CURRICULUM VITAE

SCOTT HAYDEN CARLSON

Personal

Home Address: 405 Decorah Avenue
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Work Address: Luther College
Department of Biology
700 College Drive
Decorah, Iowa 52101
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Education

1991 - 1996 University of Minnesota, Twin Cities
Degree: Ph.D. - Cellular and Integrative Physiology
Dissertation Title: *"The role of peripheral osmoreceptors in the control of arginine vasopressin release"*

1989 - 1991 University of California, Davis
Degree: M.S. - Physiology
Thesis Title: *"Paradoxical arginine inhibition of second phase insulin secretion"*

1985 - 1988 University of California, Davis
Degree: B.S. - Physiology

1983 - 1985 American River Junior College, Sacramento, California
Degree: A.S. - Biological Science

Research Positions Held

2007 – 2008 Visiting Scholar (Sabbatical leave)
Department of Cell Biology
University of Alabama at Birmingham

2007 – Current Associate Professor
Luther College
Decorah, IA 52101

2000 – 2006 Assistant Professor
Luther College

Decorah, IA 52101

1996 – 2000 Postdoctoral Fellow
Vascular Biology and Hypertension Program
University of Alabama at Birmingham

1991 - 1996 Research Assistant
Department of Physiology
University of Minnesota, Minneapolis

1988 Research Assistant
Dorothy Gietzen, Ph.D.
Department of Physiological Sciences
University of California, Davis

Teaching Positions Held (selected list)

2013- Current Professor
Luther College
Decorah, IA 52101

2006 – 2013 Associate Professor
Luther College
Decorah, IA 52101

2000 – 2006 Assistant Professor
Luther College
Decorah, IA 52101

1997 Lecturer
Surgical Assistant Training Program (Cardiac Physiology)
University of Alabama at Birmingham
Birmingham, AL

1995 Lecturer
Veterinary Physiology (Cardiovascular and Renal)
College of Veterinary Medicine
University of Minnesota
St. Paul, MN

Research Support

9/2012-8/2016 "Fostering excellence and leadership in K-12 science education: novel linkage of Luther College STEM faculty with existing and future educators in Northeast Iowa"
Howard Hughes Medical Institute: Undergraduate Program Grant #52007549
Total Budget: $1,500,000
Role: Project Director

2005-2009 "Cytochrome P450 overexpression and hypertension in SHR"
Academic Research Enhancement Award #1 R15 HL081109-01
The National Institutes of Health: National Heart, Lung, and Blood Institute
Total Direct Costs: $150,000
Total Indirect Costs: $36,000

2003-2004 "The role of cytochrome P-450 and 20-HETE in hypertension and salt-sensitivity in the spontaneously hypertensive rat".
McElroy Undergraduate Student/Faculty Research Award
Total Direct Costs = $1700

2001-2003 "The Role of Estrogen in Diabetes-Induced Cardiovascular Disease"
Beginning-Investigator Award #0160487Z
American Heart Association – Heartland Affiliate
Total Direct Costs: $100,000
Total Indirect Costs: $10,000

2001-2002 "Acquisition of Instrumentation for the Study of the Contribution of Hypertension to Cognitive Impairment and Diabetes-induced Cardiovascular Disease: the Protective Effects of Estrogen"
Major Research Instrumentation Award #DBI-0116105
National Science Foundation
Total Direct Costs: $122,401
Total Indirect Costs: $0

Honors and Awards

2005 – 2006 President of the Iowa Physiological Society

2000 Caroline tum Suden/Frances A. Hellebrandt Professional Opportunity Award
Central Nervous System Section
American Physiological Society

Young Investigator Award
Endocrinology and Metabolism Section
American Physiological Society

2000 con't Young Investigator Travel Award
Cardiovascular Section

American Physiological Society

1999 Merck Young Investigator Award
Council for High Blood Pressure Research
American Heart Association

1997 Young Investigator Award
Department of Cell Biology
University of Alabama at Birmingham

1996 Young Investigator Award - Integrative Physiology
Midwest Physiological Society

1995 I.J. Fox Memorial Scholarship for Excellence in Physiology
Department of Physiology
University of Minnesota

1994 Doctoral Dissertation Grant, University of Minnesota

1993 Lifson/Johnson Award for Excellence in Teaching Physiology
School of Medicine
University of Minnesota

Professional Society Memberships

- Iowa Physiological Society

Invited Speaker in Symposia and Conferences

2011 La Crosse BioResearch Forum
Center for Cancer and Blood Disorders, Gundersen Lutheran Medical Foundation
Invited Talk: *"Neural and Vascular Contributors to Hypertension"*

2004 Experimental Biology
Featured Topic – Non-traditional Arachidonic Acid Signaling in Arteries
Presentation: *"Cytochrome P-450 4A overexpression increases peripheral resistance and arterial pressure in spontaneously hypertensive rats."*

2002 Data Sciences International User's Group Meeting at Mayo Medical Clinic
"Telemetric recording in transgenic mice"

1999 Annual Meeting of the Council for High Blood Pressure Research
"Sympathetic nervous system overactivity contributes to hypertension in obese Zucker rats on basal and high NaCl diets"

1997 Annual Meeting of the Council for High Blood Pressure Research
"Hepatic denervation produces chronic hypertension in Wistar-Kyoto rats"

1996 Annual Meeting of the Midwest Physiological Society
"Effect of splanchnic denervation and vagotomy on plasma AVP and *fos* immunoreactivity in response to intragastric hypertonic saline in conscious rats"

Invited Seminars

2000 • Luther College, Department of Biology

1999 • Luther College, Department of Biology

1996 • University of Minnesota, Department of Physiology
• Pennsylvania State University College of Medicine, Department of Behavioral Science
• University of Pittsburgh, Department of Neuroscience
• University of Texas Southwestern Medical Center, Department of Internal Medicine
• University of Alabama at Birmingham, Vascular Biology and Hypertension Group
• Washington University School of Medicine, Department of Anatomy and Neurobiology

Journal Referee

- American Journal of Physiology (Heart and Circulation Physiol.)
- American Journal of Physiology (Regulatory, Integrative Comp. Physiol.)
- American Journal of Physiology (Endocrinol. Metab.)
- Hypertension
- Journal of Applied Physiology
- Journal of Gerontology: Biological Sciences
- Pflugers Archiv – European Journal of Physiology

Institutional Service

Current Course Assignments:

- Biology 152: Principles of Biology – Molecules, Cells and Genes (Course Coordinator)
- Biology 255: Human Physiology
- Biology 362: Neuroscience
- Bio 389: Directed Research

Previous Course Assignments:

- Paideia II: Health Care Ethics (Course Coordinator)
- Bio 62: Physiology
- Biology Colloquium
- International Studies 39: Third World Health Issues (study abroad to Tanzania)

Committee Assignments:

- College Benefits Study Group
- Faculty Interests Committee (Chaired)
- College Health Care Council

- Title IX Compliance Committee
- Paideia Governing Board
- Academic Planning Committee
- Admissions, Advising and Appeals Committee
- Institutional Animal Care and Use Committee (Chaired)
- Paideia Program Review Committee
- Campus Life
- Community Assembly
- Campus Betterment
- Sampson Hoffland Laboratories Building Committee

Community Service (selected list):

- Advising
- Prospective Students: individual visits, campus visit day events, science day demonstrations
- Summer Science program for minority students (15 years of participation)
- Faculty search committees
- Department search head
- HHMI: Project Director

Student Researchers

- Matthew Ough, Jeremy Olsen, Jennifer Brokken, Adam Morrisey, Matt Thompson (later hired as a lab tech), Matthew Kapalis, Andrew Olson, Bethany Schauder, Nigel Millard, Jessica Hodgsin, Laura Gellhaus, David Zelinkas, Nick Leslein, Cody Honl, Tim Holcomb, Andrea Dean, John Lidvall, Robert Sheridan, Stacie Pleis, Carolyn S. Starz, John P. McGinnis, Alyse Carlson, Rachel Zimmerman, Kelsey Kittleson, Jason Block, Michele Gaertner, Chella Bhagyam, Gage State, Shannon Wilson. *Current:* Anne Turco, Clare Slagel

Publications

Scott Carlson, Ning Peng, Jeevan K. Prasain, Yanying Dai, J. Michael Wyss. Acute and Chronic Kudzu Improves Plasma Glucose Tolerance in Non-Diabetic CD-1 Mice. *Journal of Endocrinology and Diabetes Mellitus,* 2: 70-77, 2014.

Scott H. Carlson and J. Michael Wyss. Mechanisms Underlying Hypertension and Obesity: A Melanocortin Linkage in the Brain. *Hypertension*, 57:375-376, 2011.

J.K. Prasain, S.H. Carlson and, J.M. Wyss. Flavonoids and age-related disease: Risk, benefits and critical windows. *Maturitas*, 66: 163–171, 2010.

Ning Peng, Jeevan K. Prasain, Yanying Dai, Ray Moore, Alireza Arabshahi, Stephen Barnes, Scott Carlson, J. Michael Wyss. Chronic Dietary Kudzu Isoflavones Improve Components of Metabolic Syndrome in Stroke-Prone Spontaneously Hypertensive Rats. *Journal of Agricultural and Food Chemistry,* 57:7268–7273, 2009.

Scott H. Carlson and J. Michael Wyss. Neurohormonal regulation of the Sympathetic Nervous System: New Insights into Central Mechanisms of Action. *Current Hypertension Reports*, 10:233-240, 2008.

Scott H. Carlson, Ning Peng, Jeevan K. Prasain and J. Michael Wyss. Effects of Botanical Dietary Supplements on Cardiovascular, Cognitive, and Metabolic Function in Males and Females. *Gender Medicine* 5 Suppl A:S76-90, 2008.

S.H. Carlson, and J.M. Wyss. Effects of hormone replacement therapy on the sympathetic nervous system and blood pressure. *Current Hypertension Reports,* 5(3): 241-6, 2003.

S.H. Carlson, S. Oparil, Y.F. Chen and J.M. Wyss. Blood pressure and NaCl-sensitive hypertension are influenced by angiotensin converting enzyme gene expression in transgenic mice. *Hypertension,* 39: 214-218, 2002.

Z. Fang, S.H. Carlson, Y.F. Chen, S. Oparil and J.M.Wyss. Estrogen depletion induces NaCl-sensitive hypertension in female spontaneously hypertensive rats (SHR). *Am. J. Physiol. Regulatory, Integrative Comp. Physiol.,* 281: R1934-R1939, 2001.

J.M. Wyss and S.H. Carlson. The role of the nervous system in hypertension [Review]. *Current Opinions in Hypertension,* 3: 255-262, 2001.

S.H. Carlson, S. Roysomutti, N. Peng and J.M. Wyss. The Role of the Central Nervous System in NaCl-sensitive Hypertension in Spontaneously Hypertensive Rats. *Am. J. Hypertension*, 14 (6 pt. 2):155S-162S, 2001.

Z. Fang, S.H. Carlson, N. Peng and J.M. Wyss. The plasma sodium circadian rhythm is disrupted in spontaneously hypertensive rats fed a high NaCl diet. *Am. J. Physiol. Regulatory, Integrative Comp. Physiol,* 278: R1490-R1495, 2000.

S.H. Carlson and J.M. Wyss. *e-Hypertension*: opening new vistas [Introductory Commentary]. *Hypertension,* 35: 538, 2000.
S.H. Carlson and J.M. Wyss. Chronic telemetric recording of arterial pressure and heart rate in mice fed a basal and high NaCl diet. *Hypertension,* 35: e1-e5, 2000.

S.H. Carlson, J. Shelton, C.R. White, and J.M. Wyss. Elevated sympathetic activity contributes to hypertension and salt-sensitivity in diabetic obese Zucker rats. *Hypertension,* 35: 403-408, 2000.

J.W. Osborn, J.P. Collister, S.H. Carlson. Angiotensin and osmoreceptor inputs to the area postrema:

role in long- term control of fluid homeostasis and arterial pressure. *Clin.Exp.Pharmacol.Physiol.*, 27: 443-449, 2000.

J.M. Wyss and S.H. Carlson. The role of the central nervous system in hypertension [Review]. *Current Hypertension Reports,* 3: 246-253, 1999.

S.H. Carlson and J.M. Wyss. Hepatic denervation does not affect the response of plasma vasopressin to intragastric hypertonic saline in conscious rats. *Am. J. Physiol*. *Endocrinol. Metab.*, 277: E161-E167, 1999.

S.H. Carlson and J.M. Wyss. Hepatic denervation chronically elevates arterial pressure in Wistar-Kyoto rats. *Hypertension,* 32: 46-51, 1998.

S.H. Carlson, J.P. Collister and J.W. Osborn. The area postrema modulates paraventricular but not supraoptic nuclei *Fos* responses to intragastric hypertonic saline in conscious rats. *Am. J. Physiol. Regulatory, Integrative Comp. Physiol*, 275: R1921-R1927, 1998.

S.H. Carlson and J.W. Osborn. The effect of splanchnic denervation and abdominal vagotomy on the response of plasma vasopressin (AVP) and central *Fos* to intragastric sodium in conscious rats. *Am. J. Physiol. Regulatory, Integrative Comp. Physiol,* 274: R1243-R1252, 1998.

S.H. Carlson, A. Beitz and J.W. Osborn. Intragastric hypertonic saline increases vasopressin and central *fos* immunoreactivity in conscious rats. *Am. J. Physiol. Regulatory, Integrative Comp. Physiol,* 272*:* R750-R758, 1997.

D.W. Gietzen, A.S. Harris, S. Carlson and A. Gelprin. Amino acids and serotonin in *Limax maximus* after a tryptophan devoid diet. *J. Comp. Biochem. Physiol.* 101(1): 143-149, 1992.

Book Chapters

Scott H. Carlson, Sean Stocker and J. Michael Wyss. Mechanisms Underlying Essential Hypertension: Neurogenic and Nonneurogenic Contributors. In: *Hypertension and Stroke: Pathophysiology and Management*, Second Edition, Edited by V. Aiyagari and P.B. Gorelick (*in press*)

Scott H. Carlson and J. Michael Wyss. Mechanisms Underlying Hypertension: Neurogenic and Non-Neurogenic Contributors. In: *Clinical Hypertension and Vascular Diseases: Hypertension and Stroke,* , Humana Press, 2011: 63-76.
Scott H. Carlson and J. Michael Wyss. Neurohumeral Control of the Cardiovascular System in Health and Disease: the Interplay of Sympathetic Nervous System, Angiotensin II and Reactive Oxygen Species. In: *Recent Advances in Cardiovascular Research: From Sleep to Exercise*, Editors: A. Ally, T.J. Maher and J.M. Wyss, Transworld Research Network, 2010: 39-55.

J. Michael Wyss, Scott H. Carlson and Suzanne Oparil. The pathogenesis of hypertension. In: *Basic and Clinical Neurocardiology*, Edited by J.A. Armour and J.L. Ardell, Oxford University Press,

2004: 368-392.

Abstracts

Anne Turco, Clare Slagel, Gage State and Scott Carlson. The effect of celiac and renal denervation in angiotensin-induced hypertension. *Iowa Physiological Society*, 2015.

Ning Peng, Jeevan K. Prasain, Scott H. Carlson, Yanying Dai, J. Michael Wyss. Kudzu polyphenols improve glucose regulation in *ob/ob* mice. *Experimental Biology*, 990.11, 2009.

Scott H. Carlson, Ning Peng, Jeevan K. Prasain, Yanying Dai, J. Michael Wyss. Kudzu root extract improves glycemic control in non-glucose-impaired mice. *Experimental Biology*, 949.12, 2008.

Ning Peng, Jeevan K. Prasain, Yanying Dai, Scott H. Carlson, and J. Michael Wyss. Dietary kudzu root extract supplementation improves glucose tolerance and plasma lipid profiles in Spontaneously Hypertensive Rats (SHR) fed a basal, but not high, NaCl diet. *Experimental Biology*, 948.9, 2008.

Robert Sheridan, Carolyn Starz, Stacie Pleis and Scott Carlson. Cytochrome P450 4A Overexpression Increases Both Renal and Non-Renal Vascular Resistance in SHR. *Experimental Biology*, 2007.

Stacie Pleis, Carolyn Starz, Robert Sheridan and Scott Carlson. Inhibition of Cytochrome P450 4A Decreases Arterial Pressure Without Affecting Water Balance in SHR. *Experimental Biology*, 2007.

Robert Sheridan, Carolyn Starz, Stacie Pleis and Scott Carlson. Cytochrome P450 4A Overexpression Increases Both Renal and Non-Renal Vascular Resistance in SHR. *National Council for Undergraduate Research*, 2007.

Stacie Pleis, Carolyn Starz, Robert Sheridan and Scott Carlson. Inhibition of Cytochrome P450 4A Decreases Arterial Pressure without Affecting Water Balance in SHR. *National Council for Undergraduate Research*, 2007.

Carolyn Starz, Stacie Pleis, Robert Sheridan and Scott H. Carlson. Acute Inhibition of CYP Decreases Renal and Peripheral Blood Flow in SHR. *Iowa Physiological Society*, 2006.

Carolyn Starz, Stacie Pleis, Robert Sheridan and Scott H. Carlson. Chronic Inhibition of CYP Decreases Blood Pressure without Affecting Water Balance in SHR. *Iowa Physiological Society*, 2006.

A.P.J. Olson, L.A. Gellhaus, M.R. Thompson and S.H. Carlson. Cytochrome P-450 4A overexpression increases peripheral resistance and arterial pressure in spontaneously hypertensive rats. *Experimental Biology*, 204.17, 2004.

Andrew P.J. Olson, Matthew R. Thompson, Adam V. Morrisey and Scott H. Carlson. The role of hepatic cytochrome P-450 4A in the regulation of arterial pressure in spontaneously hypertensive rats. *Experimental Biology,* 805.11, 2003.

N. Peng, S.H. Carlson, C.R. White and J.M. Wyss. Estrogen replacement blunts NaCl-sensitive hypertension and alters vascular reactivity in estrogen-depleted spontaneously hypertensive rats. *Experimental Biology*, 130.2, 2002.

S.H. Carlson, N. Peng, C.R. White and J.M. Wyss. Estrogen depletion potentiates vascular dysfunction in diabetic Wistar-Kyoto rats. *Experimental Biology*, 409.20, 2001.

Z. Fang, S.H. Carlson and J.M. Wyss. Dietary estrogen protects against NaCl-sensitive hypertension in estrogen-depleted female spontaneously hypertensive rats (SHR). *Hypertension*, 36: 706, 2000.

S.H. Carlson, Y.F. Chen, S. Oparil and J.M. Wyss. Copy-dependent alterations in arterial pressure and salt sensitivity in mice transgenic for the angiotensin converting enzyme gene. *Experimental Biology*, 457.15, 2000.

S.H. Carlson, J. Shelton and J.M. Wyss. The role of the sympathetic nervous system in hypertension and salt-sensitivity in obese Zucker rats. *Society for Neuroscience*, 775.12, 1999.

S.H. Carlson, J. Shelton, C.R. White, and J.M. Wyss. Sympathetic nervous system overactivity contributes to hypertension in obese Zucker rats on basal and high NaCl diets. *Hypertension,* 34: 338,1999.

S.H. Carlson, B. Luo, M.B. Fallon, S. Chen and J.M. Wyss. Hepatic denervation produces portal hypertension and pulmonary hypotension in conscious Wistar-Kyoto rats (WKY). *Experimental Biology*, 374.17, 1999.

M.A. Jones, S.H. Carlson and J.M. Wyss. Transgenic mice that underexpress angiotensin converting enzyme display improved spatial learning and memory. *Society for Neuroscience*, 269.17, 1998.

S.H. Carlson , L.L. Topalof and J.M. Wyss. Hepatic denervation abolishes the response of atrial natriuretic peptide to intragastric hypertonic saline in conscious Wistar-Kyoto rats. *Society for Neuroscience*, 169.2, 1997.

S.H. Carlson and J.M. Wyss. Hepatic denervation produces chronic hypertension in Wistar-Kyoto rats. *Hypertension* 30 (3 part 1): 471, 1997.

S. H. Carlson and J. W. Osborn. Effect of splanchnic denervation and vagotomy on plasma AVP and *fos* immunoreactivity in response to intragastric hypertonic saline in conscious rats. *Midwest*

Physiological Society, 1996.

S. H. Carlson and J. W. Osborn. Effect of splanchnic denervation on plasma AVP and *fos* immunoreactivity in response to intragastric hypertonic saline in conscious rats. *Experimental Biology*, 3421, 1996.

Carlson, S.H. and J.W. Osborn. Response of plasma AVP and *fos* immunoreactivity to intragastric hypertonic saline in conscious rats. *Society for Neuroscience*, 450.4, 1995.

Carlson, S.H. and J.W. Osborn. Arginine vasopressin (AVP) and cardiovascular responses to peripheral osmoreceptor stimulation: Effect of anesthesia. *Experimental Biology*, 7(4): 4419, 1993.

Presentations (co-authored with students, 2000-)

Anne Turco, Gage State, Clare Slagel, Shannon Wilson and Scott Carlson. The Effect of Celiac and Renal Denervation in Angiotensin-Induced Hypertension. *Iowa Physiological Society*, 2015.

Scott H. Carlson and Alyse M. Carlson. The Effect of Chronic Cytochrome P-450 Inhibition on Heart Rate and Mean Arterial Pressure of Spontaneously Hypertensive Rats. *National Conferences on Undergraduate Research*, 2011.

Scott H. Carlson and Alyse M. Carlson. The Effect of Chronic Cytochrome P-450 Inhibition on Heart Rate and Mean Arterial Pressure of Spontaneously Hypertensive Rats. *PEW Undergraduate Research Symposium In the Biological Sciences (The University of Chicago, Nov. 2010)*

Robert Sheridan, Carolyn Starz, Stacie Pleis and Scott Carlson. Cytochrome P450 4A Overexpression Increases Both Renal and Non-Renal Vascular Resistance in SHR. *Experimental Biology*, 2007.

Stacie Pleis, Carolyn Starz, Robert Sheridan and Scott Carlson. Inhibition of Cytochrome P450 4A Decreases Arterial Pressure Without Affecting Water Balance in SHR. *Experimental Biology*, 2007.

Robert Sheridan, Carolyn Starz, Stacie Pleis and Scott Carlson. Cytochrome P450 4A Overexpression Increases Both Renal and Non-Renal Vascular Resistance in SHR. *National Conferences on Undergraduate Research*, 2007.

Stacie Pleis, Carolyn Starz, Robert Sheridan and Scott Carlson. Inhibition of Cytochrome P450 4A Decreases Arterial Pressure Without Affecting Water Balance in SHR. *National Conferences on Undergraduate Research*, 2007.

Carolyn Starz, Stacie Pleis, Robert Sheridan and Scott H. Carlson. Summary of Summer Research

Project. *Department of Biology Colloquium Series*, 2006.

Carolyn Starz, Stacie Pleis, Robert Sheridan and Scott H. Carlson. Acute Inhibition of CYP Decreases Renal and Peripheral Blood Flow in SHR. *Iowa Physiological Society*, 2006.

Carolyn Starz, Stacie Pleis, Robert Sheridan and Scott H. Carlson. Chronic Inhibition of CYP Decreases Blood Pressure Without Affecting Water Balance in SHR. *Iowa Physiological Society*, 2006.

A.P.J. Olson, L.A. Gellhaus, M.R. Thompson and S.H. Carlson. Cytochrome P-450 4A overexpression increases peripheral resistance and arterial pressure in spontaneously hypertensive rats. *Iowa Physiological Societ*y, 2004.

A.P.J. Olson, L.A. Gellhaus, M.R. Thompson and S.H. Carlson. Cytochrome P-450 4A overexpression increases peripheral resistance and arterial pressure in spontaneously hypertensive rats. *Experimental Biology*, 204.17, 2004.

A.P.J. Olson and S.H. Carlson. Cytochrome P-450 4A overexpression increases peripheral resistance and arterial pressure in spontaneously hypertensive rats. *McElroy Symposium*, 2004.

A.P.J. Olson, L.A. Gellhaus, M.R. Thompson and S.H. Carlson, Cytochrome P450 4A overexpression elevates peripheral resistance and arterial pressure in spontaneously hypertensive rats. *PEW Undergraduate Research Symposium In the Biological Sciences (Washington University, St. Louis)*, 2003.

Andrew P.J. Olson, Matthew R. Thompson, Adam V. Morrisey and Scott H. Carlson. The role of hepatic cytochrome P-450 4A in the regulation of arterial pressure in spontaneously hypertensive rats. *Experimental Biology,* 805.11, 2003.

Andrew Olsen, Adam Morrisey, Matt Thompson and Scott Carlson. Inhibition of hepatic cytochrome P450 4A decreases arterial pressure in spontaneously hypertensive rats. *PEW Undergraduate Research Symposium In the Biological Sciences (The University of Chicago)*, 2002.

Andrew Olson Adam Morrisey, Matt Thompson and Scott Carlson. The role of hepatic cytochrome P-450 4A and 20-HETE in hypertension. *Howard Hughes Science Symposium (Grinnell College)*, 2002.