CALL FOR ABSTRACTS
Scientific and Clinical Case
Submission Deadline: November 1, 2016
www.acsmannualmeeting.org

May 30-June 3, 2017
Denver, Colorado USA
#ACSM17
Dear Colleague:

It is my pleasure to share with you the abstract and clinical case information for ACSM’s 64th Annual Meeting, 8th World Congress on Exercise is Medicine® and World Congress on the Basic Science of Exercise and the Brain. Now is an excellent time to mark your calendar with the due date of **Tuesday, November 1, 2016**.

Free Communications, presented in slide and poster format, provide the major vehicle for “new” information exchange at these meetings.

I strongly encourage members and Fellows of the College—beginning investigators and established investigators alike—to submit abstracts of their work for consideration at these meetings.

Clinicians are also invited to submit abstracts to present in clinical case sessions.

Further details on how to submit are enclosed on the following pages.

On behalf of the 2017 Program Committee, we look forward to receiving your abstract submission. Thank you in advance for your commitment to the excellence of next year’s meeting.

Sincerely,

Walter R. Thompson, Ph.D., FACSM
2017 Program Committee Chair
ACSM President-elect

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**Abstracts accepted mid-September through November 1, 2016**

Visit www.acsmannualmeeting.org to stay up-to-date

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**ACSM in Denver**

Join us in the Mile High City! Downtown Denver, located 45 minutes from the Denver International Airport, offers a plethora of options for entertainment, activities, dining, and attractions through the urban sophistication, thriving cultural scenes, and stunning architecture. In the world’s most spectacular playground, you will find an active city at the base of the Colorado Rocky Mountains, world-class attractions, unparalleled views and shopping all within walking distance. Denver’s got it all!
At the Conference…
Experience the wealth of distinguished experts presenting first-rate basic and applied science, current public health issues and clinical sports medicine sessions!
• Highlighted Symposia showcasing basic and applied science in selected, topical areas featuring national and international experts
• International sessions on Exercise is Medicine®
• Special sessions on the Basic Science of Exercise and the Brain
• Clinical lectures and hands-on workshops
• Integrative sessions spanning from bench to bedside
• Classic events and lectures created for students
• 25+ concurrent sessions offered in various formats including free communication slide, poster and clinical case sessions
• CME and CEC credits
• Reconnect with friends and colleagues
• State-of-the-art exhibit hall featuring emerging products and programs
• Career Services Center
…and more!

Important Dates and Deadlines
Sept. 2016 Online Registration opens
Oct. 2016 Preview Program Available
Housing Opens
Nov. 1, 2016 Scientific and Clinical Case Abstract Submission Deadline
March 2017 Advance Program Available and Pre-Registration Deadline
May 30–June 3, 2017 ACSM’s 64th Annual Meeting, 8th World Congress on Exercise is Medicine®, and World Congress on the Basic Science of Exercise and the Brain
June 20, 2017 2018 Annual Meeting Session Proposals Due

Need More Information?
• For updates, information and early registration opportunities, go to www.acsmannualmeeting.org, call (317) 637-9200, ext. 141 or email meeting@acsm.org.
• For technical support during your online submission, email support@abstractsonline.com.
• For general inquiries, contact ACSM at (317) 637-9200, ext. 108 or email ddavis@acsm.org.

Registration Information
Registration fees and form will be available in Sept. 2016 at www.acsmannualmeeting.org. For immediate registration and best service, register online at www.acsm.org. A receipt and confirmation will be emailed to you.

International Registrants
ESTA is an automated system that determines the eligibility of visitors to travel to the U.S. under the Visa Waiver Program (VWP). Authorization via ESTA does not determine whether a traveler is admissible to the United States. U.S. Customs and Border Protection officers determine admissibility upon travelers’ arrival. The ESTA application collects biographic information and answers to VWP eligibility questions. ESTA applications may be submitted at any time prior to travel, though it is recommended that travelers apply as soon as they begin preparing travel plans or prior to purchasing airline tickets. To obtain an application, please visit the following website: www.cbp.gov/travel/international-visitors/esta

FASEB MARC Travel Awards
ACSM/FASEB Minority Access to Research Careers (MARC) Travel Awards are meant to promote the entry of underrepresented minority students, postdoctorates and scientists into the mainstream of the basic and applied science community and to encourage the participation of young scientists at the Annual Meeting. Awards are granted to abstract slide or poster presenters and faculty mentors paired with the students/trainees they mentor. Application details will be available in 2017 by visiting www.faseb.org.

Rules for Submission
1. Each person is permitted to submit and be first author on one scientific and one clinical case abstract for the Annual Meeting (which includes World Congress on the Basic Science of Exercise and the Brain), and one scientific abstract for the World Congress on Exercise is Medicine®. You may co-author as many other abstracts as desired. If a person submits, as first author, on more than one abstract per meeting, only one abstract will be accepted; all others will be rejected. If submitting an abstract for both the Annual Meeting or World Congress on the Basic Science of Exercise and the Brain and World Congress on Exercise is Medicine®, each submission must be two different abstracts/studies.
2. The first named author must present the abstract. To ensure proper citation in Medicine & Science in Sports & Exercise® (MSSE®) author index, list your name consistently throughout all abstracts on which you appear as an author.
3. All authors must approve the submitted abstract.
4. All Fellows of the College who author or co-author a submitted abstract, also accept responsibility as a sponsor for that abstract, as described in Rule 5, below.
5. Abstracts can be recommended for acceptance by having a Fellow of the College attest to the scientific, medical, or educational merit of the work. Abstracts received without Fellow endorsement will undergo formal review. A Fellow may sponsor as many abstracts as desired. You will be required to provide the Fellow’s name and e-mail address when submitting. The final acceptance decision is the exclusive right of the Program Committee. This may include a formal review even though an ACSM Fellow is an author or sponsor. Fellow endorsement does not automatically imply acceptance.
6. The primary focus and substance of the submitted abstract/case must be novel. The abstract must not have been published as an abstract or as a full paper in a scientific, medical, or professional publication at the time of submission. Abstract data may not be presented prior to the Annual Meeting. The only exception to this policy concerns abstracts presented at an ACSM Regional Chapter meeting.
guidelines regarding the use of animals. To access the policy, go to www.acsm-msse.org. On the upper right hand side, under “For Authors,” click on “Information for Authors.”

In the second paragraph, click on the “Instructions and Guidelines” link. Scroll down to “Human & Animal Experimentation Policy Statements.”

8. To ensure consistency and clarity, it is directed that authors use the terms as defined by MSSE®, “Information for Authors,” while utilizing the units of measurement of the Systeme International de ‘Unite (SI). On the “Instructions and Guidelines” link, scroll down to “Technical Guidelines.”

9. Researchers and clinicians may be employed, affiliated with, or have financial interest in commercial entities that may have a relevant bearing on the subject matter of an abstract/case presentation. The prospective audience must be made aware of the affiliation/financial interest by an acknowledgment in the final program, as well as acknowledgment in writing on posters, and in the beginning of slide presentations. If there is nothing to disclose, that must be reported by including “no relationships reported.” Presentations regarding commercial products must focus on basic or applied science and not on the product or on the commercial aspects of the discovery. In addition, the format of the presentation must permit full discussion of the scientific validity and/or therapeutic benefits and risks of the discovery. The intent of this policy is not to prevent a speaker from making a presentation, but to identify any potential conflict of interest so that the listeners may form their own judgments about the presentation. If the disclosure should be noted, please check the appropriate box on the electronic abstract submission form so that it may be noted in the final program. A notation in this box will not affect whether an abstract is accepted for presentation at the meeting. Failure to comply with the published disclosure policy will result in exclusion from the program for two years.

10. Abstract submission fee: $35. A nonrefundable fee must accompany each abstract submitted. Do not submit the same abstract more than once or a scientific abstract on the clinical case submission site. Abstract fees will not be refunded for duplicate submissions or for submissions using the wrong submission site (i.e., scientific abstract on clinical case site).

11. Abstract submissions are only being accepted electronically and must be submitted no later than 11:59 p.m. (Pacific time zone) Nov. 1, 2016.

12. Abstract/case presenters must pay the registration fee and all other costs associated with travel to present at the conference. Do not submit an abstract or a clinical case if your attendance at the meeting is questionable.

13. Presenters who fail to provide notice of a reason acceptable to the Program Committee for not delivering an accepted paper will be prohibited from presenting at future Annual Meetings. A written notification should be e-mailed to Danielle Davis at dDavis@acsm.org by the primary author.

**General Information**

**Notification of Programming**

You will be notified electronically of the acceptance/rejection of your abstract/case in Feb. 2017. This notification will include the date and time of session/presentation as well as type of presentation if accepted.

If you do not receive your notification by the end of February, you should contact the ACSM Education Department in early March.

**Accessing the Abstract Submission Site**

To access the submission site, you should visit the Annual Meeting website. The website address is www.acsmannualmeeting.org. The submission site will be available beginning mid-Sept. 2016. If you have previously submitted an abstract or session proposal, please use your established login and password. Contact support@abstractsonline.com if you need your login or password. NOTE: The login and password is not the one used to access the www.acsm.org “my ACSM portal” page.

**Withdrawals**

You can withdraw your abstract on-line prior to Nov. 1, 2016 by going to the electronic submission site in the “Review My Work” page. Click on the red “X” at the bottom of this page. After that date, withdrawals must be made in writing. Email a letter stating the reason for withdrawal to ddavis@acsm.org.

**Scientific Abstract Submission Information**

**Preparing the Abstract**

Accepted abstracts will be published in the May supplement issue of MSSE®, and limited to 2,000 characters (not including spaces, title, or author block). If including a table, chart or graph, your text character count will be limited to accommodate your graphic.

Do not use brand names in the abstract.

Indicate grant funding information at the bottom of the abstract.

**Title:** The title should be brief (limit to 15 words).

**Authors:** The first and last names of the authors will be included in the author block. Do not include degrees, as this affects online search functions.

**Institutions:** Institutions of all authors will be included. Do not include departments.

**Sponsored Fellow Notation:** If a Fellow sponsors without authoring or co-authoring the abstract, you will need to provide the Fellow’s name and email address in your on-line submission.

**Text:** The abstract must be informative, including a statement of the study’s specific PURPOSE, METHODS, summary of RESULTS, and CONCLUSION statement using these headings. It is unsatisfactory to state, “The results will be discussed.”

Abstracts of experimental, observational, and meta-analytic studies must include data to substantiate the conclusions being drawn. Systematic reviews without meta-analyses are not acceptable. It is not satisfactory to simply describe what was found (such as, “the treatment group increased their fitness more than the control group”) or to only include statistical results (such as, “associations were significant at p < .05.”) The lack of inclusion of experimental data may result in the abstract being rejected. This applies to abstracts that are sponsored by fellows, as well as those that undergo full review.
The abstract must be written in English.

Do not include abstract title or author information in the abstract body.

See the sample on page 6.

The Program Committee will determine the method of presentation, which is based on submitter's preference. Submitters will be given the presentation options of slide preferred, poster preferred, or indifferent. **Abstracts submitted in the Exercise is Medicine® category will only be presented in a poster format.** Due to the tremendous growth in the size of the program, the majority of the presentations will be organized into poster format.

**Slide Sessions**
Presentation of the scientific papers in a slide session will be limited to 10 minutes, followed by a five-minute discussion period. Time limits will be strictly enforced.

**Poster Sessions**
Scientific poster sessions will be one of two types:

**Poster:** Posters are grouped by topic and available for viewing 3.5-5 hours, with the author required to be at the poster for 1.5 hours of the viewing time.

**Thematic poster:** Thematic poster sessions are presented in two parts. During the first part, the poster is available for viewing by attendees. During the second part, the poster is discussed during a moderator-led session.

**Abstract Category**
Abstract review and program fit is largely determined by the category you select. Select the category that represents the intended focus of your abstract. These categories are listed below.

**Topical Categories for Abstracts**

**Fitness Assessment, Exercise Training, and Performance of Athletes and Healthy People**
101 fitness assessment of healthy people
102 exercise training interventions in healthy people
103 sport science
104 disability
105 other

**Cardiovascular, Renal and Respiratory Physiology**
201 cellular/molecular
202 cardiac
203 vascular function
204 acute exercise
205 disease
206 blood flow
207 rehabilitation
208 renal
209 respiratory
210 disability
211 other
212 cancer
213 oxygen uptake kinetics

**Skeletal Muscle, Bone and Connective Tissue**
301 skeletal muscle physiology
302 physiology and mechanics of bone and connective tissue
303 cellular and molecular physiology related to these systems
304 disability
305 other
306 cancer

**Biomechanics and Neural Control of Movement**
401 gait analysis
402 sport biomechanics
403 musculoskeletal mechanics/modeling
404 sports equipment
405 motor control
406 movement disorders
407 posture/balance
408 other
409 cancer

**Epidemiology and Biostatistics**
501 epidemiology of physical activity and health
502 epidemiology of injury and illness
503 physical activity assessment
504 population-based surveillance
505 biostatistics/research methodology
506 health equity
507 disability
508 other
509 meta-analysis
510 cancer

**Physical Activity/Health Promotion Interventions**
5501 physical activity interventions
5502 physical activity promotion programming
5503 intervention strategies
5504 disability
5505 other
5506 cancer

**Metabolism and Nutrition**
602 carbohydrate metabolism
603 fat metabolism
604 protein and amino acid metabolism
605 energy balance and weight control
606 dietary analysis
607 nutritional intervention – micro and macronutrients
608 supplements, drugs and ergogenic aids
609 disability
610 other
611 obesity/diabetes/cardiovascular disease
612 cancer
Psychology, Behavior and Neurobiology
701 mental health
702 cognition and emotion
703 perception (RPE, pain, fatigue)
704 behavioral aspects of exercise (correlates, predictors)
705 behavioral aspects of sport
706 neuroscience
707 pedagogy related to exercise physiology
708 disability
709 other
710 cancer

Environmental and Occupational Physiology
801 heat stress and fluid balance
802 cold stress
803 hyperbaria
804 altitude and hypoxia
805 space physiology and microgravity
806 occupational or military physiology and medicine
807 disability
808 other

Immunology/Genetics/Endocrinology
901 exercise immunology
902 exercise immunology – supplement use
903 endocrinology, not including reproductive
904 reproductive endocrinology and physiology
905 genetics
906 other
907 cancer

Athlete Care and Clinical Medicine
1001 athlete medical evaluation and care
1002 athlete trauma evaluation and care
1003 age group and gender issues
1004 chronic illness and special populations
1005 adaptive sports/disability
1007 other
1008 cancer

Clinical Exercise Physiology
1101 clinical exercise testing
1102 cardiovascular diseases
1103 pulmonary/respiratory diseases
1104 obesity/diabetes
1105 musculoskeletal/neuromuscular diseases
1106 disability
1107 other
1108 cancer

Exercise is Medicine®
1200 Exercise is Medicine® focuses on the impact of physical activity on health and the prevention and treatment of disease and disability in clinical settings.

Exercise and the Brain (Special topic for 2017 Annual Meeting)
1401 diet, exercise and the brain
1402 exercise and brain blood flow
1403 exercise and neuroplasticity
1404 exercise in movement disorders
1405 neurobiological effects of exercise
1406 neurobiological effects of sedentary behavior
1407 physical activity and cognition
1408 stress and the brain

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**Scientific Abstract Sample**

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

University of Oregon, Eugene, OR, Penn 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, 10μM 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 (85±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. Supported by NIH Grant ROI AG07004.
Clinical Case Abstract Submission Information

Preparing the Case Abstract
Case abstracts are limited to 2,000 characters (not including spaces, title, or author block). Accepted case abstracts will be published in the May supplement issue of MSSE®.

Your clinical case abstract should include a synopsis of your case which includes the history and physical exam of the case to be discussed, an outline of the Differential Diagnosis, Test and Results, Final/Working Diagnosis, and Treatment/Outcomes as it pertains to the case. Clinical case presentations will be presented in discussion format. It is recommended that the necessary data (i.e., EKG, X-rays, ECHOS, etc.) be in slide form.

Do not use brand names in the case abstract.

Indicate grant funding information at the bottom of the case abstract.

Title: The title should be brief (limited to 15 words) and should be succinct and descriptive. The first part of the title should reflect the area of the problem and the second part, the sport or activity of the athlete, but should not include the diagnosis (example: Neck Injury—Football).

Authors: First and last names of authors will be listed on the case abstract. If a Fellow sponsors without authoring or co-authoring the case abstract, you will provide the Fellow’s name and e-mail address in your online submission.

Presenting author must have been involved with significant evaluation and treatment of the patient and have a thorough understanding of the entire case and the outcome. Do not include degrees, as this affects online search functions.

Institutions: Institutions of all authors will be included. Do not include departments.

Text: The first paragraph should state the history of the case; the second paragraph should outline the physical exam, then list:

- Differential Diagnosis
- Final/Working Diagnosis
- Tests and Results
- Treatment and Outcomes

See clinical case abstract sample below.

Case Topical Categories
There are five types:

- Cardiovascular
- General Medicine
- Head, Neck and Spine
- Musculoskeletal
- Age and Gender Specific Issues

Note: Clinical case abstracts may be chosen by the Program Committee for either slide or poster presentation.

Clinical Case Abstract Sample

Neck Injury — Football
Suzanne M. Tanner, University of Colorado Sports Medicine Center, Denver, CO
e-mail: aabbcc@def.uedu
(Sponsor: William O. Roberts, FACSM)

HISTORY: A 17-year-old senior high school football defensive cornerback sustained a neck injury while tackling. During the third quarter of a midseason game, he unintentionally used a spearing technique for a successful tackle. As he drove his head into a ball carrier’s chest, his neck was forced into flexion and he developed moderate posterior neck pain. There was no numbness, tingling, weakness or radiation of pain into his upper extremities. Three tackles later, 11 plays later, and during the fourth quarter, he reported his neck pain to the athletic trainer.

PHYSICAL EXAMINATION: Examination on the sidelines revealed moderate tenderness over the spinous processes of C6-T1, mild tenderness of the adjacent paraspinal muscles bilaterally and normal sensation, reflexes and strength of his upper extremities. There was full active range of motion of his neck but flexion and extension were painful. Over the next hour, his neck progressively became stiffer, but he had no neurological symptoms or signs.

DIFFERENTIAL DIAGNOSIS:
1. Strain of cervical paraspinal muscles
2. Fracture of cervical spine
3. Cervical sprain

TEST AND RESULTS:
Cervical spine anterior-posterior and lateral radiographs:
— obliquely horizontal fracture of C7 spinous process with 1/2 cm displacement of fracture fragments
— 2 mm of forward subluxation of C6 vertebral body relative to C7 vertebral body
Lateral cervical spine radiographs with neck actively flexed and extended:
— no further subluxation of C6 vertebral body
— increased distraction of spinous fracture fragments with neck flexion
Cervical spine oblique radiographs:
— normal orientation of facets and pedicles

FINAL/WORKING DIAGNOSIS:
Clay-shoveler’s fracture (avulsion fracture of spinous process of C7)

TREATMENT AND OUTCOMES:
1. Immobilization with Philadelphia collar for 6 weeks.
2. Repeat active extension and flexion radiographs at 3 and 6 weeks post injury showed no delayed increase in stability.
4. Range of motion and neck strengthening exercises started 6 weeks post injury.
5. Returned to sports 3 months post injury when he had full, painless ROM, normal strength and able to meet the demands of his sport.
Highlighted Symposia

Athlete Care and Clinical Medicine
Controversies and Current Evidence in Pediatric Sports Medicine

Biomechanics and Neural Control of Movement
Pathomechanics and Treatment of Osteoarthritis: Where Do We Go From Here?

Cardiovascular, Renal and Respiratory Physiology
Exercise Limitations in Heart Failure

Clinical Exercise Physiology
Should Cardiorespiratory Fitness be a Vital Health Measure?

Environmental and Occupational Physiology
Too Hot to Handle: Protective Clothing, Thermoregulation and Performance

Epidemiology, Biostatistics, Physical Activity/Health Promotion Interventions
Wake up! Optimizing Physical Activity, Sedentary Behavior, and Sleep for Better Health

Exercise is Medicine®
The HERITAGE Family Study: Findings and Implications

Fitness Assessment, Exercise Training, and Performance of Athletes and Healthy People
Training is Medicine: Practical Applications of ‘Exercise is Medicine’

Immunology/Genetics/Endocrinology
MicroRNAs: Roles in Exercise Adaptations and Potential Biomarkers of Disease

Metabolism and Nutrition
Nutrition, Metabolism and Diabetes

Psychology, Behavior, and Neurobiology
The Role of Exercise in Neuroplasticity: Intervention to Manage Stress and Promote Well-being

Skeletal Muscle, Bone and Connective Tissue
Move to the Rhythm: Circadian Orchestration of Exercise and Muscle Biology

Plan to attend the 2017 World Congress on the Basic Science of Exercise and the Brain

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