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THE BIOLOGY OF EXTRACELLULAR MATRIX AS A SCAFFOLD FOR REGENERATIVE MEDICINE

The extracellular matrix (ECM) consists of the secreted products of resident cells of each tissue and organ.

Cross talk between the ECM and cells accounts for the continuous modification of a matrix in response to ever changing microenvironmental niche conditions. This process of “dynamic reciprocity” assures that the ECM represents Mother Nature’s ideal scaffold. The removal of cells from tissues or organs by various physical, chemical, and / or enzymatic methods can be accomplished to harvest the remaining ECM and thus provide for its subsequent use as a bioscaffold.

The use of ECM bioscaffolds for a variety of clinical applications has typically been associated with the formation of functional, site appropriate tissue; a phenomenon referred to as “constructive remodeling”.

The factors which are critical to this process include:

- 1) degradation of the scaffold which releases bound growth factors, cytokines, and chemokines,
- 2) the recruitment of endogenous stem and progenitor cells to the site of scaffold degradation, and
- 3) modulation of the innate immune response. These factors and their respective roles in constructive remodeling will be the topic of discussion.

**MONDAY
MARCH 17, 2014**
Galbraith GB202
12:00 PM - 1:30 PM
Pizza Lunch

