

Sarah M. Judge, Ph.D.
(maiden name, Senf)

Department Address: Department of Physical Therapy
1225 Center Drive, HPNP Building, Rm 1142
College of Public Health & Health Professions
University of Florida
Gainesville, FL 32610
smsenf@pnhp.ufl.edu

Office Address: J399 Biomedical Sciences Building
1275 Center Drive
University of Florida
Gainesville, FL 32610
Tel. (352) 273-9146

EDUCATION

2007 – 2012 University of Florida, Gainesville, FL
Ph.D. Exercise Physiology/Skeletal Muscle Biology
Department of Applied Physiology and Kinesiology
College of Health and Human Performance
Advisor: Stephen Dodd, PhD
GPA: 3.85/4.0

2004 – 2006 University of Florida, Gainesville, FL
B.S. Microbiology and Cell Science
College of Agricultural and Life Sciences
GPA (upper level): 3.61/4.0, Cum Laude Graduate

2002 – 2004 University of Nebraska, Lincoln, NE
Biological Sciences, non-degree
GPA: 3.87/4.0

PROFESSIONAL EXPERIENCE

2022 -present Research Assistant Professor
Department of Physical Therapy
University of Florida, Gainesville, FL

2015 -2022 Assistant Research Scientist
Department of Physical Therapy
University of Florida, Gainesville, FL

2012 – 2015 Postdoctoral Research Associate
Department of Physical Therapy
University of Florida, Gainesville, FL

2008- 2012 Pre-Doctoral Fellow-NIH T32 Trainee
Department of Applied Physiology and Kinesiology
University of Florida, Gainesville, FL

2007- 2008 Graduate Research Assistant
 Department of Applied Physiology and Kinesiology
 University of Florida, Gainesville, FL

A. RESEARCH

RESEARCH FUNDING

Active Support:

R01CA270025

09/07/2023 – 08/31/2028

NIH, NCI

“Matricellular proteins of the CCN family as regulators of tumor-induced cachexia”

Major Goals: The major goals of this project are: 1) to investigate tissue-specific mechanisms whereby CCN2/CTGF regulates pancreatic cancer cachexia; 2) to establish the pre-clinical efficacy of an anti-CTGF antibody in inhibiting the trajectory of cancer cachexia and; 3) to further investigate CCN2/CTGF signaling through EGFR in skeletal muscle tissue as a novel mechanism that mediates muscle wasting and pathological remodeling.

Total costs: \$2,414,741

Role: *Principal Investigator (4.2 calendar months)*

Principal investigator: *Sarah Judge*

1 R44CA277853-01A1

05/2023-04/2025

NIH, NCI

Major Goals: To discover, develop, and advance the development of a pharmacological therapy for cancer-induced skeletal muscle atrophy.

Total costs: \$1,981,214

Role: *MPI (3.6 calendar months)*

Principal investigator: *Scott Ebert, Andrew Judge, Sarah Judge, John Tally, Christopher Adams (MPI)*

R01AR081648

08/2022 - 07/2027

NIH, NIAMS

“The Complement System and Cancer Cachexia”

Major Goals: The goal is to investigate the various complement pathways, test targeted complement therapeutics, and explore the role of muscle specific complement activation in pancreatic cancer-induced muscle wasting and weakness.

Total costs: \$2,362,135

Role: *Co-investigator (1.2 calendar months)*

Principal investigator: *Andrew Judge*

21B05

06/2021 – 05/2024

Florida Department of Health, Bankhead-Coley Cancer Research Program

“Ursolic acid as a countermeasure to cancer cachexia”

Major Goals: The major goals of this project are to determine the extent to which ursolic acid can prevent the development of, and reverse, cancer induced cachexia in the presence and absence of chemotherapy treatment,

Total costs: \$530,880

Total direct costs: \$461,634

Role: *MPI (3.0 calendar months)*

Principal Investigator: *Sarah Judge and Andrew Judge (MPI)*

Past Support:

R01AR060209 09/2017 - 08/2023
 NIH, NIAMS
 "FoxO signaling and skeletal muscle atrophy"
 Major Goals: The goal is to investigate the mechanisms by which a FoxO1-FoxP1-MEF2c axis drives cancer-induced muscle wasting, and to investigate the transcriptome and proteome of the skeletal muscle of cachectic pancreatic cancer patients and their avatars
 Total costs: \$2,032,244
 Total direct costs: \$1,341,899
 Role: *Co-Investigator* (4.0 calendar months)
 Principal investigator: *Andrew Judge*

James & Esther King Research Program 08/01/2018 – 09/31/2021
 "The Florida Pancreas Collaborative Next-Generation Biobank: Reducing Health Disparities and Improving Survival for Pancreatic Cancer"
 Total costs: \$1,360,000
 Total direct costs: \$1,156,000
 Role: *Other significant contributor* (1.8 calendar months)
 Principal investigators: *Jennifer Permeth and Jose Trevino* (MPI)

7BC02 04/01/2017 – 12/31/2020
 Bankhead-Coley Cancer Research Program
 "Initiating Mechanisms of Cancer Cachexia"
 Total costs: \$1,254,896
 Total direct costs: \$1,091,214
 Role: *Co-investigator* (6.0 calendar months)
 Principal investigator: *Andrew Judge*

UF Clinical and Translational Science Institute 12/10/2018 – 09/30/2020
 "The Role of Connective Tissue Growth Factor in Cancer-induced Muscle Pathologies"
 Total direct costs: \$20,000
 Role: *Principal Investigator* (0%)

R21CA194118 04/01/2015 – 03/31/2018
 NIH, NCI
 "Dysregulation of sarcomere stabilizing proteins cause muscle atrophy and weakness during cancer cachexia"
 Total costs: \$360,000
 Total direct costs: \$240,000
 Role: *Co-Investigator* (6.0 calendar months)
 Principal investigator: *Andrew Judge*

The V Foundation 11/01/2015 – 10/31/2017
 "The Role of Cachexia in Pancreatic Cancer"
 Total costs: \$200,000
 Total direct costs: \$200,000
 Role: *Co-Investigator* (1.8 calendar months)
 Principal Investigator: *Jose Trevino*

PEER REVIEWED PUBLICATIONS

10 first-author publications, 5 publications as corresponding/co-corresponding author

Underlined – corresponding/co-corresponding author

Neyroud D, Laitano O, Dasgupta A, Lopez C, Schmitt RE, Schneider JZ, Hammers DW, Sweeney HL, Walter GA, Doles J, **Judge SM**, Judge AR. Blocking muscle wasting via deletion of the muscle-specific E3 ligase MuRF1 impedes pancreatic tumor growth. *Commun Biol*. 2023 May 13;6(1):519. doi: 10.1038/s42003-023-04902-2. PMID: 37179425; PMCID: PMC10183033.

Cameron ME, Ayzengart AL, Oduntan O, **Judge SM**, Judge AR, Award Z.T. Low Muscle Mass and Radiodensity Associate with Impaired Pulmonary Function and Respiratory Complications in Patients with Esophageal Cancer. *J Am Coll Surg*. 2023 Jan 5. 10.1097/XCS.0000000000000535. Online ahead of print.

Deyhle MR, Callaway CS, Neyroud D, D'Lugos AC, **Judge SM**, Judge AR. Depleting Ly6G Positive Myeloid Cells Reduces Pancreatic Cancer-Induced Skeletal Muscle Atrophy. *Cells*. 2022 Jun 10;11(12). doi: 10.3390/cells11121893. PMID: 35741022.

Ebert SM, Rasmussen BB, Judge AR, **Judge SM**, Larsson L, Wek RC, Anthony TG, Marcotte GR, Miller MJ, Yorek MA, Vella A, Volpi E, Stern JI, Strub MD, Ryan Z, Talley JJ, Adams CM. Biology of Activating Transcription Factor 4 (ATF4) and Its Role in Skeletal Muscle Atrophy. *J Nutr*. 2021 Dec 27:nxab440. doi: 10.1093/jn/nxab440. Epub ahead of print. PMID: 34958390.

Cameron ME, Underwood PW, Williams IE, George TJ, **Judge SM**, Yarrow JF, Trevino JG, Judge AR. Osteopenia is associated with wasting in pancreatic adenocarcinoma and predicts survival after surgery. *Cancer Med*. 2022 Jan;11(1):50-60. doi: 10.1002/cam4.4416. Epub 2021 Nov 17. PMID: 34791809; PMCID: PMC8704155.

Neyroud D, Nosacka RL, Callaway CS, Trevino JG, Hu H, **Judge SM***, Judge AR*. FoxP1 is a transcriptional repressor associated with cancer cachexia that induces skeletal muscle wasting and weakness. *J Cachexia Sarcopenia Muscle*. Apr;12(2):421-442, 2021. ***Co-corresponding authors**

Permuth JB, Dezsi KB, Vyas S, Ali KN, Basinski TL, Utuama OA, Denbo JW, Klapman J, Dam A, Carballido E, Kim DW, Pimiento JM, Powers BD, Otto AK, Choi JW, Chen DT, Teer JK, Beato F, Ward A, Cortizas EM, Whisner SY, Williams IE, Riner AN, Tardif K, Velanovich V, Karachristos A, Douglas WG, Legaspi A, Allan BJ, Meredith K, Molina-Vega MA, Bao P, St Julien J, Huguet KL, Green L, Odedina FT, Kumar NB, Simmons VN, George TJ, Vadaparampil ST, Hodul PJ, Arnoletti JP, Awad ZT, Bose D, Jiang K, Centeno BA, Gwede CK, Malafa M, **Judge SM**, Judge AR, Jeong D, Bloomston M, Merchant NB, Fleming JB, Trevino JG, On Behalf Of The Florida Pancreas Collaborative. The Florida Pancreas Collaborative Next-Generation Biobank: Infrastructure to Reduce Disparities and Improve Survival for a Diverse Cohort of Patients with Pancreatic Cancer. *Cancers*. Feb 15;13(4):809, 2021

Judge SM*, Deyhle MR, Nosacka RL, Vohra RS, Roberts BM, Neyroud D, D'Lugos AC, Underwood PW, Chrzanowski SM, Batra A, Murphy ME, Heaven JD, Walter GA, Trevino JG, Judge AR*. MEF2c-dependent downregulation of Myocilin mediates cancer-induced muscle wasting and is associated with cachexia in PDAC patients. *Cancer Research*. Mar 4, 2020. ***Co-corresponding authors**

Nosacka RL, Delitto AE, Delitto D, Patel R, **Judge SM**, Trevino JG and Judge AR. Distinct cachexia profiles in response to human pancreatic tumors in mouse limb and respiratory muscle. *J Cachexia Sarcopenia Muscle*, Feb 10, 2020

Underwood PW, Zhang DY, Cameron ME*, Gerber MH, Delitto D, Maduka MU, Cooper KJ, Han S, Hughes SJ, **Judge SM**, Judge AR, Trevino JG. Nicotine Induces IL-8 Secretion from Pancreatic Cancer Stroma and Worsens Cancer-Induced Cachexia. *Cancers (Basel)*. Feb 1;12(2), 2020

Callaway CS, Delitto AE, Patel R, Nosacka RL, D'Lugos AC, Delitto D, Deyhle MR, Trevino JG, **Judge SM**, Judge AR. IL-8 Released from Human Pancreatic Cancer and Tumor-Associated Stromal Cells Signals through a CXCR2-ERK1/2 Axis to Induce Muscle Atrophy. *Cancers (Basel)*. 2019 Nov 25;11(12):1863.

Judge SM*, Nosacka RL, Delitto D, Gerber MH, Cameron M, Trevino JG, Judge AR*. Skeletal Muscle Fibrosis in Pancreatic Cancer Patients with Respect to Survival. *JNCI Cancer Spectr*. 2019 Jul;2(3):pky043. ***Co-corresponding authors**

Gerber MH, Underwood PW, **Judge SM**, Delitto D, Delitto AE, Nosacka RL, DiVita BB, Thomas RM, Permuth JB, Hughes SJ, Wallet SM, Judge AR, Trevino JG. Local and Systemic Cytokine Profiling for Pancreatic Ductal Adenocarcinoma to Study Cancer Cachexia in an Era of Precision Medicine. *Int J Mol Sci*. 2018 Dec 1;19(12).

Murphy KT, Hossain MI, Swiderski K, Chee A, Naim T, Trieu J, Haynes V, Read SJ, Stapleton DI, **Judge SM**, Trevino JG, Judge AR, Lynch GS. Mas receptor activation slows tumor growth and attenuates muscle wasting in cancer. *Cancer Res*. 2018 Nov 12.

Kandarian SC, Nosacka RL, Delitto AE, Judge AR, **Judge SM**, Ganey JD, Moreira JD, Jackman RW. Tumour-derived leukaemia inhibitory factor is a major driver of cancer cachexia and morbidity in C26 tumour-bearing mice. *J Cachexia Sarcopenia Muscle*. 2018 Dec;9(6):1109-1120.

Go KL, Delitto D, **Judge SM**, Gerber MH, George TJ Jr, Behrns KE, Hughes SJ, Judge AR, Trevino JG. Orthotopic Patient-Derived Pancreatic Cancer Xenografts Engraft Into the Pancreatic Parenchyma, Metastasize and Induce Muscle Wasting to Recapitulate the Human Disease. *Pancreas*. 2017 Jul;46(6):813-819.

Delitto D, **Judge SM**, George TJ, Wallet SM, Sarosi GA, Thomas RM, Behrns KE, Hughes SJ, Judge AR and Trevino JG. A Clinically Applicable Muscular Index Predicts Long-term Survival in Resectable Pancreatic Cancer. *Surgery*. Dec 5, 2016.

#Delitto D, #**Judge SM**, Knowlton AE, Nosacka RL, Rocha FB, DiVita BB, George TJ, Behrns KE, Hughes SJ, Wallet SM, Judge AR and Trevino JG. Human pancreatic cancer xenografts recapitulate key aspects of cancer cachexia. *Oncotarget*. Nov 25, 2016. **Authors contributed equally to this work.*

Ryder DJ, **Judge SM**, Beharry AW, Farnsworth CL, Silva JC, Judge AR. Identification of the Acetylation and Ubiquitin-Modified Proteome during the Progression of Skeletal Muscle Atrophy. *PLoS One*. 2015 Aug 24;10(8):e0136247.

Chittoor-Vinod VG, Lee S, **Judge SM**, Notterpek L. Inducible HSP70 is critical in preventing the aggregation and enhancing the processing of PMP22. *ASN Neuro*. 2015 Feb 18;7(1).

Judge SM, Wu C, Beharry AW, Roberts BM, Ferreira LF, Kandarian SC, Judge AR. Genome-wide identification of FoxO-dependent gene networks in skeletal muscle during C26 cancer cachexia. *BMC Cancer*. 2014 Dec 24;14(1):997.

Ye F, McCoy SC, Ross HH, Bernardo JA, Beharry AW, **Senf SM**, Judge AR, Beck DT, Conover CF, Cannady DF, Smith BK, Yarrow JF, Borst SE. Transcriptional regulation of myotrophic actions by testosterone and trenbolone on androgen-responsive muscle. *Steroids*. 2014 Sep;87:59-66.

Beharry AW, Sandesara PB, Roberts BM, Ferreira LF, **Senf SM**, Judge AR. HDAC1 activates FoxO and is both sufficient and required for skeletal muscle atrophy. *J Cell Sci*. 2014 Apr 1;127(Pt 7):1441-53.

Senf SM*. Skeletal muscle heat shock protein 70: Diverse functions and therapeutic potential for wasting disorders. *Front Physiol*. 2013 Nov 11;4:330. eCollection 2013. ***Corresponding author**

Senf SM*, Howard TM, Ahn B, Ferreira LF, Judge AR*. Loss of the inducible Hsp70 delays the inflammatory response to skeletal muscle injury and severely impairs muscle regeneration. *PLoS One*. 2013 Apr 23;8(4): 2013. ***Co-corresponding authors**.

Senf SM* and Judge AR. Determination of gene promoter reporter activity in skeletal muscles in vivo. *Methods Mol Biol*. 798:461-472, 2012 (Invited Methods Paper)

Reed SA, Sandesara PB, **Senf SM**, Judge AR. Inhibition of FoxO transcriptional activity prevents muscle fiber atrophy during cachexia and induces hypertrophy. *FASEB J*. 2012 Mar;26 (3):987-1000.

Senf SM, Sandesara PB, Reed SA, Judge AR. p300 Acetyltransferase Activity Differentially Regulates the Localization and Activity of the FOXO Homologues in Skeletal Muscle. *Am J Physiol Cell Physiol*. 2011 Jun;300(6):C1490-501. (PMID: 21389279)

Reed SA, **Senf SM**, Cornwall EW, Kandarian SC, Judge AR. Inhibition of the inhibitor of kappaB kinase alpha (IKKa) or IKKbeta (IKKB) plus forkhead box O (Foxo) abolishes skeletal muscle atrophy. *Biochem Biophys Res Commun*. 2011 Feb 18;405(3):491-6.

Senf SM, Dodd SL, Judge AR. FOXO signaling is required for disuse muscle atrophy and is directly regulated by Hsp70. *Am J Physiol Cell Physiol*. 2010 Jan;298(1):C38-45.

Dodd SL, Gagnon BJ, **Senf SM**, Hain BA, Judge AR. ROS-mediated activation of NF-kB and Foxo during muscle disuse. *Muscle Nerve*. 2010 Jan;41(1):110-3.

Dodd SL, Hain BA, **Senf SM**, Judge AR. Hsp27 inhibits IKK-induced NF-kB activity and skeletal muscle atrophy. *FASEB J*. 2009 Oct;23(10):3415-23.

Senf SM, Dodd SL, McClung JM, and Judge AR. Hsp70 overexpression inhibits NF-kB and Foxo3a transcriptional activities and prevents skeletal muscle atrophy. *FASEB J*. 2008 Nov;22(11):3836-45.

RESEARCH LECTURES

Pathological Remodeling of Respiratory Muscles during Cancer: Mechanisms and Therapeutic Targets. 16th international Society for Cachexia and Wasting Disorders Conference on Cachexia. Stockholm, Sweden. June 2023. *Invited talk*

FoxP1 is a transcriptional repressor associated with cancer cachexia that mediates muscle wasting and weakness. 15th international Society for Cachexia and Wasting Disorders Conference on Cachexia. Lisbon, Portugal. June 2022. *Invited talk*

Skeletal muscle collagen content is increased in cachectic pancreatic cancer patients and is a significant predictor of survival. 11th international Society for Cachexia and Wasting Disorders Conference on Cachexia. Maastricht, Netherlands. December 2018. *Selected talk*

Progressive skeletal muscle pathology in pancreatic cancer patients. Advances in Skeletal Muscle Biology in Health and Disease, International meeting, University of Florida, 2017. *Selected talk*

Cancer-induced skeletal muscle pathology: Role of FoxO1-FoxP1-MEF2 axis. Myology Institute Seminar Series, University of Florida, April 2016. *Invited talk*

Dual Roles for Hsp70 in Skeletal Muscle Remodeling following Injury. Department of Physiological Sciences, Spring Seminar Series, University of Florida, February 2013. *Invited talk*

Hsp70 as a mediator of the Immune Response following Skeletal Muscle Injury. Neuromuscular Plasticity Noons, 2012 Seminar Series, University of Florida. *Oral symposium*

The Requirement of Heat Shock Protein 70 for Normal Muscle Regeneration and Recovery following Injury. Seminar, Campbell Laboratory, University of Iowa, March 2012. *Invited talk*

The Requirement of Hsp70 for Muscle Regeneration and Recovery Following Muscle Injury. Muscle Biology/Physiology Seminar Series, University of Florida, March, 2012. *Invited talk*

Regulation of the Skeletal Muscle Atrophy-Related Transcription Factor FOXO via Acetylation. Neuromuscular Plasticity Noons, 2011 Seminar Series, University of Florida. *Oral symposium*

Regulation of Skeletal Muscle Atrophy. Southeast Chapter of the American College of Sports Medicine Annual Meeting, 2011. Greenville, South Carolina. *Oral Symposium*

Regulation of atrophy-related transcription factors during muscle inactivity: The role of p300. Neuromuscular Plasticity Noons, 2010 Seminar Series, University of Florida. *Oral symposium*

The Role of Heat Shock Proteins in the Regulation of Skeletal Muscle Mass during and following Cast Immobilization. Southeast Chapter of the American College of Sports Medicine Annual Meeting, 2010. Greenville, South Carolina. *Oral symposium*

FOXO signaling is required for disuse muscle atrophy and is directly regulated by Hsp70. Neuromuscular Plasticity Noons 2009, Seminar Series, University of Florida. *Oral symposium*

The Role of Hsp70 in Skeletal Muscle during Disuse Atrophy. Neuromuscular Plasticity Noons, 2008 Seminar Series, University of Florida. *Oral symposium*

POSTER PRESENTATIONS

Name underlined = corresponding/co-corresponding author

CTGF is a novel mediator of pancreatic cancer cachexia. Andrew C D'Lugos, Chandler S Callaway, Orlando Laitano, Miles E Cameron, Jianmin Zuo, Kim Williams, David Olsen, Kenneth E Lipson, Andrew R Judge, **Sarah M Judge**. Advances in Skeletal Muscle Biology Conference. Poster presentation. Gainesville, Florida. March 2023. *International*

FoxP1 transcriptionally represses Bmal1 and is required for pancreatic cancer-induced muscle atrophy. **Sarah M Judge**, Daria Neyroud, Ph.D1, Andrew C D'Lugos, Karyn A Esser, Andrew R Judge. Advances in Skeletal Muscle Biology Conference. Poster presentation. Gainesville, Florida. March 2023. *International*

Respiratory muscle pathology in esophageal adenocarcinoma patients. Miles E Cameron, Alexander L Ayzengart, Olusola Oduntan, Ziad T Awad, **Sarah M Judge**, Andrew R Judge. 15th international Society for Cachexia and Wasting Disorders Conference on Cachexia. June 2022. Poster presentation. Lisbon, Portugal. June 2022. *International*

Potential Serum Protein Biomarkers of Cancer Cachexia, Muscle Atrophy and Survival in Pancreatic Ductal Adenocarcinoma. Miles E Cameron, Sarah M Judge, Andrew R Judge. GI ASCO January 20-22, 2022. *National*

CTGF as a novel modulator of pancreatic cancer cachexia. Andrew C D'Lugos, Chandler S Callaway, Orlando Laitano, Miles E Cameron, Jianmin Zuo, Kim Williams, David Olsen, Kenneth E Lipson, Andrew R Judge, **Sarah M Judge**. University of Florida Cancer Research Day, UF Health Cancer Center. December 2021. *Local*

Osteopenia is Associated with Wasting in Pancreatic Adenocarcinoma and Predicts Survival after Surgery. Miles E. Cameron^{1,2}, Thomas J. George², **Sarah M. Judge**¹, Andrew R. Judge¹. ¹University of Florida College of Public Health and Health Professions, Department Of Physical Therapy, Gainesville, FL, USA; ²University of Florida College of Medicine, Department Of Surgery, Gainesville, FL, USA. 6th Cancer Cachexia Conference (Virtual). August 2021. *International*

Loss of MuRF1 prevents skeletal muscle wasting and weakness, and slows the rate of tumor growth, in mice bearing pancreatic tumors. Daria Neyroud^{1,2*}, Orlando Laitano³, David W. Hammers⁴, H. Lee Sweeney⁴, **Sarah M. Judge**¹ & Andrew R Judge¹. 6th Cancer Cachexia Conference (Virtual). August 2021. *International*

Cancer cell-derived IL8 and CXCL1 mediate cachexia in mice bearing human pancreatic tumors. Chandler S. Callaway, Andrea E. Delitto, Michael R. Dehyle, Jose G. Trevino, **Sarah M. Judge**, Andrew R. Judge. 6th Cancer Cachexia Conference (Virtual). August 2021. *International*

Heterogeneity of Cachexia and Transcriptomic Signature in Pancreatic Cancer Based on Tumor Location. A.N. Riner¹, K.M. Herremans¹, V. Vudatha², X. Qu³, J. Liu³, T.J. George⁴, A.R. Judge⁵, **S.M. Judge**, A. Parker⁶, S.J. Hughes¹, J.G. Trevino. 6th Cancer Cachexia Conference (Virtual). August 2021. *International*

Time Course of Morphologic and Transcriptomic Changes in Limb Skeletal Muscle of Pancreatic Tumor-Bearing Mice. Enrique J. Trevino, Andrew C. D'Lugos, Daria Neyroud, Chandler S. Callaway, **Sarah M. Judge**, Andrew R. Judge. Cancer Cachexia Conference (Virtual). August 2021. *International*

Tumor-derived CTGF mediates pancreatic cancer cachexia. Andrew C. D'Lugos, Chandler S. Callaway, Ryan C. Meingasner, Orlando Laitano, Miles E. Cameron, Kenneth E. Lipson, Glenn A. Walter, Andrew R. Judge and **Sarah M. Judge**. Neuromuscular Plasticity Symposium, University of Florida, Gainesville, FL, March 2021. *Local*

The role of the complement in pancreatic cancer cachexia. Andrew D. D'Lugos, Jose G. Trevino, **Sarah M. Judge** and Andrew R. Judge. International Cancer Cachexia Virtual Conference 2020. *International*

Forkhead Box P1 (FoxP1) upregulation is sufficient and required for skeletal muscle wasting. Daria Neyroud, Rachel L Nosacka, **Sarah M. Judge** & Andrew R Judge. International Cancer Cachexia Virtual Conference 2020. *International*

CXCL1 is released from pancreatic cancer cells and is sufficient to induce skeletal muscle wasting. Chandler S. Callaway, Andrea E. Delitto, Rachel L. Nosacka, Jose G. Trevino, **Sarah M. Judge** and Andrew R. Judge. International Cancer Cachexia Virtual Conference 2020. *International*

Interleukin-8 is Released from Human Pancreatic Tumor and Stromal Cells, and Causative in Skeletal Muscle Atrophy. Chandler S. Callaway, Andrea E. Delitto, Rachel L. Nosacka, Jose G. Trevino, **Sarah M. Judge** and Andrew R. Judge. Experimental Biology Conference, Orlando, April 2019. *International*

The role of Interleukin 8 (IL-8) in Pancreatic Cancer Cachexia. Chandler S. Callaway, Andrea E. Delitto, Rachel L. Nosacka, Jose G. Trevino, **Sarah M. Judge** and Andrew R. Judge. Advances in Skeletal Muscle Biology in Health and Disease Conference, Gainesville, FL, March 2019. *International*

IL-8 treatment induces muscle wasting and impairs muscle regeneration outcomes. Mike R. Deyhle, Chandler S. Callaway, Andrea E. Delitto, Rachel L. Nosacka, **Sarah M. Judge** and Andrew R. Judge. Advances in Skeletal Muscle Biology in Health and Disease Conference, Gainesville, FL, March 2019. *International*

Proteomic profiling of skeletal muscle from cachectic pancreatic cancer patients. Andrew D. D'Lugos, Jose G. Trevino, **Sarah M. Judge** and Andrew R. Judge. Advances in Skeletal Muscle Biology in Health and Disease Conference, Gainesville, FL, March 2019. *International*

Forkhead box P1 (FoxP1) is increased in the skeletal muscle of tumor bearing hosts and sufficient to cause wasting. Daria Neyroud, Rachel L Nosacka, **Sarah M. Judge** & Andrew R Judge. Advances in Skeletal Muscle Biology in Health and Disease Conference, Gainesville, FL, March 2019. *International*

Mouse limb and diaphragm muscles show distinct cachexia profiles in response to human pancreatic tumors. Rachel L. Nosacka, Jose G. Trevino, **Sarah M. Judge** and Andrew R. Judge. Advances in Skeletal Muscle Biology in Health and Disease Conference, Gainesville, FL, March 2019. *International*

Skeletal muscle collagen content is increased in cachectic pancreatic cancer patients and is a significant predictor of survival. **Judge, Sarah M**¹; Delitto, Dan²; Nosacka, Rachel L¹; Cameron, Miles²; Gerber, Michael H² Trevino, Jose G²; Judge, Andrew R¹. 11th international Society for Cachexia and Wasting Disorders Conference on Cachexia. December 2018. Poster presentation. Masstricht, Netherlands. *International*

Loss of Myocilin induces membrane fragility and skeletal muscle wasting and its overexpression deters muscle wasting in C26 tumor-bearing mice. **Sarah M. Judge**, Michael R. Deyhle*, Daria Neyroud, Rachel L. Nosacka, Brandon M. Roberts, Glenn A. Walter and Andrew R. Judge. 4th Cachexia Conference. September 2018. Philadelphia, PA. *International*

Proteomic profiling of skeletal muscle from cachectic pancreatic cancer patients. Andrew D. D'Lugos¹, Jose G. Trevino², **Sarah M. Judge**¹ and Andrew R. Judge¹. 4th Cancer Cachexia Conference. September 2018. Philadelphia, PA. *International*

Release of IL-8 and GRO- α from primary human pancreatic cancer cells and tumor associated stromal cells causes myotube atrophy. Chandler S. Callaway¹, Andrea E. Delitto¹, Rachel L. Nosacka^{a1}, Jose G. Trevino², **Sarah M. Judge**¹ and Andrew R. Judge¹. D. 4th Cancer Cachexia Conference. September 2018. Philadelphia, PA. *International*

Mouse limb and diaphragm muscles show distinct cachexia profiles in response to human pancreatic tumors Rachel Nosacka¹, **Sarah Judge**¹, Michael Gerber², Jose Trevino², and Andrew Judge¹. 4th Cancer Cachexia Conference. September 2018. Philadelphia, PA. *International*

Forkhead box P1 (FoxP1) is increased in the skeletal muscle of tumor bearing hosts and sufficient to cause wasting. Daria Neyroud, Rachel L Nosacka, **Sarah M Judge** & Andrew R Judge. Departments of Physical Therapy, University of Florida, Gainesville, FL. 4th Cancer Cachexia Conference. September 2018. Philadelphia, PA. *International*

Causative Role of MEF2C in Pre-Cachectic Downregulation of Muscle Structural Genes and Muscle Atrophy During Cancer Cachexia. Nosacka, Rachel L¹; **Judge, Sarah M**¹; Delitto, Dan²; Nosacka, Rebecca M¹; Trevino, Jose G²; Judge, Andrew R¹. Advances in Skeletal Muscle Biology in Health and Disease, 2016. Poster presentation. University of Florida. *International*

Causative role of MEF2c in pre-cachectic downregulation of muscle structural genes and muscle atrophy in tumor-bearing mice. **Sarah M. Judge**¹, Rachel Nosacka¹, Daniel Delitto², Jose G. Trevino², and Andrew R. Judge¹. International Conference on Sarcopenia, Cachexia and Wasting Disorders. December, 2015. Paris, France. *International*

Downregulation of Muscle Structural Proteins during Cancer Cachexia: Mechanisms and Implications. **Sarah M. Judge**, Adam W. Beharry, Brandon M. Roberts, Rachel Nosacka and Andrew R. Judge, Neuromuscular Plasticity Symposium, 2015; *Local*

Hsp70 is a damage-associated molecular pattern (DAMP) that is sufficient to induce cytokine and chemokine expression from skeletal muscle cells. **Sarah M. Senf**¹, Uttav.B. Sandesara¹ and Andrew R. Judge¹. Molecular Mechanisms of Muscle Growth and Wasting in Health and Disease; September, 2013, Centro Stefano Franscini, Monte Verita- Ascona, Switzerland. *International*

Decreased Immune Cell Infiltration and Fiber Damage in Skeletal Muscles of *Hsp70*^{-/-} Mice following Modified Muscle Use are linked to Enhanced Functional Recovery. **Sarah M. Senf**, Bumsoo Ahn, Travis M. Howard, Leonardo F. Ferreira and Andrew R. Judge. Neuromuscular Plasticity Symposium, 2013; *local*

Skeletal Muscle-Derived Hsp70 is Necessary for the Inflammatory Response following Muscle Injury. **Senf SM**, Travis M. Howard and Andrew R. Judge. D. Sixth International Symposium on Heat Shock Proteins in Biology and Medicine. (Poster presentation- November 3-7th, 2012, Alexandria, Virginia). *International*

Hsp70 Activates the Skeletal Muscle Inflammatory Response Following Muscle Injury. **Senf SM**^{1,2}, Travis M. Howard² and Andrew R. Judge². Integrative Biology of Exercise; October 10th-13th, 2012, Westminster, Colorado. *International*

Impaired Muscle Growth and Regeneration in Hsp70^{-/-} Mice. **Senf SM¹**, Travis M. Howard² and Andrew R. Judge². Advances in Skeletal Biology in Health and Disease, Gainesville, Florida. *International*

Hsp70 represses NF- κ B-dependent signaling in skeletal muscle and is necessary for normal muscle growth. **Senf SM¹**, Jaina M. Morar², Pooja B. Sandesara², Travis M. Howard², Adam W. Beharry² and Andrew R. Judge². Molecular Mechanisms of Muscle Growth and Wasting in Health and Disease; September 18-23rd, 2011, Centro Stefano Franscini, Monte Verita- Ascona, Switzerland). *International*

p300 Acetyltransferase Activity Differentially Regulates the Localization and Activity of the FOXO Homologues in Skeletal Muscle. **Senf SM¹**, Sandesara PB², Judge AR². FASEB 2011. April 9-13, 2011, Washington DC. *International*

Co-inhibition of NF- κ B and Foxo activation during skeletal muscle atrophy. S.A. Reed¹, **S.M. Senf²**, A. W. Cornwell³, S.C. Kandarian³ and A.R. Judge¹. 2010 FASEB Summer Research Conferences. Skeletal Muscle Satellite and Stem Cells. July 18 – 23, 2010. Carefree, Arizona. *International*

p300 acetyltransferase is necessary and sufficient to repress FOXO in skeletal muscle. **Senf SM¹**, Sandesara PB², Reed SA², Judge AR^{1,2}. The Ottawa Conference on New Directions in Biology and Disease of Skeletal Muscle, 2010; Ottawa, Ontario, Canada. *International*

Acetylation of Hsp70 and regulation of FOXO transactivation. **Senf SM¹**, Judge AR^{1,2}. 5th Cachexia Conference, December 5-8, 2009, Barcelona, Spain. *International*

Hsp70 Modulates Disuse-Induced Acetylation and alters FOXO3a Protein-Protein Interactions in the Nucleus. **Senf SM**, Dodd SL, Judge AR. Making Muscle in the Embryo and Adult. May 28 - June 2, 2009, Columbia University, New York, NY. *International*

Repression of FOXO3a-dependent transcription by Hsp70 does not require FOXO3a nuclear export. **Senf SM**, Dodd SL, Judge AR. Understanding Muscle: From Development to Disease, 2009, The Ohio State University. *National*

Hsp70 inhibits Foxo3a-dependent Transcription of Atrophy Genes in Skeletal Muscle. **Senf SM**, Dodd SL, Gagnon BJ and Judge AR. American Physiological Society, Intersociety Meeting: The Integrative Biology of Exercise-V, 2008 Hilton Head, South Carolina. *International*

Hsp70 overexpression inhibits NF- κ B activation and skeletal muscle atrophy. **Senf SM**, Dodd SL, McClung JM and Judge AR. 4th Annual Cachexia Conference, 2007; St. Petersburg, Florida. *International*

B. INSTRUCTION

COURSE TEACHING AT UNIVERSITY OF FLORIDA

Graduate Level

Pathophysiology for PT PHT6935 Spring 2023-
Lecture topics: Cellular Injury and Metabolism, Adaptations to Stress, Inflammation, Immunity and Hypersensitivity, Autoimmunity & Immunodeficiency

Physiology for PT PHT6153 Fall 2013-2018, 2022-
Lecture topics: Chemical Composition of the Body, Cell Biology, Transcription & Translation

MENTORING

Post-doctoral associates (co-mentored)

Jeremy Ducharme, Ph.D (current)
Nour Al Zaeed, Ph.D. (current)
Andrew D'Lugos, Ph.D.
Daria Neyroud, Ph.D.
Michael Dehyle, Ph.D.

Graduate students (co-mentored)

Miles Cameron, Ph.D.
Rachel Nosacka, Ph.D.

Undergraduate students (UF)

Lam T. Le, B.S. 2020-2021
Health Science program

Meghan Murphy, B.S. Health Science, 2016-2017
Undergraduate Honors student,
Awards: 2016-2017 University Scholars Program Award

Jonathan Heaven, B.S. Health Science, 2016-2017
Undergraduate Honors student
2016-2017 University Scholars Program Award
Enrolled in Nova Southeastern University, Medical school

Uttav Sandesara, B.S. Health Science, 2011-2013
Undergraduate Honors student
Awards: 2015 Undergraduate Dean's Scholar Award

Travis Howard, B.S. Health Science, 2011-2012
Undergraduate Honors student
2011-2012 University Scholars Program Award
2012 Outstanding Undergraduate Research Award
2012 Undergraduate Dean's Scholar Award
Graduate of Georgetown Medical School

Jaina Morar, B.S. Health Science, 2010-2011
Undergraduate Honors student,
Awards:
2011 Undergraduate Dean's Scholar Award
2011 Outstanding Undergraduate Research Award
Graduate of Physician's Assistant Program at Yale University

Brittany Gagnon, B.S. Exercise Physiology, 2008-2010
Undergraduate Honors student,
Graduate of Physician's Assistant Program at the University of Florida.

C. SERVICE

International Scientific Conference Co-Organizer

Advances in Skeletal Muscle Biology Conference 2023

University of Florida, Myology Institute

Scientific Meeting Grant recipient, Company of Biologists

Lead applicant

\$2500, January 2023

Sustainable Conferencing Grant recipient, Company of Biologists

Lead applicant

\$2500, January 2023

Conference Session Co-Chair

16th International Conference on Cachexia, Sarcopenia and Wasting Disorders (International),

Session Co-chair, "Rapid fire abstracts"

June 17th- 19th, 2023

Conference Session Co-Chair

6th Cancer Cachexia Virtual Conference (International), Session Co-chair, "Biological Variables in Cancer Cachexia"

August 27th-29th, 2021

Journal Peer Review

American Journal of Physiology - Endocrinology and Metabolism

American Journal of Physiology-Cell Physiology

American Journal of Physiology- Regulatory, Integrative and Comparative Physiology

Cancers

Journal of Applied Physiology

Journal of Cachexia, Sarcopenia and Muscle

Journal of Cell Science

Journal of Surgical Research

FASEB

Molecular Metabolism

PLOS One

eLIFE

Success Coach, Undergraduate mentoring program, 2022, University of Florida

PROFESSIONAL DEVELOPMENT

16th International Conference on Cachexia, Sarcopenia and Wasting Disorders

2023, Stockholm, Sweden

Advances in Skeletal Muscle Biology in Health and Disease Conference

2023, Gainesville, Florida

15th International Conference on Cachexia, Sarcopenia and Wasting Disorders

2022, Lisbon, Portugal

Biology of Cancer: Microenvironment & Metastasis - CSHL

2021, Virtual Meeting

6th Cancer Cachexia Conference

- 2021, virtual
- 5th Cancer Cachexia Conference**
2020, virtual
- 11th International Conference on Cachexia, Sarcopenia and Wasting Disorders**
2018, Masstricht, Netherlands
- 4th Cancer Cachexia Conference**
2018, Philadelphia, PA
- Advances in Skeletal Muscle Biology in Health and Disease Conference**
2017, Gainesville, Florida
- 3rd Cancer Cachexia Conference**
2016, Washington, DC
- Advances in Skeletal Muscle Biology in Health and Disease Conference**
2016, Gainesville, Florida
- 2nd Cancer Cachexia Conference**
Poster Judge
2014, Montreal, Canada
- Myology Course, Basic Science Track.**
2014, The Ohio State University, Columbus, Ohio
- Advances in Skeletal Muscle Biology in Health and Disease Conference**
2014, Gainesville, Florida
- Molecular Mechanisms of Muscle Growth and Wasting in Health and Disease Conference**
2013, Ascona, Switzerland
- Sixth International Symposium on Heat Shock Proteins in Biology and Medicine**
2012, Alexandria, Virginia
- Integrative Biology of Exercise**
2012, Westminster, Colorado
- Advances in Skeletal Muscle Biology in Health and Disease**
2012, Gainesville, Florida
- Southeast Chapter of the American College of Sports Medicine Annual Meeting**
2012, Greenville, South Carolina
- Molecular Mechanisms of Muscle Growth and Wasting in Health and Disease Conference**
2011, Ascona, Switzerland
- Experimental Biology-FASEB Annual Meeting**
2011, Washington D.C.
- Southeast Chapter of the American College of Sports Medicine Annual Meeting**
2011, Greenville, South Carolina
- American College of Sports Medicine Conference on Integrative Physiology of Exercise**
2010, Miami Beach, Florida
- Chromatin immunoprecipitation assay training, Boston University,**
2010, Boston, Massachusetts
- The Ottawa Conference on New Directions in Biology and Disease of Skeletal Muscle**
2010, Ottawa, Ontario, Canada
- Southeast Chapter of the American College of Sports Medicine Annual Meeting**
2010, Greenville, South Carolina
- 5th Cachexia Conference**
2009, Barcelona, Spain
- American Congress of Rehabilitation Medicine, Early Career Development Course**
2009, Denver, Colorado
- Making Muscle in the Embryo and the Adult--a joint meeting of Frontier in Myogenesis and Skeletal Muscle Stem and Satellite Cells, Columbia University**
2009, New York, New York

Understanding Muscle: From Development to Disease Conference, The Ohio State University
2009, Columbus, Ohio

American Physiological Society, Intersociety Meeting: The Integrative Biology of Exercise-V
2008, Hilton Head, South Carolina

4th Cachexia Conference
2007, St. Petersburg, Florida

Muscle Biology/Physiology Seminar Series
2010-2021, Gainesville, Florida

Annual Neuromuscular Plasticity Symposium at the University of Florida
2008-2021, Gainesville, Florida

UF Neuromuscular Plasticity Noons Seminar Series
2008-2021, Gainesville Florida

UF Rehabilitation Research Seminar Series
2008-2021, Gainesville, Florida

Cell Culture Workshop, Interdisciplinary Center for Biotechnology Research, University of Florida
2008, Gainesville, Florida