



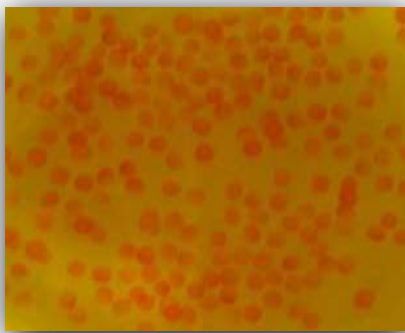
INSTITUTE FOR CELLULAR ENGINEERING

Optimizing Techniques for Evaluating the Metabolic Activity of Encapsulated Cells

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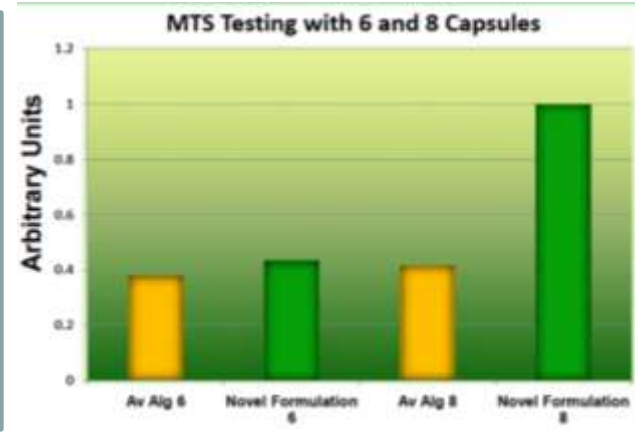
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Cell encapsulation is a technique used in tissue engineering for promotion of 3-D structure and prevention of immune attack. Due to interference of the surrounding matrix, it is difficult to evaluate viability of encapsulated cells over time. Capsules with an average diameter of 800µm are shown in the figure on the left.

Our objective is to obtain accurate cellular metabolic activity measurements using as few capsules as possible to minimize biomass requirements. We are evaluating encapsulated cells using the MTS and LIVE/DEAD assays.



To the left, is a sample graph depicting the viability difference between our novel formulation and the alginate-only formulation. This compares the use of 6 versus 8 capsules.