

New website details Linus Pauling's breakthroughs in protein structure

March 18 2013

The Oregon State University Libraries Special Collections & Archives Research Center has added to its series of documentary history websites on the life of Linus Pauling with its newest addition, "Linus Pauling and the Structure of Proteins: A Documentary History."

The website (scarc.library.oregonstate.edu/.../proteins/index.html) is filled with rarely-seen photographs and letters and behind-the-scenes tales of controversy and collaboration.

This is the sixth website in the [Special Collections](#) & Archives Research Center's series focusing on specific aspects of Pauling's remarkable life and career. The proteins site is organized around a narrative written by Pauling biographer Thomas Hager and incorporates more than 400 letters, manuscripts, published papers, photographs and audio-visual snippets in telling its story.

Pauling (1901-1994) remains the only individual to have been awarded two unshared Nobel prizes, and his research in molecular biology is now the stuff of legend. Prompted during the Great Depression by a lack of funding, Pauling shifted gears from his successful investigations into the structure of minerals and crystal structures in favor of a new program of research on biological topics. His relationship with the Rockefeller Foundation, which funded most of this new line of inquiry, is a major theme of the proteins website.

So, too, is the long running competition between Pauling's laboratory and

an array of British proteins researchers that helped inspire Pauling's alpha helix, a fundamental component of many protein structures. The alpha helix lay at the center of seven remarkable papers published by Pauling and his Caltech collaborators in the spring of 1951 that helped define the modern scientific understanding of [protein](#) structure and function. It was with these papers that Pauling came to be known as one of the founders of molecular biology.

The proteins story was not without its drama, and readers will learn of Pauling's sometimes caustic confrontations with Dorothy Wrinch, whose cyclol theory of [protein structure](#) was a source of intense objection for Pauling and his colleague, Carl Niemann. The website also delves into the fruitful collaboration enjoyed between Pauling and his Caltech co-worker, Robert Corey and explores the controversy surrounding his interactions with another associate, Herman Branson.

Many more discoveries lie in waiting for those interested in the history of molecular biology: the invention of the ultracentrifuge by Theodor Svedberg; Pauling's long dalliance with a theory of antibodies; his critical concept of biological specificity; and the contested notion of coiled-coils, an episode that pit Pauling against Francis Crick.

Linus Pauling and the Structure of Proteins constitutes a major addition to the Pauling-related resources available online. It will be of interest to students, educators and researchers from a wide variety of backgrounds. For much more on Pauling and his legacy, see the Linus Pauling Online portal at pauling.library.oregonstate.edu

Provided by Oregon State University

Citation: New website details Linus Pauling's breakthroughs in protein structure (2013, March 18) retrieved 26 April 2024 from <https://phys.org/news/2013-03-website-linus-pauling->

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