

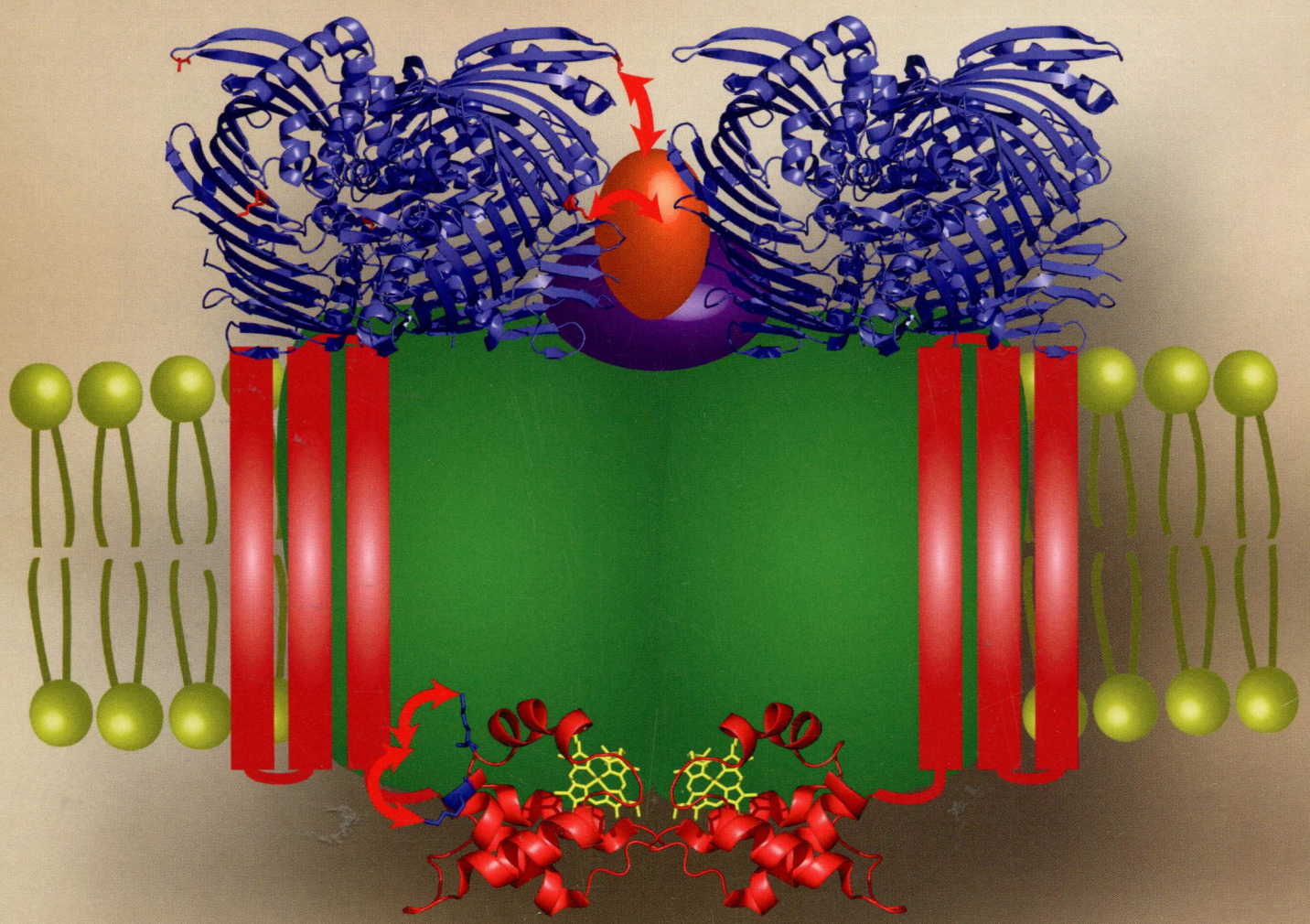
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ON THE COVER: The photosynthetic apparatus of the anoxygenic photosynthetic green sulfur bacterium *Chlorobaculum tepidum* includes the reaction center core (RCC) complex and the FMO antenna protein. The RCC complex is an FeS-type (type I) reaction center, which is composed of a homodimeric core structure formed by two PscA proteins, PscB Fe-S protein, a cytochrome c_{551} (PscC) protein, and a PscD protein. A structural model of the FMO/RCC complex is proposed on the basis of chemical cross-linking results.

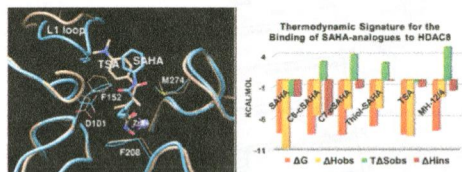
Articles

7445 **S**

DOI: 10.1021/bi500711x

Thermodynamics of Binding of Structurally Similar Ligands to Histone Deacetylase 8 Sheds Light on Challenges in the Rational Design of Potent and Isozyme-Selective Inhibitors of the Enzyme

Raushan K. Singh,* Takayoshi Suzuki, Tanmay Mandal, Narayanaganesh Balsubramanian, Manas Haldar, Dustin J. Mueller, Jerrod A. Strode, Gregory Cook, Sanku Mallik, and D. K. Srivastava*

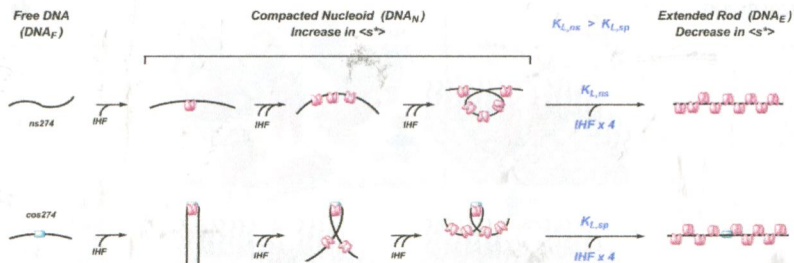


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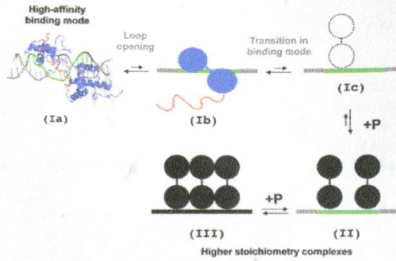
DOI: 10.1021/bi501025s

Integration Host Factor Assembly at the Cohesive End Site of the Bacteriophage Lambda Genome: Implications for Viral DNA Packaging and Bacterial Gene Regulation

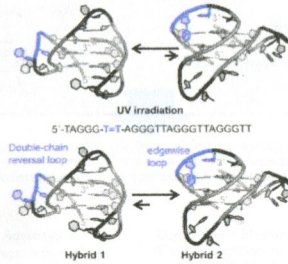
Saurarshi J. Sanyal, Teng-Chieh Yang, and Carlos Enrique Catalano*



The DNA-Binding Domain of Yeast Rap1 Interacts with Double-Stranded DNA in Multiple Binding Modes
 Erik A. Feldmann and Roberto Galletto*



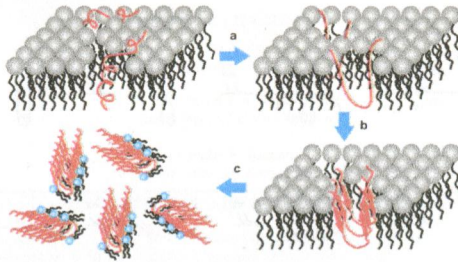
Single-Molecule Analysis of Thymine Dimer-Containing G-Quadruplexes Formed from the Human Telomere Sequence
 Anna H. Wolna, Aaron M. Fleming, and Cynthia J. Burrows*



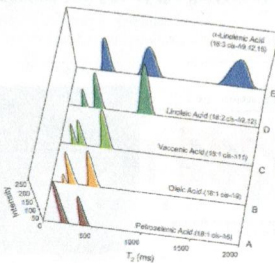
Mapping a Ketosynthase:Acyl Carrier Protein Binding Interface via Unnatural Amino Acid-Mediated Photo-Cross-Linking
 Zhixia Ye and Gavin J. Williams*



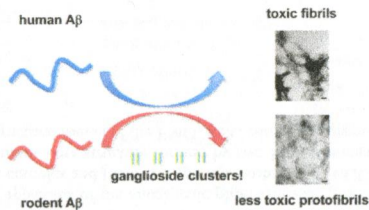
Structural Evolution and Membrane Interaction of the 40-Residue β Amyloid Peptides: Differences in the Initial Proximity between Peptides and the Membrane Bilayer Studied by Solid-State Nuclear Magnetic Resonance Spectroscopy
Wei Qiang,* Rumonat D. Akinlolu, Mimi Nam, and Nicolas Shu



Nanofluidity of Fatty Acid Hydrocarbon Chains As Monitored by Benchtop Time-Domain Nuclear Magnetic Resonance
Michelle D. Robinson and David P. Cistola*

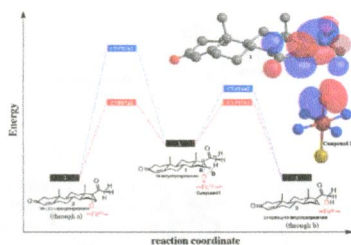


Comparison between the Aggregation of Human and Rodent Amyloid β -Proteins in GM1 Ganglioside Clusters
Hiroshi Ueno, Takahiro Yamaguchi, Saori Fukunaga, Yuki Okada, Yoshiaki Yano, Masaru Hoshino, and Katsumi Matsuzaki*



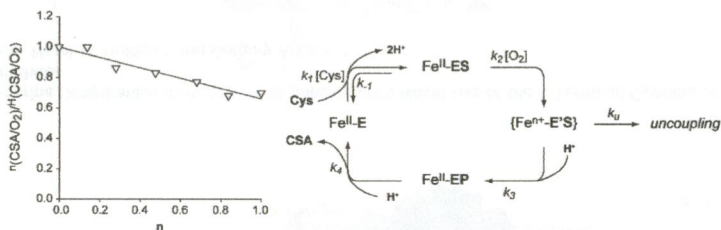
Epoxidation Activities of Human Cytochromes P450c17 and P450c21

Francis K. Yoshimoto, Hwei-Ming Peng, Haoming Zhang, Sean M. Anderson, and Richard J. Auchus*

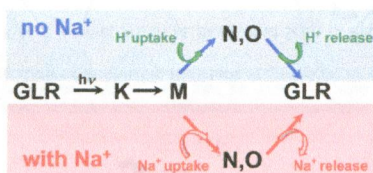


Oxidative Uncoupling in Cysteine Dioxygenase Is Gated by a Proton-Sensitive Intermediate

Joshua K. Crowell, Wei Li, and Brad S. Pierce*

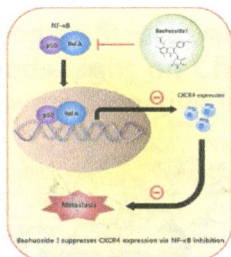
Light-Driven Na⁺ Pump from *Gillisia limnaea*: A High-Affinity Na⁺ Binding Site Is Formed Transiently in the Photocycle

Sergei P. Balashov,* Eleonora S. Imasheva, Andrei K. Dioumaev, Jennifer M. Wang, Kwang-Hwan Jung, and Janos K. Lanyi*



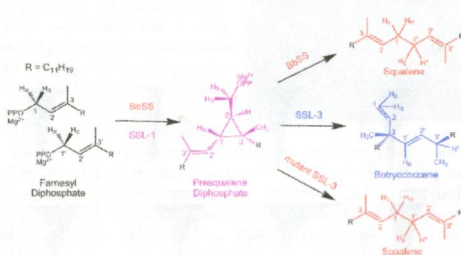
Baohuoside I Suppresses Invasion of Cervical and Breast Cancer Cells through the Downregulation of CXCR4 Chemokine Receptor Expression

Buyun Kim and Byoungduck Park*



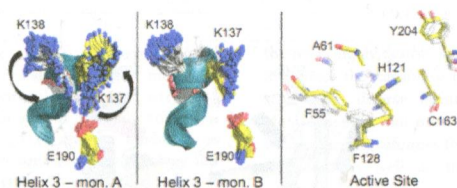
Structure–Function Mapping of Key Determinants for Hydrocarbon Biosynthesis by Squalene and Squalene Synthase-like Enzymes from the Green Alga *Botryococcus braunii* Race B

Stephen A. Bell, Thomas D. Niehaus, S. Eric Nybo, and Joseph Chappell*



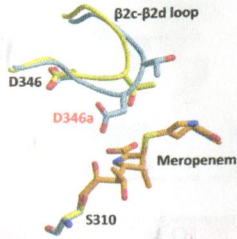
Modifying Caspase-3 Activity by Altering Allosteric Networks

Christine Cade, Paul Swartz, Sarah H. MacKenzie, and A. Clay Clark*



Structural Effect of the Asp345a Insertion in Penicillin-Binding Protein 2 from Penicillin-Resistant Strains of *Neisseria gonorrhoeae*

Alena Fedarovich, Edward Cook, Joshua Tomberg, Robert A. Nicholas,* and Christopher Davies*

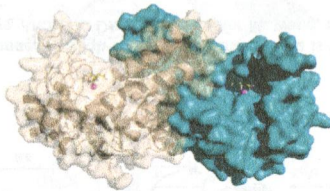


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DOI: 10.1021/bi501141t

Structural and Functional Characterization of Methicillin-Resistant *Staphylococcus aureus*'s Class IIb Fructose 1,6-Bisphosphate Aldolase

Glenn C. Capodagli, Stephen A. Lee, Kyle J. Boehm, Kristin M. Brady, and Scott D. Pegan*

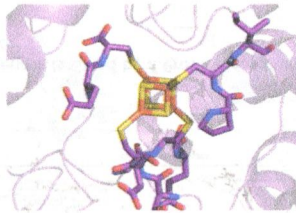


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DOI: 10.1021/bi501253w

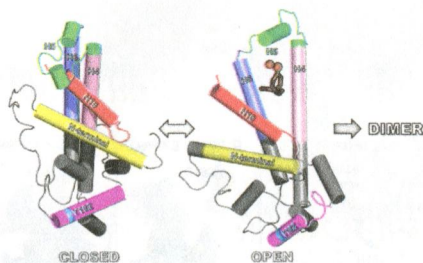
Structure of L-Serine Dehydratase from *Legionella pneumophila*: Novel Use of the C-Terminal Cysteine as an Intrinsic Competitive Inhibitor

James B. Thoden, Hazel M. Holden,* and Gregory A. Grant*



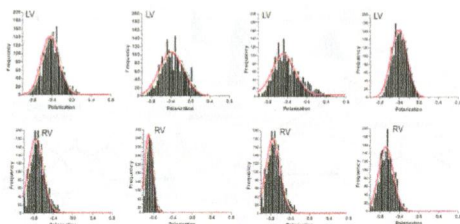
An Experimentally Robust Model of Monomeric Apolipoprotein A-I Created from a Chimera of Two X-ray Structures and Molecular Dynamics Simulations

Jere P. Segrest,* Martin K. Jones, Baohai Shao, and Jay W. Heinecke



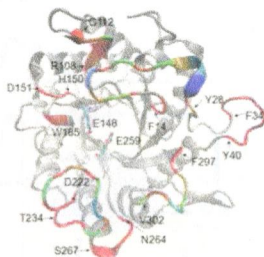
The Spatial Distribution of Actin and Mechanical Cycle of Myosin Are Different in Right and Left Ventricles of Healthy Mouse Hearts

J. Nagwekar, D. Duggal, R. Rich, S. Raut, R. Fudala, I. Gryczynski, Z. Gryczynski, and J. Borejdo*



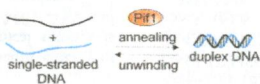
The Slowdown of the Endoglucanase *Trichoderma reesei* Cel5A-Catalyzed Cellulose Hydrolysis Is Related to Its Initial Activity

Zhiyu Shu, Yefei Wang, Liaoyuan An, and Lishan Yao*

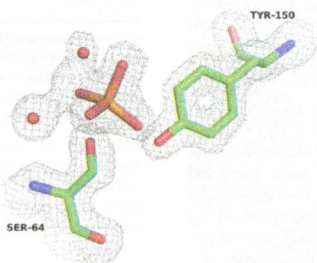


Yeast Pif1 Accelerates Annealing of Complementary DNA Strands

Ramanagouda Ramanagoudr-Bhojappa, Alicia K. Byrd, Christopher Dahl, and Kevin D. Raney*

**Biochemical and Structural Analysis of Inhibitors Targeting the ADC-7 Cephalosporinase of *Acinetobacter baumannii***

Rachel A. Powers, Hollister C. Swanson, Magdalena A. Taracila, Nicholas W. Florek, Chiara Romagnoli, Emilia Caselli, Fabio Prati, Robert A. Bonomo,* and Bradley J. Wallar*

**Electrostatic Properties of Complexes along a DNA Glycosylase Damage Search Pathway**

Shannen L. Cravens, Matthew Hobson, and James T. Stivers*

