1. Record Nr. UNICAMPANIAVAN00208451

Titolo	Diffusive Spreading in Nature, Technology and Society / Armin Bunde … [et al.] editors]
Pubbl/distr/stampa	Cham, : Springer, 2018
Titolo uniforme	Diffusive Spreading in Nature, Technology and Society
Descrizione fisica	xvi, 418 p. : ill. ; 24 cm
Soggetti	00A69 - General applied mathematics [MSC 2020] 35-XX - Partial differential equations [MSC 2020] 60-XX - Probability theory and stochastic processes [MSC 2020] 76-XX - Fluid mechanics [MSC 2020] 91D10 - Models of societies, social and urban evolution [MSC 2020] 92-XX - Biology and other natural sciences [MSC 2020]
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9911020356903321

Titolo	Protein synthesis and ribosome structure : translating the genome / / edited by Knud H. Nierhaus and Daniel N. Wilson
Pubbl/distr/stampa	Weinheim, : Wiley-VCH, c2004
ISBN	9786610559817 9781280559815 1280559810 9783527603435 3527603433 9783527616381 3527616381
Descrizione fisica	1 online resource (599 p.)
Altri autori (Persone)	NierhausKnud H WilsonDaniel N
Disciplina	572/.645
Soggetti	Ribosomes Ribosomes - Structure Proteins - Synthesis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Protein Synthesis and Ribosome Structure; Contents; Preface; 1 A History of Protein Biosynthesis and Ribosome Research; 1.1 Introduction; 1.2 The Archaeology of Protein Synthesis - The 1940s: Forgotten Paradigms; 1.3 Basic Mechanisms - The 1950s; 1.3.1 Steps toward an in vitro Protein Synthesis System; 1.3.2 Amino Acid Activation and the Emergence of Soluble RNA; 1.3.3 From Microsomes to Ribosomes; 1.3.4 Models; 1.4 The Golden Age of Translation - The 1960s; 1.4.1 From Enzymatic Adaptation to Gene Regulation: Messenger RNA 1.4.2 A Bacterial in vitro System of Protein Synthesis and the Cracking of the Genetic Code1.4.3 The Functional Dissection of Translation; 1.4.4 The Structural Dissection of the Ribosome; 1.5 1970-1990s: A Brief Synopsis; References; 2 Structure of the Ribosome; 2.1 General Features of the Ribosome and Ribosomal Subunits; 2.2 A Special

Feature of the 50S Subunit: The Tunnel; 2.3 Features of the Ribosomal Subunits at Atomic Resolution; 2.4 The Domain Structure of the Ribosomal Subunits
2.5 Interactions of RNA with RNA or Struts and Bolts in the Three-dimensional Fold of rRNA: Coaxial Stacking and A-minor Motifs2.5.1 Coaxial Stacking; 2.5.2 A-minor Motifs; 2.5.3 Ribose Zippers and Patches of A-minor Motifs; 2.5.3.1 Canonical Ribose Zipper; 2.5.3.2 Single-base Ribose Zipper; 2.6 Progress and New Developments in Understanding rRNA Structures; 2.6.1 K-turn; 2.6.2 Lonepair Triloop; 2.6.2.1 Classification of Lonepair Triloops; 2.6.3 Systemizing Base Pairs; 2.6.4 Systemizing RNA Structural Elements; 2.7 RNA-protein Interactions; 2.7.1 Problem of RNA Recognition
2.7.2 Chemistry of RNA-protein Interactions2.7.3 rRNA-protein Interaction; References; 3 Ribosome Assembly; 3.1 Assembly Of The Prokaryotic Ribosome; 3.1.1 Introduction; 3.1.2 Processing of rRNAs; 3.1.3 Precursor Particles and Reconstitution Intermediates; 3.1.4 Assembly-initiator Proteins; 3.1.5 Proteins Essential for the Early Assembly: The Assembly Gradient; 3.1.6 Late-assembly Components; 3.1.7 Proteins Solely Involved in Assembly; 3.1.8 Assembly Maps; References; 3.2 Eukaryotic Ribosome Synthesis; 3.2.1 Introduction; 3.1.1 Prelude; 3.2.2 Why so many RRPs?
3.2.3 (Pre-)ribosome Assembly, the Proteomic Era3.2.4 Ribosomal RNA Processing, Getting there...; 3.2.5 Ribosomal RNA Modification: A Solved Issue?; 3.2.5.1 Ribose Methylation, Pseudouridines formation and the snoRNAs; 3.2.5.2 The Emergence of the snoRNAs; 3.2.5.3 Non-ribosomal RNA Substrates for the snoRNAs; 3.2.5.4 Possible function(s) of RNA modifications; 3.2.5.5 Base methylation; 3.2.5.6 U3 snoRNP, the 'SSU Processome', and the Central Pseudoknot; 3.2.6 SnoRNA Synthesis and Intranuclear Trafficking; 3.2.6.1 SnoRNAs Synthesis
3.2.6.2 Non-core snoRNP Proteins required for snoRNA Accumulation

Sommario/riassunto

Knud Nierhaus, who has studied the ribosome for more than 30 years, has assembled here the combined efforts of several scientific disciplines into a uniform picture of the largest enzyme complex found in living cells, finally resolving many decades-old questions in molecular biology.In so doing he considers virtually all aspects of ribosome structure and function -- from the molecular mechanism of different ribosomal ribozyme activities to their selective inhibition by antibiotics, from assembly of the core particle to the regulation of ribosome component synthesis. The result is a premier