The scope of blast and shock biology and problem areas in relating physical and biological parameters
Systems Biology is a young and rapidly evolving research field, which combines experimental techniques and mathematical modeling in order to achieve a mechanistic understanding of processes. While methods from Engineering may be an appropriate approach to extending the scope of biological investigations to experimentally inaccessible realms and to supporting data-rich experimental work, it may not be the best strategy in a search for design principles of biological systems and the fundamental laws underlying Biology. The problem relates to para-doxical biological effects of weak low-frequency magnetic fields of energy much smaller than the characteristic energy of biochemical processes. For many researchers, these effects, by their very nature, cast doubt on the reality of the problem despite the abundance of experimental evidence in its support. This book published in 1999 includes more than 230 articles that treat a wide range of problems facing this discipline, from basic physical and biological to socio-political ones. There is an electronic database (http://infoventures.com) containing over 30,000 bibliographic references that cover all aspects of electromagnetobiology (scientific, medical, social).