

NANCY R. WEBB, Ph.D.
PROFESSOR
DEPARTMENT OF PHARMACOLOGY & NUTRITIONAL SCIENCES

Updated: January 2017

I. Home and Office Address

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Social Security Number:
Birth Date:
Certifications/Licensure: N/A
Marital Status: Married – Bruce A. Webb, Ph.D. Professor of
Entomology. Two children.

II. Education

Institution	Dates	Degree	Subject
University of Virginia	1977- 1981	B.A. (with Distinction)	Biology
University of Colorado	1981- 1982		Pharmacology
University of Kentucky	1995- 1999	Ph.D.	Microbiology and Immunology

III. Professional Experience

9/82-8/83 Department of Biochemistry, University of Kentucky, Lexington
9/82: Research Analyst
7/83: Promoted to Senior Research Analyst

10/83-1/88 Molecular Biology Department, Oncogen, Seattle, WA.
10/83: Research Technologist I
11/84: Promoted to Research Technologist II
11/85: Promoted to Senior Research Associate
1/87: Promoted to Principal Research Associate

3/88-11/90 Department of Entomology, Texas A & M University, College Station
Research Associate

1/91-12/94 American Cyanamid Agricultural Research Division, Princeton, NJ
Molecular Biologist

11/13- Department of Veterans Affairs, Lexington KY
Research Physiologist GS15

IV. Academic Appointments

<u>1/95-8/99</u>	Biomedical Scientist, Department of Internal Medicine, Division of Endocrinology and Molecular Medicine, University of Kentucky, Lexington
<u>9/99-6/05</u>	Assistant Professor, Department of Internal Medicine, Division of Endocrinology and Molecular Medicine, University of Kentucky, Lexington
<u>7/05-6/09</u>	Associate Professor with tenure, Department of Internal Medicine, Division of Endocrinology and Molecular Medicine, University of Kentucky, Lexington
<u>7/09-2/14</u>	Professor with tenure, Department of Internal Medicine, Division of Endocrinology and Molecular Medicine, University of Kentucky, Lexington
<u>2/14-</u>	Professor with tenure, Department of Pharmacology and Nutritional Sciences, University of Kentucky, Lexington
<u>2/14-</u>	Director, Division of Nutritional Sciences, Department of Pharmacology and Nutritional Sciences, University of Kentucky, Lexington
<u>4/15-</u>	Member, University of Kentucky Markey Cancer Center
<u>7/15-</u>	Faculty member, University of Kentucky Lewis Honors College

V. Hospital Appointments – N/A**VI. Consultative Service – N/A****VII. Teaching Activities**

2002-2009	MI615: Molecular Biology; 3 lecture contact hours
2003	ABT395: Molecular Genetics; 1 lecture contact hour
2003-present	NS606: Molecular Biological Applications in Nutrition; Course Director; 30 lecture contact hours
2004	ABT201: 1 lecture contact hour
2006	ABT201: 1 lecture contact hour
2008	Mechanisms of Human Diseases: 2 lecture contact hours
2012-present	MI685: Immunology, Infection, and Inflammation; 2 lecture contact hours
2014-present	IBS608: Nutritional Modulation of Chronic Disease; 1 lecture contact hour
2017-present	HON152: Frankenstein to Frankenfoods: Genetics, Mutations, and Society; Course co-Director; 20 lecture contact hours

VIII. Advising Activities**Junior Faculty**

2006-2012	Victoria King
2013-2015	Changcheng Zhou
2015-present	Venkateswaran Subramanian
2016-present	Sangderk Lee
2016-present	Vincent Venditto

Postdoctoral Fellows

2003-2005	Boris Boyanovsky
2015-2016	Maggie Murphy

PhD students (major advisor)

2000-2006 Bing Sun
2002-2006 Meredith Bostrom
2005-2010 Xia Li
2006-2009 Melissa Zack
2010 Timothy David Peleshok
2010-2013 Joseph Layne

Undergraduate students

2000-2001 Whitney Browning: advisor for ABT395 research project
2001-2002 Ryan Mulligan: advisor for ABT395 research project
2002-2003 Tiffany Taylor: advisor for ABT395 research project
2003-2004 Joseph Slusher: advisor for ABT395 research project
2005-2007 Daniel Slusher: advisor for ABT395 research project
(recipient of Agricultural Biotech undergraduate research award)
2008-2010 Kayla Talbott: advisor for ABT395 research project
(recipient of AMSTEMM Summer Research Grant)
2011 Lauren Dixon: Summer Intern, under-represented minority
student from Kentucky State University
2013-2015 Samuel Janes: advisor for ABT395 research project (podium
presenter at 2014 National Conference for Undergraduate
Research; recipient of 2014 University of Kentucky Summer
Research Fellowship)
2013-2014 Katlyn Mulhall; advisor for ABT395 research project (winner of
2014 Fall semester Glenn B. Collins award for undergraduate
research)
2016-present Madison Rich; advisor for ABT395 research project

High School students

2015-present Ethan Shen; mentor for Math, Science, and Technology Center
(MSTC) Capstone Research Project

Graduate student committees

2000-2006 Bing Sun (major advisor)
2002-2006 Meredith Bostrom (major advisor)
2003-2008 Lewamy Mamadou
2003-2007 Shoba Shetty
2005-2010 Xia (Jasmine) Li (major advisor)
2006-2011 Xuan Zhang
2006-2009 Melissa Zack (major advisor)
2008-2010 Akin Akinmusire
2008-2012 Nicholas Hatch
2008 Huiyun Shen (outside examiner)
2008 Phillip Owens (outside examiner)
2008 Huiyun Shen (outside examiner)
2009-2012 Nadeem Mohammed
2009-2013 Jason Meyer
2010 Timothy David Peleshok (major advisor)
2010-2013 Joseph Layne (major advisor)
2010-2013 Lindsay Carter
2011-2014 Joel Thompson
2011-2015 Jianing Li

2012-2015	Kate Townsend Creasy
2012-2016	Robert Helsley (co-major advisor)
2012-present	Heather O'Daniel
2013-2016	Heather Norman
2014	Kara Larson (outside examiner)
2015	Rebekah Lambert (masters thesis committee)
2015	Yuhuan Wang (Outside examiner)
2015	Reiya Hayden
2016-present	Zheyang Chen
2016-present	Courtney Turpin
2016	Minen Al-Kafajy (Outside examiner)
2017-present	Jared Hoffman

IX. Administrative Activities

2000-2010	VA Medical Center Institutional Animal Care and Use Committee
2002	Chair, VAMC Institutional Animal Care and Use Committee
2003-2005	Curriculum Committee, Graduate Center for Nutritional Sciences
2003-present	Equipment Committee, Graduate Center for Nutritional Sciences
2003	Search Committee, Graduate Center for Nutritional Sciences
	Director
2004-2007	University of Kentucky College of Medicine Non-indemnified Risk Committee
2004-2007	Department of Medicine Committee on Gender Equity
2005	Search Committee, Veteran's Administration Research Service
	Administrative Officer
2005	Member, University of Kentucky Center on Drug and Alcohol Research Six Year Review Committee
2005	Member, University of Kentucky HHMI Committee
2006	Search Committee, Univ. Kentucky Department of Surgery Chair
2006-2010	Member, University of Kentucky Department of Internal Medicine
	Appointments, Promotion, and Tenure Committee
2008	Vice-chair, VAMC Institutional Animal Care and Use Committee
2009	Chair, VAMC Institutional Animal Care and Use Committee
2009	Search Committee, UK Center for Nutritional Sciences
2010	Space Committee, Graduate Center for Nutritional Sciences
2010	Vice-chair, VAMC Institutional Animal Care and Use Committee
2010	Member, University of Kentucky Department of Pediatrics Six Year Review Committee
2011-2013	Chair, University of Kentucky Department of Internal Medicine
	Appointments, Promotion, and Tenure Committee
2011-2012	Search Committee, University of Kentucky Department of Microbiology and Immunology and Molecular Genetics Chair
2011-2012	Member, College of Medicine Curriculum Task Force Committee for Integrated Biological Sciences Graduate Program
2013-2014	Member, Provost's <i>See tomorrow: The University of Kentucky Strategic Plan 2014 – 2020</i> Planning Committee
2013-2104	Member, College of Medicine Research Administration Integrated Business Unit Implementation Advisory Committee
2013-present	Member, Lexington Biomedical Research Institute Executive Board (Representative for University of Kentucky Dean of Medicine)
2013-present	Member, VA Medical Center Institutional Animal Care and Use Committee

2014-present	Member, University of Kentucky Radiation Safety Committee
2014-present	Member, Department of Pharmacology & Nutritional Sciences Education Committee
2014-present	Member, Nutritional Sciences Graduate Program Admissions Committee
2014-present	Member, College of Medicine Postdoctoral Research Committee
2015	Member, UK Research Professorship Award Selection Committee
2015-present	Member, University of Kentucky College of Medicine MD/PhD Internal Advisory Committee
2015-2016	Member, University of Kentucky College of Medicine Women in Medicine and Science (WIMS) Executive Committee
2015-2016	Co-Chair, University of Kentucky College of Medicine WIMS Mentoring Subcommittee
2015-2016	Member, Department of Pharmacology & Nutritional Sciences Chair Search Committee
2015-present	Member, University of Kentucky MD/PhD Program Internal Advisory Committee
2015-present	Member, Gill Heart Award Internal Advisory Committee
2016	Member, Barnstable Brown Diabetes Center Strategy Team
2016-2019	Elected Member, University of Kentucky Faculty Senate
2016-present	Member, Department of Pharmacology & Nutritional Sciences Special Title Series Faculty Search Committee
2017-present	Member, AHA Summer Undergraduate Research Fellowship Oversight Committee

XI. Special Assignments

XII. Honors and Awards

1981-1982	NIH NRSA Pre-doctoral Fellowship
1992	American Cyanamid "Diligent Digger" Award for Excellence in Discovery Research
1999	NIH Postdoctoral Fellowship (declined)
1999	American Heart Association Postdoctoral Fellowship (declined)
2000-2001	University of Kentucky Medical Center Research Fund Award
2001-2004	American Heart Association Scientific Development Grant
2002-2003	Atorvastatin Research Award
2004	Finalist, Irvine H. Page Young Investigator Research Award
	American Heart Association, Council on Arteriosclerosis, Thrombosis and Vascular Biology
2004-2015	Annual University of Kentucky Wethington Research Award
2012	Fellow, American Heart Association
2015	First Annual Department of Pharmacology and Nutritional Sciences Faculty of the Year Award
2015	Special Recognition Award, AHA Arteriosclerosis, Thrombosis, and Vascular Biology Council

XIII. Professional Activity and Public Service

1989-1999	American Society for Virology
2001-present	American Heart Association
2001-present	Arteriosclerosis Council of the American Heart Association
2006	Member, Program Committee, Conference on Arteriosclerosis, Thrombosis and Vascular Biology
2006-2007	Member, Research Committee, American Heart Association Ohio Valley Affiliate

2006-2007	Member, Steering Committee, American Heart Association Ohio Valley Affiliate
2007-2011	Member, Research Committee, American Heart Association Great Rivers Affiliate
2008-2010	Member, Women's Research Leadership Committee, American Heart Association Council on Arteriosclerosis, Thrombosis, and Vascular Biology
2009	Co-Chair, Southeast Lipid Research Conference, Callaway Gardens, GA October 2009
2009-2016	Member, Executive Board, South East Lipid Research Conference
2010	Chair, Southeast Lipid Research Conference
2010-present	American Society for Biochemistry and Molecular Biology
2010-2012	Vice-chair, Women's Research Leadership Committee, American Heart Association Council on Arteriosclerosis, Thrombosis, and Vascular Biology
2010-2011	Vice-chair, Research Committee, American Heart Association Great Rivers Affiliate
2011-2014	Member, Arteriosclerosis, Thrombosis, and Vascular Biology Council Nominating Committee
2012	Participant, AHA Research Summit
2012-2014	Chair, Women's Research Leadership Committee, AHA Council on Arteriosclerosis, Thrombosis, and Vascular Biology
2012-2014	Chair, Research Committee, AHA Great Rivers Affiliate
2012-2014	Member, Board of Directors, AHA Great Rivers Affiliate
2012-2014	Member, Leadership Committee, AHA Council on Arteriosclerosis, Thrombosis, and Vascular Biology
2013-2014	Member, Arteriosclerosis, Thrombosis, and Vascular Biology Program Committee
2014-2016	Immediate Past Chair, Women's Research Leadership Committee, AHA Council on Arteriosclerosis, Thrombosis, and Vascular Biology
2015-2017	Member, National AHA Peer Review Steering Committee
2015-2017	Co-chair, Arteriosclerosis, Thrombosis, and Vascular Biology Scientific Sessions Program Committee

Grant reviewer:	<ul style="list-style-type: none"> • Member, NIH Study Section, Clinical and Integrative Cardiovascular Science (March 2005-June 2011) • Member, NIH Special Emphasis Panel Hematology IRG, ZRg1-HEME-C (February 2007 and December 2007) • Ad hoc reviewer, Natural Sciences and Engineering Research Council of Canada • Ad hoc reviewer, Austrian Science Fund • Member, Peer Review Committee 2B, American Heart Association, Ohio Valley Affiliate (2003-2006) • Co-chair, Peer Review Committee 2B, American Heart Association, Great Rivers Affiliate (2007-2009) • Chair, Peer Review Committee 2B, American Heart Association, Great Rivers Affiliate (2010) • Member, NIH Special Emphasis Panel/Scientific Review Group HLBP S (May 17, 2010) • Member, NIH Special Emphasis Panel/Scientific Review Group HLBP S (April 7, 2011) • Member, NIH Special Emphasis Panel/Scientific Review Group HLBP S (June 24, 2011)
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- Member, NIH Special Emphasis Panel/Scientific Review Group HLBP S (January 31, 2012)
- Member, NIH Special Emphasis Panel/Scientific Review Group ZRG1 EMNR-S November 8, 2012
- Adhoc Reviewer, National Science Foundation Division of Molecular and Cellular Biosciences, July 2012
- Member, HLBP 1 Workgroup 001 (May 16, 2013)
- Member, UK VPR Pilot grant review panel (December 2013)
- Ad hoc Member, NIH Study Section, Atherosclerosis and Inflammation of Cardiovascular System study section (October 2014)
- Member, UK CCTS Pilot grant review panel (January 2015)
- Ad hoc Member, NIH Study Section, Atherosclerosis and Inflammation of Cardiovascular System study section (February 2015)
- Ad hoc Member, NIH Study Section, Atherosclerosis and Inflammation of Cardiovascular System study section (September, 2015)
- Ad Hoc Member, NIH Special Emphasis Panel Study Section ZRG1-EMNR-F-02 (April, 2016)
- Member, NIH Study Section, Atherosclerosis and Inflammation of Cardiovascular System study section (July, 2017-June, 2021)

Manuscript reviewer:

- Atherosclerosis
- Arteriosclerosis, Thrombosis and Vascular Biology
- Biochimica et Biophysica Acta
- Circulation
- Circulation Research
- Journal Lipid Research
- Journal Clinical Investigations
- Lipids
- Nature Medicine
- New England Journal of Medicine
- Pharmacological Research

Editorial Board Member:

- Journal of Lipid Research, 2010-present
- Arteriosclerosis, Thrombosis, & Vascular Biology, 2010-present

Abstract grader:

- Scientific Sessions, American Heart Association, 2004-2007, 2016
- Conference on Arteriosclerosis, Thrombosis, and Vascular Biology, 2005-2008, 2010, 2012-2017

Session chair:

- Southeast Lipid Research Conference, 2004
- Scientific Sessions, American Heart Association, 2004
- Scientific Sessions, American Heart Association, 2006
- Conference on Arteriosclerosis, Thrombosis and Vascular Biology, 2006
- Scientific Sessions, American Heart Association, 2007
- Southeast Lipid Research Conference, 2008
- Conference on Arteriosclerosis, Thrombosis, and Vascular Biology, 2013

- Conference on Arteriosclerosis, Thrombosis, and Vascular Biology, 2014
 - Southeast Lipid Research Conference, 2014
 - Scientific Sessions, American Heart Association, 2015
 - Gordon Research Conference on Lipoprotein Metabolism, 2016
- Mentor:
- University of Kentucky “Girls in Research” Program for middle school age girls 2004-2008
 - University of Kentucky Undergraduate Research Committee 2011-present
 - AHA ATVB Council Mentoring Program
- Consultant for tenure review:
- Department of Food Science and Human Nutrition, Colorado State University 2016
- Judge:
- Kentucky State Science Fair 2007
 - Regional Science Fair 2008, 2010, 2014

XIV. Speaking Engagements

Local

- 1995 Department of Internal Medicine Research Seminar Series “Viral Vectors: Tools for the Researcher and Clinician”
- 2000 Graduate Center for Nutritional Sciences Seminar Series “The HDL receptor SR-BI”
- 2001 University of Kentucky Cardiovascular Seminar Series “The metabolic fate of high density lipoproteins after processing by the scavenger receptor B-I.”
- 2002 University of Kentucky Department of Pathology Seminar Series “Charting the fate of HDL particles in vivo: Studies in mice over-expressing the scavenger receptor B-I”
- 2004 Graduate Center for Nutritional Sciences Seminar Series “A mechanistic link between LDL and atherosclerosis”
- 2011 University of Kentucky Department of Internal Medicine, Division of Endocrinology and Molecular Medicine Seminar Series “Secretory phospholipase A₂’s: Old and new functions”
- 2011 University of Kentucky Graduate Center for Nutritional Sciences Seminar Series “Recent Insights into (unexpected) functions of secretory phospholipase A₂’s”
- 2013 University of Kentucky Department of Molecular & Biomedical Pharmacology “Diverse functions of secretory phospholipase A₂’s”
- 2014 University of Kentucky Endocrine Conference Series “Secretory phospholipase A₂’s: There’s more to them than first meets the eye”

National/International

- 1996 Gordon Research Conference on Serum Amyloid A (Ventura, CA) “Adenoviral vectors in the study of SAA function”
- 1999 European Atherosclerosis Society (Athens, Greece) “Scavenger Receptor BI (SR-BI) and clearance of apoB-containing

- 1999 lipoproteins in apoE-deficient mice”
American Heart Association (Atlanta, Georgia)
“SR-BI over-expression results in depletion of apoB-containing lipoproteins that accumulate in apoE-deficient, but not LDL receptor-deficient or apoB transgenic, mice”
- 2002 Southeast Lipid Research Conference (Callaway Gardens, GA)
“The fate of HDL particles after selective lipid uptake”
- 2003 Atorvastatin Research Awards Summit (Salt Lake City, Utah)
“Secretory phospholipases and atherosclerosis: Local and systemic effects”
- 2003 Southeast Lipid Research Conference (Callaway Gardens, GA)
“Group V sPLA₂: Potential Role in Atherosclerosis”
- 2004 5th Annual Conference on Arteriosclerosis, Thrombosis and Vascular Biology (San Francisco, CA) “Hydrolysis of LDL by secretory phospholipase A₂ results in spontaneous particle aggregation and promotes macrophage foam cell formation”
- 2004 Gordon Research Conference on Lipoprotein Metabolism (Meriden, NH) “Role of secretory phospholipases in lipoprotein metabolism and atherosclerosis”
- 2005 University of California, Davis
“Secretory phospholipase A₂ enzymes: A link between LDL and atherosclerosis?”
- 2005 Columbia University “Group V sPLA₂: A mechanistic link between LDL and atherosclerosis?”
- 2006 7th Annual Conference of Arteriosclerosis, Thrombosis and Vascular Biology (Denver, CO) “Secretory Phospholipase A₂ in Atherosclerosis”
- 2006 FASEB Research Conference on Phospholipases (Saxtons River, VT) “Secretory phospholipase A₂ enzymes: A mechanistic link between LDL and atherosclerosis?”
- 2007 Boehringer Ingelheim Pharmaceuticals, Inc. (Ridgefield, CT)
“Secretory Phospholipase A₂ in Atherosclerosis”
- 2007 Pfizer (Chesterfield, MO) “Secretory Phospholipase A₂ and Atherosclerosis”
- 2007 University of Cincinnati Obesity Research Center “Secretory phospholipase A₂’s and atherosclerosis”
- 2007 AHA Scientific Sessions (Orlando, FL) “Group X sPLA₂ deficiency increases adiposity and adipose tissue inflammation in mice”
- 2008 Gordon Research Conference on Lipoprotein Metabolism (Waterville Valley, NH) “Group X sPLA₂ negatively regulates lipolysis in adipose tissue”
- 2008 FASEB Research Conference on Phospholipid Metabolism (New Haven, CT) “Group V sPLA₂ in atherosclerosis: An update”
- 2008 Southeast Lipid Research Conference (Callaway Gardens, GA)
“Role of Group X sPLA₂ in adipose tissue”
- 2012 2012 HDL Summit (New York, NY) “HDL and the Acute Phase Response”
- 2012 University of Virginia Robert M. Berne Cardiovascular Research Center (Charlottesville, VA) “Recent Insights into (unexpected) functions of secretory phospholipase A₂’s”
- 2012 Annual Conference of Arteriosclerosis, Thrombosis and Vascular Biology (Chicago, IL) “Group V secretory phospholipase A₂ enhances the progression of angiotensin II-induced abdominal

- aortic aneurysms but confers protection against angiotensin II-induced cardiac fibrosis in apoE-deficient mice”
- 2012 AHA Scientific Sessions (Los Angeles, CA) “Mechanism of Hepatic HDL Formation and Impact of Inflammatory Processes”
- 2013 Annual Conference of Arteriosclerosis, Thrombosis and Vascular Biology (Chicago, IL) “Origins and Significance of Nascent HDL Heterogeneity”
- 2013 Boston University School of Medicine Biochemistry Department Seminar Series (Boston, MA) “New (and unexpected) functions of secretory phospholipase A₂'s”
- 2014 Ohio Valley Affiliates for Life Sciences conference (Cincinnati, OH) “University of Kentucky initiatives in metabolic diseases”
- 2016 Gordon Research Conference on Lipoprotein Metabolism (Meriden, NH) "Serum Amyloid A in Modern Chronic Inflammatory Disease: An Ancient Acute Phase Reactant Gone Rogue?"

XIV. Research and/or Creative Productivity

PUBLICATIONS

1. Gold, P.E., **Roberson, N.L. (Webb)**, Delanoy, R.L. (1985) Post-training brain catecholamine levels: lack of response to water-motivated training. *Behav. Nearul Biol.* 44:425-33.
2. Dunwiddie, T.V., **Roberson, N.L. (Webb)**, and Worth, T. (1982) Modulation of long term potentiation: Effects of adrenergic and neuroleptic drugs. *Pharm. Bioch. and Behav.* 17: 1257-1264.
3. **Webb, N.R.**, Chari, R.V.S., Depillis, G., Kozarich, J.W., and Rhoads R.E. (1984) Purification of the messenger RNA cap-binding protein using a new affinity medium. *Biochemistry* 223: 177-181.
4. Hiremath, L.S., **Webb, N.R.**, and Rhoads, R.E. (1985) Immunological detection of the messenger RNA cap-binding protein. *J. Biol. Chem.* 260: 7843-7849.
5. Lee, D.C., Rose, T.M., **Webb, N.R.**, and Todaro, G.J. (1985) Cloning and sequence analysis of a cDNA for rat transforming growth factor-alpha. *Nature* 313: 489-491.
6. Todaro, G.J., Lee, D.C., **Webb, N.R.**, Rose, T.M., and Brown, J.P. (1985) Rat type-alpha transforming growth factor: Structure and possible function as a membrane receptor. *In: Cancer Cells 3: Growth Factors and Transformation*, Cold Spring Harbor. Symposium pp 51-58.
7. **Webb, N.R.**, Rose, T.M., Malik, N., Marquardt, H., Shoyab, M., Todaro, G.J., and Lee, D.C. (1987) Bovine and human complementary DNA sequences encoding a putative benzodiazepine receptor ligand. *DNA* 6: 71-79.
8. Lee, D.C., Rose, T.M., **Webb, N.R.**, Twardzik, D.R., Ranchalis, J., Marquardt, H., and Todaro, G.J. (1987) Rat transforming-alpha is apparently cleaved from a transmembrane precursor by an unusual protease. *In: A Prospective on Biology and Medicine in the 21st Century* pp 187-198.

9. Gentry, L.E., **Webb, N.R.**, Lim, G.J., Brunner, A. M., Ranchalis, J.E., Twardzik, D.R., Lioubin, M.N., Marquardt, H., and Purchio, A.F. (1987) Type 1 transforming growth factor beta: Amplified expression and secretion of mature and precursor polypeptides in Chinese hamster ovary cells. *Mol. Cell. Biol.* 7: 3418-3427.
10. Madisen, L., **Webb, N.R.**, Rose, T.M., Marquardt, H., Ikeda, T., Twardzik, D., Seyedin, S., and Purchio, A.F. (1988) Transforming growth factor- β 2: cDNA cloning and sequence analysis. *DNA* 7: 1-8.
11. **Webb, N.R.**, Madisen, L., Rose, T.M., and Purchio, A.F. (1988) Structural and sequence analysis of TGF- β 2 cDNA clones predicts two different precursor proteins produced by alternative mRNA splicing. *DNA* 7: 493-497.
12. Madisen, L., Farrand, A.L., Lioubin, M.N., Marzowski, J., Knox, L.B., **Webb, N.R.**, Lim, J., and Purchio, A.F. (1989) Expression and characterization of recombinant TGF-beta 2 proteins produced in mammalian cells. *DNA* 8: 205-212.
13. Bascom, C.C., Wolfshohl, J.R., Coffey, R.J. Jr., Madisen, L., **Webb, N.R.**, Purchio, A.R., Derynck, R., and Moses, H.L. Complex regulation of transforming growth factor beta 1, beta 2, and beta 3 mRNA expression in mouse fibroblasts and keratinocytes by transforming growth factors beta 1 and beta 2. *Mol. Cell Biol.* 9: 5508-5515.
14. **Webb, N.R.**, Madoulet, C., Tosi, F., Broussard, D.R., Sneed, L., Nicolau, C., and Summers, M.D. (1989) Cell-surface expression and purification of human CD4 produced in baculovirus-infected insect cells. *Proc. Natl. Acad. Sci. USA* 86:7731-7735.
15. **Webb, N.R.**, and Summers, M. D. (1990) Expression of proteins using recombinant baculoviruses. *Technique* 2:173-188.
16. De Beer, M. C., de Beer, F. C., Gerardot, C.J., Cecil, D.R., **Webb, N.R.**, Goodson, M.L., and Kindy, M.S. (1996) Structure of the mouse *Saa4* gene and its linkage to the serum amyloid A gene family. *Genomics* 34:139-142.
17. **Webb, N.R.**, de Beer, M.C., van der Westhuyzen, D.R., Kindy, M.S., Banka, C.L., Tsukamoto, K., Rader, D.J., and de Beer, F.C. (1997) Adenoviral vector-mediated over-expression of serum amyloid A in apoA-I-deficient mice. *J. Lipid Res.* 38:45-52.
18. **Webb, N.R.**, de Villiers, W.J.S., Connell, P.M., de Beer, F.C., and van der Westhuyzen, D.R. (1997) Alternative forms of the scavenger receptor BI (SR-BI). *J. Lipid Res.* 38:1490-1495.
19. Welch, C.L., Xia, Y.-R., Gu, L.-J., Machleder, D., Mehrabian, M., Wen, P.Z., **Webb, N.**, de Williers, W.J.S., van der Westhuyzen, D., and Lusis, A.J. (1997) *Srb1* maps to mouse chromosome 5 in a region harboring putative QTLs for plasma lipoprotein levels. *Mammalian Genome* 8:942-944.

20. **Webb, N.R.**, Connell, P.M., Graf, G.A., Smart, E.J., de Williers, W.J.S., de Beer, F.C., and van der Westhuyzen, D.R. (1998) SR-BII, an isoform of the scavenger receptor BI containing an alternate cytoplasmic tail, mediates lipid transfer between high density lipoprotein and cells. *J. Biol. Chem.* 273:15241-15248.
21. Hosai, H., **Webb, N.R.**, Glick, J., Purdom, M.S., de Beer, F.C., and Rader, D.J. (1999) Expression of serum amyloid A protein in the absence of the acute phase response is not sufficient to reduce HDL cholesterol or apoA-I levels in mice. *J. Lipid Res.* 40:1-6.
22. De Beer, F.C., Connell, P.M., Yu, J., de Beer, M.C., **Webb, N.R.**, and van der Westhuyzen, D.R. (2000) HDL modification by secretory phospholipase A₂ promotes SR-BI interaction and accelerates HDL catabolism. *J. Lipid Res.* 41: 1849-1857.
23. De Beer, M.C., Durbin D.M., Cai L., Mirochi N., Jonas, A., **Webb, N.R.**, de Beer, F.C., and van der Westhuyzen, D.R. (2001) Apolipoprotein A-II modulates the binding and selective lipid uptake of reconstituted HDL by scavenger receptor B-I. *J. Biol. Chem.* 276: 15832-15839.
24. De Villiers, W.J.S., Cai, L., **Webb, N.R.**, de Beer, M.C., van der Westhuyzen, D.R., and de Beer, F.C. (2001) CD36 does not play a direct role in HDL or LDL metabolism. *J. Lipid Res.* 42: 1231-1238.
25. **Webb, N.R.**, de Beer, M.C., Yu, J., Kindy, M.S., Daugherty, A., van der Westhuyzen, D.R., and de Beer, F.C. (2002) Overexpression of SR-BI by adenoviral vector promotes clearance of apoA-I, but not apoB, in human apoB transgenic mice. *J. Lipid Res.* 43: 1421-1428.
26. **Webb, N.R.**, Cai, L., Ziemba, K.S., Yu, J., Kindy, M.S., van der Westhuyzen, D.R., and de Beer, F.C. (2002) The fate of HDL particles in vivo after SR-BI mediated selective lipid uptake. *J. Lipid Res.* 43: 1890-1898.
27. **Webb, N.R.**, Bostrom, M.A., Szilvassy, S.J., van der Westhuyzen, D.R., Daugherty, A., and de Beer, F.C. (2003). Macrophage-expressed Group IIA sPLA₂ increases atherosclerotic lesion formation in LDL receptor-deficient mice. *Arterioscler. Thromb. Vasc. Biol.* 23: 263-268.
27. De Beer, M.C., Zhao, Z., **Webb, N.R.**, van der Westhuyzen, D.R., and de Villiers, W.J.S. (2003) Lack of a direct role for macrosialin in oxidized LDL metabolism. *J. Lipid Res.* 44: 674-685.
28. **Webb, N.R.**, de Beer, M.C., de Beer, F.C., van der Westhuyzen, D.R. (2004) Apolipoprotein B containing lipoproteins in apoE-deficient mice are not metabolized by the class B scavenger receptor BI. *J. Lipid Res.* 45: 272-280.
29. Cabana, V.G., Feng, N., Reardon, C.A., Lukens, J. **Webb, N.R.**, de Beer, F.C. and Getz, G.S. (2004) Influence of apoA-I and apoE on the formation of SAA-containing lipoproteins in vivo and in vitro. *J. Lipid Res.* 45: 317-325.
30. Eckhardt, E.R., Cai, L., Sun, B., **Webb, N.R.**, and van der Westhuyzen, D.R. (2004) High density lipoprotein uptake by scavenger receptor SR-BII. *J. Biol. Chem.* 279: 14372-14381.

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ABSTRACTS (partial listing)

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Van der Westhuyzen, D.R., **Webb, N.R.**, de Villiers, W.J.S., Connell, P.M., and De Beer, F.C. (1997) Alternative forms of the Scavenger receptor BI (SR-BI). XIth International Symposium on Atherosclerosis (Paris, France).

Webb, N.R., Connell, P.M., Graf, G.A., Smart, E.J., de Villiers, W.J.S., De Beer, F.C., and van der Westhuyzen, D.R. (1998) SR-BII, an isoform of the scavenger receptor BI containing an alternate cytoplasmic tail, mediates lipid transfer between high density lipoprotein and cells. Gordon Research Conference on Lipoprotein Metabolism (Meriden, NH).

Webb, N.R., Ziemba, K., Yu, J., Cai, L., Kindy, M.S., van der Westhuyzen, D.R., and de Beer, F.C. (2001) The fate of HDL particles in vivo after SR-BI selective lipid uptake. Conference on Arteriosclerosis, Thrombosis, and Vascular Biology (Arlington, VA).

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Sun, B., van der Westhuyzen, D.R., and **Webb, N.R.** (2004) Class B scavenger receptors: Defining receptor and ligand trafficking. Southeast Lipid Research Conference (Callaway Gardens, GA).

Eckhardt, E., Cai, L., Szanto, A., **Webb, N.R.**, van der Westhuyzen, D.R. (2004) HDL particle uptake by scavenger receptor B-II requires the carboxy-terminal dileucine motif. Conference on Arteriosclerosis, Thrombosis, and Vascular Biology (San Francisco, CA).

Bostrom, M.A., Forrest, K., Boyanovsky, B. Daugherty, A., and **Webb, N.R.** (2005) Retroviral vector-mediated overexpression of Group V secretory phospholipase A₂ in hematopoietic cells promotes atherosclerosis in low density lipoprotein receptor deficient mice. Conference on Arteriosclerosis, Thrombosis and Vascular Biology (Washington D.C.).

Sun, B., van der Westhuyzen, D.R., and **Webb, N.R.** (2005) Class B scavenger receptor-mediated high density lipoprotein trafficking. Conference on Arteriosclerosis, Thrombosis and Vascular Biology (Washington D.C.).

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Boyanovsky, B., Shridas, P., and **Webb, N.R.** (2006) Syndecan-3 and -4 participate in macrophage uptake of low-density lipoproteins hydrolyzed by Group V secretory phospholipase A₂. Conference on Arteriosclerosis, Thrombosis and Vascular Biology (Denver CO).

Sun, B., van der Westhuyzen, D.R., and **Webb, N.R.** (2006) Distinct mechanisms for oxLDL uptake and trafficking by class B scavenger receptors SR-BI and CD36. Conference on Arteriosclerosis, Thrombosis and Vascular Biology (Denver CO).

Shridas, P. and **Webb, N.R.** (2007) Group X secretory phospholipase A₂ plays a role in the regulation of adrenal corticosteroid synthesis. Conference on Arteriosclerosis, Thrombosis and Vascular Biology (Chicago, IL).

Webb, N.R., Li, X., Forrest, K., Bailey, W., Boyanovsky, B.B., Shridas, P. and de Beer, F.C. (2007) Group X sPLA₂ deficiency increases adiposity and adipose tissue inflammation in mice. Scientific Sessions, American Heart Association (Orlando, FL).

Shridas, P., Bailey, W., Oslund, R.C., Gelb, M.H., and **Webb, N.R.** (2007) Group X secretory phospholipase A₂ negatively regulates adrenal glucocorticoid synthesis. Scientific Sessions, American Heart Association (Orlando, FL).

Boyanovsky, B., Zack, M., and **Webb, N.R.** (2008) The capacity of Group V sPLA₂ to increase atherogenicity of apoE^{-/-} and LDLR^{-/-} mouse LDL *in vitro* predicts its atherogenic role *in vivo*. Conference on Arteriosclerosis, Thrombosis and Vascular Biology (Atlanta, GA).

Boyanovsky, B., Zack, M., and **Webb, N.R.** (2008) Studies in apoE^{-/-} and LDLR^{-/-} mice reveal multiple roles for GV sPLA₂ in atherosclerosis. Southeast Lipid Research Conference (Callaway Gardens, GA).

Li, X. and **Webb, N.R.** (2008) Role of Group X secretory phospholipase A₂ in adipocytes. Southeast Lipid Research Conference (Callaway Gardens, GA).

Shridas, P. and **Webb, N.R.** (2008) Group X secretory phospholipase A₂ modulates macrophage inflammatory responses. Southeast Lipid Research Conference (Callaway Gardens, GA).

Shridas, P., Bailey, W. and **Webb, N.R.** (2009) Group X secretory phospholipase A₂ enhances macrophage inflammatory responses by modulating expression levels of ABCA1 and ABCG1. Conference on Arteriosclerosis, Thrombosis and Vascular Biology (Washington, D.C.).

Zack, M., Shridas, P., Bailey, M., Forrest, K., Howatt, D.A., Daugherty, A. and **Webb, N.R.** (2009) Group X secretory phospholipase A₂ deficiency protects apoE-deficient mice from angiotensin II-induced abdominal aortic aneurysms. Conference on Arteriosclerosis, Thrombosis and Vascular Biology (Washington, D.C.).

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GRANT AND CONTRACT ACTIVITY

Active Research Support

NIH

MPI: **N.R. Webb**, F.C. de Beer

Serum Amyloid A, Inflammasome Activation, and Abdominal Aortic Aneurysms (R01 HL134731-01)

01/01/2017 – 12/31/2020 (Direct costs \$1,202,180)

CSR&D MERIT REVIEW AWARD

P.I: **N.R. Webb**

HDL Remodeling in Metabolic Syndrome (1101CX000773)

01/01/2014-12/31/2017 (Direct costs \$924,050)

CSR&D MERIT REVIEW AWARD

P.I: Lisa Tannock

Co-Investigator: **N.R. Webb**

The association of SAA with apoB lipoproteins affects cardiovascular risk (1101 CX000975)

4/1/2014 – 3/31/2018 (Direct costs \$641,000)

NIH

P.I.: Lisa A. Cassis

Mentor: **N.R. Webb**

Center of Research in Obesity and Cardiovascular Disease (1P20 RR021954)

07/01/08 – 6/30/18; (Direct costs \$7,224,657)

NIH

Director: **N.R. Webb**

Training Program in Pharmacology and Nutritional Sciences: Multidisciplinary Approaches for Metabolic Disease (5T32DK007778-16)

8/1/2015 – 7/31/2020

Kentucky Council on Postsecondary Education
P.I: C. Hanley
STEM PRIDE: Partnering with Research & Industry to Develop STEM Educators
for College and Career Readiness (PO2 415 1500002812 1)
01/01/15 – 6/30/16 (Direct costs \$149,939)
Role: Co-Investigator
Completed Research Support

NIH
P.I.: **N.R. Webb**
Group X sPLA₂: Regulator of Lipolysis and Glucose Homeostasis (R01
DK082419)
08/01/09 - 07/31/14; \$1,659,111 (Direct costs \$1,132,500)

NIH
P.I.: D.R. van der Westhuyzen
Project 3 Leader: **N.R. Webb**
HDL function and metabolism during inflammation (P01 HL086670)
04/01/07–3/31/13; (Direct costs, \$4,081,724)

NIH
P.I. A. Daugherty
Project 3 Leader: **N.R. Webb**
Mechanisms of Abdominal Aortic Aneurysms (P01 HL080100-01A1)
04/08/06 – 03/31/12; \$8,438,000 (Direct costs \$5,760,000)

NIH
P.I.: Lisa Tannock
Co-Investigator: **N.R. Webb**
Role of serum amyloid A in atherosclerosis (R01 HL096589)
09/01/09 – 08/31/11 (Direct costs \$524,000)

NIH
P.I.: **N.R. Webb**
Co-investigators: F.C. de Beer, D.R. van der Westhuyzen, A. Daugherty
Group V sPLA₂ in Atherosclerosis (R01 HL071098)
04/01/03 - 09/31/08; \$1,810,000 (Direct costs \$1,250,000)

NIH
P.I.: D.R. van der Westhuyzen
Co-Investigator: **N.R. Webb**
SR-BI and SR-BII recycling and selective lipid uptake (R01 HL063763)
8/15/05 – 7/31/09; (Direct costs \$1,125,000)

NIH
P.I.: S.R. Post
Co-investigators: **N.R. Webb**, W. Akers, C. Loftin, G.R. Post
Regulation of Ras signaling by Rlf in myocytes (R01 HL75241)
12/1/03 – 11/30/08; \$1,416,623 (Direct costs, \$1,025,000)

NIH
P.I.: F.C. de Beer
Co-investigators: **N.R. Webb**, D.R. van der Westhuyzen
SR-BI mediated selective cholesterol ester uptake (R01 AG17237)

03/01/01 – 02/28/06; \$1,102,500 (Direct costs \$875,000)

NIH

P.I.: F.C. de Beer

SAA and sPLA₂: Role in atherogenesis (R01 HL69463)

09/30/01 – 07/31/05; \$1,206,440 (Direct costs \$1,000,000)

NIH

P.I.: D.R. van der Westhuyzen

Co-investigators: **N.R. Webb**, A. Daugherty, F.C. de Beer

Class B scavenger receptors and foam cell formation (R01 HL65730)

09/15/00-08/31/04; \$882,000 (Direct costs \$700,000)

University of Kentucky VPR Research Support Program

P.I: **N.R. Webb**

Serum amyloid A, inflammasome activation, and cancer

7/1/2014 – 6/30/2015 (Direct costs \$20,000)

American Heart Association, Ohio Valley Affiliate

P.I.: Boris Boyanovsky

Sponsor: **N.R. Webb**

Bioactive molecules generated by secretory phospholipase A₂ Group V and Group X hydrolysis of LDL (AHA 0525425B)

07/01/05 – 06/30/07; \$82,000 (Direct costs \$82,000)

American Heart Association, Ohio Valley Affiliate

P.I.: Bing Sun; Sponsor: **N.R. Webb**

Class B scavenger receptors: Defining receptor and ligand trafficking (AHA 0415238B)

07/01/04 – 06/30/06; \$36,000 (Direct costs \$36,000)

American Heart Association, Ohio Valley Affiliate

P.I.: Meredith Bostrom

Sponsor: **N.R. Webb**

Macrophage-derived GX sPLA₂ and atherosclerosis (AHA 0315079B)

American Heart Association, National Center

P.I.: **N.R. Webb**

Scavenger receptor BI: Distinct functional domains (AHA 0130020N)

01/01/01 – 12/31/04; \$260,000 (Direct costs \$236,364)

Atorvastatin Research Awards Program

P.I.: **N.R. Webb**

Inflammatory modification of HDL promotes delivery of oxidized lipids to macrophages

07/01/02 – 06/30/03; \$50,000 (Direct costs \$50,000)

University of Kentucky Medical Center Research Award

P.I.: **N.R. Webb**

Scavenger receptor B-I and remnant lipoprotein metabolism

07/01/00 – 6/30/01; \$15,000 (Direct costs \$15,000)

OTHER CREATIVE ACTIVITY

Issued patents

“Cloning and expression of transforming growth factor β 2” issued June 22, 1993.

“Compositions and methods for detecting and treating atherosclerosis” (U.S. patent number #7,521,198) issued April 21, 2009.