

# International Federation for Adipose Therapeutics and Science

# **Laboratory Listing Form**

Primary Investigator Name (include degrees): Bruce A Bunnell, PhD

**Primary Investigator's Affiliations:** Center for Stem Cell Research and Regenerative Medicine; Department of Pharmacology, Tulane University School of Medicine; Division of Regenerative Medicine Tulane National Primate Research Center

Laboratory, Center or Group Name: Bunnell Lab, Tulane Center for Stem Cell Research and Regenerative Medicine

# Type of Organization:

X Academia

Industry

o Clinic/Hospital

Small Start-up

If academic organization, please provide the name of University and Department:

See above

Type of Work:

X Basic

Clinical

X Translational Pre-Clinical

# Primary focus, research or clinical activity (250 words):

The Bunnell lab has an extensive background working on the biologic properties of adipose stem cells. Dr. Bunnell researches adult mesenchymal stem cells from adipose tissue and the bone marrow of humans, rhesus macaques and in rodent models. Dr. Bunnell's research program investigates He has also assessed the effects of biological aging and obesity status on the properties of adult stem cells and has described numerous molecular alterations that occur as a result. For therapeutic intervention, he has focused on the development of strategies for the treatment of inherited and acquired genetic diseases. His research program is focused on the development of novel stem cell-based strategies to correct an inherited genetic lysosomal storage disease, Krabbe's disease. He is also investigating the application of stem cells as potential therapies for Multiple Sclerosis and other autoimmune diseases, bone defects, wound repair, and aging. The Bunnell lab also focuses on the impact of aging, obesity and disease on the biology and functionality adipose stem cells.

# If Research, what animal models are established by your group:

- 1. Experimental Autoimmune Encephalomyelitis (EAE) mouse model of human Multiple Sclerosis
- 2. Bone Models in Mice: Cranial Defect Model and Segmental Defect Model
- 3. Wound Repair Model (Pressure Ulcer Injury) and Full Thickness Skin Injury Model

### If Research, what techniques are established by your group (list 3-5):

1. flow cytometry

4. PCR/RT-PCR

2. transcriptomics

5. immunohistochemistry

3. metabolomics

### Key words that best describe the Research or Clinical work conducted (up to ten):

1. mesenchymal stem cells

2. adipose

3. bone marrow

4. inflammation

5. wound

6. obesity

7. aging

8. breast cancer

9. tissue engineering

10. matrix

#### Website:

http://medicine.tulane.edu/centers-institutes/stem-cell-research-regenerative-medicine

## Link(s) to your publications (NCBI bibliography if possible):

http://www.ncbi.nlm.nih.gov/sites/myncbi/bruce.bunnell.1/bibliography/41141207/public/?sort=date&direction=ascending

#### **CONTACT INFORMATION**

Primary Investigator or Administrative Assistant: Bruce A Bunnell or Krystal Brown (Admin)

Address: 1430 Tulane Ave, SL-99, Tulane University School of Medicine, New Orleans, LA 70112

Telephone: 1-503-988-7711 or 1-504-988-3329

E-mail: bbunnell@tulane.edu and kbrown2@tulane.edu