

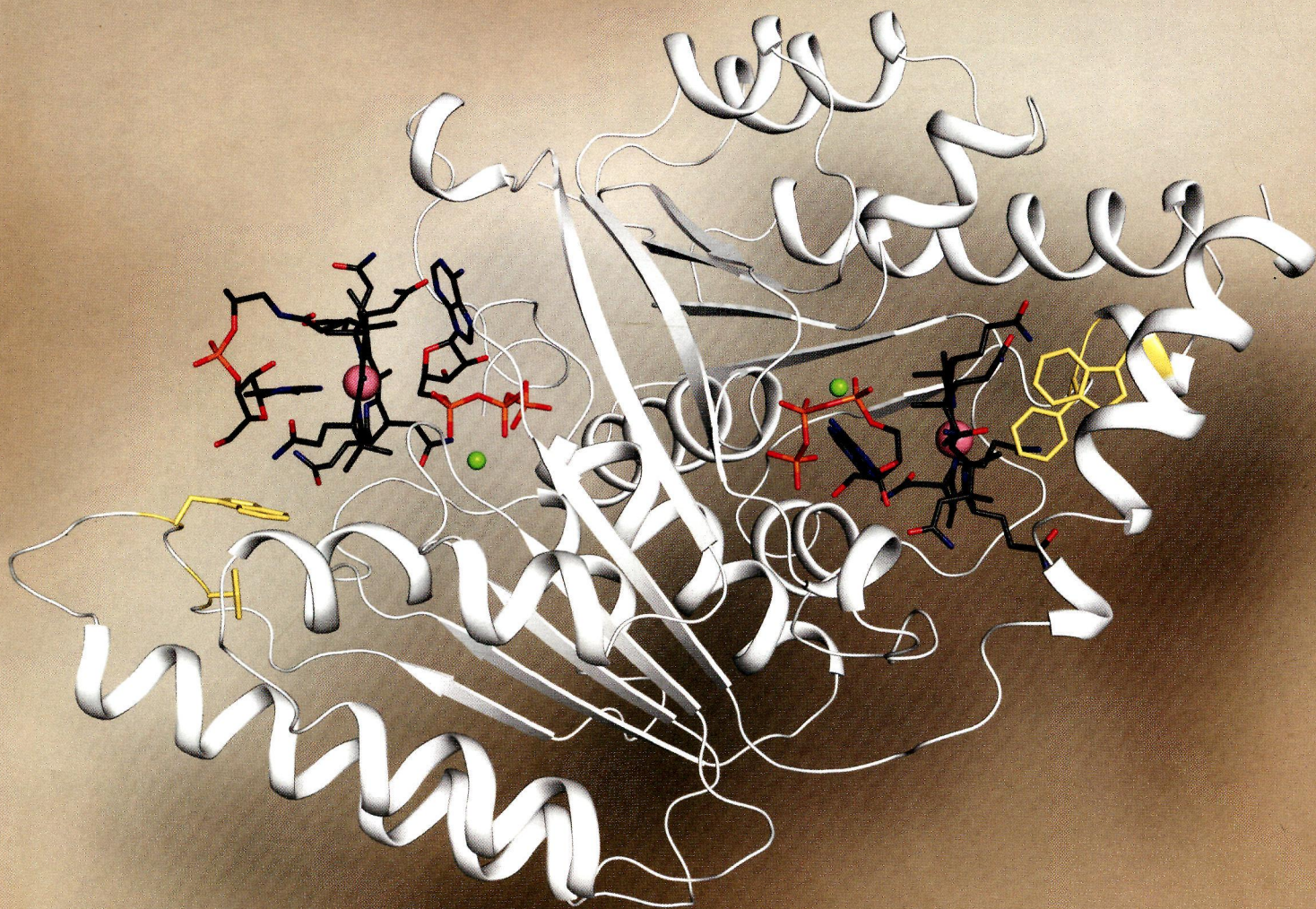
PI  
B60/bc

# BIOCHEMISTRY

including biophysical chemistry & molecular biology

MAY 14, 2013 • VOLUME 52 NUMBER 19

[pubs.acs.org/biochemistry](http://pubs.acs.org/biochemistry)



ACS Publications

MOST TRUSTED. MOST CITED. MOST READ.

[www.acs.org](http://www.acs.org)

# BIOCHEMISTRY

including biophysical chemistry & molecular biology

May 14, 2013

Volume 52, Issue 19

Pages 3191-3392

## ***Rapid Reports***

### ***Active Site Architecture of a Sugar N-Oxygenase***

James B. Thoden, Megan C. Branch, Alex L. Zimmer, Nathan A. Bruender, and Hazel M. Holden

pp 3191–3193

**Publication Date (Web):** April 26, 2013 (Rapid Report)

**DOI:** 10.1021/bi400407x

 Section:

Enzymes

### ***A Salt Bridge in Intracellular Loop 2 Is Essential for Folding of Human P-Glycoprotein***

Tip W. Loo and David M. Clarke

pp 3194–3196

**Publication Date (Web):** May 1, 2013 (Rapid Report)

**DOI:** 10.1021/bi400425k

 ACS AuthorChoice

 Section:

General Biochemistry

## ***Current Topics***

### ***Development and Mechanism of $\gamma$ -Secretase Modulators for Alzheimer's Disease***

Christina J. Crump, Douglas S. Johnson, and Yue-Ming Li

pp 3197–3216

**Publication Date (Web):** April 24, 2013 (Current Topic)

**DOI:** 10.1021/bi400377p

 Section:

Pharmacology

### ***Regulatory Role of Ubiquitin in Eukaryotic DNA Translesion Synthesis***

Kun Yang, Christopher P. Weinacht, and Zhihao Zhuang

pp 3217–3228

**Publication Date (Web):** May 1, 2013 (Current Topic)

**DOI:** 10.1021/bi400194r

 Section:

General Biochemistry

### ***Articles***

#### ***Reversible Folding of Human Peripheral Myelin Protein 22, a Tetraspan Membrane Protein***

Jonathan P. Schleich, Dungeng Peng, Brett M. Kroncke, Kathleen F. Mittendorf, Malathi Narayan, Bruce D. Carter, and Charles R. Sanders

pp 3229–3241

**Publication Date (Web):** April 22, 2013 (Article)

**DOI:** 10.1021/bi301635f

 Section:

General Biochemistry

#### ***Synthesis, Characterization, and Evaluation of Pluronic-Based $\beta$ -Cyclodextrin Polyrotaxanes for Mobilization of Accumulated Cholesterol from Niemann-Pick Type C Fibroblasts***

Christopher J. Collins, Leslie A. McCauliff, Seok-Hee Hyun, Zhaorui Zhang, Lake N. Paul, Aditya Kulkarni, Klaus Zick, Mary Wirth, Judith Storch, and David H. Thompson

pp 3242–3253

**Publication Date (Web):** April 5, 2013 (Article)

**DOI:** 10.1021/bi3010889

 Section:

Pharmaceuticals

#### ***Lipid Composition-Dependent Membrane Fragmentation and Pore-Forming Mechanisms of Membrane Disruption by Pexiganan (MSI-78)***

Dong-Kuk Lee, Jeffrey R. Brender, Michele F. M. Sciacca, Janarthanan Krishnamoorthy, Changsu Yu, and Ayyalusamy Ramamoorthy

pp 3254–3263

**Publication Date (Web):** April 16, 2013 (Article)

**DOI:** 10.1021/bi400087n

 Section:

Microbial, Algal, and Fungal Biochemistry

### ***Systematic Evaluation of Candidate Ligands Regulating Ectodomain Shedding of Amyloid Precursor Protein***

Heather C. Rice, Tracy L. Young-Pearse, and Dennis J. Selkoe

pp 3264–3277

**Publication Date (Web):** April 18, 2013 (Article)

**DOI:** 10.1021/bi400165f

 Section:

General Biochemistry

### ***Elucidating a Relationship between Conformational Sampling and Drug Resistance in HIV-1 Protease***

Ian Mitchell S. de Vera, Adam N. Smith, Maria Cristina A. Dancel, Xi Huang, Ben M. Dunn, and Gail E. Fanucci

pp 3278–3288

**Publication Date (Web):** April 8, 2013 (Article)

**DOI:** 10.1021/bi400109d

 Section:

Enzymes

### ***HypD Is the Scaffold Protein for Fe-(CN)<sub>2</sub>CO Cofactor Assembly in [NiFe]-Hydrogenase Maturation***

Sven T. Stripp, Basem Soboh, Ute Lindenstrauss, Mario Brausseemann, Martin Herzberg, Dietrich H. Nies, R. Gary Sawers, and Joachim Heberle

pp 3289–3296

**Publication Date (Web):** April 19, 2013 (Article)

**DOI:** 10.1021/bi400302v

 Section:

Enzymes

## ***Sav1866 from Staphylococcus aureus and P-Glycoprotein: Similarities and Differences in ATPase Activity Assessed with Detergents as Allocrites***

Andreas Beck, Päivi Äänismaa, Xiaochun Li-Blatter, Roger Dawson, Kaspar Locher, and Anna Seelig

pp 3297–3309

**Publication Date (Web):** April 20, 2013 (Article)

**DOI:** 10.1021/bi400203d

 Section:

Enzymes

## ***N-Linked Glycosylation Is Required for Transferrin-Induced Stabilization of Transferrin Receptor 2, but Not for Transferrin Binding or Trafficking to the Cell Surface***

Ningning Zhao and Caroline A. Enns

pp 3310–3319

**Publication Date (Web):** April 4, 2013 (Article)

**DOI:** 10.1021/bi4000063

 ACS AuthorChoice

 Section:

General Biochemistry

## ***A Circularly Permuted Photoactive Yellow Protein as a Scaffold for Photoswitch Design***

Anil Kumar, Darcy C. Burns, M. Sameer Al-Abdul-Wahid, and G. Andrew Woolley

pp 3320–3331

**Publication Date (Web):** April 10, 2013 (Article)

**DOI:** 10.1021/bi400018h

 Section:

Biochemical Methods

## ***Increased Redox-Sensitive Green Fluorescent Protein Reduction Potential in the Endoplasmic Reticulum following Glutathione-Mediated Dimerization***

Deboleena Dipak Sarkar, Sarah K. Edwards, Justin A. Mauser, Allen M. Suarez, Maxwell A. Serowoky, Natalie L. Hudok, Phylicia L. Hudok, Martha Nuñez, Craig S. Weber, Ronald M. Lynch, Osamu Miyashita, and Tsu-Shuen Tsao

pp 3332–3345

**Publication Date (Web):** April 17, 2013 (Article)

**DOI:** 10.1021/bi400052u

 Section:

Biochemical Methods

### ***Complex Formation and Regulation of Escherichia coli Acetyl-CoA Carboxylase***

Tyler C. Broussard, Amanda E. Price, Susan M. Laborde, and Grover L. Waldrop

pp 3346–3357

**Publication Date (Web):** April 17, 2013 (Article)

**DOI:** 10.1021/bi4000707

 Section:

Enzymes

### ***Probing the RNA Binding Surface of the HIV-1 Nucleocapsid Protein by Site-Directed Mutagenesis***

Wei Ouyang, Stephen Okaine, Mark P. McPike, Yong Lin, and Philip N. Borer

pp 3358–3368

**Publication Date (Web):** April 17, 2013 (Article)

**DOI:** 10.1021/bi400125z

 Section:

General Biochemistry

### ***Murine Extracellular Superoxide Dismutase Is Converted into the Inactive Fold by the Ser195Cys Mutation***

Carsten Scavenius, Jane S. Petersen, Line R. Thomsen, Ebbe Toftgaard Poulsen, Zuzana Valnickova-Hansen, Russell P. Bowler, Tim D. Oury, Steen V. Petersen, and Jan J. Enghild

pp 3369–3375

**Publication Date (Web):** April 17, 2013 (Article)

**DOI:** 10.1021/bi400171b

 Section:

Enzymes

***Effects of Salts from the Hofmeister Series on the Conformational Stability, Aggregation Propensity, and Local Flexibility of an IgG1 Monoclonal Antibody***

Ranajoy Majumdar, Prakash Manikwar, John M. Hickey, Hardeep S. Samra, Hasige A. Sathish, Steven M. Bishop, C. Russell Middaugh, David B. Volkin, and David D. Weis

pp 3376–3389

**Publication Date (Web):** April 17, 2013 (Article)

**DOI:** 10.1021/bi400232p

 Section:

Immunochemistry

***Additions and Corrections***  
***Correction to NMR of CCCC RNA Reveals a Right-Handed Helix and Revised Parameters for AMBER Force Field Torsions Improve Structural Predictions from Molecular Dynamics***

Jason D. Tubbs, David E. Condon, Scott D. Kennedy, Melanie Hauser, Philip C. Bevilacqua, and Douglas H. Turner

pp 3390–3392

**Publication Date (Web):** April 29, 2013 (Addition/Correction)

**DOI:** 10.1021/bi400401j

 ACS AuthorChoice

 Section:

Biochemical Methods