

## PUBLICATIONS

1. **Ferdous, Z.; Jo, H.; Nerem, R.M.** “Strain Magnitude-Dependent Calcific Marker Expression in Valvular and Vascular Cells”. *Cells Tissues Organs* (2013), in press.
2. **Ferdous, Z.; Jo, H.; Nerem, R.M.** “Differences in Valvular and Vascular Cell Responses to Strain in Osteogenic Media”. *Biomaterials* (2011), Vol. 32, Pg. 2885-2893.
3. **Ferdous, Z.\*; Peterson, S.B.\*; Tseng, H.\*; Anderson, D.K., Iozzo, R.V., Grande-Allen, K.J.** “A role for decorin in controlling proliferation, adhesion, and migration of murine embryonic fibroblasts”. *Journal of Biomedical Materials Research part A* (2010), Vol. 93(2), Pg. 419-28. \* equal contribution.
4. **Ferdous, Z.; Lazaro, L.D.; Iozzo, R.V.; Höök, M.; Grande-Allen, K.J.** “Influence of cyclic strain and decorin deficiency on 3D cellularized collagen matrices”. *Biomaterials* (2008), Vol. 29(18), Pg. 2740-8.
5. **Ferdous, Z.; Wei, V.M.; Iozzo, R.V.; Höök, M.; Grande-Allen, K.J.** “Decorin-TGF-beta Interaction Regulates Matrix Organization and Mechanical Characteristics of 3-D Collagen Matrices”. *Journal of Biological Chemistry* (2007), Vol. 282(49), Pg. 35887-98.
6. **Ferdous, Z.; Grande-Allen, K.J.** “Utility and Control of Proteoglycans in Tissue Engineering”. *Tissue Engineering* (2007), Vol. 13(8), Pg. 1893-1904.
7. **Pandey, S.; Ferdous, Z.; White, M. H.** “A Planar MEMS Bio- Chip for Recording Ion Channel Currents in Biological Cells”. *Proceedings of the SPIE* (2003), Vol. 5062, Pg. 814-20.

## CONFERENCE PRESENTATIONS

### Oral:

1. **Ferdous, Z.; Jo, H.; Nerem, R.M.** “Investigating the Contribution of Pathological Levels of Cyclic Strain on Vascular and Valvular Calcification”. 5<sup>th</sup> Biennial Heart Valve Biology and Tissue Engineering Meeting 2012.
2. **Holliday-Ankeny, CJ; Ankeny, RF; Ferdous, Z.; Jo, H.; Nerem, R.M.** “Shear- and Side-dependent microRNAs and Messenger RNAs in Aortic Valvular Endothelium”. 5<sup>th</sup> Biennial Heart Valve Biology and Tissue Engineering Meeting 2012.
3. **Ferdous, Z.; Jo, H.; Nerem, R.M.** “Cell-Mediated Differences between Vascular and Valvular Calcification”. Biomedical Engineering Society (BMES) 2010 Annual Fall Meeting.
4. **Ferdous, Z.; Jo, H.; Nerem, R.M.** “Utilizing Tissue-Engineered Models to Investigate Vascular And Valvular Calcification”. 4<sup>th</sup> Biennial Heart Valve Biology and Tissue Engineering Meeting 2010.
5. **Ferdous, Z.; Höök, M.; Grande-Allen, K.J.** “Contribution of TGF-beta on Cell Proliferation, Matrix Organization, and Tissue Mechanics in Decorin Deficient Collagen Gels”. The Houston Society for Engineering in Medicine and Biology (HSEMB) 24<sup>th</sup> Annual Conference 2007.
6. **Ferdous, Z.; Höök, M.; Grande-Allen, K.J.** “Decorin-TGF Beta Interplay in Cell Growth and Contraction of Collagen Constructs”. Biomedical Engineering Society (BMES) 2006 Annual Fall Meeting.
7. **Grande-Allen, K.J.; Gupta, V.; Ferdous, Z.; Allison, D.** “Harnessing Proteoglycans and Glycosaminoglycans in Tissue Engineering”. *Methods in Bioengineering* 1<sup>st</sup> Annual Conference 2006.
8. **Ferdous, Z.; Grande-Allen, K.J.** “Role of Decorin in Engineered Tissue Mechanics”. Biomedical Engineering Society (BMES) 2005 Annual Fall Meeting.

### Poster:

1. **Holliday-Ankeny, CJ; Ankeny, RF; Ferdous, Z.; Jo, H.; Nerem, R.M.** “Shear- and Side-dependent microRNAs and Messenger RNAs in Aortic Valvular Endothelium”. The Annual Hilton Head Workshop 2012.

2. **Ferdous, Z.; Jo, H.; Nerem, R.M.** “Differential Osteogenic Marker Expression by Human Vascular and Valvular Cells in Tissue-Engineered Collagen Constructs”. ASME Summer Bioengineering Conference 2010.
3. **Ferdous, Z.; Nerem, R.M.** “The effect of cyclic strain and steady laminar shear stress on valvular cells using a co-culture model”. The Annual Hilton Head Workshop 2009.
4. **Ferdous, Z.; Höök, M.; Grande-Allen, K.J.** “The Contributions of Decorin to 3-D Collagen Matrix Organization and Mechanics”. Proteoglycan Gordon Conference 2008.
5. **Ferdous, Z.; Höök, M.; Grande-Allen, K.J.** “TGF Beta Enhances Gel Contraction in Decorin Deficient Engineered Tissues”. Biomedical Engineering Society (BMES) 2007 Annual Fall Meeting.
6. **Ferdous, Z.; Wei, V.M.; Höök, M.; Grande-Allen, K.J.** “Deficiency and Restoration of Decorin in Engineered Tissues Modulates Material Strength and Modulus”. Biomedical Engineering Society (BMES) 2007 Annual Fall Meeting.
7. **Ferdous, Z.; Grande-Allen, K.J.** “Deficiency and Restoration of Decorin in 3-D Collagen Matrices”. Advances in Tissue Engineering 15<sup>th</sup> Annual Short Course 2007.
8. **Ferdous, Z.; Grande-Allen, K.J.** “Role of Decorin in Engineered Tissue Mechanics”. Advances in Tissue Engineering 14<sup>th</sup> Annual Short Course 2006.
9. **Ferdous, Z.; Grande-Allen, K.J.** “Role of Decorin in Engineered Tissue Mechanics”. The Houston Society for Engineering in Medicine and Biology (HSEMB) 23<sup>rd</sup> Annual Conference 2006.