

# High Throughput Decellularization Kit

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UVM innovations  
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## Overview

Dr. Weiss' laboratory, experts in lung decellularization and recellularization techniques, have developed a complementary portfolio of novel techniques and components which makes more effective use of individual human lungs for high throughput-de- and recellularization studies. These techniques can be readily applied to other large organs and in utilizing DC tissues beyond the regenerative medicine field.

### DC Kit

- Pre-aliquoted, optimized DC reagent solutions
- Rapid detection of potentially toxic, residual detergents
- Chemical components for a biocompatible, synthetic coating for small segments
- Detailed instructions for whole organ -DC & high throughput techniques for recellularization

## Invention

Following whole organ decellularization, using Dr. Weiss' **optimized solutions and techniques**, approximate 1-3 cm<sup>3</sup>-sized regions of DC tissue can be dissected out. These segments can further be appropriately modified, using **an ancillary novel coating technology**, to maintain their 3-dimensional structure and mechanical integrity. In the instance of lung segments, the airways and vasculature is maintained, allowing endothelial and epithelial cells to be seeded into their proper anatomical locations. The quality of the DC tissue can be assessed using **a novel detergent assay** developed specifically for DC tissue. The reagents include all solutions needed to perform decellularization and to prepare DC tissue segments for high throughput recellularization studies

## Patent Status

Patent Application Filed  
Worldwide Rights Available

## Advantages

- Convenient, optimized, and validated method
- Only decellularization kit commercially available
- Provides a unique model system for biological studies
- Ability to measure residual cytotoxic detergents in DC tissue
- Ability to coat segments of DC tissue with alginate-based coating agent

## Applications

- Labs and pharmaceutical companies interested in generating scaffolds for specific disease and tissue models
- High throughput recellularization studies
- Labs, pharmaceutical and biotechnology research companies working with technology diffusion models

Learn more about Dr. Weiss' research at:  
<http://bit.ly/15LlvKe>

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