



**Telluride Workshop 2025**  
**Intrinsically Disordered Proteins; Using Diverse Methods to Understand Biological Roles**

**07/07/2025 - 07/11/2025**

**Telluride, Colorado, USA**

Telluride Science (formerly known as the Telluride Science Research Center or TRSC) was founded in 1984 as an interdisciplinary think tank for science and engineering challenges. Telluride Science is about expanding the frontiers of science, exploring new ideas, and building collaborations. Read more about Telluride Science's history [here](#). The workshop schedule will allow for substantial unstructured time for participants to talk and think. All participants are expected to stay for the entire duration of the workshop. Scientists are encouraged to consider bringing family or friends. Telluride offers several options for children's camps (including Telluride Academy, Aha School for the Arts, and Pinhead Institute). There is more information on childcare, camps, and family activities on Telluride Science's website. Feel free to contact Telluride Science's staff to help with any planning and/or coordinating care.

**Organizing Committee**

- Priya R. Banerjee, [prbanerj@buffalo.edu](mailto:prbanerj@buffalo.edu); 413-835-5481
- K. Aurelia Ball, [kball@skidmore.edu](mailto:kball@skidmore.edu)
- Scott Showalter, [sas76@psu.edu](mailto:sas76@psu.edu), 814-865-2318

**Meeting Venue**

[Telluride Innovation Center](#), 300 S Townsend St, Telluride, CO 81435

**Local Telluride Science contacts**

Mark Kozak, email: [mark@telluridescience.org](mailto:mark@telluridescience.org), cell: 970-708-4426

Sara Friedberg, email: [sara@telluridescience.org](mailto:sara@telluridescience.org), cell: 970-708-0622

Cindy Fusting, email: [cindy@telluridescience.org](mailto:cindy@telluridescience.org), cell: 970-708-5069

## Food / Activities

Grab-and-go breakfast will be available daily at the workshop location. Lunches and dinners are NOT included in registration.

Group hike ([Bear Creek Falls](#)) – This is an excellent opportunity to unwind and get to know each other in a more relaxed setting. Bring comfortable shoes and plenty of water. The altitude at Telluride is ~ 8750 ft, so make sure to stay hydrated. (Wednesday 09 July 8:30 am).

## Scientific Program

The scientific program starts at 8:30 am local time on Monday, 07/07/2025, and ends at 7:00 pm local time on Thursday, 07/10/2025. Friday morning will be reserved for group discussions (optional). Each talk is scheduled for 40 minutes, including Q&A. Interruptions and questions during talks are encouraged!

## Workshop Schedule

Meet & Greet/badge pickup: 07/06/2025 **5:00-6:30 pm** at [The Alibi](#) (121 S. Fir Street).

Day 1, Monday, July 07		
7:30	<b>Breakfast</b>	
8:15		Welcome Remarks
<b>Session 1: IDPs in chromatin organization and transcriptional regulation</b>		
8:30	Scott Showalter, Pennsylvania State University	Control of Transcription Factor Activity Through Post-Translational Modification
9:10	Max Staller, University of California, Berkeley	Separating strength and speed in transcriptional activation domains
9:50	Gary Daughdrill, University of South Florida	Secondary p53 binding sites on MDM2 and MDMX
10:30	<b>Coffee break</b>	
10:45	Shahar Sukenik, Syracuse University	Effects of single-point mutations on the ensemble and function of transcription factor IDRs

11:25	Emma Morrison, The Medical College of Wisconsin	Regulating dynamic disorder in nucleosomes: histone PTMs and variants
12:05	Alex Holehouse, Washington University in St. Louis	Sequence-to-function in intrinsically disordered regions
12:45	General discussions	
13:00	Lunch break (on your own)	
Afternoon: Free Time for hiking/mountain biking, exploring the town, and collaborative discussions		

Day 2, Tuesday, July 08		
7:30	Breakfast	
Session 2: Phase Transition of IDPs: functional mechanisms and disease processes		
8:30	Richard Kriwacki, St. Jude Children's Research Hospital	IDPs, Condensates & Cancer
9:10	Davit Potoyan, Iowa State University	Intrinsically Disordered Tales of Histone Tails: DNA Binding, and Conformational Transitions
9:50	Ji-Young Youn, SickKids Research Institute	Functional Proteomics of Intrinsically Disordered Proteins
10:30	Coffee break	
10:45	Tanja Mittag, St. Jude Children's Research Hospital	Properties and functions of percolated condensates
11:25	Joan Shea, UCSB	Liquid-Liquid Phase Separation and Fibrillization of the Tau Peptide
12:05	Kiersten Ruff, Washington University in St. Louis	Decoding sequence-function relationships using molecular grammars of IDRs

12:45	<b>General discussions</b>
13:00	<b>Lunch (on your own) and free afternoon</b>
18:30	<p>Town talk at the Telluride Conference Center in Mountain Village.</p> <p><b><i>Condense to organize: The secret lives of molecular communities that pop up and dissolve within biological cells</i></b></p> <p>Speaker: Dr. Rohit Pappu  Gene K. Beare Distinguished Professor, Washington University in St. Louis</p>

Day 3, Wednesday, July 09		
7:30	Breakfast (grab and go)	
8:30	Morning Hike	
9:45		
10:20		
10:50		
11:35		
12:00	Lunch break (on your own)	
Session 3: IDP Sequence-ensemble-function		
13:00	Carlos Castaneda, Syracuse University	Disordered regions and transient helices in ubiquitin-binding shuttle protein structure and function
13:40	Kresten Lindorff-Larsen, University of Copenhagen	Reading and writing IDP sequences
14:20	Heather Meyer, Syracuse University	Intrinsically disordered proteins as thermosensors in plants
15:00	Coffee break	
15:15	Jianhan Chen, UMass Amherst	Towards coarse-grained simulations of IDP structural ensemble and interactions

15:55	Andrea Soranno, Washington University in St. Louis	Single-molecule spectroscopy of intrinsically disordered regions and nucleic acids.
16:35	Sarah Rauscher, University of Toronto	Using All-Atom Molecular Simulations to Study the Effects of Perturbations on Intrinsically Disordered Regions
17:05	<b>General discussions</b>	
17:20	<b>Walk over to the all-Telluride Science Picnic in the tent at the Telluride Intermediate School starting at 17:30.</b>	

Day 4 Thursday July 10		
8:00	Breakfast	
Session 4: IDP Dynamics and Interactions		
9:00	Jhullian Alston, Postdoctoral Fellow; TJ Ha group, Harvard University	Generating Peptides that Dynamically Bind Intrinsically Disordered Regions
9:40	Aurelia Ball, Skidmore College	Perturbations to solvent, sequence, and conformation differentially affect the SH3 encounter complex and fully bound state
10:20	Coffee break	
10:40	Priya Banerjee, University at Buffalo	Determinants of co-condensation of multicomponent IDP systems
11:20	Loren Hough, University of Colorado Boulder	Glutamate clusters in IDPs as pH sensors
12:00	General discussions	
12:15	Lunch break (on your own)	
Session 5: IDP Dynamics and Interactions and Ensembles II		
17:00	Rohit Pappu, Washington University in St. Louis	Complexities of IDP phase diagrams and implications for scaling analysis

17:40	Thomas Boothby, University of Wyoming	Synergy between disordered proteins and their chemical environment during stress
18:20	Ashok Deniz, The Scripps Research Institute	Single-molecule and mesoscale biophysics of disordered proteins/macromolecules
19:00	<b>GROUP DINNER</b> <b>Pizza Party w/ drinks at the Innovation Center (Price will be announced on Tuesday, paying guests welcome)</b>	

Day 5 Friday, July 11	
7:30	<b>Breakfast (grab and go)</b>
9:00-12:30	<b>(optional) Collaborative discussions/ group hike/free time</b>

Tuesdays of each week for summer workshops will have a Town Talk from 6:30-7:30 pm

Wednesdays of each week for summer workshops will have a BBQ picnic that is free and open to all Telluride Science participants and their families from 5:30-7:00 pm.

### List of participants

Name	Institution	Email
Jhullian Alston	Boston Children's Hospital	jhullian.alston@childrens.harvard.edu
Aurelia Ball	Skidmore College	kball@skidmore.edu
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Shahar Sukenik	Syracuse University	ssukenik@syr.edu

Ji-Young Youn	Sick Kids Research Institute	jyoung.youn@sickkids.ca
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## **Code of Conduct**

- Treat your fellow participants and Telluride Science staff with consideration and professionalism, respecting diversity of views and opinions.
  - Communicate openly with civility for others, critiquing ideas rather than individuals.
- Be mindful of your surroundings and fellow participants. Anyone requested to stop unacceptable behavior is expected to comply immediately. Telluride Science staff may take any action deemed necessary and appropriate, including immediate removal from the meeting without warning or refund.
- Be kind and considerate of people in the Telluride community. You represent Telluride Science when you are in town.

## **Unacceptable Behavior**

Harassment, intimidation, exclusion, or discrimination. Physical or verbal abuse.

## **Reporting Unacceptable Behavior**

If you are the target of unacceptable behavior or have witnessed any such behavior, please immediately notify a Telluride Science or the workshop organizer. Alert Telluride Science staff, and 911 if appropriate, if you notice a dangerous situation or someone in distress. The report should be sent to [report@telluridescience.org](mailto:report@telluridescience.org). All reports will be treated confidentially and with discretion.

## **Diversity & Inclusion Statement**

Telluride Science values diversity and inclusion and is committed to creating a respectful, equitable, and welcoming environment free from discrimination, exclusion, and harassment for all participants. Telluride Science is known for its collegial workshops that spawn new ideas and collaborations. We encourage the open expression and exchange of ideas, and we are dedicated to strengthening our culture of diverse and inclusive workshops, conferences, and



schools. The Telluride Science Board actively works with workshop, conference, and school organizers to promote diversity in all Telluride Science-sponsored events.

**Most importantly:** Have fun! Be inspired! Make new friends!