

JOHN C. PRICE

CONTACT INFORMATION

WORK

University of California, Inst. for Neurodegenerative Diseases
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PROFESSIONAL MEMBERSHIP

American Chemical Society

EDUCATION

2001-2005	Ph.D.	The Pennsylvania State University <i>Graduate Program in Biochemistry, Molecular Biology, and Microbiology</i>
1997-2001	B.S. in Chemistry <i>cum laude</i>	Utah State University

PUBLICATIONS

John C. Price, Eric W. Barr, Bhramara Tirupati, J. Martin Bollinger, Jr., and Carsten Krebs, **2003**, "The first direct characterization of a high valent iron intermediate in the reaction of an α -ketoglutarate-dependent dioxygenase: a Fe(IV) complex in taurine/ α -ketoglutarate dioxygenase (TauD) from *Escherichia coli*," **Biochemistry**, **42**, 7497-7508.

John C. Price, Eric W. Barr, Timothy E. Glass, Carsten Krebs and J. Martin Bollinger, Jr., **2003**, "Evidence for hydrogen abstraction from C1 of taurine by the high-spin Fe(IV) intermediate detected during oxygen activation by taurine: α -ketoglutarate dioxygenase (TauD) ," **J. Am. Chem. Soc.**, **43**, 13008-13009.

Pamela Riggs-Gelasco, **John C. Price**, Robert B. Guyer, Jessica H. Brehm, Eric W. Barr, J. Martin Bollinger, Jr., and Carsten Krebs., **2004**, EXAFS spectroscopic evidence for an Fe=O Unit in the Fe(IV) intermediate observed during oxygen activation by taurine: α -ketoglutarate dioxygenase, **J. Am. Chem. Soc.**, **126**, 8108-8109.

Carsten Krebs, **John C. Price**, Jeffrey Baldwin, Lana Saleh, Michael T. Green, and J. Martin Bollinger, Jr., **2004**, "Time resolved ^{57}Fe -Mossbauer: monitoring changes of an iron-containing active site during a biochemical reaction," **Inorg. Chem.**, **44**, 742-757.

John C. Price, Eric W. Barr, Lee M. Hoffart, and Carsten Krebs, J. Martin Bollinger, Jr., **2005**, "Kinetic dissection of the catalytic mechanism of taurine: α -ketoglutarate dioxygenase from *Escherichia coli*", **Biochemistry**, **44**, 8138-47.

Neidig ML, Brown CD, Light KM, Fujimori DG, Nolan EM, **Price JC**, Barr EW,

Bollinger JM Jr, Krebs C, Walsh CT, Solomon EI., **2007**, “CD and MCD of CytC3 and Taurine Dioxygenase: Role of the Facial Triad in alpha-KG-Dependent Oxygenases.” **J. Am. Chem. Soc.**, **46**, 14224-31.

AWARDS AND HONORS

Larry L. Hillblom Foundation Postdoctoral Fellow	2007
NIH trainee under Biology of Aging training grant to UCSF	2005
R. Adams Dutcher Travel Award	2004
Poster Award (4 awarded out of 350 posters) Eurobic	2004
Paul Berg Prize in Molecular Biology	2003
NSF Graduate Research Fellowship Honorable Mention	2003
Braucher Scholarship	2002
Homer F. Braddock Graduate Fellowship	2001
Pennsylvania State University Graduate Fellowship	2001
American Institute of Chemists Foundation Undergrad Award	2001

PRESENTATIONS

SEPT 2007	John C. Price, Camille Deering, Jiri G. Safar, and Stanley B. Prusiner 2007 Investigation of the mechanism for the <i>in vitro</i> production of infectious prions, Poster Presentation , Prion 2007, Edinburgh, Scotland, UK.
JUNE 2007	John C. Price, Camille Deering, Jiri G. Safar, and Stanley B. Prusiner 2007 Investigation of the mechanism for the <i>in vitro</i> production of infectious prions, Oral Presentation , 62 nd annual meeting of the northwest region of the American Chemical Society, Boise ID.
AUGUST 2005	John C. Price, Eric W. Barr, Lee Hoffart, Carsten Krebs, J. Marty Bollinger 2005 Kinetic dissection of Taurine/ α -Ketoglutarate Dioxygenase, a model α -ketoglutarate dependent dioxygenase, Poster presentation , 12 th International Conference on Bioinorganic Chemistry (ICBIC), Ann Arbor MI.
SEPTEMBER 2004	“ Kinetic Dissection of the Catalytic Mechanism of Taurine: α -ketoglutarate Dioxygenase (TauD) from <i>Escherichia coli</i> .” Poster presentation , 7 th European Biological Inorganic Chemistry Conference (Eurobic) Garmisch-Partenkirchen, Germany
SEPTEMBER 2003	“Fe(IV) in Biology: Using Kinetics to Understand Enzyme Mechanisms” Oral Presentation , <i>Lion Lecture</i> Department of Chemistry. Pennsylvania State University, University Park, Pa.
JUNE 2003	“ Kinetic Description of the Reaction Mechanism of Taurine: α -ketoglutarate Dioxygenase, a Non-heme-iron Dioxygenase.” Poster presentation , 11 th International Conference on Biological Inorganic Chemistry (I.C.B.I.C.) Cairns, Australia

TEACHING EXPERIENCE

- 01/1999 - 05/2001 A teaching assistant at Utah State University, I was responsible for overseeing basic chemistry and organic chemistry labs, as well as preparing and leading recitations to supplement the class lectures.
- 09/2002 - 12/2002 During my tenure as a teaching assistant in the advanced biochemistry lab at Pennsylvania State University, the instructor suffered a heart attack. This required that during the last third of the semester I and another teaching assistant cover our assignments as lab instructors, and shoulder the responsibility for the twice weekly class lecture. We ensured that the class continued by preparing and delivering lectures, and formulating and grading the final exam as well as the grading of lab reports that were our normal responsibility. The students final evaluations of the class reported that while our final exam may have been tougher than expected, our overall performance was superb.

RESEARCH EXPERIENCE

- 12/2005 - PRESENT I am currently working with Dr. Stanley B. Prusiner at the University of California, San Francisco studying the mechanism of prion propagation. I am focusing on techniques for the *in vitro* amplification of PrP^{Sc}. I am using the Protein Misfolding Cyclic Amplification technique to investigate the kinetics of PrP^{Sc} formation. I am using Western Blotting and conformational dependent immunoassay (CDI) as my main diagnostic methods.
- 09/2001- 11/2005 Working with Drs. J. Martin Bollinger and Carsten Krebs, I studied the oxygen dependent reaction of the enzyme Taurine α -Ketoglutarate Dioxygenase. We dissected the reaction cycle to an unprecedented degree, and established for the first time that an Fe(IV)=O occurs during the reaction. In the course of the study I employed transient state kinetic techniques such as chemical/freeze quench, and stopped flow. I also used a number of different spectroscopic techniques including UV-visible absorption, Electron Paramagnetic Resonance, Nuclear Magnetic Resonance, and Mössbauer spectroscopies.
- 01/1999 - 05/2001 In Dr. Lisa M. Berreau's group at Utah State University, I used synthetic organic chemistry to synthesize active site models of the enzyme Peptide Deformylase. During the course of the work I used anaerobic technique, and characterized the compounds via ¹H, ¹³C Nuclear Magnetic Resonance, Infrared Spectroscopy, and Mass Spectrometry.