

Tucson 2026 Myofilament Meeting

What's Hot in Myofilament Structure, Elasticity, and Regulatory Networks in Muscle Function and Disease

When: May 23-26, 2026

Where: Harvill Auditorium, University of Arizona Campus, Tucson

Hotel: Tucson Marriott University Park

Organizing committee: Elisabetta Brunello, Brandon Biesiadecki, Tony Cammarato, Brett Colson (local committee representative), Henk Granzier (Chair), Johnathan Kirk, Katia Kontrogianni-Kanstantopolous, Mike Regnier, Jolanda van der Velden, Dave Warshaw.

ECI Committee: Kathleen Woulfe and David Barefield. (2028 ECI organizers, Matt Childers and Alison Vander Roest). ECI committee will organize the ECI symposium on Saturday May 23.

Local Committee: Brett Colson (chair), Sam Harris, Jil Tardiff, Carter Ralphe (former chair of UW/Madison committee), Sakthi Sadayappan, Tae-Jeong Song.

Conference Coordinator: Becca Van Sickler Email: beccav@arizona.edu

Scientific Program: Henk Granzier Email: granzier@arizona.edu

The meeting consists of:

- ECI Symposium
- Six oral sessions. Talks will be 20 minutes (includes discussion).
- Five plenary lectures, 30 minutes each.
- Two days of poster sessions.
- A closing session that includes ECIs awards, and a discussion on the present and future of the field.
- Workshops

Schedule Overview

Saturday May 23	Sunday May 24	Monday May 25	Tuesday May 26
<ul style="list-style-type: none">• ECI Symposium<ul style="list-style-type: none">○ 18 talks (10 min) selected from abstracts○ Senior PI Plenary Presentation: Jil Tardiff, MD, PhD• Welcome Reception	<ul style="list-style-type: none">• Oral session I• Plenary lecture I• Oral session II• Plenary lecture II• Poster session I• Networking event at Gentle Ben's Brewpub	<ul style="list-style-type: none">• Oral session III• Oral session IV• Plenary lecture III• Oral session V• Plenary lecture IV• Poster session 2• Conference dinner at Tanque Verde Ranch	<ul style="list-style-type: none">• Oral session VI• Plenary lecture V• Closing session<ul style="list-style-type: none">○ Awards○ Present and future of the field○ Closing remarks

Myofilament Meeting Schedule

Saturday, May 23, 2026

<p>9:30 am – 5:00 pm <i>Health Sciences Innovation Building Forum</i></p>	<p>Early Career Investigator Symposium</p> <ul style="list-style-type: none">• 18 talks (10 min) selected from abstracts• Senior PI Plenary Presentation: Jil Tardiff, University of Arizona <p><i>Additional details provided later (check back in)</i></p>
<p>6:00 pm – 8:00 pm <i>Tucson Marriott University Park Ballroom</i></p>	<p>Welcome Reception</p>

Sunday, May 24, 2026

<p>7:30 am – 8:00 am <i>Harvill Patio</i></p>	<p>Coffee Conversational (Optional) (light refreshments)</p>
<p>8:00 am – 8:10 am <i>Harvill Auditorium</i></p>	<p>Welcome</p>
<p>8:15 am – 10:00 am <i>Harvill Auditorium</i></p>	<p>Oral Session I - High resolution filament structure <i>Moderator: Pradeep Luther/ECI (selected from ECI abstracts)</i></p> <ul style="list-style-type: none">• Roberto Dominguez (University of Pennsylvania): <i>Thin filament length regulation: a structural-functional perspective</i> (20 min)• Kristina Djinović-Carugo (EMBL Grenoble): <i>Order from disorder: towards the molecular architecture of the Sarcomeric Z-disc</i> (20 min)• Vitold Galkin (East Virginia University): <i>Allosteric coupling within the thin filament: a mechanism for adaptive activation during cardiac contraction</i> (20 min)• Marco Linari (University of Florence): <i>Dual filament regulation of cardiac contraction</i> (20 min)• Steven Schwarz (University of Arizona): <i>How mutations transmit their effects across 100's of angstroms and across multiple proteins through allostery in the sarcomere</i> (15 min)• Olga Karpicheva (Boston University): <i>Quantifying the structural basis of thin filament cooperativity: the effect of single myosin-heads on the position of tropomyosin on actin</i> (10 min)

<p>10:00 am – 10:30 am <i>Harvill Patio</i></p>	<p>Coffee Break (light refreshments)</p>
<p>10:30 am – 11:00 am <i>Harvill Auditorium</i></p>	<p>Plenary Lecture I Stefan Raunser (Max Planck, Dortmund): <i>What can we learn from the structure of myofilaments?</i></p>
<p>11:00 am – 12:50 pm <i>Tucson Marriott University Park Ballroom</i></p>	<p>Lunch Poster Session I</p>
<p>1:00 pm – 2:40 pm <i>Harvill Auditorium</i></p>	<p>Oral Session II – Regulation of contraction <i>Moderator: Neil Kad (tentative)/ECI (selected from ECI abstracts)</i></p> <ul style="list-style-type: none"> • Kenneth Campbell (University of Kentucky): <i>Regulation of diastolic function in human hearts</i> (20 min) • Theresia Kraft (Hannover Medical School): <i>Myosin and troponin in thin filament activation and hypertrophic cardiomyopathy</i> (20 min) • E Michael Ostap (University of Pennsylvania): <i>Mutation-driven mechanochemical changes in β-cardiac myosin</i> (20 min) • Chiara Tesi (University of Florence): <i>Probing myosin states by myosin motor modulators and SHG microscopy</i> (20 min) • Sakthivel Sadayappan (University of Arizona): <i>Pathogenic disruption of myosin S2/cMyBP-C interactions in hypertrophic cardiomyopathy</i> (15 min) • Shane Nelson (University of Vermont): <i>Seeing is believing at the single molecule level: Are myosin's IHM and SRX states inextricably linked?</i> (10 min)
<p>2:45 pm – 3:15 pm <i>Harvill Auditorium</i></p>	<p>Plenary Lecture II James Spudich (Stanford University): <i>Myosin: an exquisite nanomachine and the power of basic research in drug discovery</i></p>
<p>3:30 pm – 6:00 pm <i>Tucson Marriott University Park Ballroom</i></p>	<p>Poster Session II (light refreshments)</p>
<p>6:30 pm – 8:30 pm <i>Gentle Ben's Brewery</i></p>	<p>Networking Event (heavy appetizers)</p>

Monday, May 25, 2026

<p>7:30 am – 8:00 am <i>Harvill Patio</i></p>	<p>Coffee Conversational (Optional) (light refreshments)</p>
<p>8:00 am – 9:30 am <i>Harvill Auditorium</i></p>	<p>Oral Session III – Smooth muscles and non-muscle myosins! <i>Moderators: Samantha Harris and Frank Brozovich</i></p> <ul style="list-style-type: none"> • Introduction by Samantha Harris (University of Arizona) (5 min) • Marion Siegman (Thomas Jefferson University): <i>The economy of force maintenance in smooth muscle: lessons learned from a mussel muscle</i> (20 min) • Jordan Beach (Loyola University): <i>Optogenetic control of myosin 2 in cells</i> (20 min) • Sarah Heissler (Ohio State University): <i>Structure and regulation of nonmuscle myosins</i> (20 min) • Jim Sellers (NHLBI): <i>Nonmuscle myosin 2 filaments: short, slow and stubborn...kind of like me</i> (20 min)
<p>9:30 am – 10:00 am <i>Harvill Patio</i></p>	<p>Coffee Break (light refreshments)</p>
<p>10:00 am – 11:40 am <i>Harvill Auditorium</i></p>	<p>Oral Session IV – PTMs associated with myofilament structure and function <i>Moderator: Mike Geeves (tentative)/ECI (selected from ECI abstracts)</i></p> <ul style="list-style-type: none"> • Michael Previs (University of Vermont): <i>Mechanisms of myosin incorporation in cardiac muscle</i> (20 mins) • Joseph Metzger (University of Minnesota): <i>Primed state of sarcomere activation establishes mechanism of force summation in skeletal muscle</i> (20 mins) • Ying Ge (University of Wisconsin, Madison): <i>Decoding myofilament post-translational modifications in striated muscle by top-down proteomics</i> (20 mins) • Mark Miller (University of Massachusetts, Amherst): <i>Distinct skeletal muscle fiber-type contractile responses to regulatory light chain phosphorylation and fatigue at 37°C in older adults</i> (20 mins) • Sıla Algül (University of Amsterdam): <i>Phosphoproteomics of hypertrophic cardiomyopathy patient myocardium and novel hiPSC-CM model reveal protein kinase A as a modulator of microtubule repolymerization</i> (20 mins)
<p>11:40 am – 12:10 pm <i>Harvill Auditorium</i></p>	<p>Plenary Lecture III</p> <p>Jennifer Van Eyk (Cedars-Sinai Medical Center): <i>New tools to quantify the impact of Sarcomeric mutations on myofilament structure and the cellular proteome</i></p>
<p>12:20 pm – 2:05 pm <i>Tucson Marriott University Park Ballroom</i></p>	<p>Lunch</p> <p>Poster Session II</p>

<p>2:15 pm – 3:55 pm Harvill Auditorium</p>	<p>Oral Session V – Mechanosensing <i>Moderator: Siegfried Labeit/ECl (selected from ECl abstracts)</i></p> <ul style="list-style-type: none"> • Jie Yan (National University of Singapore): <i>Title TBD</i> (20 mins) • Jose Pinto (Florida State University): <i>From sarcomere to nucleus: how TNNT2 variants remodel nucleus mechanics in cardiomyocytes</i> (20 mins) • Wolfgang Linke (University of Münster): <i>Titin springs as orchestrators of cardiac structure and function: lessons from an in vivo cleavage model</i> (20 mins) • Elisabetta Brunello (King’s College, London): <i>Dual-filament control of contractility of cardiac muscle</i> (20 mins) • Jorge Alegre-Cebollada (CINIC/Spain): <i>Studying mechanosensing by cleaving proteins: the example of titin</i> (20 mins)
<p>4:00 pm 4:30 pm Harvill Auditorium</p>	<p>Plenary Lecture IV</p> <p>David Kass (Johns Hopkins University): <i>What happens to the sarcomere when severe obesity collides with heart failure?</i></p>
<p>4:40 pm – 6:00 pm Tucson Marriott University Park Ballroom</p>	<p>Poster Session II (light refreshments)</p>
<p>6:00 pm – 6:15 pm Marriott Entrance</p>	<p>Board bus to conference dinner – bus leaves at 6:30 pm</p>
<p>7:00 pm – 8:30 pm Tanque Verde Guest Ranch</p>	<p>Cowboy Cookout (conference dinner)</p>
<p>8:30 pm – 8:45 pm Tanque Verde Guest Ranch Entrance</p>	<p>Board bus to return to Marriott – bus leaves at 9:00 pm</p>

Tuesday, May 26, 2026

<p>7:30 am – 8:00 am Harvill Patio</p>	<p>Coffee Conversational (Optional) (light refreshments)</p>
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<p>8:00 am – 10:45 am <i>Harvill Auditorium</i></p>	<p>Oral Session VI – Myofilament-based diseases <i>Moderator: Coen Ottenheijm/ECl (selected from ECl abstracts)</i></p> <ul style="list-style-type: none"> • Vandana Gupta (Harvard University): <i>Restoring muscle growth in nemaline myopathy: from sarcomere defects to therapeutic strategies</i> (15 mins) • Mathias Gautel (King’s College, London): <i>Title TBD</i> (15 mins) • David Mack (University of Washington): <i>Using 3D engineered cardiac & skeletal muscle tissues for DMD disease modeling & drug discovery</i> (15 mins) • Josine de Winter (University of Amsterdam/Netherlands): <i>Improving energetics in NEM6, a hypercontractile myopathy</i> (15 mins) <p>Break</p> <ul style="list-style-type: none"> • Hesham Sadek (University of Arizona): <i>Title TBD</i> (15 mins) • J Travis Hinson (The Jackson Laboratory in Farmington): <i>Precision genome editing of the cardiac myofilament</i> (15 mins) • Sharlene Day (University of Pennsylvania): <i>The therapeutic landscape of inherited cardiomyopathies</i> (15 mins)
<p>10:45 am – 11:05 am <i>Harvill Patio</i></p>	<p>Coffee Break (light refreshments)</p>
<p>11:05 am – 11:35 am <i>Harvill Auditorium</i></p>	<p>Plenary Lecture V Alan Russell (Edgewise Therapeutics): <i>Drug development strategies targeting myofilaments</i></p>
<p>11:35 am – 12:55 pm <i>Harvill Auditorium</i></p>	<p>Closing Session <i>Moderators: Kathleen Wolfe and David Barefield</i></p> <ul style="list-style-type: none"> • Poster awards and ECl awards (15 mins) • Present and future of the field (60 mins) • Closing remarks (5 min)
<p>1:00 pm – 2:00 pm <i>Tucson Marriott University Park Ballroom</i></p>	<p>Lunch</p>
<p>2:00 pm – 4:00 pm <i>Medical Research Building</i></p>	<p>Workshops (Optional)</p> <ul style="list-style-type: none"> • Mouse echocardiography (Carl Tong and Marloes van Den Berg) • Ionoptix workshop (tentative) • Aurora workshop <p><i>Additional details provided later (check back in)</i></p>