

# Curriculum Vitae

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## **Academic Qualifications:**

- **PhD** (1999) Bharathiar University, India 641046  
Emphasis: Biochemistry.
- **Masters in Biochemistry** (1985-1987), Bharathiar University, India.
- **Bachelors** (1983-1985) Bharathiar University, India.  
Emphasis: Biochemistry, Chemistry, Nutrition & Dietitics.

## **Professional Positions:**

- **University of Kentucky, Lexington, KY, USA** (Apr 2009-Present):  
Research Assistant Professor, Department of Internal Medicine.
- **University of Kentucky, Lexington, KY, USA** (Sept 2005-Mar 2009):  
Scientist III, Department of Internal Medicine.
- **University of Kentucky, Lexington, KY, USA** (Feb 2001- Sep 2005):  
Research Associate, Department of Biochemistry.

- **Vanderbilt University, Medical Centre, Nashville, TN, USA** (July 2000- Feb 2001): Postdoctoral Fellow, Department of Molecular Physiology and Biophysics.
- **Centre for Cellular and Molecular Biology, Hyderabad, India.** (April 1998-July 2000): Postdoctoral Fellowship, Eye Research Group.
- **Bharathiar University, Coimbatore, India** (November 1991-June 1996): Graduate student, Department of Biotechnology.

### **Awards and Fellowship:**

- Department of Bio-Technology, India – Postdoctoral Fellowship 1998.
- Council of Scientific and Industrial Research, India- Senior Research Fellowship 1992-1995.
- GATE 91-Department of Education, Government of India 1991.
- University Grants Commission, India- Lectureship 1990.
- Best Oral paper presentation, One day symposium, Society of Biological Chemists, Coimbatore chapter, India. February 1988.

### **Teaching Experience:**

- **Assistant Professor** – Department of Biochemistry, Dr. GR Damodaran College of Science, Coimbatore, India. June 1996-Feb 1998.
- **Guest instructor-** Molecular Biological Applications in Nutrition course (NS606) for Graduate students of Nutritional Sciences, University of Kentucky, Spring 2007, Spring 2009, Spring 2011.

### **Other Professional activities:**

- Member, Endocrinology Fellowship candidate selection panel, University of Kentucky.
- Invited by the Controller of Examinations, Bharathiar University, Coimbatore, Tamil Nadu, India, to serve as a Member of the Board of

Examiners (Continuing service) for three doctoral students in Biochemistry.

- Invited by the Controller of Examinations, Avinashilingam Deemed University, Coimbatore, Tamil Nadu, India, to serve as a Member of the Board of Examiners (Continuing service) for two doctoral students in Biochemistry.
- Invited speaker- Department of Biotechnology, Bharathiar University, Coimbatore, India, 9<sup>th</sup> Jan 2008.
- Invited speaker- Department of Biochemistry, Avinashilingam University, Coimbatore, India, 10<sup>th</sup> Jan 2008.

## **Professional Membership**

### **Present**

- American Heart Association.
- The Endocrinology Society.

### **Past**

- Indian Eye Research group, India.
- Society of Biological Chemist, India

## **Manuscript Reviewer**

- Atherosclerosis

## **Speaking Engagements**

- **November 2009-** American Heart Association, Scientific Sessions, Orlando, Florida, November 17th, Group X Secretary Phospholipase A<sub>2</sub> Negatively Regulates Activation of Liver X Receptors.
- **September 2009-** South East Lipid Research Conference, Callaway Gardens, Pine Mountain, Georgia, Sep 25th 2009, Group X Secretary Phospholipase A<sub>2</sub> Supresses Liver X Receptor Activation and Enhances Inflammatory Response in Macrophages.

- **September 2009-** University of Kentucky, Cardiovascular Seminar Series, Sep 18, Group X sPLA<sub>2</sub> Integrates Macrophage Lipid Metabolism and Inflammatory Responses by Negatively Regulating Liver X Receptor.
- **April 2009-** Conference on Arteriosclerosis, Thrombosis and Vascular Biology (Washington D.C), April 28-30, Group X secretory phospholipase A<sub>2</sub> enhances macrophage inflammatory responses by modulating expression levels of ABCA1 and ABCG1.
- **November 2007-** American Heart Association, Scientific Sessions (Orlando, Florida), Nov 3-7, Group X Secretory Phospholipase A<sub>2</sub> Negatively Regulates Adrenal Glucocorticoid Synthesis.
- **January 2000-** International Symposium on Cataracts- Molecular and Epidemiological Aspects, Chennai, India, Transglutaminase Mediated Cross-linking of  $\alpha$ -crystallin.
- **February 2000-** Annual Conference of Indian Eye Research Group, Hyderabad, India, Calcium-dependent cross-linking of alpha-crystallin : Structural and Conformational analysis.

## Mentoring Activities

- Amanda Su- Undergraduate student, Cornell University (May-June 2010).
- Kayla Talbott- Undergraduate student, University of Kentucky (2008-2009). 2008- (co-advisor for ABT395 research project (recipient of AMSTEMM Summer Research Grant)
- William Bailey-Research Analyst, Department of Internal Medicine, University of Kentucky (2008-2009).
- Eun-Jeong Lim, 2001: IBS Graduate Rotation Student, Department of Biochemistry, University of Kentucky (2001)
- Susan Wang, Research Analyst, Department of Biochemistry, University of Kentucky, (2003 – 2005).

## **Publications:**

- **Shridas P\***, Bailey WM, Talbott KR, Oslund RC, Gelb MH, Webb NR (2011) Group X Secretory Phospholipase A<sub>2</sub> enhances Toll-Like Receptor 4 Signaling in Macrophages. *Journal of Immunology* 187:482-489. \* Corresponding author.
- **Shridas P**, Bailey WM, Gizard F, Oslund RC, Gelb MH, Bruemmer D, Webb NR (2010) Group X Secretory Phospholipase A<sub>2</sub> Negatively Regulates ABCA1 and ABCG1 expression and cholesterol efflux in macrophages. *Arterioscler Thromb Vasc Biol.* 30:2014-2021.
- Zack M, Boyanovsky BB, **Shridas P**, Bailey W, Forrest K, Howatt DA, Gelb MH, de Beer FC, Daugherty A, Webb NR. (2011) Group X secretory phospholipase A<sub>2</sub> (sPLA<sub>2</sub>) augments Angiotensin II-induced inflammatory responses and abdominal aortic aneurysm formation in apoE-deficient mice. *Atherosclerosis.* 214:58-64.
- Li X, **Shridas P**, Forrest K, Bailey W, Webb NR. (2010) Group X secretory phospholipase A<sub>2</sub> negatively regulates adipogenesis in murine models. *FASEB J.* 24:4313-4324.
- **Shridas P**, Bailey WM, Boyanovsky BB, Oslund RC, Gelb MH, Webb NR. (2010) Group X secretory phospholipase A<sub>2</sub> regulates the expression of steroidogenic acute regulatory protein (StAR) in mouse adrenal glands. *J Biol Chem.* 2010 Jun 25;285(26):20031-9.
- Boyanovsky BB, **Shridas P**, Simons M, van der Westhuyzen DR, Webb NR (2009) Syndecan-4 mediates macrophage uptake of group V secretory phospholipase A<sub>2</sub>-modified low density lipoprotein. *Journal of Lipid Research,* 50 (4): 641-50.
- Sun B, Boyanovsky BB, Connelly MA, **Shridas P**, R van der Westhuyzen D, Webb NR (2007) Distinct mechanisms for oxLDL uptake and cellular trafficking by class B scavenger receptors CD36 and SR-BI. *J Lipid Res.* 2007 Dec; 48(12):2560-70.

- **Shridas P** and Waechter CJ (2006) Human dolichol kinase, a polytopic endoplasmic reticulum membrane protein with a cytoplasmically oriented CTP-binding site, *Journal of Biological Chemistry*, 281, 31696-704.
- **Shridas P**, Rush JS and Waechter CJ (2003) Identification and Characterization of a cDNA encoding a long-chain cis-isoprenyltransferase involved in dolichyl monophosphate biosynthesis in the ER of brain cells, *Biochemical and Biophysical Research Communications*, 312, 1349-1356.
- Fernandez F, **Shridas P**, Jiang S, Aebi M, and Waechter CJ (2002) Expression and characterisation of a human cDNA that complements the temperature-sensitive defect in dolichol kinase activity in the yeast sec59-1 mutant: the enzymatic phosphorylation of dolichol and diacylglycerol are catalysed by separate CTP-mediated kinase activities in *Saccharomces cerevisiae*, *Glycobiology*, 12, 1-8.
- **Shridas P**, Sharma Y and Balasubramanian (2001) Transglutaminase-mediated cross linking of alpha crystalline: structural and functional consequences, *FEBS Letters*, 24981,1-6.
- Bheemareddy R, **Preetha Shridas**, C Sivakama Sundari, Dasari Muralidhar, Sushil Chandani, Fairwell Thomas, and Yogendra Sharma (2001) Calcium binding properties of  $\gamma$ -crystallin: Calcium ion bind at the greek-key  $\beta\gamma$ -crystallin fold, *Journal of Biological Chemistry*, 276, 38464-38471.
- Uvarani G, Jaganathan L, **Preetha S** and Boopathy R (1998) Purification and characterization of Lipase from *Rhizomucor miehei*, *Journal of Scientific and Industrial Research*, 364, 84-87.
- **Preetha S** and Boopathy R (1998) Chemical modification studies of *Rhizomucor miehei* protease: Role of basic amino acids, *Indian Journal of Biochemistry and Biophysics* 35,339-345.
- **Preetha S** and Boopathy R (1996) Purification and characterization of milk clotting protease from *Rhizomucor miehei*, *World Journal of Microbiology and Biotechnology*, 13, 573-578.

- **Preetha S** and Boopathy R (1994) Influence of culture conditions on the production of milk clotting protease from *Rhizomucor* sp, *World Journal of Microbiology and Biotechnology*, 10, 527-530.
- **Preetha S** and Boopathy R (1998) *Advances in Biotechnology*/Ashok Pandey. xii, 514 Purification and characterization of milk clotting protease from *Rhizomucor miehei*.

## **Abstracts:**

**Shridas P**, Zahoor L, Bailey W, Forrest F and Webb NR (2011) Role of Group X Secretory Phospholipase A<sub>2</sub> in Mouse Pancreatic Beta Cell Function. Barnstable Brown Obesity and Diabetes Research Day, May 17<sup>th</sup> (Lexington, KY)

Peleshok D, Bailey W, Forrest F, Webb NR and **Shridas P** (2010) Role of Group X Secretory Phospholipase A<sub>2</sub> in Pancreatic  $\beta$ -cell function. Gill Heart Institute Cardiovascular research day, October 22<sup>nd</sup> (Lexington, KY).

**Shridas P**, Bailey W and Webb N.R (2009) Group X secretory phospholipase A<sub>2</sub> enhances macrophage inflammatory responses by modulating expression levels of ABCA1 and ABCG1, Conference on Arteriosclerosis, Thrombosis and Vascular Biology (Washington D.C), April 28-30.

Peleshok D, Bailey W, Forrest F, Webb NR and **Shridas P** (2010) Role of Group X Secretory Phospholipase A<sub>2</sub> in Pancreatic  $\beta$ -cell function, South East Lipid Research Conference (SELRC), Pine Mountain, Georgia, October 7-10.

**Shridas, P**, Bailey, W and Webb N.R (2009) Group X secretory phospholipase A<sub>2</sub> enhances macrophage inflammatory responses by modulating expression levels of ABCA1 and ABCG1, Conference on Arteriosclerosis, Thrombosis and Vascular Biology (Washington D.C), April 28-30.

**Shridas, P** and Webb, NR (2008) Group X secretory phospholipase A<sub>2</sub> modulates macrophage inflammatory response, South East Lipid Research Conference (SELRC), Pine Mountain, Georgia, October 3-5 2008.

**Shridas, P**, William Bailey, Rob C Oslund, Michael H Gelb and Nancy R Webb, (2008) Group X Secretory Phospholipase A<sub>2</sub> Negatively Regulates Adrenal Glucocorticoid Synthesis (New Haven, CT) Jul 20-25.

**Shridas, P.**, Bailey, W., Oslund R., Gelb, M and Webb N.R., (2007) Group X secretory phospholipase a<sub>2</sub> negatively regulates adrenal glucocorticoid synthesis. Annual conference of American Heart Association, Orlando, Florida. Nov-3-7<sup>th</sup> 2007.

Webb N.R., Li X., Forrest K., Bailey W., Boyanovski B, **Shridas P.**, De Beer F.C (2007) Group X sPLA<sub>2</sub> Deficiency Increases Adiposity and Adipose Tissue Inflammation in Mice. Annual conference of American Heart Association, Orlando, Florida. Nov-3-7<sup>th</sup> 2007.

**Shridas, P**, Bailey, W and Webb, N. R (2007) Regulation of adrenal glucocorticoid synthesis by Group X secretory phospholipase A<sub>2</sub>. Gill Heart Institute Cardiovascular research day (Lexington, KY).

**Shridas, P.**, and Webb, N.R. (2007) Group X secretory phospholipase A<sub>2</sub> plays a role in the regulation of adrenal glucocorticoid synthesis. Conference on Arteriosclerosis, Thrombosis and Vascular Biology (Chicago, IL).

**Preetha Shridas**, Boris Boyanovsky, Nancy Webb (2006) Group X secretory phospholipase A<sub>2</sub> plays a role in the regulation of adrenal glucocorticoid synthesis. Gill Heart Institute Cardiovascular research day (Lexington, KY).

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.).

**Preetha Shridas**, Fabiana Fernandez, Songmin Jiang, Jeffrey S Rush, Markus Aebi, and Charles J. Weachter (April 2002) Cloning and expression

of a cDNA that encodes dolichol kinase in human brain. (Poster at Experimental Biology 2002, New Orleans, LA)

Mchaourab HS, **Shridas P** (April 2001) Towards a Molecular Dissection of  $\alpha$ A Crystallin Chaperone Function (Poster at ARVO 2001 The Association for Research in Vision and Ophthalmology, Florida, USA).

**Preetha Shridas**, Yogendra Sharma and Balasubramanian D (November 2000) Transglutaminase Mediated Cross-linking of Alpha-Crystallin: Structural and Functional Consequences (Presented at the Third Asian Cataract Conference, Kowloon, Hong Kong).

Yogendra Sharma, B. Rajini Devi and **Preetha Shridas** (November 2000) Calcium Binding Properties of Betagamma-Crystallins (Presented at the Third Asian Cataract Conference, Kowloon, Hong Kong).

**Preetha S**, Sharma Y and Balasubramanian D (January 2000) Transglutaminase mediated cross linking of  $\alpha$ -crystallin (Presented at International Symposium on Cataracts- Molecular and Epidemiological aspects, Chennai, India).

**Preetha S**, Sharma Y and Balasubramanian D (February 2000) Calcium-dependent cross-linking of alpha-crystallin : Structural and Conformational analysis (Presented at Annual meeting of Indian Eye Research Group, Hyderabad, India).

Yogendra S, **Preetha S**, Rajini Devi and Sushil Chandani ( February 2000) Calcium binding properties of  $\gamma$ -crystallin. Is the greek-key  $\alpha\gamma$ -crystallin fold a calcium binding motif ? (Presented at Annual meeting of Indian Eye Research Group, Hyderabad, India).

**Preetha S** and Boopathy R (November 1997) Purification and characterisation of aspartyl protease from *Rhizomucor miehei* (Poster at International conference on Frontiers in Biotechnology, Trivandrum, India).

Boopathy R and **Preetha S** (January 1997) Functional characterisation of milk clotting protease from *Rhizomucor miehei* (At Frontiers in Biology and Biotechnology, Vellore, India).

**Preetha S** and Boopathy R ( October 1996) Influence of culture conditions on the production of milk clotting enzyme from *Rhizomucor* (Poster at National Symposium on Current trends in Biochemistry and Biotechnology of Fungi, Hyderabad, India).

**Preetha S**, Pushpa A and Giri J (February 1998) Influence of Therapeutic radiation on serum enzyme levels in cancer patients (Presented at One day symposium on 'Recent trends in Biochemistry', Society of Biological Chemists, Coimbatore Chapter, Coimbatore, India).

## **Grant Support:**

NIH

P.I.: N.R. Webb

Co-PI: Shridas P

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).

COBRE-Pilot Project

P.I Shridas P

Group X sPLA2: Role of Group X Secretory Phospholipase A<sub>2</sub> in Glucose-Stimulated Insulin Secretion by pancreatic beta cells.

Direct costs \$ 50,000