

**NANCY R. WEBB, Ph.D.**  
**ASSOCIATE PROFESSOR, REGULAR TITLE SERIES**  
**UNIVERSITY OF KENTUCKY MEDICAL CENTER**

Date Prepared: November 14, 2006

Office Address: University of Kentucky  
Department of Internal Medicine  
Division of Endocrinology and  
Molecular Medicine  
535 Wethington Health Science Building  
Lexington, Kentucky 40536-0200

FAX: 859-323-5707 E-mail: nrwebb1@uky.edu

Office Telephone: 859-323-4933 x 81385  
Laboratory: 859-323-4933 x 81386

Certifications/Licensure: N/A  
Marital Status: Married – Bruce A. Webb, Ph.D.

## **II. Education**

| <b>Institution</b>     | <b>Dates</b> | <b>Degree</b>           | <b>Subject</b>                 |
|------------------------|--------------|-------------------------|--------------------------------|
| 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<br>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

## **IV. Academic Appointments**

1/95-8/99 Department of Internal Medicine, Division of Endocrinology and  
Molecular Medicine, University of Kentucky, Lexington  
Biomedical Scientist

9/99-6/05 Department of Internal Medicine, Division of Endocrinology and  
Molecular Medicine, University of Kentucky, Lexington  
Assistant Professor

7/05- Department of Internal Medicine, Division of Endocrinology and  
Molecular Medicine, University of Kentucky, Lexington  
Associate Professor with tenure

## **V. Hospital Appointments**

## **VI. Consultative Service – N/A**

## **VII. Teaching Activities**

2002-present MI615: Molecular Biology; 3 lecture contact hours  
2003-present NS606: Molecular Biological Applications in Nutrition; Course  
Director; 20 lecture contact hours  
2003 ABT395: Molecular Genetics; 1 lecture contact hour  
2004 ABT201: 1 lecture contact hour

## **VIII. Advising Activities**

### **Postdoctoral Fellows**

2003-2005 Boris Boyanovsky

### **Graduate students**

2000-2006 Bing Sun  
2002-2006 Meredith Bostrom  
2005-present Xia Li

### **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- Daniel Slusher: advisor for ABT395 research project

### **Graduate student committees**

2000-2006 Bing Sun (major advisor)  
2002-present Meredith Bostrom (major advisor)  
2003-present Lewamy Mamadou  
2003-present Shoba Shetty  
2005-present Xia Li (major advisor)

## **IX. Administrative Activities**

2000-present 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, GCNS Director  |
| 2004-present | University of Kentucky College of Medicine Non-indemnified Risk Committee                                    |
| 2004-present | 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                 |
| 2006         | Search Committee, University of Kentucky Department of Surgery Chair   |
| 2006-        | Member, University of Kentucky Department of Internal Medicine Appointments, Promotion, and Tenure Committee |

## **XI. Special Assignments**

## **XII. Honors and Awards**

|            |  |
|------------|--|
| 1981-1982  | NIH NRSA Pre-doctoral Fellowship   |
| 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, 2005 | University of Kentucky Wethington Research Award   |
| 2004       | Finalist, Irvine H. Page Young Investigator Research Award                               |
|            | American Heart Association, Council on Arteriosclerosis, Thrombosis and Vascular Biology |

## **XII. Professional Activity and Public Service**

|                      |   |
|----------------------|---|
| 1989-present         | American Society for Virology   |
| 2001-present         | American Heart Association  |
| 2001-present         | Arteriosclerosis Council of the American Heart Association  |
| Grant reviewer:      | Member, NIH Study Section, Clinical and Integrative Cardiovascular Science (March 2005-present)<br>Member, Peer Review Committee 2B, American Heart Association, Ohio Valley Affiliate (2003-present)<br>Co-chair, Peer Review Committee 2B, American Heart Association, Ohio Valley Affiliate (2003-present)<br>Natural Sciences and Engineering Research Council of Canada<br>Austrian Science Fund |
| Manuscript reviewer: | Atherosclerosis<br>Biochimica et Biophysica Acta<br>Circulation<br>Circulation Research<br>Journal Lipid Research<br>Lipids<br>Pharmacological Research   |
| Abstract grader      | National Meeting, American Heart Association, 2004-2006   |
| Session chair        | Southeast Lipid Research Conference, 2004   |

|                    |  |
|--------------------|--|
|                    | National Meeting, American Heart Association, 2004                         |
|                    | Conference on Arteriosclerosis, Thrombosis and Vascular Biology, 2006      |
| Program Committee  | Conference on Arteriosclerosis, Thrombosis and Vascular Biology, 2006-2009 |
| Research Committee | American Heart Association, Ohio Valley Affiliate (2006-2009)              |
| 2004-present       | Mentor, "Girls in Research" Program for middle school age girls            |

### XIII. Speaking Engagements

#### Local

|      |   |
|------|---|
| 1995 | Department of Internal Medicine Research Seminar Series<br>"Viral Vectors: Tools for the Researcher and Clinician"  |
| 2000 | Graduate Center for Nutritional Sciences Seminar Series<br>"The HDL receptor SR-BI"   |
| 2001 | University of Kentucky Cardiovascular Seminar Series<br>"The metabolic fate of high density lipoproteins after processing by the scavenger receptor B-I." |
| 2002 | Department of Pathology Seminar Series<br>"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<br>"A mechanistic link between LDL and atherosclerosis"   |

#### National

|      |  |
|------|--|
| 1996 | Gordon Research Conference on Serum Amyloid A (Ventura, CA)<br>"Adenoviral vectors in the study of SAA function"   |
| 1999 | American Heart Association (Atlanta, Georgia)<br>"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)<br>"The fate of HDL particles after selective lipid uptake"   |
| 2003 | Atorvastatin Research Awards Summit (Salt Lake City, Utah)<br>"Secretory phospholipases and atherosclerosis: Local and systemic effects"   |
| 2003 | Southeast Lipid Research Conference (Callaway Gardens, GA)<br>"Group V sPLA <sub>2</sub> : Potential Role in Atherosclerosis"  |
| 2004 | 5 <sup>th</sup> Annual Conference on Arteriosclerosis, Thrombosis and Vascular Biology (San Francisco, CA) "Hydrolysis of low-density lipoprotein by secretory phospholipase A <sub>2</sub> 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<br>"Secretory phospholipase A <sub>2</sub> enzymes: A link between LDL and atherosclerosis?"   |
| 2006 | 7 <sup>th</sup> 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 A<sub>2</sub> enzymes: A mechanistic link between LDL and atherosclerosis?"

**International**

1999 European Atherosclerosis Society (Athens, Greece)  
"Scavenger Receptor BI (SR-BI) and clearance of apoB-containing lipoproteins in apoE-deficient mice"

**XIV. Research and/or Creative Productivity**

**PUBLICATIONS (Peer-reviewed)**

1. 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.
2. **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* 23: 177-181.
3. 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.
4. 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.
5. 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.
6. **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.
7. 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.
8. 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 trans-forming beta: Amplified expression and secretion of mature and precursor polypeptides in Chinese hamster ovary cells. *Mol. Cell. Biol.* 7: 3418-3427.

9. Madisen, L., **Webb, N.R.**, Rose, T.M., Marquardt, H., Ikeda, T., Twardzik, D., Seyedin, S., and Purchio, A.F. (1988) Transforming growth factor- $\beta$  2: cDNA cloning and sequence analysis. *DNA* 7: 1-8.
10. **Webb, N.R.**, Madisen, L., Rose, T.M., and Purchio, A.F. (1988) Structural and sequence analysis of TGF- $\beta$  2 cDNA clones predicts two different precursor proteins produced by alternative mRNA splicing. *DNA* 7: 493-497.
11. 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.
12. 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.
13. **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.
14. **Webb, N.R.**, and Summers, M. D. (1990) Expression of proteins using recombinant baculoviruses. *Technique* 2:173-188.
15. 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.
16. **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.
17. **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.
18. 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.
19. **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.

20. 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.
21. 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 A<sub>2</sub> promotes SR-BI interaction and accelerates HDL catabolism. *J. Lipid Res.* 41: 1849-1857.
22. 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.
23. 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.
24. **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.
25. **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.
26. **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 sPLA<sub>2</sub> 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 macroscialin 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.
31. Wooton-Kee, C.R., Boyanovsky, B.B., Nasser, M.S., de Villiers, W.J.S., and **Webb, N.R.** (2004) Group V sPLA<sub>2</sub> hydrolysis of LDL results in spontaneous particle aggregation and promotes macrophage foam cell formation. *Arterioscler. Thromb. Vasc. Biol.* 24: 762-767.
32. **Webb, N.R.**, de Beer, M.C., Asztalos, B.F., Whitaker, N., van der Westhuyzen, D.R., and de Beer, F.C. (2004) Remodeling of HDL remnants generated by scavenger receptor class B type I. *J. Lipid Res.* 45:1666-73.
33. Out, R., Hoekstra, M., de Jager, S.C., Vos, P.D., van der Westhuyzen, D.R., **Webb, N.R.**, Van Eck, M., Biessen, E.A., Van Berkel, T.J. (2005) Adenovirus-mediated hepatic overexpression of scavenger receptor BI accelerates chylomicron metabolism in C57BL/6J mice. *J Lipid Res.* 46:1172-81.
34. **Webb, N.R.** (2005) Secretory phospholipase A<sub>2</sub> enzymes in atherogenesis. *Curr Opin Lipidol.* 16:341-4.
35. Daugherty, A., **Webb, N.R.**, Rateri, D.L., King, V.K. (2005) Cytokine regulation of macrophage functions in atherogenesis. *J. Lipid Res.* 46:1812-22.
36. Boyanovsky, B.B., van der Westhuyzen, D.R., **Webb, N.R.** (2005) Group V sPLA<sub>2</sub>-modified LDL promotes foam cell formation by a SR-A and CD36 independent process that involves cellular proteoglycans. *J. Biol. Chem.* 280:32746-52.
37. de Beer, M.C., van der Westhuyzen, D.R., Whitaker, N.L., **Webb, N.R.**, de Beer, F.C. (2005) SR-BI-mediated selective lipid uptake segregates apoA-I and apoA-II catabolism. *J. Lipid Res.* 46:2143-50.
38. Eckhardt, E.M., Cai, L., Shetty, S., Zhao, Z., Szanto, A., **Webb, N.R.**, and van der Westhuyzen, D. R. (2006) HDL endocytosis by scavenger receptor SR-BII is clathrin-dependent and requires a carboxy-terminal dileucine motif. *J. Biol. Chem.* 281:4348-53.
39. Sun, B., Eckhardt, E.R., Shetty, S., van der Westhuyzen, D.R., **Webb, N.R.** (2006) Quantitative analysis of SR-BI-dependent HDL retroendocytosis in hepatocytes and fibroblasts. *J. Lipid Res.* 47:1700-13.
40. de Beer, F.C., **Webb, N.R.** (2006) Inflammation and atherosclerosis: Group IIa and Group V sPLA<sub>2</sub> are not redundant. *Arterioscler. Thromb. Vasc. Biol.* 26: 1421-2.

## ABSTRACTS

**Webb, N.R.**, Rose, T.M., and Lee, D.C. (1987) Complementary DNA sequence encoding a transmembrane protein homologous to the bovine diazepam binding inhibitor. Membrane Protein Symposium (San Diego, CA).

Madisen, L., **Webb, N.R.**, Rose, T.M., Marquardt, H., Ikeda, T., Twardzik, D., Seyedin, S., and Purchio, A.F. (1988) cDNA cloning and sequence analysis of transforming growth factor- $\beta$  2. UCLA Symposia on Molecular and Cellular Biology (Keystone, CO).

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).

Bostrom, M.A., de Beer, F.C., Daugherty, A., **Webb, N.R.** (2002) Macrophage expression of Group IIA sPLA<sub>2</sub> in LDL receptor-deficient mice increases atherosclerotic lesion formation in the absence of systemic effects on lipoprotein metabolism. Conference on Arteriosclerosis, Thrombosis, and Vascular Biology (Salt Lake City, UT).

Wooton-Kee, C.R., Nasser, M., deVilliers, W.J.S., de Beer, F.C., **Webb, N.R.** (2002) Macrophage-expressed Group V secretory phospholipase A<sub>2</sub> modifies LDL and HDL particles and is present in human and mouse atherosclerotic lesions. Conference on Arteriosclerosis, Thrombosis, and Vascular Biology (Salt Lake City, UT).

Wooton-Kee, C.R., **Webb, N.R.** (2003) Hydrolysis of LDL by Group V sPLA<sub>2</sub> results in spontaneous particle aggregation. Conference on Arteriosclerosis, Thrombosis, and Vascular Biology (Washington D.C.).

de Beer, M.C., **Webb, N.R.**, Asztalos, B.F., van der Westhuyzen, D.R., de Beer, F.C. (2003) Remodelling of SR-BI-generated HDL remnants. Conference on Arteriosclerosis, Thrombosis, and Vascular Biology (Washington D.C.).

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 di-

leucine 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 A<sub>2</sub> 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.).

Boyanovsky, B., van der Westhuyzen, D.R., and **Webb, N.R.** (2005) Group V secretory phospholipase A<sub>2</sub>-modified low density lipoprotein promotes foam cell formation by a SR-A and CD36-independent process that involves cellular proteoglycans. Conference on Arteriosclerosis, Thrombosis and Vascular Biology (Washington D.C.).

Sun, B., van der Westhuyzen, D.R., and **Webb, N.R.** (2005) A quantitative analysis of high density lipoprotein retroendocytosis by scavenger receptor class B type I. Southeast Lipid Research Conference (Callaway Gardens, GA).

Bostrom, M.A., Forrest, K., Boyanovsky, B., Daugherty, B., and **Webb, N.R.** (2005) Retrovirus-mediated Group V secretory phospholipase A<sub>2</sub> expression in bone marrow-derived cells promotes atherosclerosis in LDLR<sup>-/-</sup> mice. American Heart Association (Dallas, TX).

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 A<sub>2</sub>. 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.).

## GRANT AND CONTRACT ACTIVITY

### Active Research Support

NIH

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

Co-investigators: F.C. de Beer, D.R. van der Westhuyzen, A. Daugherty  
Group V sPLA<sub>2</sub> in Atherosclerosis (R01 HL071098)  
04/01/03 - 03/31/08; \$1,810,000 (Direct costs \$1,250,000)

NIH  
P.I. A. Daugherty  
Project 3 Leader: **N.R. Webb**  
Mechanisms of Abdominal Aortic Aneurysms (P01 HL080100-01A1)  
04/08/06 – 03/31/11; \$8,438,000 (Direct costs \$5,760,000)

NIH  
P.I.: D.R. van der Westhuyzen  
Co-Investigator: **N.R. Webb**  
SR-BI and SR-BII recycling and selective lipid uptake  
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)

American Heart Association, Ohio Valley Affiliate  
P.I.: Boris Boyanovsky  
Sponsor: **N.R. Webb**  
Bioactive molecules generated by secretory phospholipase A<sub>2</sub> Group V and Group X hydrolysis of LDL (AHA 0525425B)  
07/01/05 – 06/30/07; \$82,000 (Direct costs \$82,000)

### **Completed Research Support**

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)

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)

NIH  
P.I.: F.C. de Beer  
Co-investigators: **N.R. Webb**  
SAA and sPLA<sub>2</sub>: Role in atherogenesis (R01 HL69463)  
09/30/01 – 07/31/05; \$1,206,440 (Direct costs \$1,000,000)

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)

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)

American Heart Association, Ohio Valley Affiliate  
P.I.: Meredith Bostrom  
Sponsor: **N.R. Webb**  
Macrophage-derived GX sPLA<sub>2</sub> and atherosclerosis (AHA 0315079B)  
07/01/03 – 06/30/04; \$36,000 (Direct costs \$36,000)

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 patent**

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

### **Patent application**

“Compositions and Methods for Detecting and Treating Atherosclerosis” filed  
May 27, 2003