

Genes, Molecules and Cells-2

Second year course, running in Semester-2, for all Biomolecular science students.

View Online



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Interactive Concepts in Biochemistry - Content by Chapter.

https://www.wiley.com/legacy/college/boyer/0470003790/chapter/chapter_list.htm#

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<https://www.ncbi.nlm.nih.gov/books/NBK21154/?depth=2>

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Alberts B. Molecular Biology of the Cell. 5th ed. Garland Science; 2008.

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Perry GH, Dominy NJ, Claw KG, et al. Diet and the evolution of human amylase gene copy number variation. *Nature Genetics*. 2007;39(10):1256-1260. doi:10.1038/ng2123

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Regulation of the Lactase Gene | HHMI BioInteractive.
<http://www.hhmi.org/biointeractive/regulation-lactase-gene>

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12.

Proteins - YouTube.
<https://www.youtube.com/playlist?list=PLbKSbFnKYVY0By5uwg3eAmGeuynvGqCQw>

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PDB-101: Learning Resources: Methods for Determining Structure.
<https://pdb101.rcsb.org/learn/guide-to-understanding-pdb-data/methods-for-determining-structure>

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Protein Three-Dimensional Structure: Levels of Protein Structure, Proteins Motifs, Domains and Databases. <https://proteinstructures.com/structure/protein-domains/>

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Protein Structure | Learn Science at Scitable.
<https://www.nature.com/scitable/topicpage/protein-structure-14122136>

16.

Introduction to Sequence Alignment and Sequence Analysis.
<https://proteinstructures.com/sequence/introduction/#:~:text=Introduction%20to%20Protein%20Sequence%20Alignment%20and%20Analysis.%20Amino,meaning%20and%20are%20unable%20to%20extract%20the%20information.>

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Introduction to Protein Homology / Comparative Modeling, Step in Homology Modeling.
<https://proteinstructures.com/structure/introduction/>

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PDB-101: cAMP-dependent Protein Kinase (PKA). <http://pdb101.rcsb.org/motm/152>

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Experimental Methods in Protein Structure Determination: Protein crystallization and Protein Crystallography.
<https://proteinstructures.com/experimental/experimental-methods/>

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PDB-101: Insulin Receptor. <http://pdb101.rcsb.org/motm/182>

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Lindquist S. Interview: Protein Folding and Studies of Neurodegenerative Diseases. Journal of Visualized Experiments. 2008;(17). doi:10.3791/786

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Induced fit model of enzyme catalysis | Chemical Processes | MCAT | Khan Academy - YouTube. <https://www.youtube.com/watch?v=8lUB2sAQkzw>

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Enzymes and activation energy | Biomolecules | MCAT | Khan Academy - YouTube. <https://www.youtube.com/watch?v=j00Ep0Byu0Y>

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Introduction to enzymes and catalysis | Chemical Processes | MCAT | Khan Academy - YouTube. <https://www.youtube.com/watch?v=G7ZAwUdBNFE>

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Enzyme Kinetics. <http://www.biology-pages.info/E/EnzymeKinetics.html>

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Enzyme Kinetics - YouTube. <https://www.youtube.com/playlist?list=PLbKSbFnKYVY3j6ubaW1zgTXj5C4443v8s>

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Concepts in Biochemistry - Concept Reviews. https://www.wiley.com/legacy/college/boyer/0470003790/reviews/redox/reduction_potentials.htm

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Kevin B. Jones: Why curiosity is the key to science and medicine : TED.com : Free Download & Streaming : Internet Archive. https://archive.org/details/KevinJones_2015X

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Clapham DE. Calcium Signaling. Cell. 2007;131(6):1047-1058.
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GPCR | Learn Science at Scitable.
<https://www.nature.com/scitable/topicpage/gpcr-14047471>

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The 2017 Nobel Prize in Physiology or Medicine - Press Release.
https://www.nobelprize.org/nobel_prizes/medicine/laureates/2017/press.html

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Circadian Rhythms, Biological Clock, Chronobiology - Crystalinks.
<http://www.crystalinks.com/biologicalclock.html>

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Second Messengers. http://www.biology-pages.info/S/Second_messengers.html

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Identification of Cyclin-dependent Kinase 1 Specific Phosphorylation Sites by an In Vitro Kinase Assay | Protocol.
<https://www.jove.com/video/57674/identification-cyclin-dependent-kinase-1-specific-phosphorylation>

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Karra AS, Stippec S, Cobb MH. Assaying Protein Kinase Activity with Radiolabeled ATP. Journal of Visualized Experiments. 2017;(123). doi:10.3791/55504

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PombeNet at The Forsburg Lab - University of Southern California.
<https://dornsife.usc.edu/pombenet/>

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LifeSkills | Developing work and life skills. <https://www.barclayslifeskills.com/>

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University of Glasgow - Information for current students - Graduate Attributes.
<http://www.gla.ac.uk/students/attributes/>

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Boyle J, Ramsay S. Writing for Science Students. Palgrave; 2017.

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Restriction Enzyme Digests | Protocol.

<https://www.jove.com/science-education/5070/restriction-enzyme-digests>

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DNA Gel Electrophoresis | Protocol.

<https://www.jove.com/science-education/5057/dna-gel-electrophoresis>

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Bacterial Transformation Using Heat Shock and Competent Cells | Protocol.

<https://www.jove.com/science-education/5059/bacterial-transformation-the-heat-shock-method>

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Separating Protein: SDS-Polyacrylamide Gel Electrophoresis (SDS-PAGE) | Protocol.

<https://ezproxy.lib.gla.ac.uk/login?url=https://www.jove.com/science-education/5058/separating-protein-with-sds-page>

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PCR. <http://learn.genetics.utah.edu/content/labs/pcr/>

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