

1. Record Nr.	UNINA9910349452403321
Titolo	Endotoxin Detection and Control in Pharma, Limulus, and Mammalian Systems // edited by Kevin L. Williams
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-17148-5
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (865 pages)
Disciplina	599 615.95293
Soggetti	Pharmaceutical technology Medical microbiology Pharmaceutical Sciences/Technology Medical Microbiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Section I Pharma -- Historical Perspectives -- Risk, Control and Compliance. -- Sterility and Beyond -- LVPs and SMDs -- Specification Determination -- Static and Dynamic Models (Biodiversity and Heterogeneity) -- Test Development and Validation -- Diminishing Analytics -- Control in Biologics Manufacture -- Depyrogenation and Medical Devices -- Nanoparticles / Problematic Drug Types -- New Frontiers -- Section II Limulus -- Evolution, a Living Fossil and Other Model Arthropods -- Water, Water Everywhere -- Survival and Mass Extinction Events -- Limulus Soup / Hemolymph -- Is Innate Modeling Enough? -- A Foreboding -- Section III Mammalian -- Innate is Inborn -- The Host Response: Fever and Inflammation -- . Parallel Immune Systems: Architecture and Mechanisms -- Structural Change is Functional Change (Hand in Glove) -- Endotoxin and Adjuvanticity in Vaccinology -- Advances in Diagnostics -- The Big S.
Sommario/riassunto	Endotoxin detection and control is a dynamic area of applied science that touches a vast number of complex subjects. The intersection of test activities includes the use of an ancient blood system from an odd

“living fossil” (Limulus). It is used to detect remnants of the most primitive and destructive forms of life (prokaryotes) as contaminants of complex modern systems (mammalian and Pharma). Recent challenges in the field include those associated with the application of traditional methods to new types of molecules and manufacturing processes. The advent of “at will” production of biologics in lieu of harvesting animal proteins has revolutionized the treatment of disease. While the fruits of the biotechnology revolution are widely acknowledged, the realization of the differences in the means of production and changes in the manner of control of potential impurities and contaminants in regard to the new versus the old are less widely appreciated. Endotoxin as an ancient, dynamic interface between lifeforms, provides a singular perspective from which to view the parallel development of ancient and modern organisms as well as the progress of man in deciphering the complexity of their interactions in his efforts to overcome disease.
