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NAME: Craig Gerald Crandall, Ph.D.

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POSITION TITLE: Professor of Internal Medicine

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EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

INSTITUTION AND LOCATION	DEGREE	Completion Date	FIELD OF STUDY
Brigham Young University, Provo, UT	B.S.	04/1987	Exercise Physiology
University of Oregon, Eugene, OR	M.S.	06/1989	Exercise Physiology
University of North Texas Health Science Center, Fort Worth, TX	Ph.D.	07/1993	Biological Sciences: Physiology
University of Texas Health Science Center at San Antonio, TX	Post-doc fellowship	07/1996	Physiology

### Positions and Scientific Appointments

2009 - present	Professor, Department of Internal Medicine, University of Texas Southwestern Medical Center, Dallas, TX
2002 - 2009	Associate Professor, Department of Internal Medicine, University of Texas Southwestern Medical Center, Dallas, TX
1996 – present	Director of Thermal and Vascular Physiology Laboratory, Institute for Exercise and Environmental Medicine, Presbyterian Hospital of Dallas, Dallas, TX
1996 - 2002	Assistant Professor, Department of Internal Medicine, University of Texas Southwestern Medical Center, Dallas, TX
1993 - 1996	Post-doctoral fellow with Dr. John M. Johnson, Department of Physiology, University of Texas Health Science Center at San Antonio, TX
1989 - 1993	Pre-doctoral fellow with Dr. Peter B. Raven, Department of Physiology, University of North Texas Health Science Center, Fort Worth, TX
1988 - 1989	Graduate student and research assistant with Dr. Toby G. Bedford, Department of Physical Education, University of Oregon, Eugene, OR

### Honors, Awards, and Responsibilities

2024	Awarded Fellow of the American Physiological Society (FAPS)
2023	2023 American College of Sports Medicine Citation Awardee
2021	2021 Award for Excellence in Postdoctoral Mentoring, University of Texas Southwestern Medical Center
2021	Edward F. Adolph Distinguished Lectureship of the APS Environmental and Exercise Physiology Section
2017	Honor Award Recipient, Texas Chapter of the American College of Sports Medicine
2013 - 2020	Associate Editor; <i>American Journal of Physiology - Regulatory, Integrative, and Comparative Physiology</i>
2013 - present	Editorial Board, <i>Medicine and Science in Sports and Exercise</i>
2012 - present	Annual Meeting Programming Committee Member, American College of Sports Medicine
2011 - 2015	Treasurer (2012-2015) and Board Member, American Autonomic Society
2010	Chair, NIH Special Emphasis Panel, Cardiovascular and Respiratory Sciences IRG
2009 - present	Member of the Southwestern School of Health Professions Promotion & Tenure Committee, University of Texas Southwestern Medical Center at Dallas
2008 - 2011	Chair, Environmental and Exercise Physiology Program Committee and section representative on the Joint Program Committee for the American Physiological Society
2007	Gisolfi Tutorial Lecture Award, ACSM national meeting
2005 - 2013	Associate Editor, <i>Medicine and Science in Sports and Exercise</i>
1999	Awarded Fellow Status for the American College of Sports Medicine
1997	American College of Sport Medicine Young Investigator Award
1995	American College of Sports Medicine Visiting Scholar Award Recipient

1993 - 1996 NIH-Individual National Research Service Award Recipient  
1991 - 1993 NASA Graduate Student Research Fellowship

### **Publications and Citation Metrics**

Over 260 published manuscripts, >11,500 citations, *h*-index: 65 (google scholar), *i10*-index 133 (google scholar).

Five best publications in the prior 10 years pertinent to the proposal:

- 1) Gagnon, D., S.A. Romero, M.N. Cramer, O. Jay, **C.G. Crandall**. Cardiac and thermal strain of elderly adults exposed to extreme heat and humidity with and without electric fan use. *JAMA* 316: 989-991, 2016. PMID: PMC5161409
- 2) Cramer, M.N., M. Huang, G. Moralez, **C.G. Crandall**. Keeping Older Individuals Cool in Hot and Moderately Humid Conditions: Wetted Clothing with and without an Electric Fan. *J Appl Physiol* 128:604-611, 2020. PMID: PMC7099436
- 3) Cramer, M.N., D. Gagnon, O. Laitano, **C.G. Crandall**. Human temperature regulation under heat stress in health, disease, and injury. *Physiol Rev.* 102:1907-1989, 2022. PMID: PMC9394784
- 4) McKenna, Z.J., J. Foster, W.C. Atkins, L.N. Belval, J.C. Watso, C.P Jarrard, **C.G. Crandall**. Age alters the thermoregulatory responses to extreme heat exposure with accompanying activities of daily living. *J Appl Physiol* 135:445-455, 2023. PMID: PMC10538984
- 5) McKenna, Z.J., W.C. Atkins, T. Wallace, C.P. Jarrard, **C.G. Crandall**, J. Foster. Gastrointestinal permeability and kidney injury risk during hyperthermia in young and older adults. *Exp Physiol* (in press)

Access a complete publication list here:

<https://www.ncbi.nlm.nih.gov/myncbi/craig.crandall.1/bibliography/public/>

### **Active grants and direct costs (\$19 million in total direct funding to Dr. Crandall throughout his career as a Principal Investigator)**

NIH - National Institute of General Medical Sciences, R35 (1R35GM152112): "Cardiovascular and thermoregulatory consequences of severe burn injuries" 9/2025-2030. \$2,000,000.

Texas Health Resources Foundation Seed Grant: "New insight into causes of heat sensitivity in the elderly" – Principal Investigator – Dr. Crandall. 4/2023-3/2025. \$35,000.

NIH – National Institutes on Aging, R01 (R01AG069005): Heat waves and the elderly: reducing thermal and cardiovascular consequences. Principal Investigator – Dr. Crandall, 9/2021-8/2026. \$2,088,446.

NIH - National Institute of General Medical Sciences, R01 (R01GM68865): Exercise in burn survivors. Principal Investigator – Dr. Crandall, 8/2003-6/2025 (in no cost extension). Renewed 8/2020, \$1,885,594.

### **Research training and mentoring**

Dr. Crandall has been the primary mentor for 28 post-doctoral fellows, inclusive of the two post-doctoral fellows currently working in his laboratory. Each of the prior post-doctoral fellows (except for one who is deceased) have remained in research-related career fields such as academic universities, governmental research laboratories, or science-related foundations. Of the 16 post-doctoral fellows who were eligible to apply for an NIH Kirschstein-NRSA F32 fellowship grant, 14 submitted an F32 application, of which 13 were successful at receiving an F32 award. One of the individuals who did not submit an F32 application received post-doctoral funding from the ORISE Department of Defense program, while the final individual will submit her first F32 application in December 2024. Of the 12 post-doctoral fellows who were not eligible to apply for an NIH Kirschstein-NRSA F32 fellowship grant (primarily due to not being US citizens), 8 received external funding to support their post-doctoral fellowship working with Dr. Crandall from international governments/universities (e.g., typically funding opportunities from their home countries) and/or the American Heart Association post-doctoral fellowship award. Post-doctoral fellows under Dr. Crandall's mentorship have an ~85% success rate of receiving extramural funding to support their training. Moreover, post-doctoral fellows working under Dr. Crandall's guidance have received a total of 46 awards for research conducted while in his laboratory. These awards originated from entities such as the American College of Sports Medicine, the American Physiological Society, the American Heart Association, and the Physiological Society.