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COMMENT

The Albany Conversations Are Now the Next Generation Conversations: Albany @ Ruston

Thomas C. Bishop[1] · Kelly M. Thayer[2] · Robert T. Young[3]

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Abstract
This commentary is a report on the 1st Next Gen. Conversation: Albany @ Ruston 2024 held on the campus of Louisiana Tech University June 11–15, 2024. The 2nd Next Gen. Conversation will be held at Louisiana Tech University June 9–13, 2026. A planning meeting will be held in June 2025 at Louisiana Tech.

The 1st Next Gen. Conversation: Albany @ Ruston was held on the campus of Louisiana Tech University on June 11–15, 2024. The Next Gen. Conversations are a continuation of the Albany Conversations in Biomolecular Stereo-Dynamics started in 1979 by Prof. Ramaswamy Sarma at the State University of New York in Albany; this meeting represented the 21st Conversation. Ruston, like Albany, is proximal to large cities with major research institutions yet is itself sufficiently isolated to provide a distraction-free venue that supports scientific conversations and the development of collaborative research networks and ideas. The Next Gen. Conversations at Louisiana Tech successfully captured the unique, collaborative spirit of the original Albany Conversations. Over 30 attendees gathered to discuss the full S.E.T. (simulation, experiment, and theoretic) of approaches to the study of biomolecular structure and dynamics. The cohort of researchers was diverse and included undergraduate to world-renowned experts from primary undergraduate to research intensive universities located in rural and major metropolitan areas across the USA and India. The topics of conversation included the structure and dynamics of DNA, nucleosomes, and chromatin; extra-chromosomal circular DNA; DNA and RNA topology; drug design; molecular docking; virus structure and infectivity; and protein evolution, disorder, allostery, and conformational stability. The complete book of abstracts is available electronically as a special issue of the Journal of Biomolecular Structure and Dynamics (Bishop et al. 2024).

The science committee, Tom Bishop of Louisiana Tech University, Kelly M. Thayer of Wesleyan University, and Aditya Mittal of IIT-Delhi, kicked off the meeting with a broad series of Conversation Starters. Each morning featured previews, reviews, or extensions to the thesis research of graduate and post-doctoral students and included several significant milestones: F. Caballero, an undergraduate student at Wesleyan University, gave his first talk at a scientific meeting, and J. Li, Tulane University, gave his first scientific presentation in English. Afternoon sessions featured senior researchers including the following: M. Banerjee (IIT-Delhi), G. Caetano-Anolles (University of Illinois Urbana-Champaign), M. di Pierro (Northeastern University), S. Landry (Tulane University), R. Mettu (Tulane University), R. Padinhateeri (IIT-Bombay), S.K. Patel (Gujarat University), M. Pettitt (University of Texas Medical Branch), T. Schlick (New York University), J. Wereszczynski (Illinois Technical Institute), and L. Zechiedrich (Baylor College of Medicine).

Wilma Olson, Rutgers University, concluded the meeting with a keynote address titled “An Adenine Story.” The story

To contact current and future conference organizers, send email to albany@latech.edu.

✉ Thomas C. Bishop
bishop@latech.edu

Kelly M. Thayer
kthayer@wesleyan.edu

Robert T. Young
ryoung.2011@rutgers.edu

[1] Physics and Chemistry Programs, Louisiana Tech University, Ruston, LA 71272, USA

[2] Departments of Chemistry and Computer Science, College of Integrative Sciences, Wesleyan University, Middletown, CT 06457, USA

[3] Department of Chemistry and Chemical Biology, Rutgers, The State University of New Jersey, New Brunswick, NJ 08901, USA

began with her studies of polyriboadenylic acid, touched upon the history of the Albany Conversations, and concluded with her recent analysis of the unusual, folded architecture of the long stretch of A•A base pairs found in the *Escherichia coli* ribosome.

The Next Gen. Conversations Albany at Louisiana Tech are supported by NSF Award 2412981 and are a continuation of Prof. Sarma's Albany Conversations. The Conversations will continue to be an international biennial meeting series focused on recent advances in biomolecular structure, dynamics, and function that embraces simulation, experiment, and theory. The 2nd Next Gen. Conversation: Albany @ Ruston will again be a Tuesday to Saturday meeting held on the campus of Louisiana Tech University on June 9–13, 2026. We are actively seeking to expand the size and scope of the Conversations. If you are interested in organizing a session or have other quieries, please contact the conference organizers at albany@latech.edu. A planning meeting will be held on site in June 2025. Visit the conference website for additional updates and information https://coes.latech.edu/albany-conversations/.

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Data availability No datasets were generated or analysed during the current study.

Declarations

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Reference

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