

1. Record Nr.	UNISA996466448203316
Titolo	Adversarial and Uncertain Reasoning for Adaptive Cyber Defense [[electronic resource]] : Control- and Game-Theoretic Approaches to Cyber Security / / edited by Sushil Jajodia, George Cybenko, Peng Liu, Cliff Wang, Michael Wellman
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-30719-0
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (VII, 263 p. 120 illus., 45 illus. in color.)
Collana	Security and Cryptology ; ; 11830
Disciplina	005.8
Soggetti	Computer crimes Computer organization Computers Mathematical statistics Computer Crime Computer Systems Organization and Communication Networks Computing Milieux Information Systems and Communication Service Probability and Statistics in Computer Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Overview of Control and Game Theory in Adaptive Cyber-Defenses -- Control Theoretic Approaches to Cyber-Security -- Game-Theoretic Approaches to Cyber-Security: Issues and Challenges and Results -- Reinforcement Learning for Adaptive Cyber Defense against Zero-day Attacks -- Moving Target Defense Quantification -- Empirical Game-Theoretic Methods for Adaptive Cyber-Defense -- MTD Techniques for Memory Protection against Zero-Day Attacks -- Adaptive Cyber Defenses for Botnet Detection and Mitigation -- Optimizing Alert Data Management Processes at a Cyber Security Operations Center -- Online and Scalable Adaptive Cyber Defense.
Sommario/riassunto	Today's cyber defenses are largely static allowing adversaries to pre-plan their attacks. In response to this situation, researchers have

started to investigate various methods that make networked information systems less homogeneous and less predictable by engineering systems that have homogeneous functionalities but randomized manifestations. The 10 papers included in this State-of-the Art Survey present recent advances made by a large team of researchers working on the same US Department of Defense Multidisciplinary University Research Initiative (MURI) project during 2013-2019. This project has developed a new class of technologies called Adaptive Cyber Defense (ACD) by building on two active but heretofore separate research areas: Adaptation Techniques (AT) and Adversarial Reasoning (AR). AT methods introduce diversity and uncertainty into networks, applications, and hosts. AR combines machine learning, behavioral science, operations research, control theory, and game theory to address the goal of computing effective strategies in dynamic, adversarial environments. .

2. Record Nr.

**Titolo**

UNINA9910136799903321

Endoplasmic reticulum and its role in tumor immunity [[electronic resource] /] / edited by: Paul Eggleton, Marek Michalak and Edwin Bremer

**Pubbl/distr/stampa**

Frontiers Media SA, 2016

[Lausanne, Italy] : , : Frontiers Media SA, , 2016

©2016

**Descrizione fisica**

1 online resource (101 pages) : illustrations; digital, PDF file(s)

**Collana**

Frontiers Research Topics

Frontiers in Oncology

**Disciplina**

571.6/5

**Soggetti**

Endoplasmic reticulum

Tumors - Immunological aspects

Immunology

Oncology

Endoplasmic Reticulum Stress

**Lingua di pubblicazione**

Inglese

**Formato**

Materiale a stampa

**Livello bibliografico**

Monografia

## Nota di bibliografia

## Sommario/riassunto

Includes bibliographical references.

The endoplasmic reticulum (ER) is an organelle crucial to many cellular functions and processes, including the mounting of T-cell immune responses. Indeed, the ER has a well-established central role in anti-tumor immunity. Perhaps best characterized is the role of the ER in the processing of antigen peptides and the subsequent peptide assembly into MHC class I and II molecules. Such MHC/tumor-derived peptide complexes are pivotal for the correct recognition of altered self or viral peptides and the subsequent clonal expansion of tumor-reactive T-cells. In line with the role of the ER in immunity, tumor-associated mutations in ER proteins, as well as ER protein content and localization can have both deleterious and advantageous effects on anti-tumor immune responses. For instance, loss of function of ER-aminopeptidases, that trim peptides to size for MHC, alter the MHC class I - peptide repertoire thereby critically and negatively affecting T-cell recognition. On the other hand, altered localization of ER proteins can have immune-promoting effects. Specifically, translocation of certain ER proteins to the cell surface has been shown to promote anti-tumor T-cell immunity by directing uptake of apoptotic tumor cells to professional antigen presenting cells, thereby facilitating anti-tumor T-cell immunity. These selected examples highlight a diverse and multi-faceted role of the ER in anti-tumor immunity. Molecular biological insights from the past decade have uncovered that ER components may affect tumor immunity and have invoked a variety of follow-up questions. For instance, how and why are ER proteins over-expressed in tumors? How do nucleotide and somatic mutations in ER chaperones/processing machinery affect the MHC/peptide complex and tumor cell immunogenicity? How do ER-proteins translocate to the cell surface? What if any is the potential role of extracellular ER protein in tumor immunotherapy/vaccines, and can they be delivered to the tumor cell surface by photodynamic therapy, anthracyclines or by other means? In this special research topics issue, we welcome basic and clinical research reports covering all aspects of ER proteins in cancer recognition by the immune system, therapy and drug development. We also welcome reports describing new insights into ER stress, signalling and homeostasis in immunogenic cell death in cancer, the effect of parasitic ER proteins on tumour growth, ER protein regulation of angiogenesis. Submission of original research articles, perspective, reviews and topical comments is encouraged. We aim to provide a comprehensive series of articles that will aid our understanding in a new and exiting avenue of tumour immunology and therapeutic development, exploiting a collection of proteins within the ER that are not obvious candidates for immunity to tumors.