Supplementary Figures



Supplementary Figure 1. Phase contrast images of MC3T3 cells on peptide ormosil thin films after 15 days in culture. The cells are confluent, but have no distinguishing morphology. Scale bar = $100 \ \mu m$.

Osteopontin



Supplementary Figure 2. Osteopontin Expression at 3 and 4 weeks after plating MC3T3 cells on silica thin films with and without bioactive peptide ormosil modifications. Prolif: Cells maintained in regular maintenance media; Diff: Cells that were treated with differentiation media; Silica: Cells grown on regular silica thin films prepared using the sol-gel process; RGD: Silica thin film modified with RGD peptide ormosil; CGG: Silica thin film modified with RGD and CGG peptide ormosils; CKI: Silica thin film modified with RGD, CGG and CKI peptide ormosils. Scale bar = 15 μ m (throughout).

Osteonectin 3 week



Supplementary Figure 3. Osteonectin Expression at 3 and 4 weeks after plating MC3T3 cells on silica thin films with and without bioactive peptide ormosil modifications. Prolif: Cells maintained in regular maintenance media; Diff: Cells that were treated with differentiation media; Silica: Cells grown on regular silica thin films prepared using the sol-gel process; RGD: Silica thin film modified with RGD peptide ormosil; CGG: Silica thin film modified with RGD and CGG peptide ormosils; CKI: Silica thin film modified with RGD, CGG and CKI peptide ormosils. Scale bar = 15 μ m (throughout).



Supplementary Figure 4. Osteocalcin Expression at 3 and 4 weeks after plating MC3T3 cells on silica thin films with and without bioactive peptide ormosil modifications. Prolif: Cells maintained in regular maintenance media; Diff: Cells that were treated with differentiation media; Silica: Cells grown on regular silica thin films prepared using the sol-gel process; RGD: Silica thin film modified with RGD peptide ormosil; CGG: Silica thin film modified with RGD and CGG peptide ormosils; CKI: Silica thin film modified with RGD, CGG and CKI peptide ormosils. Scale bar = 15 μ m (throughout).