

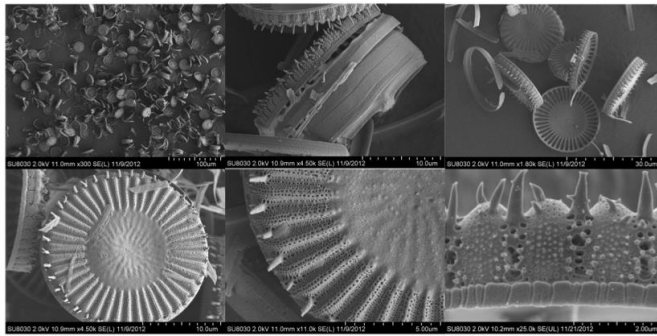


Figure 1. Silica frustules of *Cyclotella meneghiniana*.

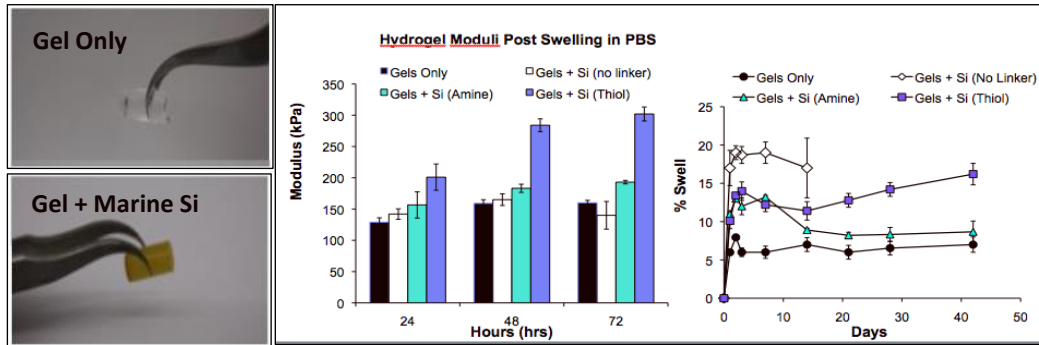


Figure 2. Results from Phase 1 experiments showing the hydrogel with and without the addition of Si frustules, the Young's modulus of hydrogels post-swelling and the percentage increase in weight following a swell test.

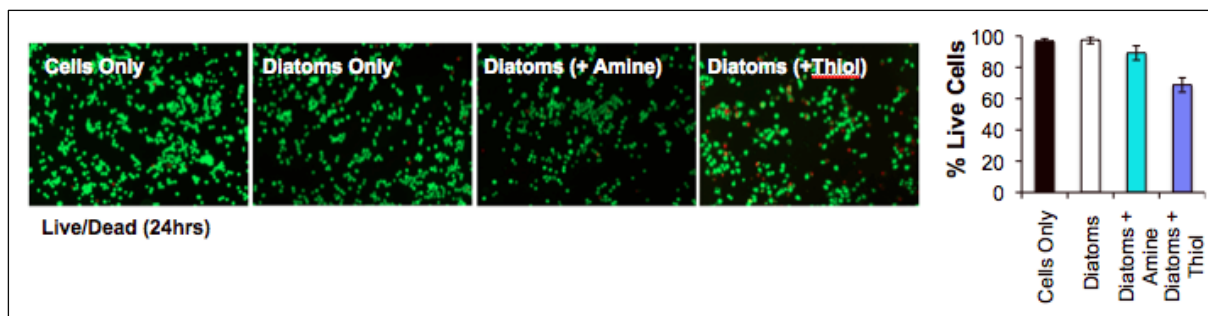


Figure 3. Results from Phase 2 experiments showing live (green) and dead (red) J774 cells cultured in the presence of conditioned medium from diatoms and functionalised diatoms and the quantification as percentage of live cells.

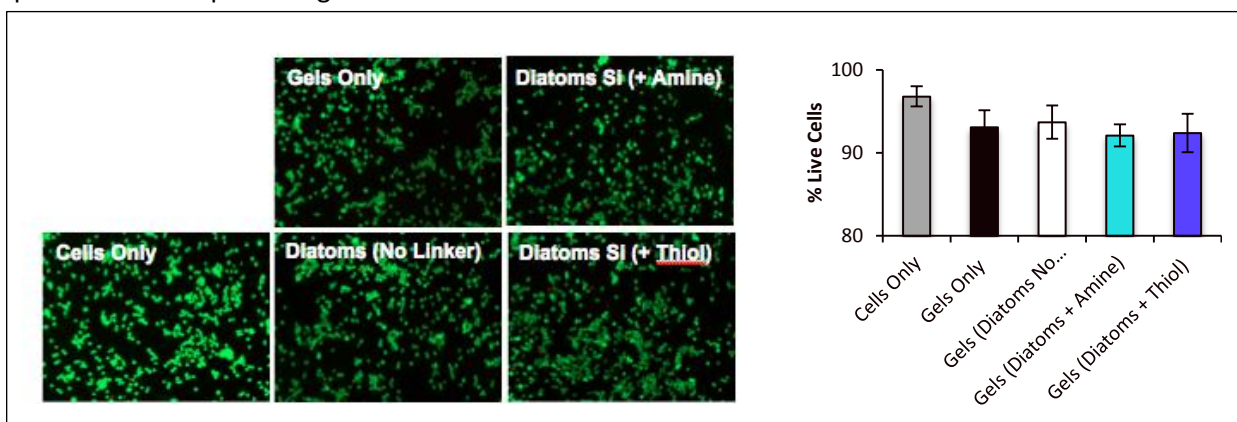


Figure 4. Results from Phase 3 experiments showing live (green) and dead (red) J774 cells cultured hydrogels and the quantification as percentage of live cells.