Profile of an Early-Career Researcher

Rommie E. Amaro, PhD

Professor and Shuler Scholar
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Research Group Site

Rommie E. Amaro is a Professor and Shuler Scholar in the Department of Chemistry and Biochemistry at the University of California, San Diego. She received her B.S. in Chemical Engineering (1999) from the University of Illinois at Urbana-Champaign and subsequently worked for two years for Kraft Foods, Inc. as an Associate Research Engineer. She left Kraft to pursue her Ph.D. (in Chemistry, 2005) at the University of Illinois at Urbana-Champaign, under Prof. Zaida Luthey-Schulten. Rommie was a NIH postdoctoral fellow with Prof. J. Andrew McCammon at the University of California, San Diego from 2005-2009, and she started her independent research program in 2009 at the University of California, Irvine in the Department of Pharmaceutical Sciences. In 2012 Rommie moved her lab to the Department of Chemistry and Biochemistry at the University of California, San Diego.

Rommie's scientific interests lie at the intersection of computer-aided drug discovery and biophysical simulation methods. She has a long-standing interest in incorporating structural and dynamical information derived from all-atom molecular dynamics simulations in drug discovery programs, and has worked in a variety of disease areas, including infectious diseases and cancer. Her lab's work on p53 revealed a novel druggable pocket that clarified the mechanism of action for a compound in clinical trials; this work served as the basis for the formation of a start-up company related to the development of p53 reactivation drugs, Actavalon, Inc. Rommie is a co-founder, on the scientific advisory board, and an equity shareholder in Actavalon, Inc.

Her scientific vision revolves around the continued development of molecular dynamics simulations in drug discovery programs, particularly in expanding the range and complexity of molecular constituents represented in such simulations, and novel multiscale methods for elucidating their time dependent dynamics. She is the Director of the NIH P41 National Biomedical Computation Resource and a co-Director of the NIH U01 Drug Design Data Resource.

Rommie is the recipient of an NIH New Innovator Award, the Presidential Early Career Award for Scientists and Engineers, the ACS COMP OpenEye Outstanding Junior Faculty Award, the ACS Kavli Foundation Emerging Leader in Chemistry National Lecturer, and the 2016 Corwin Hansch Award.