONLINE submission site will be closed after that day and time.** A general notification message that an abstract has been received will be sent to the first author following submission. First authors will be notified whether their abstract has been accepted no later than September 27th, 2024.
Notification will consist of a general acceptance message and the type of session for the presentation. Once the program has been completed, presenters and faculty sponsors will be sent a link to a PDF of the meeting schedule with the dates and times for podium and poster presentations.
5. All students whose abstracts are selected for a Podium Presentation will be automatically eligible for a MARC-ACSM Student Investigator Award. Three awards are provided at each annual conference: 1) the Matthew Kerner Undergraduate Student Investigator Award; 2) the Master Student Investigator Award; or 3) the Doctoral Student Investigator Award. Finalists for these awards will be determined by the Research Committee. Finalists will present in one of three joint sessions based on academic/award level.
6. All students, whose abstracts are selected for a poster presentation, will be automatically eligible for MARC-ACSM poster awards. *Postdoctoral fellows and professional members are not eligible for poster awards.*

Please direct questions to Chris Harnish, PhD, Chair, Research Committee at crharnishphd@gmail.com

Please note: The first author must present the abstract. You may only appear as first author on ONE abstract but may co-author as many abstracts as desired. If a person submits, as first author, more than one abstract, only one abstract will be accepted, and all others will be rejected. Authors should note that this abstract may be submitted/presented both at the regional and national ACSM annual meetings.

Abstract Submission Guidelines

Abstracts must be written in English and prepared/saved as Microsoft Word (PC/Mac). Each abstract must be typed using a **Times New Roman** font with an **11-point font size**. Abstracts must be **no more than 2,500 characters** (not including spaces, title, or author block) for abstracts. **Tables, charts, and graphs are prohibited in abstracts.** Abstracts that do not adhere to these guidelines may be rejected without review. We recommend that you review the guidelines and example to make sure your abstract meets the requirements for acceptance. **A template word document is also provided.**

Other general guidelines for abstracts include:

- The purpose and methodology of all abstracts must be original and may not have been previously published at the time of submission, regardless of whether it was published as an abstract, case study, and/or manuscript in a professional publication.
- Human subject studies must comply with the ACSM statement regarding the use of human participants and informed consent (MSSE Vol. 30, No. 7, July 1998, "Policy Statement Regarding the Use of Human Subjects and Informed Consent"). Animal studies must comply with the NIH guidelines regarding the use of animals.
- **Abstracts of experimental studies MUST include Experimental data.** Generally describing results (such as, "the experimental group lost more weight than the control group") or including only statistical analyses (such as, "results were significant at $p < .05$ ") are not acceptable. *The lack of inclusion of experimental data may result in the abstract being rejected.*

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- Use standard abbreviations, symbols, and punctuation as used in MSSE. When using abbreviations in the body of the abstract, spell out in full the first mention, followed by the abbreviation in parentheses.
- Do not use brand names in the abstract.
- Any potential conflicts of interest must be disclosed on the abstract, slide presentations, and/or poster presentations.

Each abstract shall consist of:

TITLE

The **Title of the Abstract Should Be Bold and Typed Using Title Case** and no more than 15 words.

AUTHORS

On a new line using a 3-space indent, type the name of the authors (first name, middle initial and last name), followed by the institution, city and state. Academic departments should *not* be included. If multiple institutions are represented in the abstract, please use a numerical superscript following each author with corresponding superscript in front of the institution (see example). Skip a line between the title/authors and the body of the abstract.

ABSTRACT BODY

The body of the abstract should be single-spaced and one paragraph and **MUST** include the following headings: **PURPOSE, METHODS, RESULTS, CONCLUSION and SIGNIFANCE/NOVELTY.**

- The section **SIGNIFANCE/NOVELTY** needs to describe the scientific progress achieved or novelty on the study; **this section is limited to 500-characters** and will be counted towards the 2500-character limit.

Statement of Disclosure: Indicate grant or other sponsor funding information at the bottom of the abstract. Indent 3 spaces and provide the funding agency and grant number supporting the research reported.

Conflict of Interest: Indicate any conflict of interest, if needed.

Abstract Submission Checklist (student and faculty mentor should review this)

1. The abstract title has been placed in Title Case _____
2. Investigator names/affiliations are indented three spaces _____
3. Do not include departments or divisions with your institutional affiliation _____
4. Investigator names are listed correctly (first name, middle initial, last name) _____
5. Do not use the numerical superscript if all authors are from the same institution _____
6. A space is provided between the institution and the abstract body _____
7. Proper section headings are provided _____
8. The abstract must contain data to substantiate the findings _____
9. The abstract does not exceed the total character count _____

PREPARING YOUR MARC ACSM ABSTRACT

Mechanisms Underlying Age-Related Changes in Skin Vasodilation During Local Heating

Christopher T. Minson¹, Lacy A. Holowatz², W. Larry Kenney², FACSM, Brett J. Wong², Brad W. Wilkins². ¹University of Oregon, Eugene, OR, ²Penn State University, University Park, PA

The skin blood flow (SkBF) response to local heating is reduced in healthy older (O) vs. young (Y) subjects; however, the mechanisms that underlie these age-related changes are unclear. Local skin heating causes a bimodal rise in SkBF involving at least two independent mechanisms: an initial peak mediated by axon reflexes and a secondary slower rise to a plateau which is mediated by the local production of nitric oxide (NO). **PURPOSE:** To determine the altered mechanism(s) underlying the attenuated SkBF response to local heating in aged skin. **METHODS:** Two microdialysis fibers were placed in the ventral skin of the forearm of 10 Y (22±2 yrs) and 10 O (77±5 yrs) subjects. SkBF over each site was measured by laser-Doppler flowmetry as the skin over both sites was heated to 42° C for ~60 min. At one site, 10mM L-NAME was infused throughout the protocol to inhibit NO-synthase (NOS). At the second site L-NAME was infused after 40 min of local heating. Cutaneous vascular conductance (CVC) was calculated as flux/mean arterial pressure and scaled as % maximal CVC (infusion of 50mM sodium nitroprusside). Age comparisons were made using two-way ANOVA with repeated measures. **RESULTS:** Maximal CVC was reduced in the O (156±15 vs. 192±12 mV/mmHg, p<0.05), as were the initial peak (46±4 vs. 61±2% max, p<0.05) and plateau (82±5 vs. 93±2%, p<0.05) responses. The decline in CVC with NOS inhibition during the plateau phase was similar in the Y and O groups but the initial peak was significantly lower in O when NOS was inhibited prior to local heating (38±5 vs. 52±4%, p<0.05). **CONCLUSION:** Age-related changes in both axon reflex-mediated and NO-mediated vasodilation contribute to the diminished vasodilator response to local heating in aged skin. **SIGNIFANCE/NOVELTY:**

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The authors declare no conflicts of interest.

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MARC ACSM TEMPLATE

Insert Your Title of No More Than 15 Words Here

First Name MI. Last Name¹, First Name MI. Last Name². ¹University of Drama, Drama, PA, ²Fake State University, Fake, PA

It is generally helpful to include a sentence or two on the background or premise of the study. **PURPOSE:** A specific purpose or purposes of the study go here. You may also include hypotheses. **METHODS:** Methods should be detailed enough for readers to generally discern who the subjects were, how the study was completed, highlighting the most salient techniques, and a brief overview of the major statistics used, as well as summary stats format. **RESULTS:** Results should highlight the most meaningful findings using appropriate summary statistics and comparisons (where applicable) WITH p-values (i.e., present both). **CONCLUSION:** Using a sentence or two summarize the overall take home message of the study. **SIGNIFANCE/NOVELTY:** Explain how your study adds to the body of knowledge either through a novel/unexpected finding OR a reiteration supporting prior knowledge. In other words, if your study replicates earlier work, note why that is important.

Supported by GRANT XYZ

The authors declare no conflicts of interest.