

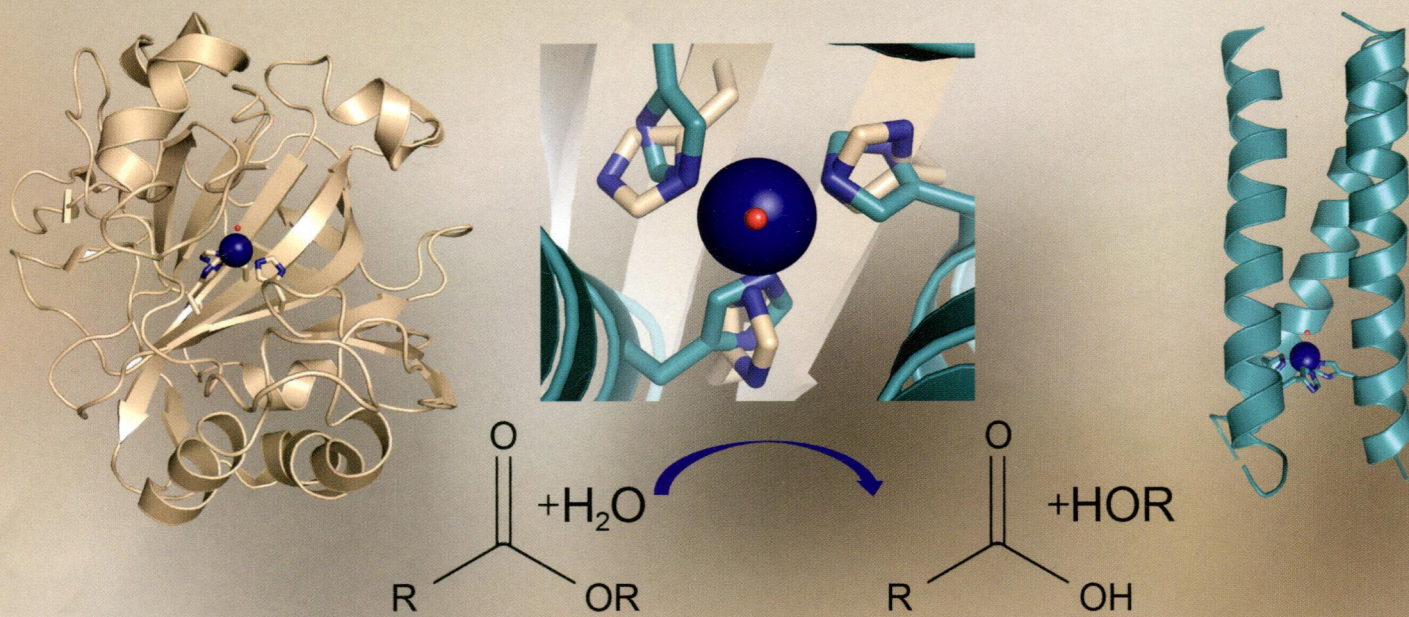
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ON THE COVER: Using de novo and redesign approaches toward the preparation of structural and functional models of hydrolytic zinc metalloenzymes. [Zastrow, M. L., and Pecoraro, V. L. (2014) *Biochemistry* 53, 957–978]

Rapid Reports

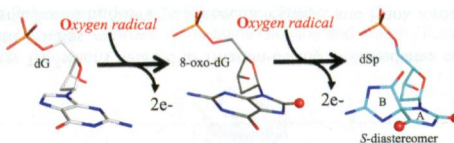
2075



[dx.doi.org/10.1021/bi500270e](https://doi.org/10.1021/bi500270e)

Crystal Structure of DNA Polymerase β with DNA Containing the Base Lesion Spiroiminodihydantoin in a Templating Position

Brian E. Eckenroth, Aaron M. Fleming, Joann B. Sweasy, Cynthia J. Burrows, and Sylvie Doublé*



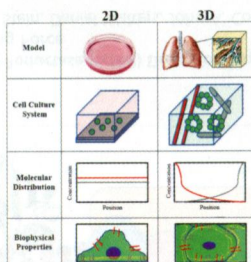
Current Topics

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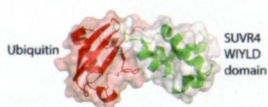
[dx.doi.org/10.1021/bi401710d](https://doi.org/10.1021/bi401710d)

Deconstructing Signaling in Three Dimensions

Matthew G. Rubashkin, Guanqing Ou, and Valerie M. Weaver*

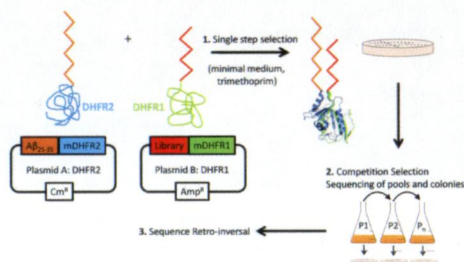


The *Arabidopsis* Histone Methyltransferase SUVR4 Binds Ubiquitin via a Domain with a Four-Helix Bundle Structure
 Mohammad Aminur Rahman, Per E. Kristiansen, Silje V. Veiseth, Jan Terje Andersen, Kyoko L. Yap, Ming-Ming Zhou, Inger Sandlie, Tage Thorstensen, and Reidunn B. Aalen*



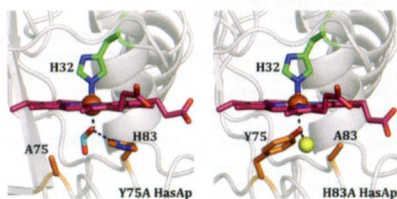
Retro-inversal of Intracellular Selected β -Amyloid-Interacting Peptides: Implications for a Novel Alzheimer's Disease Treatment

Nicola Acerra, Neil M. Kad, Douglas A. Griffith, Stanislav Ott, Damian C. Crowther, and Jody M. Mason*



Replacing the Axial Ligand Tyrosine 75 or Its Hydrogen Bond Partner Histidine 83 Minimally Affects Hemin Acquisition by the Hemophore HasAp from *Pseudomonas aeruginosa*

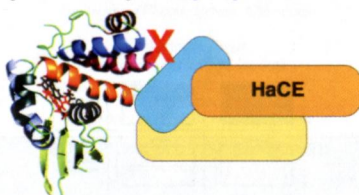
Ritesh Kumar, Hirotohi Matsumura, Scott Lovell, Huili Yao, Juan C. Rodríguez, Kevin P. Battaile, Pierre Moëgne-Loccoz,* and Mario Rivera*



A Structural Basis for the Regulation of an H-NOX-Associated Cyclic-di-GMP Synthase/Phosphodiesterase Enzyme by Nitric Oxide-Bound H-NOX

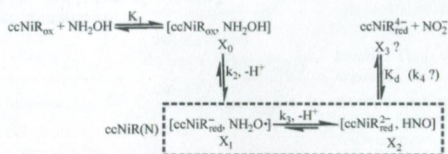
Tanaya Lahiri, Bowu Luan, Daniel P. Raleigh, and Elizabeth M. Boon*

Surface mutations in the N-terminal helices of H-NOX abrogate binding and regulation of a cyclic-di-GMP synthase/phosphodiesterase.



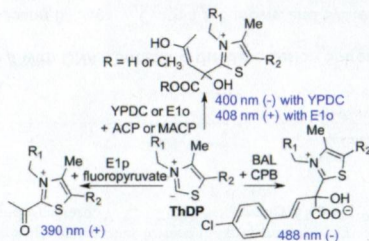
Shewanella oneidensis Cytochrome c Nitrite Reductase (ccNiR) Does Not Disproportionate Hydroxylamine to Ammonia and Nitrite, Despite a Strongly Favorable Driving Force

Matthew Youngblut, Daniel J. Pauly, Natalia Stein, Daniel Walters, John A. Conrad, Graham R. Moran, Brian Bennett, and A. Andrew Pacheco*



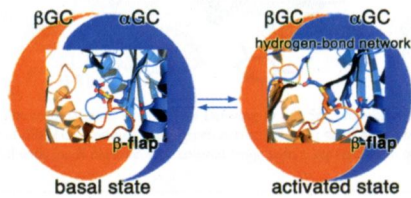
Identification of Charge Transfer Transitions Related to Thiamin-Bound Intermediates on Enzymes Provides a Plethora of Signatures Useful in Mechanistic Studies

Hetalben Patel, Natalia S. Nemeria, Forest H. Andrews, Michael J. McLeish, and Frank Jordan*



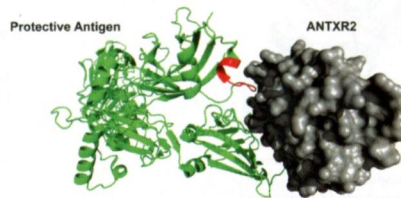
Interfacial Residues Promote an Optimal Alignment of the Catalytic Center in Human Soluble Guanylate Cyclase: Heterodimerization Is Required but Not Sufficient for Activity

Franziska Seeger, Royston Quintyn, Akiko Tanimoto, Gareth J. Williams, John A. Tainer, Vicki H. Wysocki, and Elsa D. Garcin*



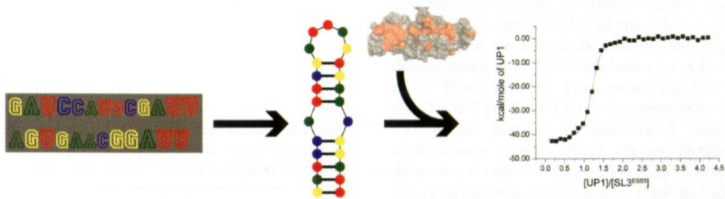
A Protective Antigen Mutation Increases the pH Threshold of Anthrax Toxin Receptor 2-Mediated Pore Formation

Melissa K. Dennis and Jeremy Mogridge*



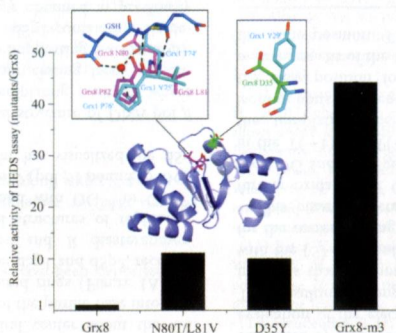
Thermodynamic and Phylogenetic Insights into hnRNP A1 Recognition of the HIV-1 Exon Splicing Silencer 3 Element

Carrie Rollins, Jeffrey D. Levensgood, Brittany D. Rife, Marco Salemi, and Blanton S. Tolbert*



Structure-Guided Activity Enhancement and Catalytic Mechanism of Yeast Grx8

YaJun Tang, Jiahai Zhang, Jiang Yu, Ling Xu, Jihui Wu, Cong-Zhao Zhou,* and Yunyu Shi*



Interaction of Doxorubicin with Polynucleotides. A Spectroscopic Study

Marta Airoidi, Giampaolo Barone, Giuseppe Gennaro, Anna Maria Giuliani, and Mauro Giustini*

