# Curriculum Vitae Jane R. Marone, M.D.

#### **Education**

Boston University, 1978-1980

University of Missouri, B.A. Biology, 1981

University of Missouri, M.A. Biology, 1982

University of Missouri, School of Medicine, M.D., 1986

Louisiana State University, Resident Physician, Physical Medicine and Rehabilitation, July, 1986 - May, 1990

Rehabilitation Institute of Chicago, Resident Physician; Physical Medicine and Rehabilitation, EMG clinics; June 1990

University of Illinois at Chicago, post doctoral work, September, 1990 - June, 1993

#### Licensure

Licensed to practice medicine in Louisiana, Illinois

### **Teaching Appointments**

Oakton Community College—Adjunct Professor Biology

Courses Taught:

Biology; lecture and laboratory Fall, 1994

Pharmacology, Spring, 1995

# University of Illinois-Chicago Department of Kinesiology and Nutrition

Visiting Lecturer 1995-1998

Lecturer 1998-2001

Clinical Assistant Professor 2001 – 2007

Clinical Associate Professor 2007 – 2014

Clinical Professor 2014 - present

# Courses Taught:

Human Physiological Anatomy I and II (KN 251/252); lecture and laboratory Spring, 1995 to present; Laboratory coordinator 1995-2000; Course coordinator, 1999-present; 400-800 students

Human Cadaver Dissection I and II (KN 350/351) 1995 – 1996, 2000-present

Dept. of Occupational Therapy—Guest lecturer Neurological Structure and Function, Spring 1996, 1997, 2002- 2006

Dept. of Biomedical Visual Sciences—Guest lecturer Pathophysiology Fall 2003

Movement Neuroscience (Kine 472) Spring 2004

Advanced Exercise Physiology—Cardiac Drugs (MVSC 594) Spring 2007

Kinesiology & Nutrition: First Year Seminar (KN 100) Fall 2010 - present

Human Anatomy & Physiology I and II (KN 253/254, online) – Faculty Liason, 2014 – present

Special Projects in Kinesiology 496 – OT Anatomy, Faculty Facilitator, 2014 – present

# **Graduate Students Advised (year completed)**

Masters Students Projects

# 2004 – Julie Gallagher; Committee Member

Stress Reduction: An application of exercise and wellness on the readiness of soldiers

# 2005 – Jeremy Karger-Gatzow; Chair

A program to reduce the risk factors associated with anterior cruciate ligament injuries in women athletes

#### 2007—Scott Murphy; Committee Member

The needs and benefits of force feedback in strength training as well as possible force feedback technologies/methods

#### Kirsten Straughan; Committee Member

Nutrition and performance; development of lectures for a course

### 2008—Yu-Hau Chang; Committee Member

The relationship between ground reaction forces, trunk kinematics and step width during overground walking

# 2009—Rajvee Shah; Committee Member

Current evidence on balance exercise intervention in fall prevention

#### 2010—Eric Foch; Committee Member

Development of Laboratory course for biomechanics class

#### 2011—Meghan Growe; Committee Member

Using Haptic Learning through Clay Modeling to Improve Understanding of Human Anatomy

#### Edward Uram III; Committee Member

The Relationship Between Lower Extremity Alignment, Hip Strength, and Hip ROM in Healthy, Physically Active Individuals—A Pilot Study

# 2013—Melissa Taylor; Committee Member

Analysis of High School Enrichment Programs in the Anatomical Sciences

#### 2015—Kiersten McCartney; Committee Member

Brandon Groth; Committee Member

#### Masters Students Coursework Advisor (beginning year)

2010—Sonal Arora

Kathleen Klupshas

# <u>Doctoral Students Dissertation (year completed)</u>

#### 2010 – Cynthia Misischia; Committee Member

Development and application of an instrument to identify students' misconceptions: diffusion and osmosis

# Student Projects Supervised as Faculty Advisor

Honors College and Departmental Capstone Projects:

2004-2005 Butts, Linda Voluntary Limits of Stability

2009-2010 Patel, Pooja Texting while Walking

2011 – 2012 Coghlin, Bridget – Literature Review of Clinical Gait and Balance Studies; Common Characteristics of Fall Prediction

2011 – 2012 Farkas, Gary and Mazurek, Ewa - Learning Style vs. Work Ethic: Which predicts success in Anatomy and Physiology?

2014- 2015—Shivam Thakkar. Social Media Use and its Effect on Examination Performance

2014 -2015—Michael Durrant. Learning Styles and Examination Performance

# Honors College Activities

2006—Pan, Thi –Stroke

Niedbalic, Nathasha – GERD

Maka, Sylvia—Scoliosis

2007 - Kim, Sarah - Causes of Alzheimer's Disease

2009—Chrzanowska, Elizabeth - Heartburn; GERD

Rivadelo, Ryan – Data cleaning and analysis Fear of Falling study

Marion, Rhonda (with Tracy Sikorski) – Disability Interaction and program design

Klimentowski, Julia – Data analysis CDC Fall Rates in Older Adults

2010 Doose, Joseph (with Tracy Sikorski) – Support Groups for Arnold-Chiari Malformation

2012 - Fletcher, Jacqueline - Spasmodic Torticollis

2013-2014 Khadeer, Mohammed – Teaching Model that Improves Student Knowledge and Performance on Exams

2014 - Krakra, Bihgha Jenine - Ewing Saracoma

2015 - Krakra, Bihgha Jenine - Cardiovascular Disease

Kay, Alexa - Glaucoma

Naveed, Maryam - Cerebral aneurysms

# **Independent Study Projects:**

2006, fall —Humera Kursheed. STD's: an Overview

2006-2007—Lindsay Schuler. Balancing Ability in Older Adults with Fear of Falling

2007, spring—Charles Dula. Functional Anatomy and Physiology of the Hypothalamus and Pituitary Gland

2007, spring—Cary Malczewski. Embryology and Pathology of the Urogenital System

2008, spring—Erin Planera. Knee Ligament Injuries

2008-2009—Charnedra Jasmine Moore. *Orthotics and Prosthetics Technical Skill Development* 

2009-2010—Faiza Rehman and Laura Pacheco Avelar. *Is the Obama Plan Worth It? An analysis of the Obama Health Care Plan and it's Effect on Community Health Clinics.* 

2009-2010—Yessenia Quinones. All about Occupational Therapy. An Historical Overview of the Profession of Occupational Therapy

2010, fall—Monika Kazecki. History of the Profession of Neurosurgery

2010 – 2011—Vered Arbel, Emily Muszczynski, Adam Rudd. *Clay modeling vs. written modules as effective interventions in understanding human anatomy* 

2011, spring—Fareha Kamran. Osteoarthritis

2013- 2014—Shivam Thakkar. Examination of effect of social media on academic performance

2013 -2014—Michael Durrant. Examination of learning style effectiveness in studying

2014-15 - Victoria van Cura - OT UTA with Eliza Davis Reflection Paper

2015, spring— Rasa Staniulyte. *Lumbar Disc Degeneration/Herniation and Lumbar Spinal Stenosis; Comparison and Contrast of Therapies and Outcomes* 

#### Service and Committee Work

Research Forum Committee, 1999

Council for Excellence in Teaching and Learning, (CETL) 1999-2002

U.I.C. "Group 6", College curriculum development committee, 2000-2002

Curriculum Development (Chair), School of Kinesiology 1999-2001

Student Advisory Committee, Fall 2000

Classroom Renovation Advisory Committee 2001-2002

Faculty Fellows Program 1999-2007

Strategic Target 10 Committee, Living and Learning Environment. (Chair) College of Applied Health Sciences— 2003

Faculty Advisory Committee—Dept. of Movement Sciences 2004-2006

Academic Affairs Committee—College Applied Health Sciences member curriculum committee 2004-2013

Student Research Symposium Judge 2005 – 2015

Peer Review of Faculty Teaching Steering Committee for Dept Kinesiology & Nutrition 2006-present

Faculty Sponsor "Be Fit Club" – 2006 - 2010

Continuing Education Coordinator Department of Kinesiology/Nutrition 2006-2011

Approved provider status obtained from NCBTMB (Massage therapy) 11/07 --Renewed 11/10

Approved provider status obtained from APTA (Physical therapy) 7/10

Applied Health Sciences Committee on Multi-year contracts - Spring 2007

UIC Freshman Parent Orientation – faculty liaison, Summers, 2007-2009

Curriculum Committee - Dept. of Kinesiology & Nutrition – 2008

Anniversary and History Committee – College Applied Health Sciences – 2008-2010

Honors College Fellow – 2010 – present

Academic Affairs Committee (Chair) – Department Kinesiology and Nutrition - 2010 - 2013

Urban Allied Health Academy Faculty Advisor – College Applied Health Sciences – 2011 – 2015

Integrative Urban Health Science Curriculum Committee (Ad hoc) – Department Kinesiology and Nutrition – 2012

Faculty Advisory Committee – 2012 -present

Undergraduate Student Success Center mentor – 2013

Admissions Committee, Department KN – 2013-2016

Search Committees (Chair) for Clinical Assistant Professor - Spring 2014; and for Visiting Instructor, Summer 2014

Advisory Board, Office of Campus Learning Environments – University - Fall 2014 – present

Advisory Board, Office of Campus Learning Environments – University - New Learning Hub Fall 2016

Teaching Excellence Review Committee – University (TERC, formerly CETL)

- Member, 2013-2015
- Co-Chair 2015-2016

New UIC faculty orientation – faculty discussion panel Fall, 2014

New UIC faculty orientation - speaker TERC Awards, Fall, 2015

Teaching Recognition Program Committee (TRP) – University – Chair 2016 - present Center for the Advancement of Teaching-Learning Communities – University – Master Teaching Scholar Fall 2015 – present

- -Workshop UIC TLC: Tests as Teaching Tools; (Co-presenter) March 29, 2016
- -Workshop UIC College of Engineering Retreat, Crown Plaza Hotel, Chicago, IL: *Assessment as a Tool for Learning*; August 18, 2016
- -Workshop UIC TLC: *Active Learning in the Classroom*; (Co-presenter) November 10, 2016

# Special Service Application for the UIC Council for Excellence in Teaching and Learning (CETL) Departmental Teaching Award

This award application involved collecting data and information on student and faculty activities, measures of teaching excellence, and course and curriculum development over a five-year period as well as writing a 10-page application. Two \$20,000 awards are given annually at UIC. The Movement Sciences Department was given the award in May, 2007.

<u>Medical Consultant</u> – UIC Biomechanics lab – 2003 - 2011 (evaluate medical health/safety of elderly subjects for participation in experimental work involving falling)

<u>Safety Officer</u> – Worcester Polytechnic Institute – 2014 – present (PI - Karen L Troy, R01AR063691; A Prospective Study of Human Bone Adaptation Using a Novel in-vivo Loading Model)

# Conferences and Workshops Hosted

Human Anatomy and Physiology Regional Conference, Chicago Area – February 2002; Organizer and Instructor

Illinois School of Health Careers – December 18, 2007; Organizer and Instructor - Field trip for massage therapy students

YogaView Studios – March 24, 2011; Organizer and Instructor - Workshop for beginning yoga instructors

Coordinator Chicago area college, high school, and professional group workshops – 2010 – present

#### Continuing Education Workshops:

Human Cadaver Dissection for Massage Therapists Workshop Coordinator and Organizer– 1 day workshops hosted annually:

June 2, 2007 – Human Cadaver Workshop for Massage Therapists

May 31, 2008 – Human Cadaver Workshop for Massage Therapists

May 16, 2009, May 30, 2009, - 2 workshops – Human Cadaver Workshop for Massage Therapists

December 10 2009 – Lower Extremity workshop for Massage Therapists May 1, 2010 and May 15, 2010 – The Human Body – More than Skin Deep

December 11, 2010--Lower extremity exploration: An in-depth look at the anatomy associated with lower extremity injury

May 21, 2011—The Human Body – More than Skin Deep

# Memberships

American Academy/Congress of Physical Medicine and Rehabilitation, 1987-present American College of Sports Medicine, 1988-present Human Anatomy and Physiology Society, 2000-present American Physiological Society 2001-present

# **Grants Funded**

Reducing Falls Using Task Specific Training; Centers for Disease Control 9/29/05-2/29/07 (PI-M.D. Grabiner, Co-I - J.R. Marone)

Reducing Falls Using Task Specific Training: Centers for Disease Control Prospective study 9/07-8/11 (PI M.D. Grabiner, Co-I J.R. Marone)

#### Invited Lectures/Presentations/Posters

Resident's Instructional Grand Rounds--*Swimmer's Shoulder*--March, 1988. Louisiana State University, Department of Physical Medicine and Rehabilitation

Nursing Inservice: *Marfan's Syndrome*--October, 1989 Touro Infirmiry, New Orleans Resident's Instructional Grand Rounds--*Gait*--March, 1990. Louisiana State University,

Department of Physical Medicine and Rehabilitation

Invited Guest Lecture: *Atrophy*--April, 1993. Wheaton College, Wheaton, Illinois *Use of Blackboard in the Large Classroom*: University of Illinois-Chicago Instructional Technology Lab Seminar—March, 2002 and March 2003

Human Anatomy and Physiology Conference (Chicago Area): March 2003 Presented workshop on The Use of Blackboard in the Classroom

Invited Review of New Products under Development—March 20-23, 2003; McGraw-Hill Co. (Reviewed new on-line and CD-ROM; tutorials developed by this company)

Muddy Point in a Large Classroom; May, 2003; National Human Anatomy and Physiology Conference (M.L. Bareither, J.R. Marone)

- Concept Mapping in a Large Classroom; February, 2004 Poster presentation; Chicago Area Human Anatomy and Physiology Conference (Marone JR, Misischia CM, Bareither ML)
- Voluntary Limits of Stability Do Not Define the Limits of Center of Pressure Displacement in Quiet Standing in Young Adults; 2005 Poster presentation UIC Undergraduate Research Symposium (LS Butts, JR Marone, KL Troy, MD Grabiner)
- Concurrent control of multiple segments is required to avoid falling due to a slip induced during locomotion. Invited Colloquium: 5th World Congress of Biomechanics, Munich, Germany, 29 July-4 August 2006 (Troy KL, Donovan S, Marone J, Bareither ML, Grabiner MD)
- Shoulder Flexion after a Slip May Help Young but not Older Adults Avoid a Fall; 2006 Poster presentation UIC Graduate Research Symposium (SJ Donovan, KL Troy, ML Bareither, JR Marone, MD Grabiner)
- Falls-Self Efficacy, not Fear of Falling, Correlates with Dynamic Postural Stability; 2007 Poster presentation UIC Undergraduate Research Symposium (LD Schuler, JR Marone, KL Troy, MD Grabiner)
- Texting reduces dynamic stability while walking; April 2010 Poster presentation UIC Student Research Forum (PB Patel, CP Hurt, MD Grabiner, JR Marone)

- Task-specific Training Decreases Laboratory-induced Falls by Older Women; November 2010 paper presentation; Gerontological Society of America paper presentation (MD Grabiner, S Gatts, JR Marone, ML Bareither, KL Troy)
- Task-specific Training Decreases Falls by Older Women in the Community: 6 Month Prospective Data November 2010 paper presentation Gerontological Society of America (NJ Rosenblatt, JR Marone, MD Grabiner)
- Keynote Speaker Phi Eta Sigma Induction Ceremony UIC Honors College April 5, 2011
- Improving understanding of human anatomy using haptic learning through clay modeling. April 2011 paper presentation Experimental Biology (V. Arbel, A. Rudd, E. Muszczynski, M. Growe, J. R. Marone, M. L. Bareither)
- Learning style vs. student preparation: which is associated with success in a combined undergraduate anatomy and physiology course? 2012 Poster presentation American February 2012 Association of Anatomists Regional Meeting and April 2012 UIC Student Research Forum (GJ Farkas, E Mazurek, JR Marone)
- Falls, Gait, and Balance Assessment: What Characteristics Best Predict Falls? 2012 Poster presentation April 2012 Department of Kinesiology and Nutrition Research Forum and UIC Student Research Forum (BC Coghlin, JR Marone)

# **Publications**

# **Books**:

- Bareither, M.L., and J.R. Marone, Guide to Cadaver Dissection; Stipes Publishing, LLC., Champaign, Illinois; 1998; Updated Editions 1999-2012
- Marone, J.R. and M.L. Bareither, <u>Laboratory Manual for Human Physiological Anatomy</u>. (Fall); Stipes Publishing, LLC., Champaign, Illinois; 2012
- Marone, J.R., Bareither, M.L., <u>Laboratory Manual for Human Physiological Anatomy</u>. (Spring); Stipes Publishing, LLC.Champaign, Illinois, 2012
- Marone, J.R. and Bareither, M.L. <u>Lecture Outline for Human Physiological Anatomy</u>. (Fall); Stipes Publishing, LLC., Champaign, Illinois, 2012
- Marone, J.R. and Bareither, M.L. <u>Lecture Outline for Human Physiological Anatomy</u>. (Spring); Stipes Publishing, LLC., Champaign, Illinois, 2012
- Marone, J.R. and Bareither, M.L. Kinesiology 251 Human Physiological Anatomy Fall Semester Lecture/Lab Notebook; Bluedoor Publishing, Minneapolis, MN; 2014
- Marone, J.R. and Bareither, M.L. Kinesiology 252 Human Physiological Anatomy Spring Semester Lecture/Lab Notebook; Bluedoor Publishing, Minneapolis, MN; 2014

#### Papers:

- Rines JP, vom Saal FS.1984. Fetal effects on sexual behavior and aggression in young and old female mice treated with estrogen and testosterone. Hormones and Behavior 18: 117-129.
- Hickson RC, Marone JR. 1993. Contractile activity and inhibition of glucocorticoid-induced muscle atrophy. Exercise and Sport Science Reviews 21: 135-167
- Marone JR, Falduto, MT, Essig DA, Hickson RC. 1994. Effects of glucocorticoids and endurance training on cytochrome oxidase expression in skeletal muscle. <u>Journal of Applied Physiology</u> 77(4):1685-1690.
- Bareither, ML, Marone JR. 2004. Clarifying Lecture Topics in Anatomy and Physiology HAPS Educator, Spring 2004: 18-19.

- Marone, JR, Bareither, ML, Misischia, CM. 2004 Concept Mapping as a Tool to Improve Exam Performance on Examinations in a Large Anatomy and Physiology Course, <u>HAPS</u> Educator, Fall 2004: 13-15.
- Marone JR, Misischia CM, Bareither ML. 2006. Defining levels of student understanding in anatomy using a relationship module. <u>HAPS Educator</u> (11) 1, 15-16.
- Grabiner MD, Donovan S, Bareither ML, Marone JR, Hamstra-Wright K, Gatts S, Troy, K. 2008. Trunk kinematics and fall risk of older adults: Translating biomechanical results to the clinic. Journal of Electromyography and Kinesiology 18(2): 197-204.
- Troy KL, Donovan SJ, Marone JR, Bareither ML, Grabiner MD. 2008. Modifiable performance domain risk-factors associated with slip-related falls. <u>Gait & Posture</u> 28 (3):461-5.
- Marone JR, Rosenblatt NJ, Troy KL, Grabiner MD. 2011. Fear of Falling Does Not Alter the Kinematics of Recovery from an Induced Trip: A Preliminary Study. <u>Archives of Physical Medicine and Rehabilitation</u> 92 (12): 2093-2095.
- Grabiner MD, Bareither ML, Gatts S, Marone J, Troy K. 2012. Task-specific training reduces trip-related fall risk in women. <u>Medicine & Science in Sports & Exercise</u> 44(12): 2410-2414.
- Bareither ML, Arbel V, Growe M, Muszczynski E, Rudd A, Marone JR. 2013. Clay modeling vs. written modules as effective interventions in understanding human anatomy. <u>Anatomical Sciences Education</u> 6(3): 170-176.
- Rosenblatt NJ, Marone JR, Grabiner MD. 2013. Preventing trip-related falls by community-dwelling older adults: a prospective study. <u>Journal of the American Geriatrics Society</u> 61(9): 1629-1630.
- Marone JR, Patel PB, Hurt CP, Grabiner MD. 2014. Frontal plane margin of stability is increased during texting while walking. <u>Gait & Posture</u>, 40(1):243-246.
- Farkas GJ, Mazurek E, Marone JR. 2016. Learning style vs. time spent studying and career choice: Which is associated with success in a combined undergraduate anatomy and physiology course? <u>Anatomical Sciences Education</u>: 9: 121-131.

# Abstracts:

- Kishner S, Marone JR. 1990. Computer program for rehabilitation team. <u>Archives of</u> Physical Medicine and Rehabilitation 71 (10): 780.
- Kishner S, and Marone JR. 1991. Rehabilitation of pernicious anemia. <u>Archives of Physical Medicine and Rehabilitation</u>, 72 (10): 814.
- Grabiner MD, Bareither ML, Gatts S, Marone J, Troy K. 2010. Task-specific training decreases laboratory induced falls by older women. The Gerontologist 50 (suppl 1): 207.
- Rosenblatt N, Marone J, Grabiner MD. 2010. Task-specific training decreases falls by older women in the community: 6 month prospective data. <u>The Gerontologist</u> 50 (suppl 1): 412.
- Grabiner, MD, Marone JR, Wyatt M, Kaufman KR. 2016. Step width during treadmill walking is statistically persistent. Submitted American Society Biomechanics spring 2016 meeting.
- Suliman N, Thakkar S, Doubleday AF, Marone JR. 2016. Information acquired visually, not aurally, is affected by social media interruption during lecture Human Anatomy & Physiology Society spring 2016 meeting.

# Reviews and Projects: Textbook and Internet Educational:

Focus group. McGraw-Hill Sat., May 15, 1999. Attended 4-hour focus group session at the request of McGraw Hill Co. Represented U.I.C. in assisting author Ken Saladin from

- Georgia College and State University update his current Human Anatomy and Physiology textbook.
- Online educational development project, McGraw-Hill Co, 2000. Wrote a total of 290 original exam questions to be used for an online, student self-study exam center. Edited 290 additional questions written by other authors.
- Web site development project—HIPS project. McGraw-Hill Co, 1998-2001. Web site editor. Edit story boards, graphics, and navigation of web site for human anatomy and physiology.
- Textbook Reviewer: *Hole's Human Anatomy and Physiology*. Shier, Butler, and Lewis; McGraw-Hill 2002.
- Textbook Reviewer: *Human Physiological Anatomy*, Elaine Marieb, Pearson, Addison-Wesley, Benjamin-Cummings 2007.
- Textbook Reviewer: *Anatomy & Physiology: The Unity of Form and Function*, Ken Saladin, McGraw-Hill 2008.
- Textbook Reviewer: Anatomy and Physiology, Banta; Pearson-Benjamin Cummings 2010
- Textbook Reviewer: *Anatomy and Physiology*, Marieb and Hoehn; Pearson-Benjamin Cummings, 2011.
- Textbook Reviewer: *Anatomy & Physiology: An Integrative Approach*, 3<sup>rd</sup> ed, McKinley, O'Loughlin, Bidle; McGraw-Hill, 2012 (phone review).
- Reviewer custom laboratory manual development: Marieb and Hoehn: Pearson-Benjamin Cummings, 2012
- Reviewer: 2013 Medicine & Science in Sports and Exercise
  - 2015 Gait and Posture; Scientific Reports
  - 2016 Anatomical Sciences Education; Journal of Learning and Instruction

#### Awards Received:

- 1998--University of Illinois-Chicago, Council for Excellence in Teaching and Learning: Teaching Recognition Program Award
- 1999--Campus Housing Office Award for Faculty Members having a substantial impact on the academic experience of students (award from 3 students)
- 2000--Excalibur Award, University of Illinois--Chicago, College of Health and Human Development Sciences
- 2002—Who's Who Among America's Teachers
- 2004—Campus Housing Office Award for making a significant difference in the life of a student (award from 1 student)
- 2005—Undergraduate Research Symposium, 1<sup>st</sup> place for poster presented (Butts, et al); Life Sciences Division
- 2007—Council for Excellence in Teaching and Learning (CETL) Departmental Teaching Award for Movement Sciences (Award Application Author)
- 2007—Department of Kinesiology and Nutrition Educator of the Year Award
- 2011—Student Research Symposium, 1<sup>st</sup> place for poster presented (Arbel, et al); Humanities and Social Science division
- 2013—University of Illinois-Chicago, Council for Excellence in Teaching and Learning: Teaching Recognition Program Award
- 2013—University of Illinois-Chicago Silver Circle Award

#### **Awards Nominated**

- 2000—Flame Award for Teaching Excellence
- 2000—Amoco Silver Circle Award
- 2001—Amoco Silver Circle Award

2002—Amoco Silver Circle Award

2005—Amoco Silver Circle Award

2013—Educator of the Year Award, College of Applied Health Sciences

# Additional Employment/Work Experience

Laboratory Assistant, Summer 1979, Foundation for Blood Research, Scarborough, Maine Student Researcher, Prostatic Acid Phosphatase project, Summer, 1980, Foundation for Blood Research, Scarborough, Maine

Physician's Office Assistant, Summer, 1979, Endocrinology Department, Maine Medical Center, Portland, Maine

Volunteer in Elder Care, Summer 1980 Seventy Five State Street (Nursing Home), Portland, Maine

Student Physician 1983-1984, Columbia Medigroup, Columbia Missouri

Laboratory Assistant, Summer 1984, Department of Pharmacology, University of Missouri, Department of Pharmacology