

July 2011

CURRICULUM VITAE

NAME: **Dennis M. Kiick, Ph.D.**

ADDRESS: 6965 Cumberland Gap Parkway
Harrogate, TN 37752

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PHONE: (423) 869-7086

EDUCATION:

09/75 - 05/79 San Diego State University, San Diego, CA 92182
Degree: **B.S., Biology**; Minor: Chemistry

08/79 - 06/82 L.S.U Medical Center, New Orleans, LA 70112
Degree: **M.S., Biochemistry**; Minor: Physiology
Mentor: Paul F. Cook, Ph.D.

08/82 - 05/85 University of North Texas, Denton, TX 76203
Degree: **Ph.D., Biochemistry**
Mentor: Paul F. Cook, Ph.D.

09/85 - 08/88 University of Wisconsin, Madison, WI 53706
NIH Post-doctoral Fellow
Mentor: W. W. Cleland, Ph. D.

HONORS:

2005-06 Western University's COMP Outstanding Basic Science Professor

2002 Elected Chairman of the Department of Basic Medical Sciences,
Western University, College of Osteopathic Medicine of the Pacific

1997-98 Western University's COMP Outstanding Basic Science Professor
1996-97 Western University's COMP Outstanding Basic Science Professor

1990-95 National Institutes of Health FIRST Award

1993 Session Chair: Gordon Research Conference on *Enzymes,
Coenzymes and Metabolic Pathways*

1992 Speaker: Gordon Research Conference on *Isotopes in the Life Sciences*

1990-91 City of Memphis, Project Achieve, Mentor Appreciation Award
1990 Sigma Xi, University of Tennessee-Memphis
1985-88 National Institutes of Health Post-doctoral Fellowship

SOCIETY MEMBERSHIPS:

American Association for the Advancement of Science
American Chemical Society
American Society for Biochemistry and Molecular Biology
International Association of Medical Science Educators
Sigma Xi

MILITARY SERVICE:

02/69 - 12/72 *United States Navy*
Petty Officer, 2nd Class; Aviation Electronic Technician (E5)

Duty Stations: (1) AIMD, NAS Cubi Pt., Republic of the Philippines
(2) VF-111; CAG-15; *USS Coral Sea*, CVA 43

Awards: Navy Unit Commendation
Good Conduct Medal
National Defense Service Medal
Vietnam Service Medal
Republic of Vietnam Campaign Medal
Letter of Commendation Commander of the 7th Fleet

Honorably Discharged December, 1974

UNIVERSITY APPOINTMENTS:

06/11 – present **Asst. VP for Research Health Sciences Division & Professor of Biochemistry**
DeBusk College of Osteopathic Medicine
Division of Health Sciences
Lincoln Memorial University
6965 Cumberland Gap Pkwy
Harrogate, TN 37752
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06/09 – 06/11 Associate Dean of Academic Affairs/Basic Medical Sciences & Professor of Biochemistry & Director of Research
DeBusk College of Osteopathic Medicine
Lincoln Memorial University

01/06 – 06/09 *FOUNDING* Assistant Dean of Basic Medical Sciences &
Professor of Biochemistry
LMU DeBusk College of Osteopathic Medicine

08/02 – 03/05 Chairman of the Department of Basic Medical Sciences
Western University of the Health Sciences
College of Osteopathic Medicine of the Pacific

07/03 – 12/05 Professor of Biochemistry
Western University of the Health Sciences
College of Osteopathic Medicine of the Pacific

07/97 – 06/03 Associate Professor of Biochemistry
Western University of the Health Sciences
College of Osteopathic Medicine of the Pacific

07/95 - 06/97 Assistant Professor of Biochemistry
Western University of the Health Sciences
College of Osteopathic Medicine of the Pacific

09/88 - 06/95 Assistant Professor of Biochemistry
University of Tennessee-Memphis, College of Medicine
Memphis, TN 38163

TEACHING EXPERIENCE:

**Lincoln Memorial University
College of Arts & Sciences**

Fall 2011 -present Biochemistry I, BIOL 441
60 Lecture Hrs.; 45 Postbaccularate Students

LMU-DeBusk College Of Osteopathic Medicine

Fall 2006 -present Metabolism, MFM I, DO SYS 711,
32 Lecture Hrs.; 160 Medical Students

**Western University of Health Sciences
College of Osteopathic Medicine of the Pacific**

Fall 1995 CORE Medical Biochemistry
11/50 Lecture Hrs., 176 Medical Students

Spring 1996, 97 Medical Ethics
4 Facilitated Hrs., 30 Medical Students

Fall 1996-05	CORE Medical Biochemistry, <i>COURSE DIRECTOR</i> 50/50 Lecture Hrs., 212 Medical Students
Fall 1995-05	ORGAN SYSTEMS Biochemistry 17 Lecture Hrs., 212 Medical Students
Spring 1996-05	ORGAN SYSTEMS Biochemistry 21 Lecture Hrs., 212 Medical Students
Spring 1999-03	ENDOCRINE SYSTEM <i>BASIC SCIENCE COORDINATOR</i> 6/64 Lecture Hrs., 3 Weeks, 2 Exams, 168-76 Medical Students

**University of Tennessee-Memphis Health Science Center
School of Graduate Studies**

Spring 1993, 94	Techniques in Microbiology, MICRO 928 1.5 Lecture Hrs.; 24 Graduate Students
Fall 1993, 94	Proteins, Energy & Metabolism, BIOC 811, <i>COURSE DIRECTOR</i> 24-36/50 Lecture Hrs.; 26-33 Graduate Students
Spring 1990, 92, 94	Proteins & Enzymes, BIOC 926, <i>CO-COURSE DIRECTOR</i> 16-23/40 Lecture Hrs.; 6-12 Graduate Students
Fall 1990	Graduate Seminar Series, BIOC 910, <i>COURSE COORDINATOR</i> 16/16 Facilitated Hours; 12 Graduate Students
Fall 1988, 89	Proteins, Energy & Metabolism, BIOC 811, 15/50 Lecture Hrs.; 29-32 Graduate Students

Biochemistry Consultant for Kaplan Inc.

1998 to present	18 Hr., 4 Day, USMLE Biochemistry Intense Prep. Course ca. 4 each year in late spring early summer.
1998 to present	25 Hr., 5 Day USMLE Biochemistry Extended Prep. Course ca. 1 each year in early spring.

EXTRAMURAL RESEARCH SUPPORT:

7/1/90 - 6/30/95	<i>“Mechanistic Studies of Enzyme Catalyzed β-Elimination Reactions”</i> National Institutes of Health R29 GM43307 \$350,000 Total Direct Costs
7/1/90 - 8/31/92	<i>“Solvent Deuterium Isotope Effects on Enzyme Catalyzed Carbon-Carbon Lyase Reactions”</i> Petroleum Research Fund 22782-G4 \$18,000 Total Direct Costs

- 10/1/88 - 9/30/89 “*Solvent Isotope Effects on Vitamin B₆ Enzyme Catalysis*”
 University Physicians’ Foundation RO7-3012-27
 \$8,500 Total Direct Costs
- 10/1/85 - 9/30/88 “*Transition State Studies of Alcohol and Formate Dehydrogenase*”
 National Institutes of Health Post-doctoral Fellowship
 Salary + \$2,000

RESEARCH LABORATORY TECHNICIANS SUPERVISED:

- 1990-93 Elaine Wilson, B.A.
1993-95 Sonia Hodges, B.A.

FELLOWS & GRADUATE STUDENTS TRAINED:

Fellows:

- 1992-94 Bette F. Braxton, Post-doctoral Fellow in Training

Graduate Student Committees at UT-Memphis:

- 1989-92 Sandeep Nema, Ph.D., Department of Pharmaceutics
1988-92 Veronica Sanchez, Ph.D., Department of Biochemistry
1988-94 Rose Stiffen, Ph.D. Department of Biochemistry
1989-94 Raghavan Madhavan, Department of Biochemistry

COMMITTEES & OFFICES HELD:

National

- 1989-93 *Ad Hoc* Reviewer for *Journal of Biological Chemistry*
 Editorial Board Member: Gerald M. Carlson
- 1990 National Institutes of Health, Diabetes and Digestive and Kidney
 Diseases. Phase III SBIR Review
- 1990-94 *Ad Hoc* Reviewer for *Journal of the American Chemical Society*
 Editor: Richard Schowen
- 1992-2005 *Ad Hoc* Reviewer for *Biochemistry*
 Associate Editors: Perry Frey; James Riordan; Gordon Hammes
- 1998 *Ad Hoc* Reviewer for the Research Corporation

Lincoln Memorial University

2006-present	University Academic Council
2007-present	University Research Committee, Chairman
2006-2009	University Promotions & Multi-year Contracts Committee

**Lincoln Memorial University-
DeBusk College of Osteopathic Medicine**

2006- present	Dean's Council Member
2006-2009;present	Curriculum Committee, Chairman: ex-Officio
2008-present	Research Committee, ex-Officio

**Western University of Health Science
College of Osteopathic Medicine of the Pacific**

2005	Tenure & Promotions Committee
2004-05	Curriculum Committee
1998-2005	Osteopathic Medicine <u>Student Performance</u> Committee Secretary, 1998-00; Chairman, 2000-03
1998-2005	Pitzer College Medical Scholar's Program Faculty Advisor
1996-2005	Faculty Advisor for SANUS: Western University's Theatrical Club
2003-2004	Basic Medical Sciences Faculty, Search Committee Chairman
1997-2003	University Awards Committee and Osteopathic Medicine Awards Sub-Committee Chairman
1996-2002	Biochemistry Discipline Leader
1996-98, 2000-01	Osteopathic Medicine <u>Student Admissions</u> Committee
2000-01	Pharmacology Faculty, Search Committee Chairman
1999-2000	Dean of College of Osteopathic Medicine, Search Committee Member

1999-2004	Dean's Council Member (Academic Management Team)
1997-98	Biochemistry Faculty, Search Committee Chairman
1996-2000	Western University <u>Student Conduct</u> Committee Secretary, 1996-97; Chairman, 1998-99
1995-99	Institutional Animal Care and Use Committee (IACUC) Chairman; 1995-98
1997-99	Chairman of Internal Medicine, Search Committee Member
1996-98	Faculty Council Faculty Workload Policy <i>Ad Hoc</i> Subcommittee (1996) Faculty Handbook Revision Subcommittee (1996)

**University of Tennessee-Memphis Health Science Center
College of Medicine**

1991-94	Department of Biochemistry Graduate Education Committee
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PUBLICATIONS:

Books and Book Chapters

Kiick, D.M. Isotope Effects on Enzyme Catalyzed Reactions Using the Remote Label Technique in "*Enzyme Mechanism from Isotope Effects*"; P.F. Cook, Editor; CRC Press, Inc. 1991, Chapter 12.

Journals

1. Kiick, D.M. and Cook, P.F. pH Studies toward the Elucidation of the Auxiliary Catalyst for Pig Heart Aspartate Aminotransferase. *Biochemistry* 22, 375 (1983).
2. Park, S.H., Kiick, D.M., Harris, B.G. and Cook, P.F. Kinetic Mechanism in the Direction of Oxidative Decarboxylation for NAD-Malic Enzyme from *Ascaris suum*. *Biochemistry* 23, 5446 (1984).
3. Kiick, D.M., Allen, B.L., Rao, J.G.S., Harris, B.G. and Cook, P.F. Determination of Dissociation Constants for Enzyme-Reactant Complexes for NAD-Malic Enzyme by Modulation of the Thiol Inactivation Rate. *Biochemistry* 23, 5454 (1984).

4. Kiick, D.M., Harris, B.G. and Cook, P.F. Protonation Mechanism and Location of Rate Determining Steps for the *Ascaris suum* Nicotinamide Adenine Dinucleotide-Malic Enzyme Reaction from Isotope Effects and pH Studies. ***Biochemistry*** 25, 227 (1986).
5. Kiick, D.M. and Phillips, R.S. Mechanistic Deductions from Kinetic Isotope Effects and pH Studies of Pyridoxal Phosphate-Dependent Carbon-Carbon Lyases: *Erwinia herbicola* and *Citrobacter freundii* Tyrosine Phenol-Lyase. ***Biochemistry*** 27, 7333 (1988).
6. Kiick, D.M. and Phillips, R.S. Mechanistic Deductions from Multiple Kinetic and Solvent Deuterium Isotope Effects and pH Studies of Pyridoxal Phosphate-Dependent Carbon-Carbon Lyases: *Escherichia coli* Tryptophan Indole-Lyase. ***Biochemistry*** 27, 7339 (1988).
7. Kiick, D.M. and Cleland, W.W. Steady-State Kinetic Studies of the Metal Ion-Dependent Decarboxylation of Oxalacetate Catalyzed by Pyruvate Kinase. ***Archives of Biochemistry and Biophysics*** 270, 230 (1989).
8. Kiick, D.M. Effect of Commitments to Catalysis on the Degree of Curvature in Proton Inventories of the Kinetic Parameters for Enzyme Catalyzed Reactions: Application to Tryptophan Indole-Lyase. ***Journal of the American Chemical Society*** 113, 8499 (1991).
9. Rotberg, N.S. (Kiick, D.M.) and Cleland, W.W. Secondary ^{15}N Isotope Effects on the Reactions Catalyzed by Alcohol and Formate Dehydrogenases. ***Biochemistry*** 30, 4068 (1991).
10. Nema, S., Kiick, D.M. and Avis, K.E. Protection of Lactate Dehydrogenase Against Protease Digestion by Encapsulation in Liposomes. ***Journal of Pharmaceutical Science & Technology*** 48, 410 (1994).
11. Waldrop, G.L., Braxton, B.F., Urbauer, J.L., Cleland, W.W. and Kiick, D.M. Secondary ^{18}O and Primary ^{13}C Isotope Effects as a Probe of Transition State Structure for Enzymatic Decarboxylation of Oxalacetate. ***Biochemistry*** 33, 5262 (1994).
12. Kiick, D.M. The pH Dependence of the Kinetic Parameters, Nitrogen Isotope and Solvent Deuterium Isotope Effects for *Escherichia Coli* Glutaminase. ***Archives of Biochemistry and Biophysics***, In Preparation.
13. Hodges, S.H. and Kiick, D.M. Multiple Isotope Effect Analysis of Dipeptide Hydrolysis Catalyzed by Pig Kidney Prolidase. ***Biochemistry***, In Preparation.

Current Abstracts Presented and Published:

1. Kiick, D.M. Solvent Deuterium Isotope Effects and pH Studies of Porcine Kidney Prolidase. *FASEB J.* 7, A1198 (1993).

POSTERS and PRESENTATIONS AT SCIENTIFIC MEETINGS:

1. Kiick, D.M., Weiss, P.M., Marschner, T.M., Oppenheimer, N.J. and Cleland, W.W. Heavy Atom Isotope Effects for Formate Dehydrogenase. @ **Gordon Research Conference** on *Enzymes, Coenzymes, and Metabolic Pathways*, Meriden, New Hampshire, 1986.
2. Kiick, D.M., Weiss, P.M., Marschner, T.M., Oppenheimer, N.J. and Cleland, W.W. Heavy Atom Isotope Effects for Formate Dehydrogenase. @ **10th Enzyme Mechanism Conference**, Asilomar, California, 1987.
3. Kiick, D.M. and Phillips, R.S. Analysis of the Steady-State Kinetics for Tryptophan Indole-Lyase and Tyrosine Phenol-Lyase: Isotope Effects and pH Studies. @ **Gordon Research Conference** on *Enzymes, Coenzymes and Metabolic Pathways*, Meriden, New Hampshire, 1988.
4. Kiick, D.M. and Phillips, R.S. Analysis of the Steady-State Kinetics for Tryptophan Indole-Lyase and Tyrosine Phenol-Lyase: Isotope Effects and pH Studies. @ **Gordon Research Conference** on *Chemistry and Physics of , Isotopes*, Tilton, New Hampshire, 1988.
5. Kiick, D.M. Kinetic and Solvent Deuterium Isotope Effects on β -Elimination Reactions: Tyrosine Phenol-Lyase and Tryptophan Indole-Lyase. @ **Gordon Research Conference** on *Enzymes, Coenzymes and Metabolic Pathways*, Meriden, New Hampshire, 1989.
6. Kiick, D.M. Mechanistic Conclusions from the Curvature of Solvent Isotope Effects on Enzyme Catalyzed Reactions. @ **Gordon Research Conference** on *Enzymes, Coenzymes and Metabolic Pathways*, Meriden, New Hampshire, 1991.
7. Kiick, D.M. Solvent Deuterium Isotope Effect and pH Studies of Porcine Kidney Prolidase. @ **13th Enzyme Mechanism Conference**, Key Largo, Florida, 1993.
8. Waldrop, G.L., Braxton, B.F., Urbauer, J.L., Cleland, W.W. and Kiick, D.M. Secondary ^{18}O and Primary ^{13}C Isotope Effects for Enzymic and Non-enzymic Decarboxylation of Oxalacetate. @ **Gordon Research Conference** on *Isotopes in the Life Sciences*, Doubletree Hotel, Ventura, California, 1994.

INVITED SEMINARS:

- 1995 The Use of Kinetic and pH Studies to Determine Enzyme Mechanism. @ College of Osteopathic Medicine of the Pacific, Pomona, California.
- 1994 The Use of Isotope Effects and pH Studies to Determine Enzyme Mechanisms: Analysis of Heavy Atom & Solvent Deuterium Isotope Effects on Pig Kidney Prolidase. @ **National Institutes of Health**, Biophysics & Physiology Sciences Program, Bethesda, Maryland.
- 1993 Solvent Deuterium Isotope Effect and pH Studies of Pig Kidney Prolidase. @ (1) University of Tennessee, Knoxville, Department of Biochemistry; and (2) University of Tennessee, College of Medicine, Department of Biochemistry, Memphis, Tennessee.
- The Role of Vitamin B₆ in Enzyme Catalysis. @ University of Tennessee, College of Medicine, Department of Biochemistry, Memphis, Tennessee.
- 1992 Mechanistic Conclusions from the Curvature of Solvent Deuterium Isotope Effects on Enzyme Catalyzed Reactions. @ (1) **Gordon Research Conference on Isotopes in the Life Sciences**, Doubletree Hotel, Ventura, California; and (2) The Enzymology Research Group, Departments of Chemistry and Biochemistry, University of California, Berkeley, California.
- 1991 Analysis of the Proton Inventories for the Tryptophan Indole-Lyase Reaction. University of Tennessee, College of Medicine, Department of Biochemistry, Memphis, Tennessee.
- 1990 Analysis of the Proton Inventories for the Tryptophan Indole-Lyase Reaction. @ Texas College of Osteopathic Medicine, Department of Biochemistry, Fort Worth, Texas.
- 1989 Pyruvate Kinase and the Putative Role of Metal-Water in Catalysis. @ University of Tennessee, College of Medicine, Department of Biochemistry, Memphis, Tennessee.
- The Use of Isotope Effects and pH Studies to Determine Enzyme Mechanisms. @ Yoknapatawpha Conference on Bimolecular Sciences, University of Mississippi, Oxford, Mississippi.
- 1988 Chemical Mechanisms of the β -Elimination Reaction Catalyzed by Tryptophan Indole-Lyase and Tyrosine Phenol-Lyase. @ (1) Villanova University, Department of Chemistry, Villanova, Pennsylvania; and (2) Scripps's Clinic and Research Institute, La Jolla, California.
- 1987 Mechanistic Deductions from Kinetic Isotope Effects and pH Studies of the NAD-Malic Enzyme Reaction. @ University of Georgia, Department of Chemistry, Athens, Georgia.