

## **CURRICULUM VITAE**

Amy Dodd Bradshaw  
Assistant Professor  
Gazes Cardiac Research Institute  
Medical University of South Carolina  
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### **Education**

BA, Molecular Biology, Revelle College, UCSD, 12/86  
PhD, Biochemistry and Neurobiology, UCSB, 10/95

### **Professional Experience**

Teaching Assistant, Department of Biological Sciences, UCSB, Santa Barbara, CA, 1988,90,91,92,93,94 (Introductory Biology and Cellular Biochemistry).  
Research Associate, Research Institute of Scripps Clinic, La Jolla CA, 6/86-6/88 (with Dr. Georg H. Fey).

Graduate Student, Neuroscience Research Institute and Department of Biological Sciences, UCSB, Santa Barbara, CA 9/88-9/95 (with Dr. Dennis O. Clegg).

Post-doctoral Fellow, Department of Biological Structure, University of Washington, Seattle, WA 11/95-4/99 (with Dr. E. Helene Sage).

Post-doctoral Fellow, Department of Vascular Biology, The Hope Heart Institute, Seattle, WA 4/99-7/01 (with Dr. E. Helene Sage).

Staff Scientist, Department of Vascular Biology, The Hope Heart Institute, Seattle, WA 7/01-12/2002.

Assistant Professor, Gazes Cardiac Research Institute, Medical University of South Carolina, Charleston, SC 1/2003- present.

Adjunct Assistant Professor, Department of Cell Biology and Anatomy, Medical University of South Carolina, Charleston, SC 6/03- present.

Adjunct Assistant Professor, Department of Bioengineering, Clemson University, Clemson, SC 3/04-present.

Adjunct Assistant Professor, College of Dental Medicine, Medical University of South Carolina, Charleston, SC 3/08- present.

Research Health Scientist, Ralph H. Johnson Veteran's Administration Medical Center, Charleston, SC 10/08- present

### **Professional Activities**

Representative, Graduate Student Association, Department of Biological Sciences, 1989-94

Member, American Society of Cell Biologists, 1998- present

Member, American Society of Matrix Biology 2001- present

Member, Heart Failure Society, 2007

Member, American Physiological Society, 2009

IACUC Committee Member, Veteran's Administration (Charleston, SC) 2007

Councilor, American Society of Matrix Biology 2008-2011

### **Awards and Scholarships**

Kirin Fellowship, Section of Biochemistry and Molecular Biology, Department of Biological Sciences, UCSB, Santa Barbara, CA, 1988.

Neuroscience Biotechnology Training Fellowship, Neuroscience Research Institute, UCSB, Santa Barbara, CA, 1991.

Regents Fellowship, Department of Biological Sciences, UCSB, Santa Barbara, CA, Spring 1991.

ASCB Student Travel Award, ASCB, Bethesda, MD, 1994.

Excellence in Neuroscience Institute Award, NRI, UCSB, Santa Barbara CA, 1995.

Post-Doctoral Fellowship Award (F32), National Institutes of Health, Bethesda MD, 1997-1999.

Top 10 Teachers in Graduate Core Class (2007), MUSC Graduate Students, Selected from ~50 participating lecturers.

Young Investigator Travel Award, IDeA Conference, Washington DC, 2008

## **Invited Talks**

International Conference on Biology and Pathology of the Extracellular Matrix, (2000) St. Louis MO.

Advanced Tissue Sciences, (2000) La Jolla CA.

University of Washington Engineered Biomaterials (UWEB), N.S.F. site visit (2001) Seattle, WA.

Frontiers in Cardiovascular Research Conference, (2001) Seattle, WA.

Lehigh University, (2002) Bethlehem, PA.

Oregon Health Sciences University, (2002), Portland OR.

Gazes Cardiovascular Research Institute, (2002), Medical University of South Carolina, Charleston, SC.

American Society for Cell Biology Annual Meeting (2002), San Francisco, CA.

Hollings Cancer Research Center (2004), Charleston SC.

University of Missouri (2005), Columbia, MO

Gordon Research Conference: Collagen (2005), New London, NH.

American Society for Cell Biology Annual Meeting (2005), San Francisco, CA

Proteins to Proteomics Symposium (2006), Irvine, CA

American Society for Matrix Biology (2006), Nashville, TN

University of Texas, Southwestern (2007), Dallas TX

Gordon Research Conference: Collagen (2007) New London, NH.

Southeastern Pharmacology Conference (2008) Charleston, SC

University of Toronto (2008) Toronto, ON

## **Publications**

Abraham, L.J., **Bradshaw, A.D.**, Shiels, B.R., Northemann, W., Hudson, G., and Fey, G.H. (1990) Hepatic transcription of the acute-phase alpha-1-inhibitor III gene is

controlled by a novel combination of cis-acting regulatory elements, *Mol. Cell. Biol.*, **10**, 3483-3491.

Abraham, L.J., **Bradshaw, A.D.**, Fletcher, R.G., and Fey, G.H. (1990) Interleukin 6 is a negative regulator of the acute phase alpha-1-inhibitor III gene, *Mol. Biol. Med.*, **7**, 261-271.

Abraham, L.J., **Bradshaw, A.D.**, Northemann, W., and Fey, G.H. (1991) Identification of a glucocorticoid response element contributing to the constitutive expression of the rat liver alpha-1-inhibitor III gene, *J. Biol. Chem.*, **266**, 18268-18275.

Orias, E., and **Bradshaw, A.D.** (1992) Stochastic developmental variation in the ratio of allelic rDNAs among newly differentiated, heterozygous macronuclei of *Tetrahymena thermophila*. *Dev. Genetics* **13**, 87-93

**Bradshaw, A.D.**, McNagny, K.M., Gervin, D.B., Cann, G.C., Graf, T. and Clegg, D.O. (1995). Integrin  $\alpha 2\beta 1$  mediates interaction between developing embryonic retinal cells and collagen. *Development* **121**, 3593-3602.

Smith B.S., **Bradshaw, A.D.**, Choi, E., Rouselle, P., Wayner, E.A. and Clegg, D.O. (1996). Human SY5Y neuroblastoma cell interactions with laminin isoforms: Neurite outgrowth on LN-5 is mediated by integrin  $\alpha 3\beta 1$ . *Cell Adhesion and Comm.* **3**, 451-462.

Cann, G.C., **Bradshaw, A.D.**, Gervin, D.B. and Clegg, D.O. (1996) Widespread expression of  $\beta 1$  integrins in the developing chick retina: Evidence for a role in migration of retinal ganglion cells. *Dev. Biol.* **180**, 82-96.

Bassuk, J.A., Birkebak, T., Rothmier, J.D., Clark, J.M., **Bradshaw, A.**, Muchowski, P.J., Howe, C.C., Clark, J.I., and Sage, E.H. (1999) Disruption of the *Sparc* locus in mice alters the differentiation of lenticular epithelial cells and leads to cataract formation. *Exp. Eye Res.* **68**, 321-331.

**Bradshaw, A.D.**, Francki, A.F., Motamed, K., Howe, C. and Sage, E.H. (1999) Primary mesenchymal cells isolated from SPARC-null mice exhibit altered morphology and rates of proliferation. *Mol. Biol. Cell*, **10**, 1569-1579.

Francki, A.F., **Bradshaw, A.D.**, Bassuk, J., Vernon, R.B., Howe, C. and Sage, E.H. (1999) SPARC regulates the expression of collagen type I and transforming growth factor- $\beta$  in mesangial cells. *J. Biol. Chem.* **274**, 32145-32152.

Bassuk, J.A., Pichler, R., Rothmier, J.D., Pippen, J., Gordon, K., Meek, R.L., **Bradshaw, A.D.**, Lombardi, D., Strandjord, T.P., Reed, M., Sage, E.H., Couser,

W.G., and Johnson, R. (2000) Induction of TGF- $\beta$ 1 by the matricellular protein SPARC in a rat model of glomerulonephritis. *Kid. Int.* **57**, 117-128.

**Bradshaw, A.D.**, Bassuk, J., Francki, A., and Sage, E.H. (2000) Expression and purification of recombinant human SPARC produced by baculovirus. *Mol. Cell Biol. Res. Comm.* **3**, 345-351.

**Bradshaw, A.D.** and Sage, E.H. (2001) SPARC, a matricellular protein that functions in cellular differentiation and tissue response to injury. *J. Clin. Invest.* **107**, 1049-1054.

**Bradshaw, A.D.**, Reed, M.J., Carbon, J.G., Pinney, E., Brekken, R.A., and Sage, E.H. (2001) Increased fibrovascular invasion of subcutaneous polyvinyl alcohol sponges in SPARC-null mice. *Wound Repair Regen.* **9**, 522-530.

**Bradshaw, A.D.**, Reed, M.J., and Sage, E.H. (2002) SPARC-Null mice exhibit accelerated cutaneous wound closure. *J. Histochem. Cytochem.* **50**, 1-10.

Puolakkainen, P., **Bradshaw, A.D.**, Kyriakides, T.R., Reed, M., Brekken, R., Wight, T., Bornstein, P., Ratner, B., and Sage, E.H. (2003) Mice that lack the matricellular protein SPARC exhibit a reduced foreign body reaction to implanted materials. *Am. J. Pathol.* **162**, 627-35.

**Bradshaw, A.D.**, Graves, D.C., Motamed, K., and Sage, E.H. (2003) SPARC-null mice exhibit increased adiposity without significant differences in overall body weight. *Proc. Natl. Acad. Sci USA* **100**, 6045-6050.

Delaney, A.M., Kalajzic, I., **Bradshaw, A.D.**, Sage, E.H., and Canalis, E. (2003) Osteonectin-null mutation compromises osteoblast formation, maturation, and survival. *Endocrinol.* **144**, 2588-2596.

**Bradshaw, A.D.**, Puolakkainen, P., Dasgupta, J., Davidson, J.M., Wight, T.N., and Sage, E.H. (2003) SPARC-null mice display phenotypic skin abnormalities characterized by reduced tensile strength and decreased dermal collagen fibril diameter. *J. Invest. Dermatol.* **120**, 949-55.

Brekken, R.A., Sullivan, M.M., Workman, G., **Bradshaw, A.D.**, Carbon, J., Siadek, A., Murri, C., Framson, P.E., and Sage, E.H. (2004) Expression and characterization of murine hevin (SC-1), a member of the SPARC family of matricellular proteins. *Histochem. Cytochem.* **52**, 735-48.

Sweetwyne, M.T., Brekken, R.A., Workman, G., **Bradshaw, A.D.**, Carbon, J., Siadek, A.W., Murri, C., and Sage, E.H. (2004) Functional analysis of the matricellular protein SPARC with novel monoclonal antibodies. *J. Histochem. Cytochem.* **52**, 723-33.

Aycock, R., **Bradshaw, A.D.**, Sage, E.H., and Starcher, B. (2004) Development of UV-Induced Squamous Cell Carcinomas is Suppressed in the Absence of SPARC. *J. Invest. Dermatol.* **123**, 592-9.

Puolakkainen PA, **Bradshaw AD**, Brekken RA, Reed MJ, Kyriakides T, Funk SE, Gooden MD, Vernon RB, Wight TN, Bornstein P, Sage EH. (2005) SPARC-thrombospondin-2-double-null Mice Exhibit Enhanced Cutaneous Wound Healing and Increased Fibrovascular Invasion of Subcutaneous Polyvinyl Alcohol Sponges. *J Histochem Cytochem.* **53**, 571-81.

Reed, M.J., **Bradshaw, A.D.**, Shaw, M., Sadoun, E., Han, N., Ferrara, N., Funk, S., Puolakkainen, P., and Sage, E.H. (2005) Enhanced Angiogenesis Characteristic of SPARC-Null Mice Disappears with Age. *J. Cell. Physiol.* **204**, 800-7.

Poobalarahi, F., Baicu, C., and **Bradshaw, A.D.** (2006) Cardiac Myofibroblasts Differentiated in 3-D Culture Exhibit Distinct Changes in Collagen I Production, Processing, and Matrix Deposition. *Am. J. Physiol. Heart Circ. Res.* **291**, H2924-32.

Rentz, T.J., Poobalarahi, F., Bornstein, P., Sage, E.H. and **Bradshaw, A.D.** (2007) SPARC regulates processing of procollagen I and collagen fibrillogenesis in dermal fibroblasts. *J. Biol. Chem.* **282**, 22062-71.

**Bradshaw, A.D.**, Baicu, C.F., Rentz, T.J., Derienzo, C., Boggs, J., Van Laer, A., Lacy, J., and Zile, M.R. (2009) Pressure-Overload Induced Alterations in Myocardial Hypertrophy and Extracellular Collagen Content: Role of SPARC-Dependent Post-Synthetic Collagen Processing. *Circulation* **119**, 269-280.

Arnold, S.A., Rivera, L.B., Miller, A.F., Carbon, J.G., Sage, E.H., Puolakkainen P., **Bradshaw, A.D.**, Brekken, R.A. (2009) Lack of Host SPARC Enhances Vascular Function and Accelerates Metastasis in an Orthotopic Murine Model of Pancreatic Carcinoma. *Submitted.*

Grant, J.E., **Bradshaw, A.D.**, Schwacke, J.H., Baicu, C.F., Zile, M.R., Schey, K.L. (2009) Quantification of Protein Expression Changes in the Aging Left Ventricle of *Rattus norvegicus*. *J. Proteome Res.* *Submitted.*

**Bradshaw, A.D.**, Baicu, C.F., Rentz, T.J., Derienzo, C., Van Laer, A., Boggs, J., and Zile, M.R. (2009) SPARC regulates collagen deposition and muscle stiffness in the aging myocardium. *In preparation.*

**Bradshaw, A.D.**, Baicu, C., Boggs, J., Zile, M.R., Schey K., Arthur, J. (2009) Analysis of Early Changes in the Right Ventricular Proteome Associated with Pressure Overload-Induced Cardiac Hypertrophy. *In preparation.*

Li, J., Zhang, Y., Yamane, K., Boggs, J., Poobalarahi, F., Cooper, G., and **Bradshaw A.D.** (2009) Collagen Deposition in Response to Hypertrophy Induced by Pressure-Overload in Felines. *In preparation.*

Zhang, Y., Visconti, R. and **Bradshaw A.D.** (2009) The absence of SPARC compromises structural integrity of the periodontal ligament in mice. *In preparation.*

### **Book Chapters and Invited Reviews**

Clegg, D.O., Mullick, L.H., Wingerd, K.L., Lin, H., Atienza, J.W., **Bradshaw, A.D.**, Gervin, D.B., and Cann, G.M. (2000) Adhesive events in retinal development and function: the role of integrin receptors. In Results and Problems in Cell Differentiation, Vol. **31**, Vertebrate Eye Development, E.Fini, Ed. Springer-Verlag, Berlin Heidelberg, 141-156.

**Bradshaw, A.D.** and Sage, E.H. (2000) Regulation of cell behavior by extracellular proteins: Matricellular proteins as modulators of cell function. In Principles of Tissue Engineering, Lanza, R., Langer, R., and Vacanti, J., Eds. Academic Press, San Diego, CA, 119-127.

**Bradshaw, A.D.** and Sage, E.H. (2000) Regulation of vascular morphogenesis by extracellular matrix proteins. In The New Angiotherapy, T.-P. D. Fan, Ed., Humana Press, Inc., Cambridge, 51-66.

Sage, E.H., **Bradshaw, A.D.**, and Brekken, R.A. (2003) SPARC, a Matricellular Protein that Regulates Cell-Matrix Interaction: Implications for Vascular and Connective Tissue Biology. In Extracellular Matrix and The Liver – Approach to Gene Therapy, Okazaki, I., Y. Ninomiya, S.L. Friedman, and K. Tanikawa, eds., Academic Press, Tokyo, 76-85.

Sage, E.H. and **Bradshaw, A.D.** (2007) Regulation of cell behavior by extracellular proteins: Matricellular proteins as modulators of cell function. In Principles of Tissue Engineering, 3<sup>rd</sup> Edition, Lanza, R., Langer, R., and Vacanti, J., Eds. Academic Press, San Diego, CA, 119-127.

Brekken, R.A. and **Bradshaw, A.D.** (2009) The Function of SPARC in Tumor Cell Biology: SPARC as a Modulator of Cell:ECM Interaction. in Cell-Extracellular Matrix Interactions in Cancer. Pozzi, A and Zent R, Eds. Springer, New York, NY. *In press.*

McCurdy, S., Heyman, S., and **Bradshaw, A.D.** (2009) Cardiac Extracellular Matrix Remodeling: Fibrillar Collagens and Secreted Protein Acidic and Rich in Cysteine (SPARC) Mol Cell Cardiol. *In preparation.*

**Bradshaw, A.D.** (2009) The role of SPARC in control of collagen synthesis and fibril formation. *J. Cell Commun. Signal. In preparation.*

### **Abstracts**

Clegg, D.O., Choi, E.S., Johnson, J.A., Snyder, J., Wayner, E.A., Carter, W.G., Gervin, D.B., **Bradshaw, A.D.**, and Eckley, D.M. (1989) Evidence for involvement of the integrin  $\alpha 3$  subunit in process outgrowth on laminin. Soc. Neurosci. Annual Meeting, Phoenix, AZ, #232.17.

**Bradshaw, A.D.**, McNagny, K.M., Gervin, D.B., Cann, G.C. and Clegg, D.O. (1995) Integrin  $\alpha 2\beta 1$  mediates interactions between developing embryonic retinal cells and collagen. ASCB Annual Meeting, San Francisco, CA. #1355.

Cann, G.C., **Bradshaw A.D.**, and Clegg D.O. (1995) Integrin  $\alpha 4\beta 1$  and VCAM-1 are expressed in the developing retina and mediate process outgrowth. ASCB Annual Meeting, San Francisco, CA. #1356.

**Bradshaw, A.D.**, Francki, A, Motamed, K., Howe, C., and Sage, E.H. (1998) Primary mesenchymal cells isolated from SPARC-null mice exhibit altered morphology and proliferation rates relative to wild-type cells. ASCB Annual Meeting, San Francisco, CA. #1757.

Francki, A., **Bradshaw, A.D.**, Bassuk, J.A., Carbon, J.G., Howe, C., and Sage, E.H. (1998) SPARC regulates collagen type I and TGF- $\beta$  expression in mouse mesangial cells. ASCB Annual Meeting, San Francisco, CA. #964.

**Bradshaw, A.D.**, Reed, M.J., and Sage, E.H. (2000) SPARC-Null Mice Exhibit Accelerated Wound Healing and Increased Cellular Invasion in the Sponge Model of Angiogenesis. Thrombospondins 2000, Madison, WI.

**Bradshaw, A.D.**, Reed, M.J., and Sage, E.H. (2000) SPARC-null Mice Exhibit Accelerated Wound Healing, Altered Extracellular Matrix in the Dermis, and Increased Cellular Invasion in a Sponge Model of Angiogenesis. Biology and Pathology of the Extracellular Matrix, St. Louis, MO.

**Bradshaw, A.D.**, Reed, M.J., Pinney, E., Carbon, J., and Sage, E.H., (2001) SPARC-null Mice Exhibit Accelerated Wound Healing, Altered Extracellular Matrix in the Dermis, and Increased Cellular Invasion in a Sponge Model of Angiogenesis. Wound Healing Society, Albuquerque, NM.

**Bradshaw, A.D.**, Reed, M.J., Brekken, R.A., Pinney, E., Wight, T.N., and Sage, E.H. (2001) SPARC-null Mice Exhibit Accelerated Wound Healing, Altered Dermal Extracellular Matrix, and Increased Cellular Invasion in a Sponge Model of Angiogenesis. BECON Reparative Medicine, Bethesda, MD.

Puolakkainen, P., **Bradshaw, A.D.**, Kyriakides, T., Lehman, A., Brekken R., Bornstein, P., and Sage, E.H. (2001) Reduced Foreign Body Response to Implanted Biomaterials in SPARC-Null Mice. BECON Reparative Medicine, Bethesda, MD.

**Bradshaw, A.D.**, Puolakkainen, P., Dasgupta, J., Davidson, J.M., Wight, T.N., Sage, E.H. (2002) SPARC Influences the Structure and Composition of the Dermal ECM. Gordon Research Conference, Basement Membranes, Plymouth NH.

**Bradshaw, A.D.**, Puolakkainen, P., Dasgupta, J., Davidson, J.M., Wight, T.N., Sage, E.H. (2002) SPARC Influences the Structure and Composition of the Dermal ECM. ASCB Annual Meeting, San Francisco, CA.

Westin, K., Sage, E.H., **Bradshaw, A.D.** (2003) Decreased Collagen Accumulation in SPARC-null Mice is Associated with Increased Adiposity. Gordon Research Conference: Collagen, New London, NH.

Poobalarahi, F., Hills J., Sage, E.H., **Bradshaw, A.D.** (2005) SPARC Influences Collagen I Fibril Maturation and Extracellular Matrix Deposition. Gordon Research Conference: Collagen, New London, NH.

Rentz T., Poobalarahi, F., **Bradshaw, A.D.** (2006) SPARC Regulates Procollagen I Processing and Cell Binding. American Society for Matrix Biology Meeting, Nashville, TN.

Baicu, C.F., **Bradshaw, A.D.**, Aho, M.R., Van Laer, A.O., Boland, T., Zile, M.R. (2007) Rapid Prototyping of Cardiac Constructs using Isolated Cardiomyocytes and Fibroblasts. South Carolina Bioengineering Summit, Charleston, SC

Rentz, T.J., Zhang, Y., Bornstein, P., and **Bradshaw, A.D.** (2007) SPARC-Null Mice that Express Procollagen  $\alpha 1(I)$  Lacking N-propeptides Exhibit Abdominal Hernias. Gordon Research Conference: Collagen, New London NH.

**Bradshaw, A.D.**, Baicu, C.F., Rentz, T.J., Derienzo, C., Van Laer, A., Boggs, J., and Zile, M.R. (2007) Role of SPARC in Post-Synthetic Collagen Processing in the Aging Myocardium. Heart Failure Society of America, Washington D.C.

**Bradshaw, A.D.**, Baicu, C.F., Rentz, T.J., Derienzo, C., Boggs, J., Van Laer, A., Lacy, J., and Zile, M.R. (2007) Pressure-Overload Induced Alterations in Myocardial Hypertrophy and Extracellular Collagen Content: Role of SPARC-Dependent Post-Synthetic Collagen Processing. Heart Failure Society of America, Washington D.C.

Grant, J.E., **Bradshaw, A.D.**, Schwacke, J.H., Baicu, C.F., Zile, M.R., and Schey, K.L. (2008) Towards quantitation of a heart glycoproteome using iTRAQ. 55th American Society for Mass Spectrometry Conference; Denver, CO

Baicu, C.F., **Bradshaw, A.D.**, Boggs, J.M., Rentz, T.J., Van Laer, A.O., Kindy, M.S., Zile, M.R. (2008) Effects of Inhibition of AGE-RAGE Interaction in Pressure-Overload Hypertrophy by Treatment with sRAGE. 12<sup>th</sup> Annual Heart Failure Society of America, Toronto, CA

Zhang, Y., Visconti, R., and **Bradshaw, A.D.** (2008) Aberrant Collagen Fibril Morphology in Periodontal Ligament of SPARC-null mice. 2nd Biennial NISBRE Symposium, Washington DC

Zhang, Y., Visconti, R., and **Bradshaw, A.D.** (2008) Aberrant Collagen Fibril Morphology in Periodontal Ligament of SPARC-null mice. International Association for Dental Research, Toronto, Canada

**Bradshaw, A.D.**, Baicu, C.F., Rentz, T.J., Derienzo, C.C., Boggs, J.M., Van Laer, A.O., Zile, M.R. (2008) SPARC Effects Collagen Deposition in Myocardial Hypertrophy. American Society for Matrix Biology, San Diego, CA

Zhang, Y., Rivera, L.B., Brekken, R.A., **Bradshaw, A.D.** (2008) SPARC Influences Collagen Interaction with the Cell Surface. American Society for Matrix Biology, San Diego, CA

**Bradshaw, A.D.**, Baicu, C.F., Schwake, J.H., Yamane, K., Rentz, T.J., Lacy, J.M., Gallien, T.N., Schey, K.L., Zile, M.R. (2008) Quantitative Proteomic Analysis of Hypertrophied Rat Myocardium. American Society for Matrix Biology, San Diego, CA

Pinney, E., Ziegler, F., Naughton, G., **Bradshaw, A.D.**, Kellar, R. (2008) Changes in ECM in High/Low/Normal Oxygen in 3D Cultures. American Society for Matrix Biology, San Diego, CA

### **Peer Review and Editorial Consultations**

Journal of Molecular and Cellular Cardiology (2003-present)

Journal of Cell Science (2007-present)

Artherosclerosis (2005)

Cardiovascular Research (2006-present)

American Journal of Physiology (2006-present)

Circulation (2007-present)

Matrix Biology (2008- present)

National Institute of Aging, N.I.H., Ad Hoc Reviewer (2007)

National Institute of Arthritis and Musculoskeletal and Skin Diseases, N.I.H. Ad Hoc Reviewer (2009)

American Heart Association, Molecular and Cellular Biology Study Section (2009)

## **Grant Awards**

### **Current:**

P20 2P20RR017696-06 Kirkwood, K. (P.I.)

NIH: South Carolina COBRE for Oral Health  
7/07-7/10

Project 6: Bradshaw (P.I.)

The function of SPARC in the regulation of collagen deposition in the periodontal ligament.

Studies designed to characterize SPARC activity in the periodontal ligament in vivo and in vitro.

1 R01 CA118240-01A2 Brekken, R.A. (P.I., UTSW, Dallas)

9/07-7/11

NIH/NCI

Matricellular proteins as regulators of tumor progression

Studies designed to elucidate the function of SPARC in ECM formation associated with tumor angiogenesis and metastasis.

VA Merit

Bradshaw, A. (P.I.)

Veteran's Administration

10/1/08-9/30/11

Post-synthetic Collagen Processing in Age-dependent LV Remodeling

Studies designed to elucidate the role of post-synthetic procollagen processing in aged myocardium.

### **Pending:**

5P01 HL048788-16-20

Cooper, G (P.I.)

NIH/NHLBI

Load-Induced Cardiac Hypertrophy in the Adult Mammal

Project 6:

Zile/Bradshaw (co-PIs)

Procollagen processing in load-induced remodeling.

Studies proposed to investigate the mechanism of the post-synthetic procollagen processing in cardiac hypertrophy.

**Completed:**

VA Career Development Award                      Bradshaw (Mentee) Cooper (Mentor)  
4/06-4/08  
Veteran's Administration  
Salary support provided to develop a research program in cardiac interstitium.

1 R21 DK066486-01 Bradshaw (Co-PI)    9/03-9/05  
NIH/NIDDK  
Control of Adipocyte Hypertrophy by Extracellular Matrix  
Studies proposed to investigate developmental and obesity-dependent changes in the ECM of fat tissue and primary adipocytes.

1 KO-1 AR02220-01A Bradshaw (PI)    7/01-6/05  
NIH/NIAMS  
SPARC Modulates ECM Dynamics in Skin  
Studies proposed to investigate the function of SPARC in matrix remodeling events in the skin such as angiogenesis, wound healing, and foreign body response.