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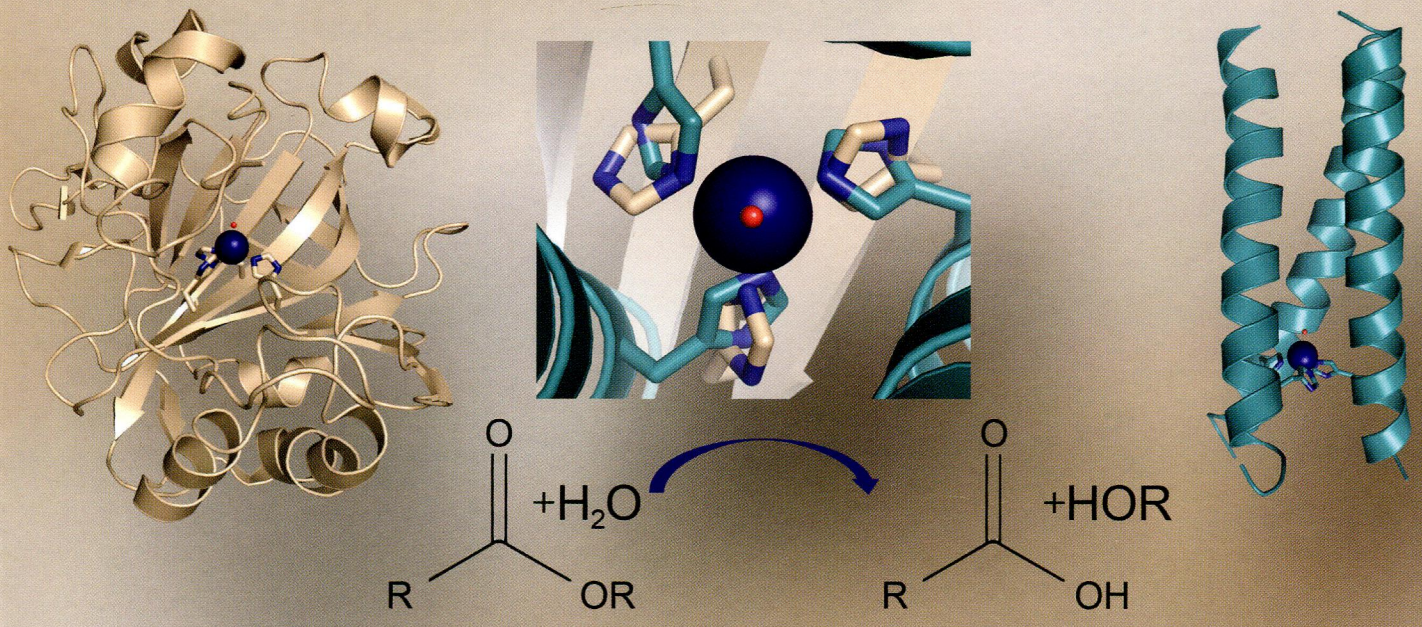

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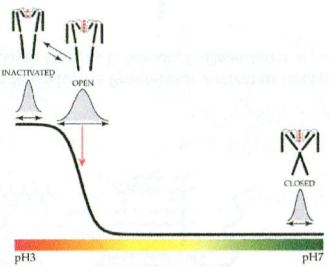
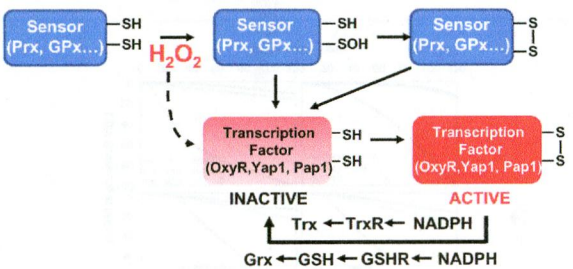
ON THE COVER: Using de novo and redesign approaches toward the preparation of structural and functional models of hydrolytic zinc metalloenzymes. [Zastrow, M. L., and Pecoraro, V. L. (2014) *Biochemistry* 53, 957–978]

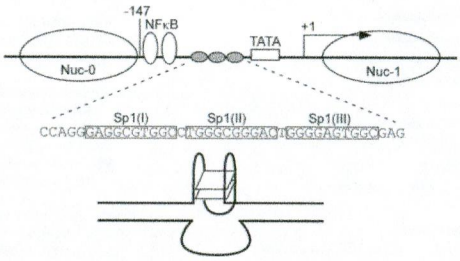
Rapid Reports

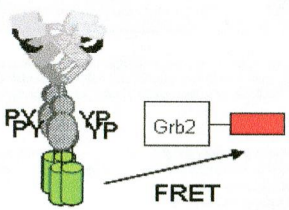


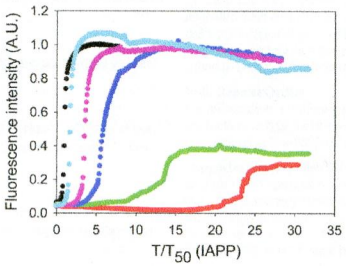
Current Topics



Articles



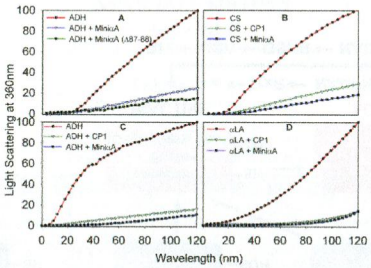




2615 S dx.doi.org/10.1021/bi4017268

Addition of αA-Crystallin Sequence 164–173 to a Mini-Chaperone DFVIFLDVKHFSPEDLT Alters the Conformation but Not the Chaperone-like Activity

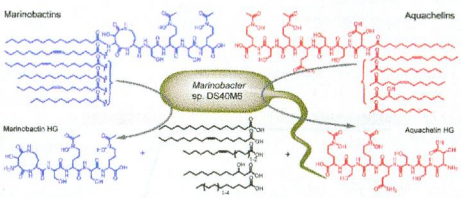
Murugesan Raju, Puttur Santhoshkumar, Leike Xie, and K. Krishna Sharma*



2624 S dx.doi.org/10.1021/bi500266x

Microbial Tailoring of Acyl Peptidic Siderophores

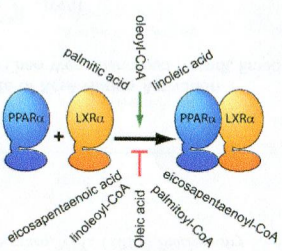
Julia M. Gauglitz, Akira Iinishi, Yusai Ito, and Alison Butler*



2632 S dx.doi.org/10.1021/bi401679y

Ligand-Regulated Heterodimerization of Peroxisome Proliferator-Activated Receptor α with Liver X Receptor α

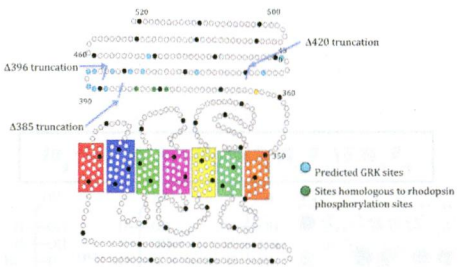
Madhumitha Balanarasimha, Andrea M. Davis, Frances L. Soman, S. Dean Rider Jr., and Heather A. Hostetler*



2644 S dx.doi.org/10.1021/bi401724r

Identification of Critical Phosphorylation Sites on the Carboxy Tail of Melanopsin

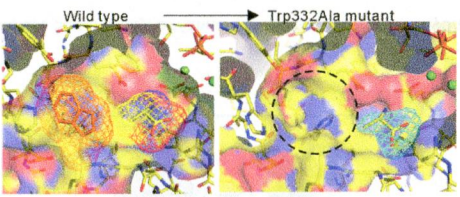
Joseph R. Blasic Jr., Vanessa Matos-Cruz, Devyani Ujla, Evan G. Cameron, Samer Hattar, Marnie E. Halpern, and Phyllis R. Robinson*



2650 S dx.doi.org/10.1021/bi500292b

Single Mutation Alters the Substrate Specificity of L-Amino Acid Ligase

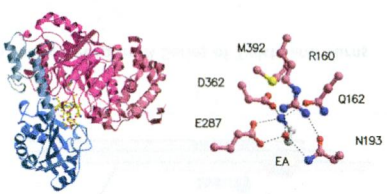
Takeo Tsuda,* Mana Asami, Yoshiaki Koguchi, and Shuichi Kojima



2661 dx.doi.org/10.1021/bi500223k

Catalytic Roles of Substrate-Binding Residues in Coenzyme B_{12}-Dependent Ethanolamine Ammonia-Lyase

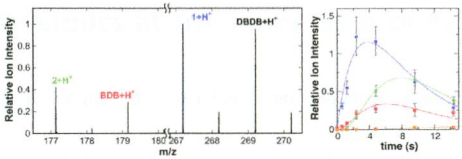
Koichi Mori, Toshihiro Oiwa, Satoshi Kawaguchi, Kyosuke Kondo, Yusuke Takahashi, and Tetsuo Toraya*



2672 dx.doi.org/10.1021/bi500267c

Characterization of Unstable Products of Flavin- and Pterin-Dependent Enzymes by Continuous-Flow Mass Spectrometry

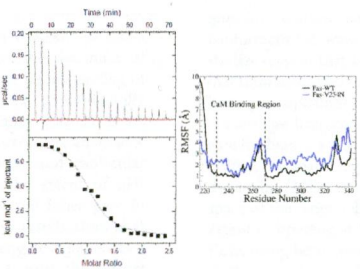
Kenneth M. Roberts, José R. Tormos, and Paul F. Fitzpatrick*



2680 S dx.doi.org/10.1021/bi500228h

Characterization of Calmodulin–Fas Death Domain Interaction: An Integrated Experimental and Computational Study

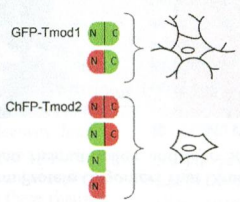
Romone M. Fancy, Lingyun Wang, Tiara Napier, Jiabei Lin, Gu Jing, Aaron L. Lucius, Jay M. McDonald, Tong Zhou, and Yuhua Song*



2689 dx.doi.org/10.1021/bi401431k

Role of Tropomodulin's Leucine Rich Repeat Domain in the Formation of Neurite-like Processes

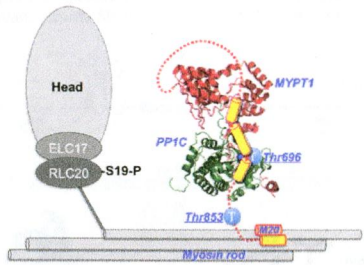
Laurent Guillaud, Kevin T. Gray, Natalia Moroz, Caroline Pantazis, Edward Pate, and Alla S. Kostyukova*



2701 Ⓢ dx.doi.org/10.1021/bi5001728

Reconstituted Human Myosin Light Chain Phosphatase Reveals Distinct Roles of Two Inhibitory Phosphorylation Sites of the Regulatory Subunit, MYPT1

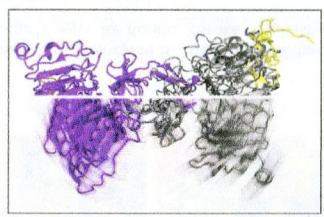
Mukta Khasnis, Akiko Nakatomi, Kristyn Gumpper, and Masumi Eto*



2710 dx.doi.org/10.1021/bi401632z

Activation of the Epidermal Growth Factor Receptor: A Series of Twists and Turns

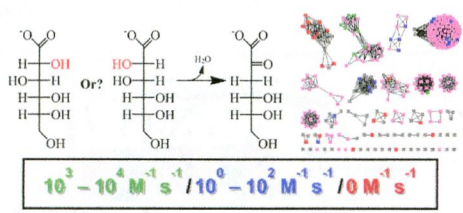
David Poger* and Alan E. Mark



2722 Ⓢ dx.doi.org/10.1021/bi500264p

Discovery of Function in the Enolase Superfamily: D-Mannonate and D-Gluconate Dehydratases in the D-Mannonate Dehydratase Subgroup

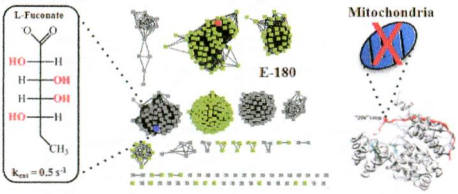
Daniel J. Wichelecki, Bryan M. Balthazor, Anthony C. Chau, Matthew W. Vetting, Alexander A. Fedorov, Elena V. Fedorov, Tiit Lukk, Yury V. Patskovsky, Mark B. Stead, Brandan S. Hillerich, Ronald D. Seidel, Steven C. Almo, and John A. Gerlt*



2732 Ⓢ dx.doi.org/10.1021/bi500349e

Enzymatic and Structural Characterization of rTSγ Provides Insights into the Function of rTSβ

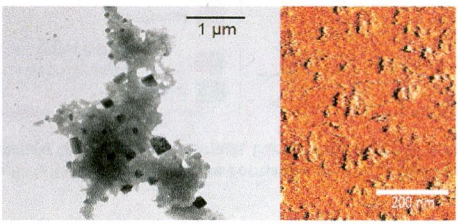
Daniel J. Wichelecki, D. Sean Froese, Jolanta Kopec, Joao R.C. Muniz, Wyatt W. Yue, and John A. Gerlt*



2739 Ⓢ dx.doi.org/10.1021/bi401721z

A Nacre Protein, n16.3, Self-Assembles To Form Protein Oligomers That Dimensionally Limit and Organize Mineral Deposits

Iva Perovic, Eric P. Chang, Michael Lui, Ashit Rao, Helmut Cölfen, and John Spencer Evans*



Ⓢ Supporting Information available via online article