

ACA: The Structural Science Society

RefleXions

Summer 2025 | Issue No.: 2

Welcome to the newly reimagined RefleXions, the official newsletter of the American Crystallographic Association. We're excited to introduce this dynamic, mobile-friendly format designed to bring you timely updates, community highlights, and important announcements in a more accessible and engaging way. This change allows us to share content more frequently throughout the year, spotlight our corporate partners with interactive features, and include embedded videos, clickable graphics, and real-time event information. Whether you've been part of the ACA community for years or are new to our membership, we're so glad you're here. We look forward to building this platform with your input and encourage you to reach out with any suggestions, updates, job opportunities, or news you'd like us to feature. Thank you for being a part of our community—and welcome to the next chapter of RefleXions.

Help Us Choose the New Look for RefleXions!

OPTION #1



OPTION #3



OPTION #2



OPTION #4



We're updating the RefleXions logo—and we want your input!

As our newsletter evolves, so should its look. We've created a few logo options that capture the spirit of crystallography, and now it's your turn to help pick the one that fits best.

Take a moment to vote for your favorite. Your feedback will help shape the future of RefleXions—thank you for being part of the process!

[Cast Your Vote for the new RefleXions Logo](#)

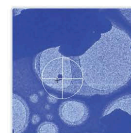
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President's Column Summer 2025

As we look back on the ACA's 75th Annual Meeting in Lombard, we're pleased to share this President's Column written by Gerald Audette in the final days leading up to the conference. His reflections capture the excitement, gratitude, and momentum that surrounded this important milestone in our community. While many of the events mentioned have now taken place, Gerald's message offers a valuable snapshot of the energy and commitment that helped shape the meeting — and reminds us of the continued work ahead as we look toward IUCr2026 in Calgary.

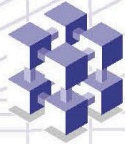
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History Portal Update

We're pleased to share new additions to the ACA History Portal that honor two influential figures in the crystallographic community. This month, we've added a heartfelt memoir of [Michael J. Bennett \(1940–2025\)](#), written by Bruce M. Foxman of Brandeis University, reflecting on Bennett's remarkable career and impact on the field. We've also included a tribute to [Rengachary Parthasarathy \(1939–2025\)](#), commemorating his lasting contributions to structural science. We invite you to explore these memoirs and remember the legacies of these respected colleagues.

[Read More](#)



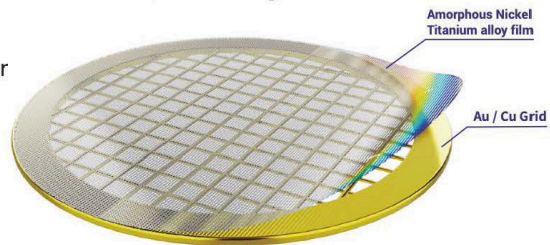
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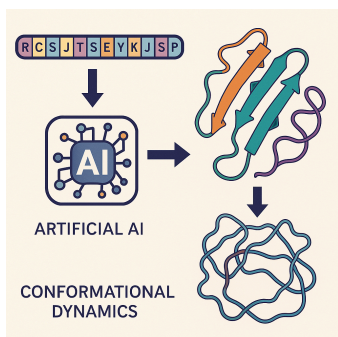
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Your Voice Matters—Support the AUC Petition

The future of U.S. crystallography is at a turning point. With the National Academy of Sciences set to withdraw from the IUCr in 2026, the U.S. risks losing its voice in the global community. The new American Union of Crystallography (AUC) aims to ensure that doesn't happen—but we need your support. Read the blog post to learn more and find the link to add your name to the petition.

[Read More](#)



Structural Dynamics: Most Read Article

Ille, Anas, Mathews, and Burley explore how advances in AI are not only revolutionizing protein structure prediction but also opening the door to modeling conformational dynamics directly from sequence data. By integrating machine learning with NMR insights, they propose a shift from static models to dynamic ensembles encoded in the amino acid sequence.


[Read More](#)

2026 ACA Award Winners Announced



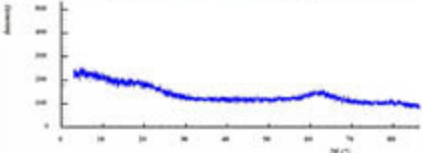

Each year, the American Crystallographic Association honors individuals who are pushing the boundaries of structural science. In this post, we're thrilled to introduce the 2026 ACA Award winners—three exceptional scientists whose innovations and leadership are making a global impact.

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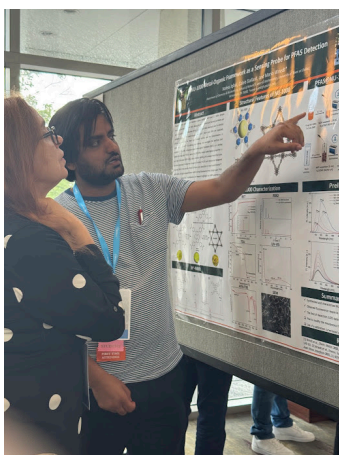
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July Highlights: Advocacy, Advancement, and Achievement

This month, the ACA took meaningful steps to advocate for science, support researchers, and celebrate excellence in STEM. We proudly joined over 50 scientific societies in backing a national effort to safeguard the National Science Foundation (NSF), voicing concern over sudden internal changes and funding cuts that threaten the NSF's ability to

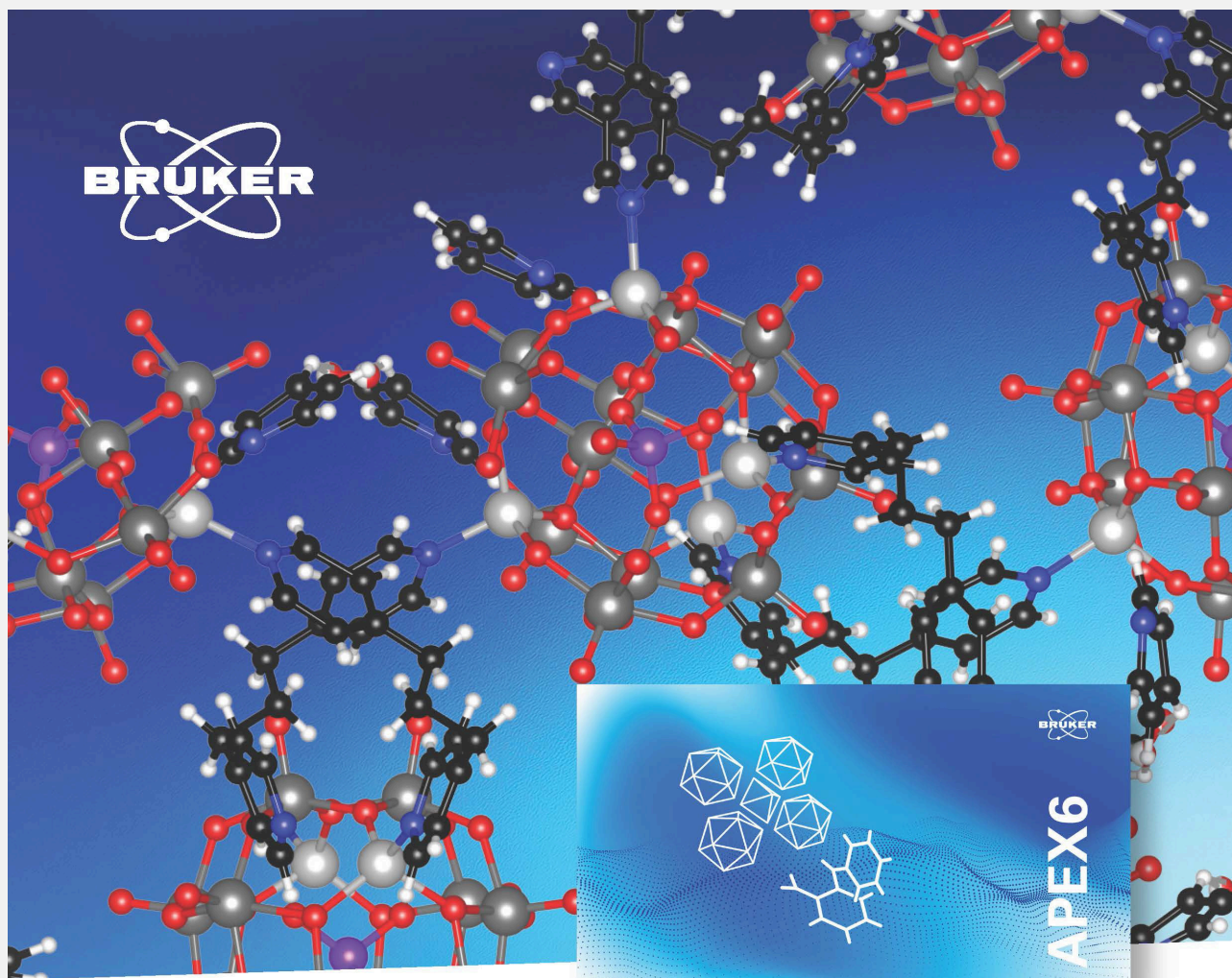
support foundational research. In parallel, we continued to champion fairness and accountability in federal science policy by formally signing on to an amicus brief in *AFGE v. OPM*—a landmark case in the Ninth Circuit concerning the mass termination of probationary federal employees from research and technical roles. And in a moment of celebration, we were thrilled to serve as a sponsor of the *U.S. Physics Team* and to join in honoring their outstanding performance at the 2025 International Physics Olympiad in Paris, where they earned five gold medals and clinched the #1 global ranking. From advocacy to outreach to international recognition, this has been a month of powerful momentum across our scientific community.



Breakthroughs and Big Hits: Highlights from ACA's 75th Annual Meeting

The 75th Annual Meeting of the American Crystallographic Association showcased groundbreaking research and innovative applications of structural science. Among the highlights were two press-covered studies: [one detailing the development of a fluorescent molecule that selectively binds and detects PFAS](#)—“forever chemicals”—in water, offering a promising approach for environmental monitoring, and another [unveiling how advanced X-ray imaging originally designed for dinosaur fossils revealed traumatic brain injury in preserved tissue](#), opening new doors in both paleontology and medical diagnostics. The most-viewed abstract of the meeting was [“AlphaFold as a Prior: Guiding Protein Structure Prediction Using Experimental Data with ROCKET,”](#) which demonstrated how computational models can be enhanced with experimental data for more accurate structure prediction. The most-viewed poster, [“Advances in cryo-electron microscopy \(cryoEM\) and X-Ray for structure-based drug discovery,”](#) reflected the growing momentum behind cryoEM and X-ray techniques in accelerating therapeutic development.





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IUCr2026 @ ACA2025

At the 75th American Crystallographic Association (ACA) Annual Meeting in Lombard, Illinois, the IUCr2026 booth served as a vibrant and engaging hub for attendees to learn more about the upcoming 27th IUCr Congress & General Assembly, set to take place in Calgary, Canada in August 2026. Jointly hosted by the ACA, the U.S. and Canadian National Committees for Crystallography, and supported by the IUCr, the booth welcomed visitors with Calgary-themed giveaways, updates on planning progress, and opportunities to express interest or get involved. Designed to channel the spirit of the host city and build early momentum, the booth featured visuals of Calgary's landscape, highlights of the BMO Centre venue. It offered a chance for ACA members and broader structural science communities to connect, ask questions, and begin preparing for what promises to be one of the largest international gatherings of crystallographers in 2026. With no ACA annual meeting planned for that year, the booth emphasized IUCr 2026 as the centerpiece event—and encouraged everyone to “saddle up for science” and join the global crystallography community in Calgary.



[Express Your Interest in IUCr2026...](#)



Announcing the ACA Class of 2025 Fellows: Celebrating Excellence in Crystallography

Each year, the American Crystallographic Association honors a new class of Fellows whose achievements reflect outstanding contributions to the advancement of crystallography, structural science, and service to the scientific community. The Class of 2025 includes nine exceptional individuals whose work spans continents, disciplines, and decades of impact. Read on to learn more about this inspiring group and the lasting mark they've made on our field.

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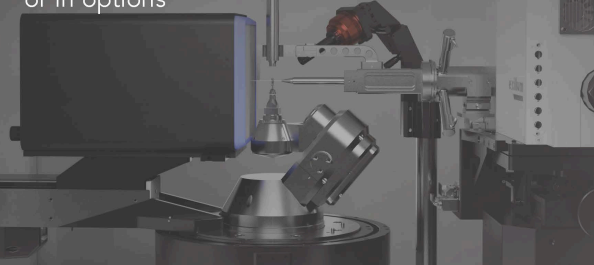


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Honoring ACA's Own: Congratulations to Jim Kaduk on His Election as AAAS Fellow

Join us in congratulating Dr. James Kaduk on his election as a 2024 AAAS Fellow—an honor recognizing his outstanding contributions to powder diffraction and lifelong service to the crystallographic community.

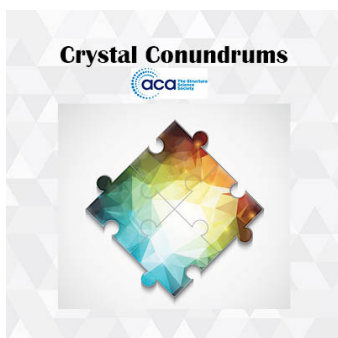
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Call for ACA Leadership Nominations

The ACA is now accepting nominations for upcoming leadership positions. Serving in an elected role is a great way to help shape the future of the Association and support the structural science community. We welcome nominations from members at all career stages and backgrounds. If you or someone you know would be a strong leader, we encourage you to get involved!

[Express Your Interest](#)



Crystal Conundrums

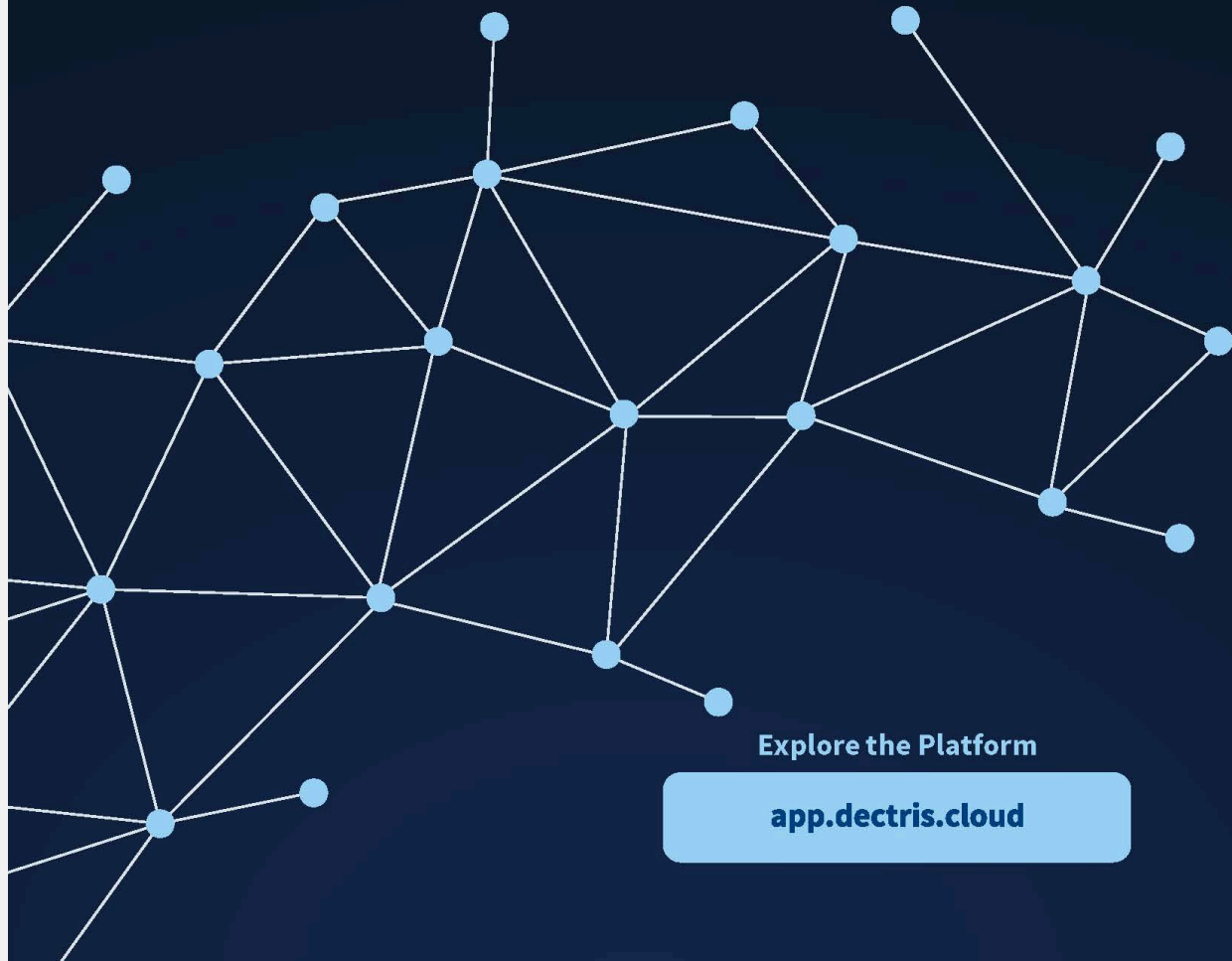
We're excited to share that the beloved [Puzzle Corner](#) will still be part of RefleXions! In fact, we're giving it an upgrade—puzzles will now also be posted on the ACA Blog, making them easy to find, revisit, and share. With this addition, all Puzzle Corner all future entries will be fully searchable, so you

can quickly locate past favorites or tackle any you may have missed.

[Check out the puzzles...](#)

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