

**SARASWATHY (SARAS) NAIR**

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**SUMMARY**

I have served as chair of the Dept. of Health and Biomedical Sciences currently with 50+ faculty (37 FT and >12 PT), 6 FT staff, 1000+ undergraduate and graduate students, 6 programs (Biomedical Sciences, Medical Lab Sciences, Nutritional Sciences, Health Services Technology, Health Sciences with 5 different concentrations, and Dietetics (new-launch FA 21), since 2014. (<https://www.utrgv.edu/hbs/index.htm>)

My scholarly and intellectual contributions through peer-reviewed publications and funded grants have focused in two primary areas: 1) Obesity related Inflammation in Mexican-Americans and cell culture models 2) Increasing Hispanic student participation in Biomedical Sciences careers. My teaching the past 7 years encompasses didactic courses for undergraduates, graduate and medical students as well as mentored independent research in my laboratory, for graduate and undergraduate students. Professional service highlights include national, UT system and UTRGV intramural collaborations to promote Hispanic student success and inclusive excellence in STEM and Biomedical Sciences, as well as serving on various task forces and committees during the historic creation of UTRGV from two legacy institutions UT, Brownsville and UTPA, as well as the establishment of the UTRGV School of Medicine in 2016.

**EMPLOYMENT (including Administrative appointments and academic ranks)**

- Professor, Department of Health and Biomedical Sciences, UTRGV, 2022
- Chair, Department of Health and Biomedical Sciences, UTRGV, Aug 29, 2016-present
- Interim Chair, Department of Health and Biomedical Sciences, UTRGV, March 15, 2015-Aug 28, 2016
- Endocrinology and Female Reproductive system Co-Module director, UTRGV School of Medicine, 2015-2018
- Associate Professor, Department of Health and Biomedical Sciences, UTRGV, 2015-2022
- Chair, Department of Biomedicine, University of Texas at Brownsville, Brownsville, TX, Oct 2014- August 2015

- Associate Professor, Department of Biomedicine, University of Texas at Brownsville, Brownsville, TX, 2012-2015
- Assistant Professor Department of Biomedical/Biological Sciences, University of Texas at Brownsville, Brownsville, TX, 2006-2012
- Research fellow, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), National Institutes of Health (NIH), Phoenix, AZ, 2001-2006
- Adjunct faculty, Glendale Community College, AZ, 2001
- Director R & D, Verigen, Inc., Scottsdale, AZ, 1996 – 1998
- Research fellow/Associate, Albert Einstein College of Medicine, N.Y, 1992 – 1996
- Research and teaching assistant, S.U.N.Y at Buffalo, N.Y, 1986-1992

## EDUCATION

- Ph.D., State University of New York at Buffalo, 1992 (*cum laude*)  
Thesis: Cloning, characterization and localization of a cell cycle regulated putative helicase p47, and the pIgA receptor in rat hepatocytes.
- M.A., State University of New York at Buffalo, 1987  
Major: Cell and Molecular Biology
- M. Sc., Annamalai University (India), 1985  
Major: Marine Biology (*Ranked First in Program*)
- B. Sc., Kerala University (India), 1983, (*Ranked Second in State*)  
Major: Zoology; Minors: Botany, Chemistry

## TEACHING

### UTB/UTRGV

- Endocrinology (YR 2 Medical students)
- Adv. Cell and Molecular Biology-lecture (graduate students)
- Advanced Cell Biology-lecture (juniors, seniors)
- Advanced Molecular Biology-lecture (juniors, seniors)
- Cell and Molecular Biology, lecture and laboratory courses (juniors, seniors)
- Research Methodology-Biomedical Research (juniors and seniors)
- Research Principles and Ethics (juniors and seniors)

- Genetics (juniors and seniors)
- Human Genetics and Medical Genomics (juniors and seniors)
- Introductory Medical Biochemistry (freshmen)
- Introductory Molecular Biology (freshmen)
- Introductory Medical Genetics (freshmen)
- Evolutionary Medicine (freshmen)
- Concepts in Biology for Non-majors (freshmen)
- Research Problems in Biology (juniors and seniors)
- Independent Research (undergraduates)
- Graduate research (graduate students)
- Thesis research (graduate students)
- Biology seminar (seniors)

#### Glendale Community College

- Biology 101 lecture and lab (freshmen)

#### SUNY at Buffalo

- Immunology lab (juniors and seniors)
- Comparative anatomy lab (sophomores, juniors and seniors)
- Basic biology lab (freshmen)

#### **Curriculum/Course design**

- MS in Applied Biomedical Sciences (ongoing development)
- BS Respiratory Care (ongoing development)
- BMED 3123/3124 (Advanced Research Skills Writing-Part I and II-design and develop for B2BMED students-ongoing)
- MS in Dietetics-accredited and approved for launch in FA 2021 (Review of proposal as Chair, Accreditation site visit)
- MS Health Sciences-Certificates in five concentrations (Healthcare administration, Clinical Lab Sciences, Nutrition, Health informatics, Health Professional and Educational Technology)- Review of proposal as Chair
- BS in Nutritional Sciences (Review proposal as Chair)
- BS in Biomedical Sciences (Design (2010-2012) and Review as faculty)
- YR 1-4, Medical school (Central curriculum authority committee , voting member) (2014-2018)
- Endocrinology and Female Reproductive system module co-director (2015-2018)
- BS in BMED-Hybrid (Re-design and Review faculty 2014-2017)

#### **RESEARCH**

##### Faculty (UTB/UTRGV)

- Increasing Hispanic student participation and success in STEM and Biomedical Science careers

- Genetic associations and gene expression profiles in obesity and Type 2 diabetes in Mexican-Americans.
- Stress hormones and stress management in college students via diet and exercise
- Role of inflammatory cytokines and melatonin on pathways that lead to obesity, insulin resistance and diabetes in the 3T3-L1 adipocyte cell culture model.
- Investigations of anti-diabetic herbal extracts on glucose uptake, lipid metabolism, bone development and gene expression in 3T3-L1 adipocytes and osteoblasts
- Relationship between neuronal dysfunction ( such as in Epilepsy, Addiction, Alzheimers etc.), neuroendocrine axis and obesity/diabetes.
- Investigation of tissue specific transcription regulatory elements of HSD11B1 (encoding cortisol generating enzyme) in insulin sensitive cell lines.
- Epigenetic modifications of the HSD11B1 and GR promoters in stress, inflammation, obesity and diabetes.

Postdoctoral (Genetics Division, NIDDK, NIH)

- Microarray and Q- RT PCR analyses of gene expression in subcutaneous adipose tissue and skeletal muscle of obese and diabetic Pimas.
- Positional and candidate gene sequencing, SNP mapping, genotyping and association studies in obesity and type 2 diabetes in Pima Indians.

Biotechnology R & D (Verigen, Inc.)

- Cloning porcine and human IgGs, to humanize porcine anti-TNFalpha polyclonal antibodies used in treating rheumatoid arthritis.

Postdoctoral (Albert Einstein College of Medicine, Dept. of Anatomy and Structural Biology)

- Cloning, characterization and localization of novel ciliary and vesicular trafficking motor proteins in the protozoan, Paramecium.

Graduate (SUNY at Buffalo, Dept. of Biological Sciences)

- Isolation and characterization of hepatocyte membrane domain proteins; cloning, characterization and localization of a cell cycle regulated putative helicase and the pIgA receptor in rat hepatocytes.

## **TECHNICAL SKILLS**

- Luminex xMAP high throughput multiplex assays of analytes
- Quantitative Real-time PCR (Q-RT-PCR), high throughput sequencing, genotyping by Taqman assays, SNPplex and SNUPE.
- Isolation of RNA and DNA from eukaryotic tissues and cell cultures (manual and Qiacube), cDNA preparations, sucrose gradient size fractionation, in-vitro transcription and translation, construction and screening of phage, cosmid and plasmid libraries, subcloning and sequencing, 5' and 3' RACE, PCR, Northern and Southern blots, recombinant protein expression.

- SDS-PAGE, Western blot, 2-D and gradient gels, thin-layer chromatography, protein purification using affinity chromatography or FPLC with gel filtration or ion exchange columns, immunoprecipitation.
- Tissue culture of primary cultures and cell lines, immunofluorescence microscopy using conventional and confocal systems.
- Subcellular fractionation, isotopic and non-isotopic labeling, enzyme assay, protein assay, ELISA, fluorescence spectrophotometry, luminometer/chemiluminescence assays.

## COMPUTER SKILLS

- Affymetrix software for chip analyses including MAS 5.0, Micro DB, Data Mining Tool, GeneSifter and MetaCore.
- Extensive use of web sites for annotation and SNP information tools such as NetAffx, Incyte Genomics, Worm Base, Entrez, GNF SymAtlas, DbSNP, HapMap, Ensembl, UCSC browser, SNPbrowser, HaploView etc.
- GCG (Unix OS) and DNASTAR (WINDOWS OS) software for sequence editing and fragment assembly, database searching (Blast, FastA, Wordsearch) and retrieval, multiple and pair wise sequence comparisons (Sequencher, Gap, Bestfit, Compare, MegAlign), high throughput genotyping software (GenMapper), protein structure analysis, primer selection (Primer Express, Oligo, Primer3), mapping and pattern/motif searching (MatInspector).
- MS Office, BB, Outlook, SPSS

## PUBLICATIONS (\*-Students)

1. Natasha J. Vora\* , Kristina Vatcheva , Manuel G. Saldivar , **Saraswathy Nair** , Michael W. Lehker & Sue Anne Chew (2020): Biomedical Freshman Research Initiative: A Coursebased Undergraduate Research Experience at a Hispanic-Serving Institution, Journal of Latinos and Education, DOI: 10.1080/15348431.2020.1763352 (<https://doi.org/10.1080/15348431.2020.1763352>)
2. Brenda Bin Su, Alexis Villafranca\*, Chunxiang Mao, Stephanie Hernandez\*, Stephanie Lozano\*, Masoud M Zarei, KeSheng Wang, **Saraswathy Nair** and Chun Xu (2019) Updated Genes, Lifestyles, and their Interactions for Human Longevity EC Neurology EC Neurology 11.7 (2019): 531-550.
3. Guerra JM\*, Hanes M\*, Rasa C, Loganathan N, Innis-Whitehouse, Gutierrez E\*, **Nair S** and Banu J (2019). Modulation of bone turnover by *Cissus quadrangularis* after ovariectomy in rats: J of Bone and Mineral Metabolism 2019 Feb 12. doi: 10.1007/s00774-018-0983-3
4. K. Boeta-Lopez\*, J. Duran, D. Elizondo\*, E. Gonzales\*, A. Rentfro, A. E. Schwarzbach, and **S. Nair** Association of interleukin-6 polymorphisms with obesity or metabolic traits in young Mexican-Americans: Obesity Science and Practice 2017 Dec 14;4(1):85-96. doi: 10.1002/osp4.138. eCollection 2018 Feb. PMID: 29479468
5. Peralta-Leal V, Leal-Ugarte E, Gutiérrez-Angulo M, Dávalos-Rodríguez IP, Gallegos-Arreola MP, Meza-Espinoza JP, Torres-Benavides HG, Peregrina-

- Sandoval J, Villarreal-Sotelo K, Ondarza Rodríguez MM, **Nair S**, Durán-González J. (2015). Promoter polymorphism of the serotonin transporter gene influences the number of sexual partners and smoking habits in a Mexican Mestizo population. *Psychiatr Genet.* 178-9. doi: 10.1097/YPG.000000000000008 PMID:25919451
6. Qu HQ, Rentfro AR, Lu Y, **Nair S**, Hanis CL, McCormick JB, Fisher-Hoch SP (2012) Host susceptibility to tuberculosis: insights from a longitudinal study of gene expression in diabetes. *Int J Tuberc Lung Dis.* 2012;16(3):370-2. doi: 10.5588/ijtld.11.0536. Epub 2012 Jan 5.
  7. Peralta-Leal V, Leal-Ugarte E, Meza-Espinoza JP, Dávalos-Rodríguez IP, Bocanegra-Alonso A, Acosta-González RI, Gonzales E\*, **Nair S** and Durán-González J (2012) Association of a serotonin transporter gene (SLC6A4) 5-HTTLPR polymorphism with body mass index categories but not type 2 diabetes mellitus in Mexicans. *Genetics and Molecular Biology*, 35, 3, 589-593
  8. J.P. Llongueras\*, **S. Nair**, D. Salas-Leiva and A.E. Schwarzbach (2012) Comparing DNA Extraction Methods for Analysis of Botanical Materials Found in Anti-Diabetic Supplements –*Published online March 9/2012 in Molecular Biotechnology* DOI 10.1007/s12033-012-9520-0 PMID: 22403012
  9. **S. Nair**, Yunhua Li Muller, Emilio Ortega, Sayuko Kobes, Clifton Bogardus and Leslie J. Baier (2012) Modest associations of variants in the type 2 deiodinase gene (*DIO2*) with early-onset type 2 diabetes mellitus in Pima Indians. *Thyroid* 22(1):80-7. (Epub Dec 5, 2011) PMID: 22142372
  10. J. Duran, I.Ortiz\*, N.Ruiz\*, M. Ortiz\*, E. Gonzalez\*, A. Gonzalez\*, E.K. Sanchez\*, E.Curet, S. F-Hoch, A. Rentfro, H.Q. Qu and **S. Nair** (2011) Association study of candidate gene polymorphisms and obesity in a young Mexican-American population from South Texas. *Arch Med Res.* 42(6):523-31. (Epub Nov 1, 2011) PMID: 22056417
  11. N. Ruiz\*, L. Pacheco, B. Farrell\*, C. B. Cox, B.Ermolinsky, E. Garrido-Sanabria and **S. Nair** (2011) Metabolic gene expression changes in the hippocampus of obese epileptic male rats in the pilocarpine model of temporal lobe epilepsy. *Brain Res.* 1426:86-95. (Epub Oct 8, 2011). PMID: 22050960
  12. Molina MF\*, Qu HQ, Rentfro AR, **Nair S**, Lu Y, Hanis CM, McCormick JB, Fisher-Hoch SP (2011) Decreased expression of ATP6V1H in type 2 diabetes: A pilot report on the diabetes risk study in Mexican Americans. *Biochem Biophys Res Commun.* 412 (4):728-31. (Epub 2011 Aug 17, 2011). PMID: 21871445
  13. Yong-Ho Lee, Stephen Tokrak, **S. Nair**, Clifton Bogardus and Paska A. Permana (2009) Identification of Novel Alternatively Spliced Transcripts of *RBMS3* in Skeletal Muscle with Correlations to Insulin Action *in vivo* *J. Exp. Biomed. Sci.* 15, 301–307.
  14. Yong-Ho Lee, William G. Tharp, Anne E. Dixon, Laurie Spaulding, Susanne Trost, **S. Nair**, Paska A. Permana, Richard E. Pratley (2009)“Dysregulation of CB1 expression in subcutaneous adipocytes of obese individuals”- *Animal Cells and Systems* 13, 371-379.
  15. Aaron J. Bell, Charles Guerra, Vincent Phung, **S. Nair**, Raviraja Seetharam, Peter Satir (2009) “GEF1 is a Ciliary Sec7 GEF of *Tetrahymena thermophila*” *Cell Motil. Cytoskeleton* 66, 483-99 (e-pub March 6, 2009).

16. Y.-H. Lee, W. G. Tharp, R. L. Maple, **S. Nair**, P. Permana, R. E. Pratley (2008) APP Expression is Up-Regulated in Adipocytes in Obesity and Correlates with Insulin Resistance and Inflammation. *Obesity* 16, 1493-500 (**Outstanding article award from the Obesity Society**).
17. P. Permana, **S. Nair**, Y. H. Lee 2008. Application of DNA microarray to the study of human adipose tissue/cells. *Methods in Molecular Biology-Chapter 11* (The Humana Press, Inc.).
18. Traurig MT, Permana PA, **Nair S**, Kobes S, Bogardus C, and Baier LJ. 2006. Differential Expression of Matrix Metalloproteinase 3 (MMP3) in Preadipocytes/SVCs from Non-Obese, Non-Diabetic versus Obese, Non-Diabetic Pima Indians. *Diabetes*, 55, 3160-3165.
19. J.Koska, B. de Courten, D. Wake, **S. Nair**, B. Walker, J. Bunt, P. Permana, R.Lindsay, P.A. Tataranni 2006. 11beta-hydroxysteroid dehydrogenase type 1 in adipose tissue and prospective changes in body weight and insulin resistance. *Obesity*, 14, 15515-1522.
20. **S.Nair**, Y.H. Lee, E.Rousseau, M.Cam, P.A. Tataranni, L.Baier, C.Bogardus and P.Permana 2005. Increased expression of inflammation-related genes in cultured preadipocytes/stromal vascular cells from obese compared with non-obese Pima Indians. *Diabetologia*, 48, 1784-1788.
21. Y.H. Lee, **S.Nair**, E.Rousseau, D.Allison, G. Page, C.Bogardus and P.Permana 2005. Microarray profiling of isolated abdominal subcutaneous adipocytes from obese vs non-obese Pima Indians: increased expression of inflammation-related genes. *Diabetologia*, 48, 1776-1783.
22. I. J. Deary, C. Hayward, P. A.Permana, **S. Nair**, L. Whalley, J. M. Starr, K. E. Chapman, B. R. Walker, J. R. Seckl 2006. Polymorphisms in the gene encoding 11B-hydroxysteroid dehydrogenase type 1 (HSD11B1) and lifetime cognitive change. *Neuroscience Letters*, 393, 74-77.
23. P. Franks, W. Knowler, **S. Nair**, J.Koska, Y.H. Lee, R. Lindsay, B. Walker, P. Permana, P. A. Tataranni and R. Hanson 2004 Interaction between an 11beta HSD1 gene variant and birth era modifies the risk of hypertension in Pima Indians. *Hypertension*, 44, 681-88.
24. **S. Nair**, Y.H. Lee, R.Lindsay, B.Walker, P. A.Tataranni, C.Bogardus, L.Baier and P.Permana 2004. The 11beta-hydroxysteroid dehydrogenase type 1 gene: Genetic polymorphisms are associated with type 2 diabetes in Pima Indians, independent of obesity and expression in adipocyte and muscle. *Diabetologia*, 47, 1088-95.
25. P. Permana, **S. Nair**, Y.H. Lee, G. Luczy-Bachman, B. Vozarova, P. A.Tataranni 2004. Subcutaneous preadipocyte differentiation in vitro is blunted in centrally obese subjects. *Am.J.Physiol.Endocrinol.Metab.* 286, E958-62.
26. R.Lindsay, D.Walker, **S. Nair**, J. Bunt, D. E.W. Livingstone, P. Permana, P. A. Tataranni, B. R. Walker 2003. Subcutaneous adipose 11beta-hydroxysteroid dehydrogenase type 1 activity and mRNA levels are associated with adiposity and insulinemia in Pima Indians and Caucasians. *J.Clin.Endo.Metab.* 88, 2738-44.
27. **S. Nair**, C. Guerra and P. Satir. 1999. A Sec7-related protein in Paramecium. *FASEB J.*, 13, 1249-57.

28. Zhao, H.; Russell, C. B.; **Nair, S.**; Hinrichsen, R. D.; Satir, B. H., 1995: Introns are present in the parafusin gene from Paramecium. *Faseb Journal*. 9(4): A675
29. **S. Nair**, R. Dey, J. P. Sanford and D. Doyle. 1992. Molecular cloning and analysis of an eIF-4A related rat liver nuclear protein. *J. Biol. Chem.* 267, 12928-35.

### **Manuscripts in review, revision, submission, preparation**

1. Hongxing Lu, Florentino Saenz\*, Preethi Raju\*, Ednia Gutierrez\*, Sue Anne Chew and **Saraswathy Nair** The Effects of Moderate Intensity Physical Activity and Yoga Interventions on Stress Management to Improve Health Outcomes in Hispanic Students *Journal of American College Health* (*Manuscript in revision*)
2. **S. Nair**, Noor Karkoutly\*, Michelle Covarrubias\*, Anne Rentfro and Kristina Vatcheva An investigation of biomarkers for inflammation, obesity and insulin resistance in Mexican-American adolescents. (*Manuscript in preparation for submission Fall, 2022*)
3. Roman Sanchez Martinez, Masoud Zarei Ph.D., Ednia Gutierrez, Tristan A. Cavazos, Lucas A. Montoya, Valeria Gonzalez, **Saraswathy Nair** Melatonin increases 3T3-L1 Adipogenesis and Brown adipocyte characteristics(*Manuscript in preparation*)
4. Paola Vidal, Masoud Zarei Ph.D., Adrian Maldonado, **Saraswathy Nair** Interleukin-6 (IL-6) Decreases Mitochondrial Biogenesis in 3T3-L1 pre-adipocytes and adipocytes (*Manuscript in preparation*)
5. Boeta. K Thameem. F and **Nair. S** Associations of genetic variations in HSD11B1 and B2 with metabolic differences in Mexican-Americans (*Manuscript in preparation*)
6. D. Elizondo, M. Ortiz, Chrystelle Erika Espinoza, A.E. Schwarzbach, **S. Nair** Systematic Analysis of the Effects of Anti-Diabetic Herbal Extracts on Adipogenesis and Adipokine Secretion in 3T3-L1 Cells (*Manuscript in preparation*)
7. Nicole Ruiz, Edna Cruz, Ruth Iracheta, Karina Sanchez, Ixiu Ortiz, Karen Lugo and **S. Nair** Differences in the chronic effects of cytokines on lipogenesis, lipolysis and gene expression in 3T3-L1 cells (*Manuscript in preparation*)
8. Hongxing Lu, Florentino Saenz\*, Preethi Raju\*, Sue Anne Chew and **Saraswathy Nair** Effects of Psychological Stress on Body Weight and Lifestyle in Hispanic Students in a Low-Income Area (*Manuscript in preparation*)
9. **S. Nair**, A. Rentfro, J. McCormick and S. Fisher-Hoch Biomarkers for inflammation and associations with obesity and diabetes in Mexican-Americans of Cameron County.
10. Jose P. Llongueras, Andrea E. Schwarzbach, Enrique Gonzales, Jr., Ernesto Gonzalez, Nicole Ruiz and **S. Nair** *Cnidioscolus aconitifolius* (Chaya) and *Curcuma longa* (Turmeric) extracts regulate adipogenesis, gene expression and adipocyte function in 3T3-L1 cells
11. N.M. Ruiz, L. Pacheco, C.G. Ramirez, A.D. Fragoso, B. Farrell, T. Munoz, E.R. Garrido-Sanabria, **S. Nair** Neuroendocrine Changes in the Hippocampus and their Effects on Systemic or Peripheral Metabolism

12. I. Ortiz, M. Traurig, E. Gonzalez, E.B. Newton, G. Zavala and **S. Nair** Cell specific activation of transcriptional regulatory elements in the HSD11B1 gene.

## POSTER/SEMINAR/CONFERENCE PRESENTATIONS

### International

1. **S. Nair**-Inflammatory Cytokines or Melatonin and Adipocyte Function in A Cell Culture Model (International Conference on Obesity and Chronic Diseases (ICOCD), Berlin (Sept 30-Oct 2, 2019), Germany)-**Invited presentation**

### National

1. Kristina Vatcheva and **Saraswathy Nair** Assessment of Inflammatory Biomarkers Related to Obesity in Adolescents Using K-Means Clustering and Random Forests Algorithms (Women in Statistics and Data Science Virtual Conference, October 2021)
2. Michelle Covarrubias <sup>\*1</sup>, Noor Karkoutly<sup>\* 1</sup>, Roman Sanchez Martinez B.S. <sup>2</sup>, Anne R. Rentfro Ph.D.<sup>2</sup> and **Saraswathy Nair Ph.D.**<sup>2</sup> Inflammation Markers Associated With Risks in Obese Adolescent Mexican Americans of South Texas (Poster presentation at the virtual The Obesity Society (TOS) conference in November 2020)
3. Daisy Mendez , Jameela Banu, **Saraswathy Nair** Modulation of gene expression by Salvia hispanica seed extract in MC3T3 cells (Poster Presentation, Monday, April 8, 2019 at Experimental Biology 2019 Orlando, Florida)
4. Roman Sanchez Martinez, Masoud Zarei Ph.D., Ednia Gutierrez, Tristan A. Cavazos, Lucas A. Montoya, Valeria Gonzalez, **Saraswathy Nair** Melatonin increases 3T3-L1 Adipogenesis and Brown adipocyte characteristics ( Poster presentation at the Annual ENDO Society meeting, New Orleans March 23-26, 2019)
5. Paola Vidal, Masoud Zarei Ph.D., Adrian Maldonado, **Saraswathy Nair** Interleukin-6 (IL-6) Decreases Mitochondrial Biogenesis in 3T3-L1 pre-adipocytes and adipocytes ( Poster presentation at the Annual ENDO Society meeting, New Orleans March 23-26, 2019)
6. Karla Boeta-Lopez, Paola Vidal, Adrian Maldonado, Farook Thameem Ph.D., and **Saraswathy Nair** Association of HSD11B1 and HSD11B2 SNPs with Obesity or Metabolic Traits in Mexican-Americans (Poster presentation at the Annual Obesity Society meeting, Washington DC October Oct 29-Nov 2, 2017)
7. Ednia Gutierrez, Hongxing Lu, **Saraswathy Nair** (2016) Determining the importance of the role of stress management in improving health outcomes ( Poster presentation at Annual Biomedical Research Conference for Minority Students (ABRCMS), November 2016)
8. Karla Boeta-Lopez, A. Schwarzbach, D. Elizondo, E. Gonzales, J. Duran and **S. Nair** Relationship between IL-6 polymorphisms and Obesity or Metabolic traits in Mexican Americans (Poster presentation at ABRCMS, Seattle, Washington, November 2015)

9. M. Ortiz, D. Elizondo, C. Duazo, A.E. Schwarzbach, **S. Nair** Systematic Analysis of the Effects of Anti-Diabetic Herbal Extracts on Adipogenesis and Adipokine Secretion in 3T3-L1 Cells (Poster presentation at the Annual Obesity Society meeting, San Antonio Sep20-24, 2012)
10. N.M. Ruiz, L. Pacheco, C.G. Ramirez, A.D. Fragoso, B. Farrell, T. Munoz, E.R. Garrido-Sanabria, **S. Nair** Neuroendocrine Changes in the Hippocampus and their Effects on Systemic or Peripheral Metabolism (Poster presentation at the Annual Obesity Society meeting, San Antonio Sep20-24, 2012)
11. J. Duran, I. Ortiz, N. Ruiz, B.N. Newton, G. Zavala, M. Ortiz, A. Gonzalez, E.K. Sanchez, S. Fisher-Hoch, A. Rentfro, **S. Nair** (published in the American Society of Human Genetics Abstracts; Poster presented at the 60<sup>th</sup> Annual ASHG meeting, Washington DC. Nov 2-6, 2010) Association study between polymorphisms in *PPARG*, *CRP*, *HSD11B1* and *ADIPOQ* genes and obesity in a young Mexican-American population from South Texas
12. Nicole Ruiz, Luis Pacheco, Bianca Farrell, Karen Guajardo, Boris Ermolinsky, Emilio Garrido-Sanabria and **Saraswathy Nair** (Published in The Obesity Society Abstracts-Poster presentation at the Obesity Society Meeting, San Diego, CA. Oct 8-12, 2010) An Association Between Epilepsy and Obesity
13. **S. Nair**, Anne R. Rentfro and Susan P. Fisher-Hoch (Published in American Diabetes Association Abstracts, 69<sup>th</sup> American Diabetes association Annual Scientific meeting, New Orleans, LA. June 2009) Inflammation, Obesity and Insulin Resistance in Mexican-American Adolescents.
14. **S. Nair**, Edna Cruz, Ruth Iracheta and Karina Sanchez (Poster presentation at the Obesity Society meeting in Phoenix, AZ. October 2008) Chronic effects of cytokines on lipogenesis, lipolysis and gene expression in 3T3-L1 cells. Obesity Abstract Supplement 16, S263
15. Y. H. Lee, W.G. Tharp, M. Peshavria, **S. Nair**, P. Permana and R. Pratlley. (Poster presentation at the NAASO meeting in Boston, MA. Oct 2006). Overexpression of Amyloid Precursor Protein (APP) in adipose tissue of obese individuals.
16. Y. H. Lee, S. Trost, W.G. Tharp, **S. Nair**, P. Permana and R. Pratlley. (66<sup>th</sup> Scientific Sessions, Washington D. C. American Diabetes Association Poster presentation. 2006) Overexpression of Endocannabinoid Receptor 1 (CB1) in obese individuals.
17. **S. Nair**, Y.L. Muller, E. Ortega, S. Kobes, C. Bogardus and L. Baier. (Poster presentation at the American Society of Human Genetics meeting, Salt Lake City, UT; Oct 26-28, 2005.) Association of the Thr92Ala variation in the DIO2 gene with young-onset diabetes in Pima Indians.
18. **S. Nair**, A. Popper and P. Satir. (Platform Presentation at the Joint Meeting of the American Society of Parasitologists & the Society of Protozoologists, Tucson, AZ; June 1996.) Identification and localization of p30, a dynein light chain.
19. **S. Nair**, K. Barkalow, T. Hamasaki and P. Satir. 1994. Cloning of a novel protein that copurifies with axonemal dynein using PCR techniques. Mol. Biol. Cell Suppl. 5, 286a. (Poster presentation at the Annual sessions of the American Cell Biology Society)
20. K. Barkalow, T. Hamasaki, **S. Nair** and P. Satir. 1993. A 29kDa cAMP-dependent phosphoprotein is directly associated with and regulates axonemal 22S

- dynein. Mol. Biol. Cell Suppl. 4, 161a. (Poster presentation at the Annual sessions of the American Cell Biology Society)
21. **S. Nair** and D. Doyle. 1990. Isolation and characterization of rat liver p50 cDNA. J. Cell Biol. Abstr. 111,127a.(Poster presentation at the Annual sessions of the American Cell Biology Society)

### **State/Regional**

22. Michelle Covarrubias \*<sup>1</sup>, Noor Karkoutly\*<sup>1</sup>, Roman Sanchez Martinez B.S.<sup>2</sup>, Anne R. Rentfro Ph.D.<sup>2</sup> and **Saraswathy Nair Ph.D.**<sup>2</sup> Inflammation Markers Associated With Risks in Obese Adolescent Mexican Americans of South Texas (Poster presentation at the virtual High Scholars symposium, July 2020)
23. **S. Nair** (Invited presentation: May 2016) “How does IL6 play a role in obesity and diabetes?”, Dept. of Immunology, UNTHSC, Fort Worth, TX
24. Chrystelle Erika Espinoza, M. Ortiz, D. Elizondo, C. Duazo, A.E. Schwarzbach, **S. Nair** The effects of *Astragalus membraneacea* and *Withania somnifera* herbal extracts on lipolysis in 3T3-L1 cells (Annual Research Symposium-UTB, 2014)
25. K. Boeta, D. Elizondo, A. Schwarzbach and **S. Nair** The Relationship between Interleukin-6 Polymorphisms and Obesity in the Mexican-American Population (Annual Research Symposium-UTB, 2014)
26. **S. Nair** (Invited, February 28, 2014) Role of tissue specific cortisol generation in obesity and diabetes (UTPA, Edinburg)
27. **S. Nair** (Invited, October 19, 2012) Molecular mechanisms in Obesity and Diabetes (American Chemical Society, STC, McAllen)
28. **S. Nair** (Invited, Sept. 2, 2011) Role of stress hormone cortisol in obesity, insulin resistance and Type 2 diabetes at the Hispanic Health Research Seminar Series (Regional Academic Health Center, UTB)
29. **S. Nair** ( June 20, 2011) Biomedical Research in Obesity and Diabetes at the University of Texas at Brownsville ( Invited to present to the developmental board at UTB)
30. **Saraswathy Nair**, Lizeth Becerra, Anne Rentfro, Joseph McCormick, and Susan Fisher-Hoch Inflammation biomarkers associated with diabetes in Mexican Americans ( Poster presented at the Texas Center for Health Disparities conference, UNTHSC, FW, TX, June 15-17, 2011 and the Annual Research Symposium at UTB, March 25, 2011)
31. Jose P. Llongueras, Andrea E. Schwarzbach, Enrique Gonzales, Jr., Ernesto Gonzalez, Nicole Ruiz and **Saraswathy Nair** *Cnidocolus aconitifolius* (Chaya) and *Curcuma longa* (Turmeric) extracts regulate adipogenesis, gene expression and adipocyte function in 3T3-L1 cells( Poster presented at the Texas Center for Health Disparities conference, UNTHSC, FW, TX, June 15-17, 2011 and the Annual Research Symposium at UTB, March 25, 2011)
32. Ixiu Ortiz, Jorge Duran, Nicole Ruiz, Manti Ortiz, Edwin Byron Newton, Enriquez Gonzalez, Gabriela Zavala, Edna Karina Sanchez, Ruth Iracheta, Arthur Gonzalez, Susan Fisher-Hoch, Anne Rentfro and **Saraswathy Nair** (Presented at the Binational Border Conference held at Brownsville, Oct 2010) Genetic factors

- that modify intracellular generation of cortisol and association studies in Mexican-Americans
33. J.P. Llongueras, **S. Nair**, D. Salas-Leiva and A.E. Schwarzbach (2010) Testing Different DNA Extraction Methods for Efficient Identification of Botanical Trace Material Found in Anti-Diabetic Supplements (UTB/TSC Research Symposium, 2010)
  34. I.Ortiz, M.Traurig, M.Ortiz, E.B. Newton, G. Zavala and **S. Nair** (2010) Transcriptional regulatory elements of 11 $\beta$ -HSD1 promoter and luciferase reporter gene expression in 3T3-L1 cells (UTB/TSC Research Symposium, 2010)
  35. Gabriela Zavala, I. Ortiz, M.Traurig, E. Gonzalez, E.B. Newton and **S. Nair** (2010) Investigation of 11beta HSD1 transcriptional regulatory elements in skeletal muscle (UTB/TSC Research Symposium, 2010- **Third place**)
  36. Ixiu Ortiz, Edna Karina Sanchez, Susan Fisher-Hoch, Anne Rentfro and **S. Nair** Genotyping studies of genes associated with obesity and diabetes in Mexican Americans (UTB/TSC Research Symposium, 2009-**Second place**)
  37. Martin Farias, **S. Nair** and G. Peltz (The Third Annual Texas Conference on Health Disparities, May 29, 2008) Adiponectin as a marker for early stage cardiovascular disease.
  38. Edna E. Cruz, Ruth Iracheta, Edna K. Sanchez, **S. Nair** Chronic Effects of TNF $\alpha$  on 3T3-L1 Adipogenesis and Gene Expression (UTB/TSC Research Symposium, 2008-**First place**)
  39. Ruth Iracheta, Edna E. Cruz, Edna K. Sanchez, **S. Nair** Adipocyte differentiation and gene expression in 3T3-L1 cells exposed to Interleukin-1 Beta (UTB/TSC Research Symposium, 2008)
  40. Edna K. Sanchez, Ruth Iracheta, Edna E. Cruz, and **S. Nair** Lipolysis in 3T3-L1 cells chronically exposed to pro-inflammatory cytokines (UTB/TSC Research Symposium, 2008)
  41. **S. Nair**, Anne Rentfro, Adrian Salinas, Rahul Damani, Snehal Modi, Edna Karina-Sanchez and Susan Fisher-Hoch (February 2008, UT-PanAm Poster presentation of Borderplex Research) Biological and genetic factors associated with obesity in Hispanic adolescents
  42. **S. Nair** (April 18, 2007) Current investigations in minority populations (Invited, Community Outreach Diabetes seminar sponsored by CBS at UTB)
  43. Edna E. Cruz and **S. Nair** Long-term effects of the cytokine TNF $\alpha$  on 3T3-L1 cell differentiation (UTB/TSC Research Symposium, 2007)
  44. Ruth Iracheta and **S. Nair** Long-term effects of the cytokine Interleukin-1 $\beta$  on 3T3-L1 cell differentiation (UTB/TSC Research Symposium, 2007)
  45. **S. Nair** ( Invited, Dec 8, 2006) The genetic basis of Obesity and Type 2 diabetes in Pima Indians-Border Health Seminar at the RAHC, UTB.

## FUNDING

### Active

- NSF-IUSE-\$2.99M – Multi institution submission; UTRGV award **\$619,660 (09/01/2021 – 08/31/2026) (Nair, S., PI; Huber,T., Co-PI)**

*Collaborative Research “Building educational theory through enacting reforms (BETTER) in STEM”*

- 52008720 2017-Inclusive Excellence 2017 (**Nair, PD**) 09/01/2017 – 08/31/2022
  - Howard Hughes Medical Institute **\$1,000,000 + \$50,000** supplemental Peer Implementation Cluster funds (<https://www.hhmi.org/science-education/programs/inclusive-excellence-2017-program-abstracts#utrgv>)
  - *The major goals of this project are to identify challenges and create an inclusive community to support minority undergraduate retention and success in STEM and Biomedical careers.*
- 1T34GM137854-01 (NIH) **\$ 2,087,976 (08/01/2020-07/31/2025)** (Chew, Sue Anne (PI) ; **Nair, S. (Co-PI)\*** -The FOA limited effort from PIs to 15%. Therefore, to maximize impact and buyins of PIs from our two partnering community colleges (South Texas College and Texas Southmost College), Dr. Nair volunteered to be Co-PI, although she provided significant time and effort and intellectual contribution to the proposal submission, articulation agreements, and continuing with the implementation. <https://www.utrgv.edu/hbs/student-engagement/bs-biomedical-sciences/b2bmed/index.htm>

*Bridges to the Baccalaureate Research Training Program at The University of Texas Rio Grande Valley*

*The major goal of this project is to offer stipends, tuition reimbursement, research experiences, academic and non-academic advising to community college students such that they can bridge to UTRGV 4 year Biomedical Sciences program successfully.*

- 1SC3GM135138-01 (NIH) \$435,900 (03/16/2020 to 02/29/2024) **Chew, Sue Anne (PI) ; Nair, S. (Senior personnel)**  
*Local dual delivery of a chemotherapy and an anti-angiogenic agent from an injectable functionalized biodegradable biomaterial system for the treatment of glioma*

- 2SC3GM116669-05 (NIH) \$435,900 (07/01/2020-06/30/2024).  
**Robert Gilkerson (PI); Nair, S. (Senior personnel)**  
*Interaction of mitochondrial fusion and transmembrane potential in diabetic cardiovascular damage*
- RGV0000698 \$19,500 (9/01/21-5/31/22) Brownsville Foundation for Health and Education  
**M. Andersen (PI); Nair, S. (Co-PI)** *Honors College Bachelor of Science in Biomedical Science-Scholarships of \$1500/ student/AY, for 13 BMED Honors students*
- Engaged Scholar award-UTRGV \$4000 (9/1/2021-5/31/2022) PI: Neida Gutierrez; **Nair: Mentor** *Influences of Proinflammatory (Interleukin 6/ IL-6) and Anti-inflammatory (Melatonin) Factors on mitochondria in Human adipocyte cell line/s*

### Completed

- Engaged Scholar award-UTRGV \$4000 (9/1/2020-5/31/2021) PI: Chinyere Agba; **Nair: Mentor** *Determining the effects of Melatonin on adipocytes*
- RGV0000698 \$15,000 (2/26/20-2/26/21) Brownsville Foundation for Health and Education **M. Andersen (PI); Nair, S. (Co-PI)** *Honors College Bachelor of Science in Biomedical Science-Scholarships of \$1500 each/AY, for 10 BMED Honors students*
- Math and Science Academy funds for 3 HS Scholars-\$3000 (Summer 2020)  
**Nair: Mentor**
- Engaged Scholar award-UTRGV \$2000 (9/1/2019-5/31/2020) PI: Roman Sanchez-Martinez **Nair: Mentor**  
*Determining the effects of Melatonin on 3T3-L1 cells*
- Math and Science Academy funds for 3 HS Scholars-\$4500 (Summer 2019)  
**Nair: Mentor**
- SCORESC3 (1SC3GM11669-01-\$435,900) by the National Institute of General Medical Sciences (NIGMS) from 03/01/2016 – 02/29/2020.  
PI-Dr. Robert Gilkerson  
**Nair: Senior Personnel**

*Interaction of mitochondrial fusion and transmembrane potential in diabetic cardiovascular damage*

- Engaged Scholar award-UTRGV \$2000 (9/1/2018-5/31/2019)  
PI: Roman Sanchez-Martinez  
**Nair: Mentor**  
*Determining the effects of Melatonin on 3T3-L1 cells*
- Engaged Scholar award-UTRGV \$2000 (1/1/2017-8/31/2017)  
PI: Ednia Gutierrez  
**Nair: Mentor**  
*Determining the effects of Melatonin on 3T3-L1 cells*
- Internal Seed Research Program-ISRP \$20,000 (1/15/2017-6/30/2018)  
PI: Dr. Ryan Russell  
**Nair: Co-PI**  
*Microvascular regulation of metabolism in adult Hispanics with and without specific gene mutations*
- **5R25GM083755 (NIH)**  
No cost extension award to UTB: \$183,211.71  
08/01/2015- 07/31/2016  
Facelli, PI (University of Utah)  
**Nair: Co-PI**  
*Utah-Texas Bridge to Biomedical Informatics*  
*To support minority students transition from a masters level graduate program at UTB to the Ph.D. program in Biomedical Informatics at University of Utah*
- **5R25GM083755 (NIH)**  
No cost extension award to UTB: \$138,194  
08/01/2014- 07/31/2015  
Facelli, PI (University of Utah)  
**Nair: Co-PI**
- **P20MD008736-01 (NIH)**  
TotalAward:\$184,771 09/25/2013-03/31/2014 Colom, PI  
**Nair: Co-PI**  
*BUILD South Texas*  
*Planning grant to develop and gather pilot data for larger BUILD proposal*
- **P20 MD000170-06 (NIH)**  
Total UTB Award: \$778,396 04/01/08-2/28/13 McCormick,  
PI

*Center of Excellence for Diabetes in Americans of Mexican Descent*  
**Sub-project (Nair, Co-I): \$111,895 (2008-2013)**  
*Glucose Transitions among Mexican Americans Core-Follow up Study*

- **P20MD001091 (NIH)** Total Award: \$2,937,239 09/30/09-4/30/14  
Colom, PI  
*Developing Biomedical Research Infrastructure at UTB/TSC*  
**Sub-project (Nair, PI): \$200,000 (2009-2011)**  
*Inflammation biomarkers related to the conversion from non-diabetic to diabetic status in Mexican Americans*
- **Borderplex Council Diabetes/Obesity Research Funds**  
*Transcriptional regulation of 11beta HSD1 gene expression*  
**Nair, PI: \$50,000 (2009-2010)**  
  
*Genetic basis of glucocorticoid regulation in obesity and diabetes in Mexican-Americans of the Lower Rio Grande Valley*  
**Nair, PI: \$50,000 (2008-2009)**  
  
*Biological and genetic factors associated with obesity in Hispanic adolescents*  
**Nair, PI: \$50,000 (2007-2008)**
- **P20MD001091 (NIH)**  
  
Total Award: \$3,732,758 11/8/04-9/30/09 Martin, PI  
*Developing Biomedical Research Infrastructure at UTB/TSC*  
**Pilot project (Nair, PI): \$12,500 (2007)**  
*Role of inflammatory cytokines and glucocorticoid metabolism in adipogenesis*
- **Intramural Pilot funds \$5000 (June, 2012)**  
*IL6 regulated transcription factors and downstream targets in adipogenesis*

## **AWARDS/ HONORS**

- Merit faculty award, September 2022
- Faculty Research Incentive award, September 2022
- Selected to participate in the NSF funded Partnership for Undergraduate Life Sciences Education (PULSE) recognition program (2021-2026)
- Merit faculty award, September 2021
- Merit faculty award, December 2019
- MSHS Graduate Program Director-Certificate of Excellence-for most increase in enrollment in graduate programs (2019)

- Merit faculty award, December 2018
- MBRS-RISE Mentor Certificate of Recognition (2015, 2016)
- UTRGV Certificate of Recognition-Project Sin Fronteras (2016)
- Service Learning certificate (Center for Civic Engagement,UTB) for participation in incorporating service learning into genetics course-Spring, 2014
- Exceptional merit faculty award from UTB-2009
- Frances Rusteberg Faculty Fellowship (UTB)-2008
- The Obesity Society- Outstanding journal article award-2008
- Annamalai University first rank holder, M.Sc, Marine Biology, 1985.
- Statewide second rank holder, B.Sc, Zoology, 1983.
- Merit scholarship in HS (St. Joseph's, Kalamassery, Kerala)

### **TRAININGS/ MEETINGS/WORKSHOPS**

- Collaborative Research-Better in STEM-Professional development, August 7-11, 2022, Western Washington University, Bellingham, WA.
- Center for Teaching Excellence, “Teaching for Student Engagement in the Hybrid Classroom”, July 26-30, 2021
- Center for Teaching Excellence, “Integrating Diversity and Inclusion Topics in Syllabi and Courses” facilitated by Natasha Altema McNeely, Ruby Charak, and Carlos E. Cuellar on Thursday, April 22, 2021
- CIMER Research Mentoring training (B2BMED and HHMI supported)-March 26, 2021
- 2021 NSF INCLUDES Symposium for ADVANCING Latinas in STEM Academic Careers.
- Interprofessionalism (IPE) webinar, January 29, 2021
- HHMI Perspective Series 2021-2022 (Monthly)
- HHMI Inclusive Learning Series-6 part by Harvard Business School (FA 2020)
- WFN November workshop “Lead and Adapt” with Susan Franzen-November 20, 2020
- WFN “Persistence in the Face of Challenge: How Women of Color Leaders Overcome challenges” Oct 23, 2020
- SOM Diversity Seminar Series (2020-2021)

- The Obesity Society Annual (Virtual) meeting (November 2-6, 2020)
- COLTT-BB training (Beginner, Intermediate and Advanced-8 hr)
- Beyond Diversity 2-day workshop by Courageous Conversations, organized as PD of the UTRGV HHMI IE project (75 national and intramural attendees) at UTRGV, Brownsville campus, February 6-7, 2020
- Peer Implementation Cluster meetings-HHMI IE (Univ. of Utah, May 2019; Western Washington Univ., Bellingam, WA, March 2018)
- HHMI Annual meetings for Inclusive Excellence PDs at HHMI campus, Chevy Chase, MD (August 2017, 2018 and 2019)
- ENDO Society Annual Meeting, New Orleans, April, 2019
- The Obesity Society Annual meeting, October 2017
- ENDO Society Annual Meeting, Boston, April, 2016
- Texas Society of Allied Health Professions, San Antonio, TX (Sept. 24-25, 2015)
- New Chair Orientation at UT, Austin, TX (August 17-18, 2015)
- A-PRIME TIME annual conference, UTMB Galveston, TX (July 13-14, 2015)
- LCME site visit, SOM, UTRGV, Harlingen, TX (June 29, 2015)
- THECB site visit, SOM, UTRGV, Harlingen, TX (February 9, 2015)
- Rachmeil Levine Diabetes and Obesity Symposium, in San Diego, CA (March 1-2, 2015)
- PBL/TBL workshop, SOM, UTRGV, Harlingen, TX (2014)
- Innovations in Health Science Education Annual Conference Austin, TX (Feb. 21-22, 2014)
- Grant Writing workshop, Dr. Don Frazier (University of Kentucky), November 8, 2013, UTB
- TIME-APRIME, annual conference, Houston, TX (July, 2013)

- American Diabetes Association annual meeting in Chicago,IL ( June 2013)
- Clinical Research and Statistics workshop, RAHC-Harlingen, TX (June 28, 2013)
- Grant Writing workshop at University of Houston, TX (March 2013)
- PBL workshop at UTB ( Dec 14, 2012)
- CSHL (Cold Spring Harbor Laboratory,N.Y) summer course “ Statistical analysis of genome-scale data” (June 21-July 3, 2012)-30 students accepted from more than 300 applications globally
- NSF-Grants writing training at UTB ( June 2011)
- CSHL (Cold Spring Harbor Lab)-iPLANT Faculty workshop training in bioinformatics (UTB, Dec 15 and 16, 2010)
- Mentor-Graduate student parallel Genomics Summer workshop training at NHGRI (National Human Genomics Research Institute), NIH, Bethesda, Maryland (August 2010)
- MARC sponsored grant writing training workshop for junior faculty development (UTB, 2010)
- QEM STEM education forum in Hispanic Serving Institutions sponsored by NSF (Albuquerque, NM, October 2009)
- UTB grant training workshop (2009)
- QEM Grant training workshop in Washington DC, sponsored by NSF (2008)
- STAR fellowship training (UNTHSC, Fort Worth,TX) for “Disparities in Minority Health” June 2007-June 2008
- University of Kentucky Grant writer’s training workshop –Sponsored by NIH (2007)
- Intramural research training award and fellowship (2001-2006), NIDDK, NIH, Phoenix.
- Postdoctoral training award (1992-1996), Marion Bessin Liver Research Center, Albert Einstein College of Medicine, NY.

- Teaching and Graduate assistantships (1986-1991), SUNY, Buffalo.

## **SERVICE**

### **Committees**

1. UTRGV Chairs Executive Council member (2017- present)
2. COHP Executive council member (2015-present)
3. School of Mathematical and Statistical Sciences PhD in Mathematics development committee at UTRGV (2019-2021)
4. WFN Mentoring committee (2018-2019)
5. RGVSEF scientific review and best of finalists judging committee (2019-present)
6. UTRGV-SOM Dean Search committee (Fall 2016-2017)
7. UTRGV-SOM Admissions committee member/interviewer (August 2015- present)
8. UTRGV- Medical School Central curriculum committee member (2014-2018)
9. UTRGV-SOM , Educational program committee member for LCME accreditation (2014-2018)
10. UTRGV creation Task force committees (2014-2015)
11. ITL- Hybrid Biomedical program, POC and faculty design committee member (2014-2016)
12. Chair, Graduate School of Biomedical Sciences,UTRGV SOM interview committee (2014)
13. RISE program director search committee member (2014)
14. UTPA-UTB merging working group/biomedical/member (2013-2014)
15. E-RAHC and Center for Diabetes, Edinburg, Director search committee (2013-2014)
16. UTB IACUC committee member (2008- 2015)
17. BMED/TIME curriculum committee (2012-2016)
18. Translational Research Seminar Series- Organizer (2006 –2014)
19. Dept. of Biomedicine Personnel committee member (2012-present)
20. CBHP Personnel committee member (2012-2014)
21. College of Biomedical Sciences and Health Professions college transition committee (college level) committee member (2010-2011)
22. CBHP curriculum committee (college level) committee member –(2011-2013)
23. Dept. of Biomedicine- Curriculum committee (Chair)- (2013-2014)
24. Dept. of Biomedicine- Curriculum Assessment committee member- (2011-present)
25. Dept. of Biomedicine-Departmental conduct, policies and procedure (Chair)- (2011)
26. Dept. of Biomedicine-Masters development committee member- (2011)
27. CBHP Scholarship committee (2013)
28. Master’s thesis committee, chair (Nicole Ruiz), member (Perla Martinez, Tarun Pandari, Sonio Garcia, Amie Cobo-Clark, Hector Aguilar, Nadia Carreon) (2006-present)
29. Dept. of Biology -Graduate curriculum committee member- (2006-2011)

30. Dept. of Biology Personnel committee member (2012)
31. Faculty engagement committee (2012; Dr. Ragland-chair)
32. Science fair judging (2006-present): Intel ISEF, RGVSEF, BANSAs, EDS, Harmony
33. Masters Non-thesis comprehensive oral exam committee member (Christa Stubblefield, Victoria Watson) (2006-2011)
34. MBRS-RISE committee member (2006-2011)
35. Research Compliance Coordinator (Office of Sponsored Programs)-Search committee member- Fall, 2011
36. Dept. of Biomedicine-Assistant Professor (Tenure track)-Search committee member -Summer 2011
37. CSMT Scholarship committee member-(2009-2011)
38. Community Outreach Seminar Series organizer for CBS (2008-2010)
39. Scientific Review Committee Chair for RGV Science Fair (2007-2010)

### **Professional Service**

- Chair of Session on “Obesity Epidemiology and Therapies for Obesity” at ICOCD, Berlin, Germany October 2, 2019
- Reviewer of Textbook “Genetics and Genomics in Medicine” by Tom Strachan, Judith Goodship and Patrick Chinnery (Taylor and Francis publishers), Aug-Sept, 2019
- Served as External Committee member for PhD defense of Diana Elizondo at Howard University-2018
- Reviewer for National Medical Board Exam NBME 2016
- Served as Thesis committee member for Nadia Carreon, Anne Cobo-Clark and Hector Aguilar (2012-2015)
- Thesis Committee Chair for Nicole Ruiz (2009- 2012)

### **Professional memberships**

- Member, The Endocrine Society, 2016- 2019
- Member, American Diabetes Association, 2007- present
- Member, The Obesity Society, 2008- present
- Member, American Society of Human Genetics, 2005- 2007
- Member, American Society of Cell Biology, 1990-1996

### **Ad-hoc reviewer for peer-reviewed journals (2008-present)**

- Molecular Reports
- Journal of Latinos and Education
- Medicina
- Nutrients
- Nutrition and Dietetics
- J. Neurochemistry
- Obesity
- Cell and Molecular Biology Letters

- Human Genetics
- Clinical Endocrinology
- In Vitro Cellular and Developmental Biology – Animal
- Experimental Cell Research
- International Journal of Neuroscience
- Endocrine
- European Journal of Cancer Prevention
- Plos One
- Brain Research
- Journal of Cellular and Molecular Medicine
- Journal of Endocrinology, Diabetes, and Obesity
- International Journal of Environmental and Public Health Research

### **Faculty/Staff mentoring**

Dr. Chun Xu (2016- Tenure, 2019)

Dr. Jameela Banu (2015-Tenure, 2019)

Dr. Chew (2015- Tenure, 2021; Nominated and awarded UT Regents Outstanding Teacher Award)

Dr. Roy (2017-Tenure, 2022)

Dr. Lorena Lopez (2015-present; Nominated and Awarded Faculty Excellence in Teaching, UTRGV 2021)

Ms. Rachel Villareal (2021-present; Support letter and recognized as Fellow of Academy of Nutrition and Dietetics, 2022)

Dr. Honxing Lu (2015-present)

Dr. Alejandro Lopez-Juarez (Nominated and awarded Faculty excellence in Emerging Scholarship, UTRGV 2022)

Dr. Herminio Guajardo (NTT Faculty)-2020-present

Ms. Laura Hernandez (Instructional Facilitator 2019-2020, Currently pursuing PhD at UTSA in Molecular and Cellular Biology)

Ms. Emily Jordan (HHMI BMED peer mentor) 2022-

### **Students mentored in research lab since 2006 (current positions)**

1. Edna Cruz (2006-2008;Rivera HS teacher)
2. Ruth Iracheta (2006-2008;Rivera HS teacher)
3. Edna Karina Sanchez (2007-2009; PA program, UTPA)
4. Byron Newton (2008-2009; UTHSCSA School of Medicine, graduated, residency program)
5. Stephanie Infante (2008-2009;unknown)
6. Karen Lugo (2009-2010; unknown)
7. Ixiu Ortiz (2008-2010;Completed Medical school, Matamoros; preparing for Residency candidacy)
8. Lizeth Becerra (2008-2010; PA program, UTPA)
9. Nicole Ruiz (2009-2012; PhD, Biomedical Informatics, Univ. of Utah, 2018; currently Research Consultant, Utah Department of Health)

10. Henry Gonzales (2010-2011; UTHSCSA School of Medicine, graduated, residency program; practicing Pediatrics physician in San Antonio)
11. Arthur Gonzalez (2010-2011; UTHSCSA, Dental School, dropped out)
12. Ernesto Gonzalez (2010-2011; Texas A & M, Kingsville, Pharmacy School)
13. Jose Llongueras (2009-2011; MD-PhD program, Johns Hopkins)
14. Manti Ortiz (2010-2013; unknown)
15. Mariel Gonzalez (2010-2012; unknown)
16. Gabriela Zavala (2008-2009; unknown)
17. Christa Gonzalez (2011-2012; unknown)
18. David Delgado (2011-2012; unknown)
19. Diana Elizondo (2010-2013; PhD Biological Sciences, Howard Univ. 2018; postdoc at U. Michigan 2018-2020; postdoc at NIH 2021-present)
20. Adelaeda Barrera (2011-2014; Graduate program, MS in Biomedical Sciences, Univ. of New Mexico; Instructional Facilitator for the BS in BMED program, UTRGV 2017-2018; currently employed)
21. Yazmin Hernandez (2011-2013; Graduate program, Biological Sciences, Univ. of N. Texas, FW; PA Program, UTRGV; graduated)
22. Catherine Duazo (2011 summer student; graduated from Princeton, RWJ Medical School, NJ; residency)
23. Lourdes Valdez (2012-2013; PhD student in Genetics, University of Utah)
24. Cecilia Valdez (2014 summer student, PA program?)
25. Jessica Zuniga (2014 summer HS student)
26. Erica DeLeon (2013-2014, QC specialist at Allergan; Currently Lab Research assistant at SOM, UTRGV)
27. Katellen Gomes (2014-2015, Medical student at Guadalajara; Clinical rotation in McAllen)
28. Cecilia Castro (2014-2015, currently employed as lab research assistant at STDUI, UTRGV)
29. Erika Espinosa (2013-2016, currently employed as lab assistant at UT)
30. Pedro Valdez (2013-2019)
31. Margaret Cua (Summer student from Med High, 2016; at UTRGV)
32. Florentino Saenz (2015-2017, UTMB medical school)
33. Karla Boeta-graduate student (Ross Medical School, Accepted Clinical rotation in St. Joseph's Mercy Oakland Hospital in Michigan)
34. Ednia Gutierrez (UT School of Pharmacy-Fall 2019; employed; SACNAS/ABRCMS awardee; Engaged Scholar Award recipient), MS in Health Sciences-Health Informatics)
35. Kristen Gomez (Lab Research Assistant, UT SouthWestern, currently stay at home, mom)
36. Sachin George (UTMB-Fall 2019)
37. Roman Sanchez (2016-2021; Engaged Scholar Award recipient, MS in BCMB)(Applied to PA)
38. Paola Vidal (2016- present; SACNAS travel awardee, MS in Public Health) (Employed in PH)
39. Adrian Maldonado (2016-2020; pursuing MS in Medical Lab Sciences, UTSA)
40. Tristan Cavazos (2016-2020)

41. Valeria Gonzalez (2016-2020, PT teaching lab assistant in the BMED program, UTRGV) (pursuing MS in Medical Lab Sciences, UTSA)
42. Lucas Montoya (MSA, U. Chicago)
43. Marysol Canales (MSA, High Scholar, Summer 2019)
44. Rebekah Trevino (High Scholar Summer 2019)
45. Noe Trevino (MSA, High Scholar Summer 2019, Accepted to BS in Public Health, UT Austin)
46. Chinyere Agba (2019-present)
47. Eliud Reyna (2018-2019)
48. Marissa Flores (2019-2020)
49. Neida Gutierrez (2020-present)(Applied to PT)
50. Natalie Marquez ( 2020- 2021)
51. Sharon Hernandez (2019 Fall)
52. Milan George (HS student; 2020)
53. Noor Karkoutly (MSA, High Scholar, UTRGV junior-present)
54. Michelle Covarrubias (MSA, High Scholar, UT junior- present)
55. Luzeleste Flores (2021-present)
56. Maria Sanchez (2021-present)
57. Susan Guajardo (2021-present)
58. Zayda Morales (2021-present)
59. Johanna Mora (Summer 2021 graduate student)
60. Emilio Garcia (B2BMED mentee)