1987-9	Grant-in-Aid Award, American Heart Association of Metropolitan
	Chicago
1986-8	Cottrell Award, Research Corporation
1985,1988 and 200	06Summer Research Awards, Loyola University Chicago
1984	Exxon Fellowship in Chemistry
1981-1984	Calouste Gulbenkian Foundation Fellowship
1981-1982	University Fellow, UCLA

resonance study. Associate Professor of Chemistry, Chicago State University, Dr. Qinfen Rong, November 1993. Dissertation title: Lithium binding to human RBC membranes and substrates of second messenger systems. Schmitt Dissertation Fellow; graduated with Honors. Research Scientist, Motorola, AZ.

Dr. Yuling Chi, February 1996. Dissertation title: Na+-H+ and Na+-Li+ Exchange in Human Erythrocytes: An NMR Investigation. Research Assistant Professor, Albert Einstein University.

Dr. Chandra Srinivasan, July 1996. Dissertation title: Competition Between Li+ and Mg2+ for Human RBC Membrane Phospholipids and Guanine Nucleotide Binding Proteins. Schmitt Dissertation Fellow. Assistant Professor of Chemistry, California State University, Fullerton.

Dr. Cherian Zachariah, July 1996. Dissertation title: Multinuclear Magnetic Resonance Studies of Anion Binding to Copper, Zinc-Superoxide Dismutase, and of Lithium Transport and Binding in Cultured Neuroblastoma Cells. University Dissertation Fellow. Presently conducting postdoctoral research with Professor A. Edison at University of Florida, Gainesville, FL.

Dr. Wanrong Lin, August 1996. Dissertation title: Multinuclear Magnetic Resonance Study of Cesium and Chloride Distribution in Human Erythrocyte Suspensions. Research Scientist at Abbott Laboratories, Chicago, IL.

Dr. Hanan Hasan, December 1996. Dissertation title: Ionic Interaction Studies of Bovine Copper, Zinc-Superoxide Dismutase. Professor, Department of Chemistry, Mu'tah University, Jordan.

Dr. Joyce Nikolakopoulos, June 1998. Dissertation title: Multinuclear Magnetic Resonance of Lithium Transport and Binding in Neuroblastoma Cells, and of Lithium Response and Toxicity in Manic-Depressive Patients. University Dissertation Fellow; graduated with Honors. Dumbach Award Recipient. Research Scientist at Biosystems, San Francisco.

Dr. Louis Amari, October 1998. Dissertation title: Competition Between Li+ and Mg2+ for Adenosine Triphosphate, Human RBC Membrane, Guanine Nucleotides Proteins, and in Human Neuroblastoma Cells. Schmitt Dissertation Fellow. Research Scientist at Abbott Laboratories, Chicago, IL.

Dr. Brian Layden, May 2001. Dissertation title: A Fluorescence, 31P NMR and 7Li NMR Spectroscopy Study of Li+/Mg2+ Competition, and of Li+ Transport and Binding in Human Neuroblastoma and Lymphoblastoma Cells. Schmitt Dissertation Fellow; graduated with Honors. Dumbach Award Recipient. Assistant Professor, Northwestern University Memorial Hospital.

Dr. Nicole Minadeo Williams, May 2002. Dissertation title: The Roles of Li+, Mg2+ and Na+ in Bipolar Disorder and Hypertension: A Multinuclear NMR and Fluorescence Study. Schmitt Dissertation Fellow; graduated with Honors. Staff Scientist, US Army, Washington, DC.

Dr. Abde Abukhdeir, April 2004. Dissertation title: Effects of Li+ on the Membrane Composition and on the Intracellular Levels of Free Mg2+ and Ca2+: A Multinuclear NMR and Fluorescence Study. Assistant Professor, Rush Medical Center, Chicago

Dr. Christopher Malarkey, July 2008. Dissertation title: Biophysical Studies on the Pharmacological Action of Lithiium. Schmitt Dissertation Fellow; graduated with Honors. Dumbach Award Recipient. Assistant Professor of Pharmaceutical Sciences, School of Pharmacy, Rueckert-Hartman College for Health Professions, Regis University, Denver, CO

Dr. Guoyan Wang, January 2009. Dissertation title: Fluorescence and NMR Studies on the Competition between Li<sup>+</sup> and Mg<sup>2+</sup>for Native and Mutated G Proteins. Scientist, R&D Department, Xiamen Doingcom Chemical Company Ltd., Xiamen, China.

Dr. Matthew Najor, October 2013. Dissertation title: Biophysical Characterization of Tryptophan Environment, Mg<sup>2+</sup> Binding and Folding in G Subunits. Postdoctoral Fellow, Rush Medical Center, Chicago.

#### M.S. GRADUATES:

Suilan Mo, May 1992. Thesis Title: NMR Study of Na+-H+ and Na+-Li+ Exchange in Human Erythrocytes. Associate Scientist at Hoffmann LaRoche, Branchburg, NJ.

Conrad Diven, May 2000. Thesis Title: Elucidation of Chloride in Nucleated Cells: A 35Cl NMR and Fluorescence Study. Graduated with Honors. Medical Doctor from University of Arizona.

Holly Cozzie, August 2004. Thesis Title: Preparation and Purification of Two200f an

### **CURRENT RESEARCH GROUP:**

## i) External Funding (cont.)

Period	Source	Total Amount	Indirect Costs
1997-00	National Institute of Mental Health-Minority Sup	98,940 oplement	23,940
2000-06	National Institute of Mental Health (R01)	994,131	319,131
2002-05	NSF-Division of Biol. Infrastructure	251,000 (NMR)	
2010-2013	NSF-Major Instrumentation (PI: R.Holz)	n 222,110 (EPR)	
2010-2013	NSF-REU program (PI: K. Olsen)	246,375	_
2015-2018	National Institute of Gener Medical Sciences (R15)	al 343,200	103,200

# ii) <u>Internal Funding</u>

Year	Source	Total Amount
1985	Research Stimulation Fund (RSG)	\$1,200
1985	Summer Research Award	4,000
1985	NIH/BRSG	5,000
1986	RSG	1,200
1986	NIH/BRSG	1,000
1987	NIH/BRSG	1,000
1988	Summer Research Award	4,500
1988	RSG	1,200
1988	NIH/BRSG	3,000

## ii) Internal Funding (cont.)

Year	Source	Total Amount
1994	RSG	1,200
2000	Summer Research Award	6,000

Dismutase. *Inorg. Chem.* **1987**, *26*, 2788-2791.

- 5. Espanol, M.C.; Mota de Freitas, D.: <sup>7</sup>Li NMR Studies of Lithium Transport in Human Erythrocytes. *Inorg. Chem.* **1987**, *26*, 4356-4359.
- 6. Ramasamy, R.; Mota de Freitas, D.: Competition between Li<sup>+</sup> and Mg<sup>2+</sup> for ATP in Human Erythrocytes. A <sup>31</sup>P NMR and Optical Spectroscopy Study. *FEBS Lett.* **1989**

Bistriphosphate with Alkali Metal Ions in Aqueous Solution and in the Solid State. *Inorg. Chem.* **1991**, *30*, 3188-3191.

i) Refereed Articles (cont.)

- 16. Witten

- Investigating Li<sup>+</sup>/Mg<sup>2+</sup> Competition for Biomolecules. Anal. Biochem., 1999, 272, 1-7.
- 37. Srinivasan, C.; Minadeo, N.; Toon, J.; Graham, D.; Mota de Freitas, D.; Geraldes, C.F.G.C.: Competition Between Na<sup>+</sup> and Li<sup>+</sup> for Unsealed and Cytoskeleton-Depleted Human Red Blood Cell Membrane: A <sup>23</sup>Na NMR Multiple Quantum Filtered and <sup>7</sup>Li NMR Relaxation Study. *J. Magn. Reson.* **1999**, *140*, 206-217.
- 38. Lin, W.; Mota de Freitas, D.; Zhang, Q.; Olsen, K.W.: Nuclear Magnetic Resonance and Oxygen Affinity Study of Cesium Binding in Human Erythrocytes. *Arch. Biochem. Biophys.*, **1999**, *369*, 78-88.
- 39. Srinivasan, C.; Minadeo, N.; Geraldes, C.F.G.C.; Mota de Freitas, D.: Competition Between Li<sup>+</sup> and Mg<sup>2+</sup> for Red Blood Cell Membrane Phospholipids: A <sup>31</sup>P, <sup>7</sup>Li, and <sup>6</sup>Li Nuclear Magnetic Resonance Study. *Lipids*, **1999**, *34*, 1211-1221.
- 40. Layden, B.; Diven, C.; Minadeo, N.; Bryant, F.B.; Mota de Freitas, D.: Li

- i) Refereed Articles (cont.)
- 47. Layden B.T., Abukhdeir A.M., Williams N., Fonseca C.P., Carroll L., Castro

ii) Book Chapters

#### ii) Book Chapters (cont.)

- 9. Castro, M.M.C.A.; Nikolakopoulos, J.; Zachariah, C.; de Freitas, D.M.; Geraldes, C.F.G.C.; Ramasamy, R.: Li<sup>+</sup> Transport Properties in Perfused Neuronal Cells by <sup>7</sup>Li NMR Spectroscopy. In Cytotoxic, Mutagenic, and Carcinogenic Potential of Heavy Metals Related to Human Environment; Hadjiliadis, N.D., Ed.; Kluwer Academic Publishers: Netherlands, 1997, pp. 311-321.
- 10. Layden, B.; Fonseca, C.P.; Minadeo, N.; Abdullahi, H.; H.; Castro, M.M.C.A.; Geraldes, C.F.G.C.; Mota de Freitas, D.: Comparison of the Use of Fluorescence, <sup>31</sup>P NMR and <sup>7</sup>Li NMR Spectroscopic Methods for the Investigation of Li<sup>+</sup>/Mg<sup>2+</sup> Competition in a Model System and their Applications to Cellular Systems. In Lithium 50 Years: Recent Advances in Biology and Medicine; Lucas, K.C.; Becker, R.W.; Gallichio, V.S., Eds.; Weidner Publishing Group, Cheshire, CT, 1999, pp. 45-62.
- 11. William H. Gross, Stephen C. Encleson, Duarte Mota de Freitas, "Magnesium," in AccessScience, ©McGraw-Hill Companies, 2008
- 12. Marshall Sittig, Duarte Mota de Freitas, "Sodium," in AccessScience, ©McGraw-Hill Companies, 2008
- 13. Marshall Sittig, Duarte Mota de Freitas, "Potassium," in AccessScience, ©McGraw-Hill Companies, 2008
- 14. Mota de Freitas, D.; Leverson, B.D.; Goossens, J.L.: Lithium in Medicine: Mechanism of Action. In The Alkali Metal Ions: Their Role in Life; Metal Ions in Life Sciences, vol. 16; Sigel, A.; Sigel, H.; Sigel, R.K.O.; Eds. Springer International Publishing, Switzerland, 2016, pp. 557-584

#### iii) Published Abstracts

- 1. Mota de Freitas, D.; Valentine, J.S.: Phosphate is an Inhibitor of Copper-Zinc Superoxide Dismutase. *Inorg. Chim. Acta* **1983**, *79*, 35-36.
- 2. Mota de Freitas, D.; Valentine, J.S.: Anion Binding Sites of Reduced Bovine Copper-Zinc Superoxide Dismutase: A <sup>35</sup>Cl and High-Resolution <sup>1</sup>H NMR Study. *Rev. Port. Quim.* **1985**, *27*, 156-157.
- 3. Espanol, M.C.; Mota de Freitas, D.: Metal NMR Studies of Lithium Transport in Human Erythrocytes. *Biophys. J.* **1986**, *49*, 326a.

- iii) Published Abstracts (cont.)
- 4.

- iii) Published Abstracts (cont.)
- 15.

### iii) Published Abstracts (cont.)

- 26. Williams, N.; Geraldes, C.F.G.C.; Mota de Freitas, D.: Li<sup>+</sup>/Mg<sup>2+</sup> Competition for Mg<sup>2+</sup> Binding Sites in G-Proteins: Implications for Bipolar Disorder. *J. Inorg. Biochem.* **2003**, *96*, 15.
- 27. Mota de Freitas, D.; Najor, M.S.; Olsen, K.W.; Graham, D.J.: Contribution of each Trp Residue towards the Intrinsic Fluorescence of the G<sub>i</sub> Protein. *J. Biol. Inorg. Chem.* **2014**, *19* (Suppl 2), 19.
- iv)1 0 0 1 413.71 611.62 Tm[(P)34 Tm52)

## Graduate Courses (cont.)

Year and Semester	Course Number <sup>a</sup>	Contact hrs/wk	Number of Students	%Effort
Spring 05	469	N/A	4	100
Summer 05	469	N/A	2	100
Fall 05	460/395	3	13	100
Fall 05	469	N/A	2	100
Spring 06	469	N/A	1	100
Spring 06	610	N/A	1	100
Summer 06	469	N/A	1	100
Summer 06	501	N/A	1	100
Fall 06	460/395	3	6	100
Spring 06	600	N/A	2	100
Spring 07	600	N/A	2	100
Fall 07	469	N/A	1	100
Fall 07	600	N/A	2	100
Spring 08	461	3	10	50
Spring 08	600	N/A	2	100
Fall 08	469	N/A	1	100
Fall 08	600	N/A	1	100
Spring 09	461	3	3	50
Summer 09	469	N/A	1	100
Spring 09	469	N/A	1	100

## Graduate Courses (cont.)

Year and Semester	Course Number <sup>a</sup>	Contact hrs/wk	Number of Students	%Effort
Fall 09	469	N/A	1	100
Spring 10	441	N/A	8	20 (Grading)
Summer 10	610	N/A	1	100
Fall 10	600	N/A	1	100
Spring 11	441	3	3	100
Spring 11	600	N/A	1	100
Fall 11	460	3	14	100
Fall 11	600	N/A	1	100
Spring 12	461	3	3	100
Spring 12	600	N/A	1	100
Fall 12	460	3	10	100
Fall 12	469	N/A	1	100
Fall 12	600	N/A	1	100
Spring 13	461	3	1	100
Spring 13	469	N/A	2	100
Spring 13	600	N/A	1	100
Summer 13	469	N/A	2	100
Fall 13	469	N/A	2	100
Fall 13	600	N/A	1	100
Spring 14	469	N/A	2	100

## **Graduate Courses (cont.)**

Year and Semester	Course Number <sup>a</sup>	Contact hrs/wk	Number of Students	%Effort
Summer 14	469	N/A	2	100
Fall 14	469	N/A	2	100
Spring 15	469	N/A	2	100
Summer 15	469	N/A	1	100
Fall 15	610	N/A	2	100
Spring 16	610	N/A	2	100
Fall 16	600	N/A	2	100

## Undergraduate Courses (cont.)

Year and Semester	Course Number <sup>a</sup>	Contact hrs/wk	Number of Students	%Effort	T.A. Assistance
Spring 87	395	3	9	50	-
Summer 87	151	9	8	100	Lab
Summer 87	361	6	12	100	-
Fall 87	101	3	36	Discussion	-
Spring 88	361	3	31	100	-
Fall 88	395	3	5	100	-
Fall 88	101	1	32	Discussion	-
Spring 89	340	3	18	100	-
Summer 89	151	4	15	100	Lab
Fall 89	400	1	_b	100	-
Fall 89	101	1	31	Discussion	-
Spring 90	340	3	18	100	-
Fall 90	101	1	20	Discussion	-
Spring 91	152	4	51	100	Lab
Fall 91	101	1	29	Discussion	-
Spring 92	102	1	30	Discussion	-
Fall 92	101	1	30	Discussion	-
Fall 93	361	3	29	100	-
Fall 93	101	1	30	Discussion	-
Spring 94	340	3	21	100	-

Spring 94	102	1	30	100	-
Fall 94	361/395	3	46	100	_

## <u>Undergraduate Courses (cont.)</u>

Year and Semester	Course Number <sup>a</sup>	Contact hrs/wk	Number of Students	%Effort	T.A. Assistance
Spring 02	300	3	2	100	-
Fall 02	363	15	21	100	Lab
Spring 03	361	6	96	50	-
Spring 03	300	3	2	100	-
Fall 03	101	1	34	Discussion	-
Spring 04	340	3	16	100	-
Fall 04	101	1	32	Discussion	-

 $Spring\ 0Tm[(\ )]\ TJETBT1\ T9\ Tm[(S)-2(p)-3(ri)5(n)-3(g)]\ TJETc]\ TJ5(n)-3(g)]\ TJETBT1\ 0\ 0\ 1\ 106BT1\ 0$ 

Semme 26

Spring 06

# <u>Undergraduate Courses (cont.)</u>

Year and Semester	Course Number <sup>a</sup>	Contact hrs/wk	Number of Students	%Effort	T.A. Assistance
Fall 07	300	6	3	100	-
Spring 08	361	6	154	50	-
Fall 08	300	6	1	100	-
Fall 08	363	10	22	70	Lab
Spring 09	300	3	1	100	-
Spring 10	340	-	54	100	Grading
Fall 10	380	1	12	100	Grading
Spring 11	(\$1942)] TJ				

### Undergraduate Courses (cont.)

Year and Semester	Course Number <sup>a</sup>	Contact hrs/wk	Number of Students	%Effort	T.A. Assistance
Spring 15	300	N/A	2	100	-
Spring 15	307	3	45	100	-
Fall 15	300	N/A	1	100	-
Fall 15	380	1.25	13	100	Grading
Spring 16	300	N/A	2	100	-
Spring 16	307	3	57	100	-
Fall 16	300	N/A	2	100	-
Fall 16	380	N/A	14	100	-
Spring 17	307	3	27	100	-

<sup>&</sup>lt;sup>a</sup>Chem. 101 - General Chemistry A Discussion; Chem. 102 - General Chemistry B Discussion; Chem. 151 - Elementary Physiological Chemistry A; Chem. 152 - Elementary Physiological Chemistry B; Chem 300 - Undergraduate Research; Chem. 340 - A0 0 1 72/.97Tm[(E Che)r102.8r102.8r102.8r102.0 0 1 95.BT1 0 0 1 102.86JETr m(istry)13( A)-

20. Midwest NMR Discussion Group, Loyola University of Chicago, Nov. 1988.

### Conference Presentations and Seminars (cont.)

- 21. 21st Annual Meeting of the American Society of Nephrology, San Antonio, TX, Dec. 1988.
- 22. 33rd Annual Biophysical Society Meeting, Cincinnati, OH, Feb. 1989.
- 23. 4th International Conference on Bioinorganic Chemistry, Boston, MA, Jul. 1989.
- 24. Instructor, Biological NMR Workshop, Coimbra, Portugal, Jul. 1989.
- 25. Seminar, Department of Chemistry, Marquette University, Milwaukee, WI, Oct. 1989.
- 26. The 1989 International Chemical Congress of Pacific Basin Societies, Honolulu, HA, Dec. 1989.
- 27. 3rd European Congress on Magnesium, Geneva, Switzerland, Mar. 1990.
- 28. Seminar, Department of Chemistry, University of Wisconsin, Milwaukee, Apr. 1990.
- 29. Seminar, Department of Pharmaceutical Chemistry, University of California, San Francisco, Jul. 1990.
- 30. Tenth International Biophysics Congress, Vancouver, British Columbia, Aug. 1990.
- 31. Ninth Annual Meeting of the Society of Magnetic Resonance in Medicine, New York, Aug. 1990.
- 32. Seminar, Department of Chemistry, Imperial College, University of London, England, Sept. 1990.
- 33. XIV International Conference on Magnetic Resonance in Biological Systems, Univ. of Warwick, England, Sep. 1990.
- 34. Seminar, Department of Psychiatry, Loyola University Medical Center, Maywood, Sep. 1990.
- 35. Tenth Midwest Enzyme Conference, Loyola University of Chicago, Oct. 1990.
- 36. The Pittsburgh Conference, Chicago, Mar. 1991.

37. Seminar, Neurosciences Program, Loyola University Medical Center, Maywood, Conference Presentations and Seminars (cont.)				

54.	International Society of Magnetic Resonance in Medicine, Fourth Scientific					

54.

71. European Mediterranean Conference in Inorganic Chemistry, Toulouse, France, Conference Presentations and Seminars (cont.)

October 1999.

- 72. Ressonancia Magnetica Nuclear VII Encontro de Usuarios, Rio de Janeiro, Brazil, May 1999.
- 73. IV Conferencia de Quimica Inorganica, Peniche, Portugal, March 1999.
- 74. Seminar, Department of Psychiatry, VA Hines Hospital, Hines, IL, March 2000.
- 75. 44th Annual Meeting of the Biophysical Society, New Orleans, February 2000.
- 76. 219th ACS National Meeting, March 2000.
- 77. 30th Congress Ampere on Magnetic Resonance and Related Phenomena, Lisbon, Portugal, July 2000.
- 78. Seminar, Department of Pharmaceutical Chemistry, University of Montana, May 2000.
- 79. XIX International Conference on Magnetic Resonance in Biological Systems, Florence, Italy, Aug. 2000.
- 80. IV Congresso Iberoamericano de Biofisica, Alicante, Spain, October 2000.
- 81. Il Congresso de Investigacao em Medicina, Coimbra, Portugal, November 2000.
- 82. 16th Scientific Meeting of the American Society of Hypertension, San Francisco, May 2001.
- 83. VIII Encontro de Usuarios de Ressonancia Magnetica Nuclear, Rio de Janeiro, Brazil, May 2001.
- 84. Sixth FIGIPS Meeting in Inorganic Chemistry, Barcelona, Spain, July 2001.
- 85. Tenth International Conference on Bioinorganic Chemistry, Florence, Italy, August 2001.
- 86. Seminar, Bradley University, September 2001.
- 87. 46th Annual Meeting of the Biophysical Society, San Francisco, Feb. 2002.

88. 223rd ACS National Meeting, Orlando, April 2002.

### Conference Presentations and Seminars (cont.)

- 89. European Bioinorganic Conference, Lund, Sweden, July 2002.
- 90. Seminar, Department of Molecular and Cellular Biochemistry, Loyola University Medical Center, October 2002.
- 91. 225th ACS National Meeting, New Orleans, March 2003.
- 92. 35th Great Lakes Regional ACS Meeting, Loyola University Chicago, May 2003.
- 93. Seminar, Department of Chemistry, Augustana College, March 2003.
- 94. XI International Conference on Biological Inorganic Chemistry, Cairns, Australia, July 2003.
- 95. Pittsburgh Conference, Chicago, March 2004.
- 96. Annual Biomedical Conference for Minority Students, Dallas, November 2004.
- 97. UCLA Symposium in Honor of 60th Birthday of Professor Joan Valentine, Los Angeles, September 2005.
- 98. Lithium Congress, University of Athens, Greece, October 2005.
- 99. Eight Biological Inorganic Chemistry International Conference, Aveiro, Portugal, July 2006.
- 100. Seminar, Olivet Nazarene University, Bourbonnais, IL, March 2007.
- 101. Seminar, Earlham College, Richmond, IN, March 2007.
- 102. Frontiers in Life Sciences Research Symposium, Loyola University Chicago, April 2010.
- 103. Denkewalter Lecture Poster Session, Loyola University Chicago, October 2010.
- 104. Seminar, Department of Chemistry, Loyola University Chicago, December 2010.
- 105. Frontiers in Life Sciences Research Symposium, Loyola University Chicago, March 2011.
- 106. Denkewalter Lecture Poster Session, Loyola University Chicago, April 2011.

107. NSF-REU poster session, LUC, August 2011. Conference Presentations and Seminars (cont.)

108.

- 109. Midwest Enzyme Chemistry Conference, University of Illinois at Chicago, September 2012.
- 110. NSF-REU poster session, LUC, August 2012.
- 111. 9<sup>th</sup> International Biometals Symposium, Duke University, Durham, NC, July 2014.
- 112. 12<sup>th</sup> European Biological Inorganic Chemistry Conference, Zurich, Switzerland, August 2014
- 113. 13<sup>th</sup> European Biological Inorganic Chemistry Conference, Budapest, Hungary, August 2016

#### **ADMINISTRATIVE AND COMMITTEE RESPONSIBILITIES:**

National and State: Member of the NSF Chemical Research Instrumentation and Facilities Multi-User Review Committee, October 2007; Member of the NSF Major Instrumentation Review Committee, Summer 2004; Member of the Neuropharmacology and Neurochemistry Study Section of NIH (permanent, Fall 1997-2001; temporary, Summer 1996 and Spring 1997; small grants, Fall 1991), Member of the Fellowship and Grant-in-Aid Review Committee of the Illinois Affiliate of the American Heart Association (1993-1995; 1997).

University: Member of the CAS Honors Programming Advisory Committee (1996-97), the Summer Research Stipend Committee (1995), the Committee on Research, Faculty Council (1992-1993), the Graduate Council Committee (1998-2003), the Internal Committee on Scientific Integrity (Summer 1999), of the Biosafety Committee (1999-2000), the Curriculum Committee of the Graduate Council (2001), and of the UPC-Research (2004-2007).

Department of Chemistry and Biochemistry: served in several leading capacities such as Chair (May 2012 to present), Interim Chair (July 2011 May 2012), Acting Chair (Spring 1999) and Assistant Chair of the Department (AY2010-2011) and Graduate Program Director (Fall 1998 - 2003), and on numerous departmental committees including the Promotion & Tenure Committee as a member (1992 - 2001) and as Chair (2006-2011) and five Chemistry Faculty Search Committees, and chaired the Chemistry Graduate Admissions (1996-2003) and the Chemistry Undergraduate Studies (1993-1995) Committees.

The graduate progress, thesis, and dissertation committees in which I served for students other my own are listed below:

Name Degree Program Semester of Defense

Name	Degree Program	Semester of Defense
L. Zhao	M.S.	Fall 96
M.F. Clifton	Ph.D.	Fall 97
A. Aldridge	Ph.D.	Fall 97
J. Brunzelle	Ph.D.	Spring 99
S. Dragan	Ph.D.	Fall 01
D. Dzielawa	Ph.D.	Spring 02
D. Huffer	Ph.D.	Spring 02
E. Brusca	Ph.D.	Summer 02
S. Golden	Ph.D.	