

**W**hat are living bodies made of? Protein modelers tell us that our cells are composed of millions of proteins, intricately folded molecular structures on the scale of nanoparticles. Proteins twist and wriggle as they carry out the activities that keep cells alive. Figuring out how to make these unruly substances visible, tangible, and workable is a challenging task, one that is not readily automated, even by the fastest computers. Natasha Myers explores what protein modelers must do to render three-dimensional, atomic-resolution models of these lively materials. *Rendering Life Molecular* shows that protein models are not just informed by scientific data: model building entangles a modeler's entire sensorium, and modelers must learn to feel their way through the data in order to interpret molecular forms. Myers takes us into protein modeling laboratories and classrooms, tracking how gesture, affect, imagination, and intuition shape practices of objectivity. Asking "What is life becoming in modelers hands?" she tunes into the ways they animate molecules through their moving bodies and other media. In the process she amplifies an otherwise muted liveliness inflecting mechanistic accounts of the stuff of life.

"Bodies in motion—bodies of all kinds and at all scales—dance together in the act of coming to palpable, knowable attention. Further, mindful bodies think best and build richer worlds of knowledge and practice when play infuses work in the symbiosis called science. In this astute and beautifully written book, it is protein models and their people and machines that dance together, tuned to the visceral sensibilities, vital affections, and kinesthetic energies that make the sciences of molecular biology work. *Rendering Life Molecular* shows in just how many ways biology is a full-bodied practice. Readers will be excited in all the best ways."—DONNA J. HARAWAY, author of *When Species Meet*

"With a lively and engaging style, a commitment to a feminist and phenomenological analysis, and an extraordinary attention to the specificity of scientists' embodied, material, and affective engagement in the creation of knowledge, Natasha Myers takes the study of the biosciences in a new direction. *Rendering Life Molecular* expands the laboratory studies canon, as it reanimates our sense of the dynamic contingencies and relationalities of all biological entities."—LUCY A. SUCHMAN, author of *Human-Machine Reconfigurations: Plans and Situated Actions*



EXPERIMENTAL FUTURES: Technological Lives, Scientific Arts, Anthropological Voices  
A Series Edited by Michael M. J. Fischer and Joseph Dumit

NATASHA MYERS is Associate Professor of Anthropology at York University.

**DUKE UNIVERSITY PRESS**

[www.dukeupress.edu](http://www.dukeupress.edu)

COVER ART: "The Inner Life of the Cell," © 2006–2014 President and Fellows of Harvard College. Created by Alain Vial, PhD, and Robert Lee, PhD, in collaboration with Xivvo, LLC, and John Giebler, lead animator. Made possible through the generous support of the Howard Hughes Medical Institution's Undergraduate Science Education Program.

ISBN 978-0-8223-5878-7



9 780822 358787