

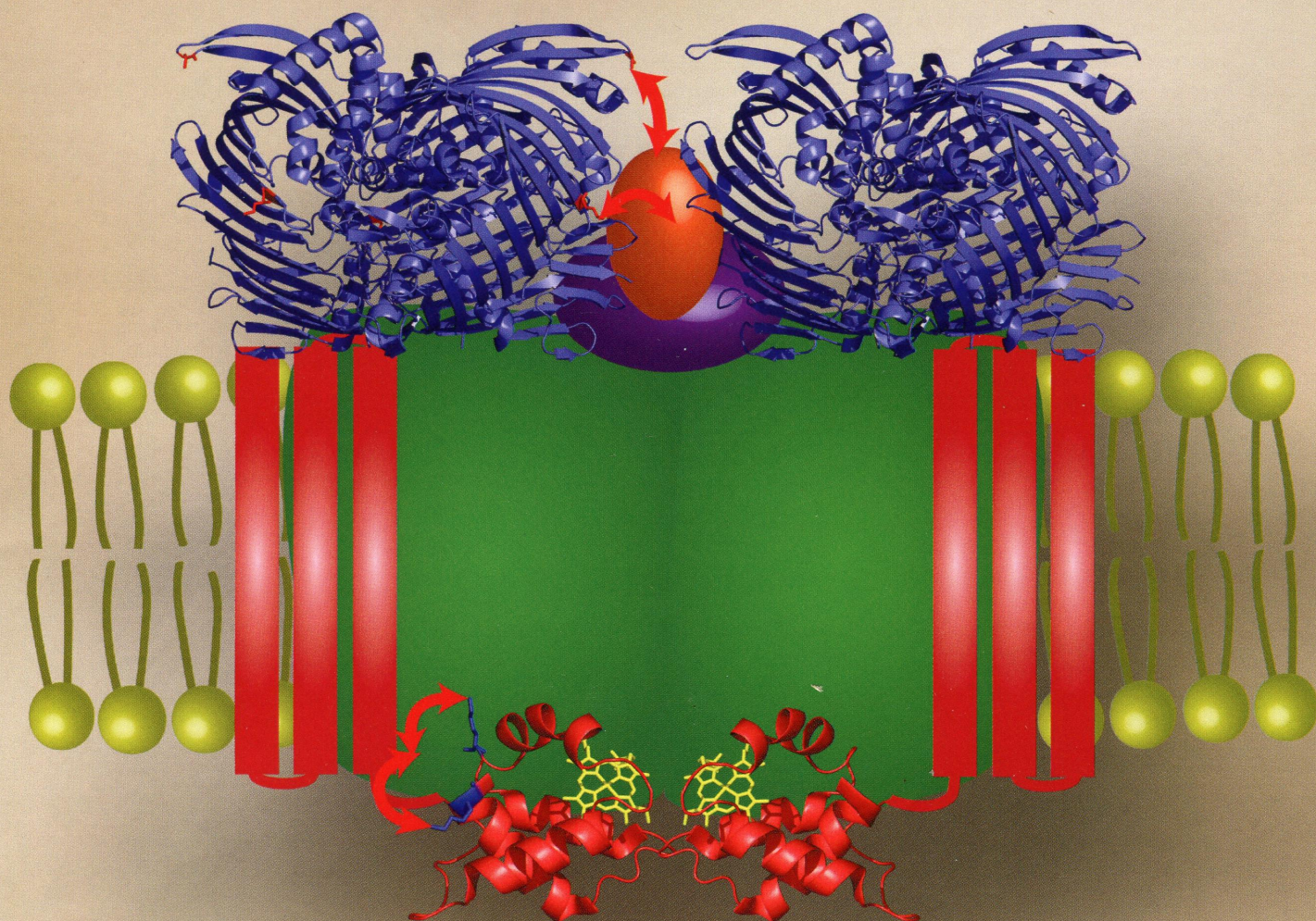
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# BIOCHEMISTRY

including biophysical chemistry & molecular biology

DECEMBER 30, 2014 • VOLUME 53 NUMBER 51

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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  $c_{5S1}$  (PscC) protein, and a PscD protein. A structural model of the FMO/RCC complex is proposed on the basis of chemical cross-linking results.

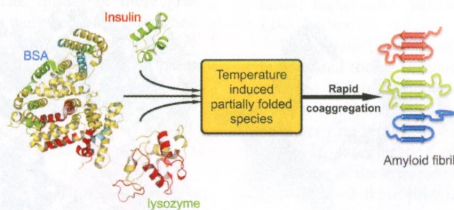
## Rapid Reports

8001 **S**

DOI: 10.1021/bi501333q

### Evidence of Rapid Coaggregation of Globular Proteins during Amyloid Formation

Kriti Dubey, Bibin G. Anand, Mayur K. Temgire, and Karunakar Kar\*

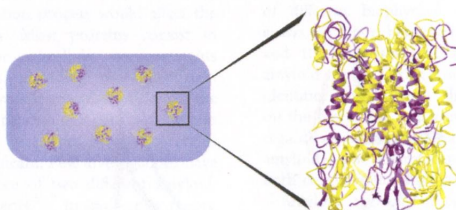


8005 **S**

DOI: 10.1021/bi501118c

### Heteromultimerization of Prokaryotic Bacterial Cyclic Nucleotide-Gated (bcNG) Ion Channels, Members of the Mechanosensitive Channel of Small Conductance (MscS) Superfamily

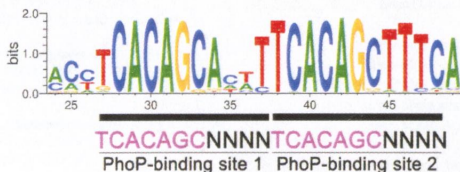
Hannah R. Malcolm, Yoon-Young Heo, Donald E. Elmore, and Joshua A. Maurer\*



8008 **S**

DOI: 10.1021/bi501019u

DNA Consensus Sequence Motif for Binding Response Regulator PhoP, a Virulence Regulator of *Mycobacterium tuberculosis*  
 Xiaoyuan He and Shuishu Wang\*

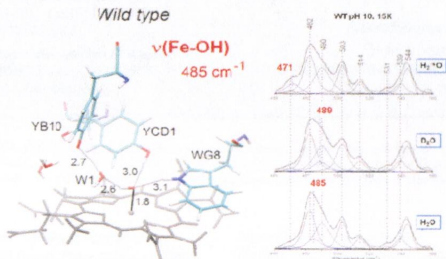


8021 **S**

DOI: 10.1021/bi501132a

Interplay of the H-Bond Donor–Acceptor Role of the Distal Residues in Hydroxyl Ligand Stabilization of *Thermobifida fusca* Truncated Hemoglobin

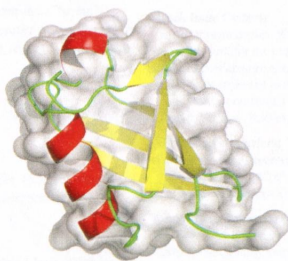
Francesco P. Nicoletti, Juan P. Bustamante, Enrica Droghetti, Barry D. Howes, Maria Fittipaldi, Alessandra Bonamore, Paola Baiocco, Alessandro Feis, Alberto Boffi, Dario A. Estrin, and Giulietta Smulevich\*



8031 **S**

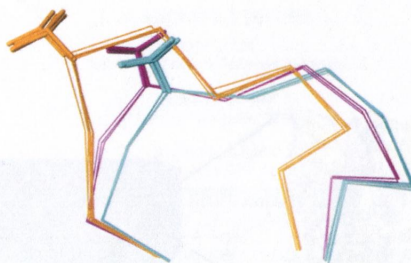
DOI: 10.1021/bi5006317

Characterizing Substrate Selectivity of Ubiquitin C-Terminal Hydrolase-L3 Using Engineered  $\alpha$ -Linked Ubiquitin Substrates  
 Mario F. Navarro, Lisa Carmody, Octavio Romo-Fewell, Melissa E. Lokensgard, and John J. Love\*



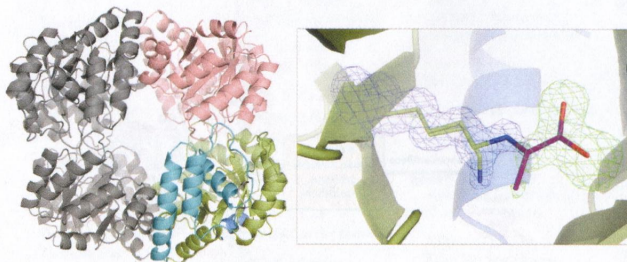
### Hysteresis in Human UDP-Glucose Dehydrogenase Is Due to a Restrained Hexameric Structure That Favors Feedback Inhibition

Renuka Kadirvelraj, Gregory S. Custer, Nicholas D. Keul, Nicholas C. Sennett, Andrew M. Sidlo, Richard M. Walsh Jr., and Zachary A. Wood\*



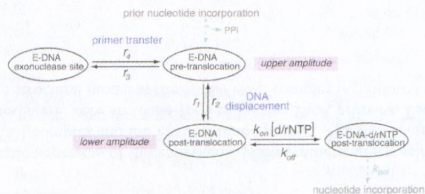
### Structure and Function of a Decarboxylating *Agrobacterium tumefaciens* Keto-deoxy-D-galactarate Dehydratase

Helena Taberman, Martina Andberg, Tarja Parkkinen, Janne Jänis, Merja Penttilä, Nina Hakulinen, Anu Koivula, and Juha Rouvinen\*



### Kinetic Mechanisms Governing Stable Ribonucleotide Incorporation in Individual DNA Polymerase Complexes

Joseph M. Dahl, Hongyun Wang,\* José M. Lázaro, Margarita Salas,\* and Kate R. Lieberman\*



## The Rate-Limiting Step of O<sub>2</sub> Activation in the $\alpha$ -Ketoglutarate Oxygenase Factor Inhibiting Hypoxia Inducible Factor

John A. Hangasky, Hasand Gandhi, Meaghan A. Valliere, Nathaniel E. Ostrom, and Michael J. Knapp\*

