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## David A. Moffet

Department of Chemistry and Biochemistry      Phone (310) 338-4400  
Loyola Marymount University                      Fax (310) 338-2905  
Los Angeles, CA 90045                              E-mail: dmoffet@lmu.edu

### Academic Positions

- 2011 – Present              Associate Professor of Chemistry and Biochemistry  
Loyola Marymount University
- 2005 – 2011                Assistant Professor of Chemistry and Biochemistry  
Loyola Marymount University
- 2002 - 2005                NIH Post-Doctoral Research Fellow  
Advisor Dr. David Cane  
Chemistry Department, Brown University
- Enzymology of Polyketide Synthases
  - Investigation of Polyketide Synthase Linkers in Mediating Module to Module Communication
- 1997 - 2002                PhD Chemistry: Thesis Advisor Dr. Michael H. Hecht  
Chemistry Department, Princeton University
- Design of Combinatorial Libraries of Novel Proteins
  - Spectroscopic and Enzymatic Characterization of Designed Heme-Binding Proteins
  - Construction of Phage Displayed Protein Library
- 1993-1997                 B.S. (with Honors) Chemistry with Biochemistry Concentration  
Chemistry Department, Shippensburg University of Pennsylvania  
Research Advisor Dr. James A. Beres
- Inhibition Studies of Cytochrome c Oxidase

### Teaching/Advising

#### *Courses taught*

- **Biochemistry I** (Chem 376) LMU
- **Introduction to Biochemistry** (Chem 370) LMU
- **Biochemistry Lab I & II** (Chem 377 & Chem 379) LMU
- **Inorganic Chemistry** (Chem 330) LMU
- **General Chemistry I & II** (Chem 110 & Chem 112) LMU
- **General Chemistry Lab I** (Chem 111) LMU
- **Biochemistry** Teaching Assistant (Princeton University Molecular Biology Department, Fall 1999)
- **Organic Chemistry** Head Teaching Assistant (Princeton University Chemistry Department, 1999-2000 Academic Year)
- **Physical Chemistry** Teaching Assistant: Thermodynamics/Kinetics (Princeton University Chemistry Department, Spring 1998)

*Number and type of students advised*

- 8 LMU undergraduate coauthors on published articles
- 11 LMU undergraduate coauthors on submitted articles undergoing peer review
- 20+ poster presentations with LMU undergraduates as co-presenters/co-authors
- Academic advisor for over 30 students aiding them in enrollment in courses appropriate to the major, as well as helping them in the selection of future careers
- Honors thesis advisor for 2 students enrolled in the LMU Honors program.

**Scholarship**

*Peer reviewed publications:* Names in **Bold** indicate LMU undergraduate students

**Fox A, Snollaerts T, Errecart Casanova C, Calciano A**, Nogaj LA and Moffet DA (2010) Selection for Nonamyloidogenic Mutants of Islet Amyloid Polypeptide (IAPP) Identifies an Extended Region for Amyloidogenicity. *Biochemistry* **49**: 7783-7789.

**Baine M, Georgie D, Shiferraw E, Nguyen T**, Nogaj L, and Moffet, D (2009) Inhibition of A $\beta$  42 aggregation using peptides selected from combinatorial libraries, *J. Peptide Science* **15**, 499-503.

Moffet DA (2009) From Gene Mutation to Protein Characterization, *Biochem and Mol Biol Ed.* **37**: 110-115.

Moffet DA, Khosla C and Cane DE (2006) Modular Polyketide Synthases: Investigating Intermodular Communication Using 6-Deoxyerythronolide B Synthase Module 2. *Bioorg Med Chem Letters* **16**: 213-216.

Wei Y, Liu T, Pelczer I, Sazinsky SL, Moffet DA and Hecht MH (2003) Stably Folded de novo Proteins from a Designed Combinatorial Library. *Prot. Sci.* **12**: 92-102.

Moffet DA, Foley J, and Hecht MH (2003) Midpoint Reduction Potentials and Heme Binding Stoichiometry of De Novo Proteins from Designed Combinatorial Libraries. *Biophysical Chem.* **105**: 231-239.

Moffet DA, Case MA, House JC, Vogel K, Williams RD, Spiro TG, McLendon GL and Hecht MH (2001) Carbon Monoxide Binding by de Novo Heme Proteins Derived from Designed Combinatorial Libraries. *J. Am. Chem. Soc.* **123**: 2109-2115.

Moffet DA and Hecht MH (2001) De Novo Proteins from Combinatorial Libraries. *Chem. Reviews*, **101**: 3191-3203.

Beres JA, Moffet DA and Zummo RJ (2001) Inhibition Studies of Cytochrome Oxidase by  $\beta$ -Dimethylaminoethyl Cinnamates. *J. Penn. Acad. Sci.* **74**: 43-47.

Moffet DA, Certain LK, Smith AJ, Kessel AJ, Beckwith KA and Hecht MH (2000) Peroxidase Activity in Heme Proteins Derived from a Designed Combinatorial Library. *J. Am. Chem. Soc.* **122**: 7612-7613.

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*Funded Grants and Sponsorships*

- (1) "Screening of Biological and Synthetic Compounds for the Discovery of Novel Substances that Prevent Amyloid Formation"  
\$164,161 over 3 years  
R15 AREA grant  
Funded by NIH Institute of Aging (5/2009-4/2012)  
Principal Investigator David Moffet and Co-PI Tina Choe.  
Grant #: 1R15AG032582-01A1
  
- (2) "Interdisciplinary Collaborative Project Involving Undergraduate Students in Wetlands Research"  
Submitted with faculty from the LMU departments of biology, natural science, engineering and chemistry & biochemistry.  
Funded by Merck and the American Association for the Advancement of Science  
4/2007-3/2009  
\$20,000 from Merck and \$20,000 match from LMU
  
- (3) W. M. Keck Foundation Grant  
\$300,000 grant for new instrumentation for the biochemical and molecular biology research and student labs.  
PIs: Gary Kuleck (biology), Kam Dahlquist (biology), Carl Urbinati (biology), Martin Ramirez (biology) and David Moffet (chemistry and biochemistry).  
1/2008-6/2010.
  
- (4) LMU Women's Leadership Council Donation  
\$50,000 donation to support research efforts in Moffet lab
  
- (5) LMU New Faculty Summer Research Grant (Summer 2006)  
"Construction of a Designed Protein Library"  
Funded by the LMU College of Science and Engineering  
\$4000 summer research stipend
  
- (6) LMU Faculty Summer Research Grant (Summer 2007)  
"PCR-Based Combinatorial Gene Synthesis for the Construction of Diverse Enzyme Libraries"  
Funded by the LMU College of Science and Engineering  
A \$5000 summer research stipend
  
- (7) LMU Faculty Summer Research Grant (Summer 2008)  
"Random Mutagenesis to Identify the Aggregation-Prone Regions of the type II diabetes-linked protein IAPP"  
Funded by the LMU College of Science and Engineering  
A \$5000 summer research stipend

## **Oral Presentations:**

### **President's day presentation**

"Fighting Alzheimer's Disease and Antibiotic Resistant Bacteria at LMU"

Saturday March 24, 2007

Presenter: David A. Moffet

### **LMU Women's Leadership Council Meeting**

"Untangling Alzheimer's"

November 5, 2009

Co-presenters: David A. Moffet and **Elelta Shiferraw**

### **Invited Seminar Series, Mount Saint Mary's College, Los Angeles**

"Untangling Alzheimer's"

February, 18, 2010

Presenter: David A. Moffet

### **Seaver College of Science and Engineering Wall of Fame Ceremony**

"Untangling Alzheimer's"

April 16, 2010

Presenter: David A. Moffet

### **Westchester Mental Health Guild Annual Meeting**

"Untangling Alzheimer's"

April 21, 2010

Co-Presenters: David A. Moffet and **Mike Hunter**

### **President's Clavigerii Weekend for LMU Trustees and Regents**

"Untangling Alzheimer's"

June 12, 2010

Presenter: David A. Moffet

## **Honors, Fellowships and Awards**

- NIH-Awarded R15 AREA grant: Screening of Biological and Synthetic Compounds for the Discovery of Substances that Prevent Amyloid Formation. Grant Number 1R15AG032582-01A1 (2009-2012)
- NIH-Awarded Postdoctoral Fellowship – Ruth L. Kirschstein National Research Service Award (NRSF grant 1 F32 GM067376-01) (2003-2005)
- Wyeth-Ayerst Third Year Seminar Award (Princeton University, Spring 2000)
- 1<sup>st</sup> Place Biochemistry Section of the 26<sup>th</sup> Intercollegiate Student Chemists Convention (Spring 1997)
- American Institute of Chemists Senior Chemistry Award (Shippensburg University, 1997)
- Outstanding Senior Chemist Award: Southeastern Pennsylvania Section of the American Chemical Society (Spring 1996)
- Junior Analytical Chemist Award (Shippensburg University, Spring 1996)
- Syn-Tech Corporation Scholarship for Chemistry (1993-1997)