1. Record Nr. UNINA9910139288403321

Autore	Lawrence Amos
Titolo	Extracts from the diary and correspondence of the late Amos Lawrence : with a brief account of some incidents in his life / / Amos Lawrence ; William Richards Lawrence, editor
Pubbl/distr/stampa	Boston : , : Gould and Lincoln, , 1855
Descrizione fisica	1 online resource (369 pages) : illustrations
Disciplina	973.33110924
Soggetti	Merchants - Massachusetts - Boston
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9910132278903321

Autore	Gerczei Timea
Titolo	Biochemistry laboratory manual for undergraduates : an inquiry-based approach / / Timea Gerczei, Scott Pattison; managing editor, Anna Rulka
Pubbl/distr/stampa	Warsaw, [Poland] ; ; Berlin, [Germany] : , : De Gruyter Open, , 2014 ©2014
ISBN	1-5231-0070-2 3-11-042625-0 3-11-041133-4
Descrizione fisica	1 online resource (186 pages) : illustrations, (some colour)
Disciplina	572.078
Soggetti	Biochemistry Molecular biology Drug resistance in microorganisms
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph

Nota di contenuto	Front matter -- Preface -- Contents -- 1 Introducing the Bacterial Antibiotic Sensor Mini Project -- 2 Identifying Conserved Elements in the Toxin Sensor and Designing Mutants to Test Whether They are Important for Function -- 3 Designing Primers for Site-Directed Mutagenesis -- 4 Performing Site-Directed Mutagenesis -- 5 Purifying Mutant Toxin Sensor DNA from Bacterial Cells and Evaluating its Quality Using Agarose Gel Electrophoresis and UV Spectroscopy -- 6 Preparing DNA Template for Mutant RNA Sensor Synthesis Using a Restriction Endonuclease -- 7 Synthesizing the ykkCD Mutant Toxin Sensor RNA in vitro -- 8 Purifying the ykkCD Mutant Toxin Sensor RNA and Evaluating its Purity Using Denaturing PAGE and UV spectrometry -- 9 Evaluating the Ability of the ykkCD Toxin Sensor to Recognize the Antibiotic Tetracycline Using Fluorescent Quenching -- 10 Evaluating Antibiotic Binding to Blood Serum Albumin Using Fluorescence Spectroscopy -- 11 Understanding the Importance of Buffers in Biological Systems -- 12 Molecular Visualization of an Enzyme, Acetylcholinesterase -- 13 Determining the Efficiency of the Enzyme Acetylcholine Esterase Using Steady-State Kinetic Experiment -- 14 Separation of the Phosphatidylcholines Using Reverse Phase HPLC -- List of Figures
Sommario/riassunto	Biochemistry laboratory manual for undergraduates - an inquiry based approach by Gerczei and Pattison is the first textbook on the market that uses a highly relevant model, antibiotic resistance, to teach seminal topics of biochemistry and molecular biology while incorporating the blossoming field of bioinformatics. The novelty of this manual is the incorporation of a student-driven real real-life research project into the undergraduate curriculum. Since students test their own mutant design, even the most experienced students remain engaged with the process, while the less experienced ones get their first taste of biochemistry research. Inclusion of a research project does not entail a limitation: this manual includes all classic biochemistry techniques such as HPLC or enzyme kinetics and is complete with numerous problem sets relating to each topic.