

Inaugural Muscle Biology and Cachexia Conference (Preliminary Program)



Sunday, May 18, 2025

Houston Room (220)

Student Center South, University of Houston

Time

1:00-1:45 pm Registration and badge pick up

1:45-2:00 pm Welcome and opening remarks

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| 02:00-3:30 pm | Session 1 | Muscle progenitors, Regeneration, and Rhabdomyosarcoma |
| | Chairs: | TBD |
| 2:00-02:15 | Atsushi Asakura University of Minnesota | Muscle stem cell niche and regeneration by Notch-signal |
| 2:15-2:30 | Hamed Jafar-Nejad Baylor College of Medicine | Regulation of satellite cell development and maintenance by O-linked glycosylation |
| 2:30-2:45 | Feng Yue University of Florida | CRTCs regulate muscle stem cell homeostasis via FAHD2A-mediated metabolism |
| 2:45-3:00 | Laszlo Nagy John Hopkins All Children's Hospital, Florida | Macrophage controlled regenerative inflammation in acute and chronic muscle injury |

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| 3:00-3:15 | Reshma Taneja National University of Singapore | Interrogating the epigenetic landscape in rhabdomyosarcoma |
| 3:15-3:30 | TBD | TBD |

3:30-3:45 Coffee and light refreshment break

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| 3:45 -5:20 pm | Session 2 | Aging and Sarcopenia |
| | Chairs: | TBD |
| 3:45-4:00 | Christopher Fry University of Kentucky | Renovating This Old House: Remodeling the Extracellular Matrix Infrastructure to Enable Muscle Adaptation with Aging |
| 4:00-4:15 | Shih-Yin Tsai National University of Singapore | EIF4EBP1 Activation as a Therapeutic Strategy to Improve Muscle Proteostasis in Sarcopenia |
| 4:15-4:30 | Marco Brotto The University of Texas at Arlington | Unraveling the Aging Puzzle: The Role of Lipidomics and Metabolomics in Musculoskeletal Disease |
| 4:30-4:45 | Blake Rasmussen UTHealth, San Antonio | Human Skeletal Muscle Disuse Atrophy has Profound and Negative Effects on the Muscle Transcriptome, Metabolome, and Lipidome |
| 4:45-5:00 | Jianjie Ma University of Virginia School of Medicine | A 30-Plus-Year Journey with Those Amazing Mitsugumins – Report from a Recent Symposium in Honor of Dr. Hiroshi Takeshima |
| 5:00-5:10 | Taejeong Song University of Arizona College of Medicine, Tucson | Fast Myosin Binding Protein-C is a Vital Regulator in Young and Aged Fast Skeletal Muscle Homeostasis |
| 5:10-5:20 | TBD | TBD |

5:20-5:30 Break

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| 5:30-6:25 pm | | Keynote Talk 1 |
| | Chairs: | TBD |
| | Denis C. Guttridge Medical University of South Carolina, South Carolina, USA | NF- κ B Signaling in Skeletal Muscle Pathologies: What we've Learned from the Tumor Microenvironment |

7:00-9:00 pm Dinner for invited speakers only (Hilton Hotel, University of Houston)

MONDAY May 19, 2025

Houston Room (220)

Student Center South, University of Houston

8:00-8:30 am Breakfast

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| 8:30-9:25 am | | Keynote Talk 2 |
| | Chairs: | TBD |
| | Marco Sandri Veneto Institute of Molecular Medicine, University of Padova, Italy | Novel Insights in the control of muscle mass and force generation |

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| 9:30-11:00 am | Session 3 | Mechanisms of Cancer Cachexia-I |
| | Chairs: | Yi-Ping Li and James Carson |
| 09:30-09:45 | Min Li University of Oklahoma Health Sciences Center | Battling a Powerful Enemy: Understanding Pancreatic Cancer Cachexia |
| 09:45-10:00 | Pankaj Singh University of Oklahoma Health Sciences Center | Metabolic regulation of cachexia in pancreatic cancer |
| 10:00-10:15 | Paola Costelli University of Turin | Immunomodulation as a tool to counteract experimental cancer cachexia |
| 10:15-10:30 | Andrew Judge University of Florida | Cancer cachexia: Role of the complement System |
| 10:30-10:45 | Gustavo Nader Penn State University, College Park | Anabolic deficits in cancer-associated muscle wasting: the ribosome as a focal point |
| 10:45-11:00 | 3-5 minutes talks with no questions | Will be picked from submitted abstracts |

11:00-11:15 am Coffee and light refreshment break

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| 11:30-12:30 pm | Session 4 | Cardiac Biology and Disease |
| | Chairs: | Bradley McConnell and Yu Liu |
| 11:30-11:45 | Robert Schwartz University of Houston | TBD |
| 11:45-12:00 | Tamer Mohamed Baylor College of Medicine | Cracking the Code for Cardiomyocyte Proliferation |

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| 12:00-12:15 | Joseph M Metzger University of Minnesota Medical School | Shrunken heart cardiomyopathy and failure in cancer cachexia remission |
| 12:15-12:30 | Leonardo Ferreira Duke University School of Medicine | Diaphragm myopathy in heart failure and ATF3 deficiency |

12:30-1:30 pm Lunch and Posters Viewing

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| 1:30-3:00 pm | Session 5 | Muscle Signaling and Metabolism |
| | Chairs: | Vihang Narkar and TBD |
| 1:30-1:45 | Erin Seifert Thomas Jefferson University | Mitochondrial phosphate carrier-dependence of mitochondrial matrix calcium chelation in skeletal muscle |
| 1:45-2:00 | Shihuan Kuang Duke University School of Medicine | Regulation of mitochondrial Metabolism and Signaling in Muscle |
| 2:00-2:15 | Mattia Quattrocchi Cincinnati Children's Hospital | Glucocorticoids and clock interplay: There's a flip side to every coin |
| 2:15-2:30 | Zheng (Jake) Chen McGovern Medical School, UTHealth | Regulatory role of the circadian oscillator in skeletal muscle bioenergetics and function |
| 2:30-2:45 | Longhou Fang Houston Methodist Research Institute | Lipid Metabolism in Vascular Health and Disease |

2:45-3:00 pm Coffee and light refreshment break

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| 3:00-4:30 pm | Session 6 | Exercise Physiology |
| | Chairs: | Marc Hamilton and TBD |
| 3:00-3:15 | David Harrison Boston Children's Hospital | Surviving with a single ventricle: the role of contractions by a strong soleus muscle for plantarflexion |
| 3:15-3:30 | Zhen Yan Fralin Biomedical Research Institute at VTC | mitoAMPK in exercise-induced mitochondrial remodeling in skeletal muscle |
| 3:30-3:45 | Chunru Lin University of Texas MD Anderson Cancer Center | Modulating Tumor Microenvironment in Prostate Cancer Through Exercise |
| 3:45-4:00 | John M. Lawler Texas A&M University | TBD |
| 4:00-4:15 | TBD | TBD |

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| 4:15-4:30 | 3-5 minutes talks with no questions | Will be picked from submitted abstracts |
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4:30-5:00 pm **Industry presentation (TBD)**

5:00-6:30 pm **Poster Presentation**

6:30-8:00 pm Dinner reception for all attendees, Ball room 210, Student Center South

TUESDAY May 20, 2025

Houston Room (220)

Student Center South, University of Houston

8:00-8:30 am **Breakfast**

| 8:30-10:00 am | Session 7 | Mechanisms of Cancer Cachexia -II |
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| | Chairs: | TBD |
| 8:30-8:45 | Serkan Kır Koç University, Turkey | Cancer-associated muscle wasting: the role of EDA2R-NIK signaling |
| 8:45-9:00 | Andrea Bonetto University of Colorado Anschutz Medical Campus | Characterization of cachexia in head and neck cancer: new insights from patients and mouse models |
| 9:00-9:15 | James Carson Texas A&M University | Effects of exercise and chemotherapy in the investigation of cancer cachexia |
| 9:15-9:30 | Jason Doles Indiana University School of Medicine | Delineating the contribution of muscle wasting to tumor progression |
| 9:30-9:45 | Joseph Rupert Institute of Molecular Medicine, UTHealth | Targeting the IL6R-CD36 axis in skeletal muscle to attenuate cachexia in pancreatic cancer |
| 9:45-10:00 | 3-5 minutes talks with no questions | Will be picked from submitted abstracts |

10:00-10:15 am Coffee and light refreshment break

| 10:15-12:00 pm | Session 8 | Muscle Diseases and Therapies-I |
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| | Chairs: | TBD |
| 10:15-10:30 | Jingsong Zhou University of Texas at Arlington | Deficient Sarcolemma Repair in ALS |

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| 10:30-10:45 | Matthew Alexander University of Alabama at Birmingham | Generation and corrective drug screening for models of X-linked myopathy with excessive autophagy (XMEA) |
| 10:45-11:00 | Jyoti Jaiswal Children's National Research Institute, Washington, DC | Examining the role and therapeutic potential of muscle stromal cells in muscular dystrophy |
| 11:00-11:15 | Darko Bosnakovski University of Minnesota Medical School | Therapeutic strategies to counter fibroadipogenic dystrophic processes in FSHD |
| 11:15-11:30 | George Rodney Baylor College of Medicine | Role of SR calcium leak in the pathogenesis of Malignant Hyperthermia |
| 11:30-11:45 | Dil Afroze Sher-I-Kashmir Institute of Medical Sciences, INDIA | Spinal Muscular Atrophy: Molecular Mechanisms and Emerging Therapeutic Strategies |
| 11:45-12:00 | 3-5 minutes talks with no questions | Will be picked from submitted abstracts |

12:00-1:30 pm Lunch and Poster Viewing and judging

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|----------------------|---|---|
| 1:30 -3:00 pm | Session 9 | Muscle Diseases and Therapies-II |
| | Chairs: | TBD |
| 1:30-1:45 | Terence Ryan University of Florida | Understanding and targeting myopathy in peripheral artery disease |
| 1:45-2:00 | Sajedah Hindi Cincinnati Children's Hospital, Cincinnati | Interrogating muscle biology for muscle therapy and muscle therapy for muscle biology |
| 2:00-2:15 | Shahid Baba University of Louisville School of Medicine | Endogenous histidyl dipeptide therapy for peripheral arterial disease |
| 2:15-2:30 | TBD | TBD |
| 2:30-2:45 | TBD | TBD |
| 2:45-3:00 | 3-5 minutes talks with no questions | Will be picked from submitted abstracts |

3:00-3:15 pm Award ceremony for trainees

3:15-3:30 pm Vote of thanks and departure

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