



MatTek Introduces Next Generation, Tissue-Based Drug Discovery Assay

[3-Dimensional, *In Vitro* EpiAirway Tissue Model in 24-well Plates](#)

August 19, 2002 - MatTek Corp., Ashland, MA, USA, today announced the availability of a 24-well configuration of its popular EpiAirway™ human tracheal/bronchial tissue model.

"This is the beginning of a new generation of 3-dimensional, *in vitro*, human tissue-based assays," stated Dr. Pat Hayden, Senior Cell Biologist, MatTek Corp. "Previous to the introduction of the EpiAirway Tissue-based Assay, most assays used by Biotech and Pharmaceutical companies in inhaled drug discovery / delivery research were single cell (monolayer) in nature with cells derived from immortalized cell lines. These monolayer cell-based assays have proven useful in the first and second rounds of drug candidate screenings, but until now, there was a "missing round" of testing—one based on 3-dimensional, organotypic, *in vitro* tissue models derived from normal (non-cancerous) human cells. The major advantage of testing drug candidates against these models is that the results more closely mimic the real-world interaction of drug candidate to target human organ(s) and thus provide a more definitive "Go/No Go" decision point than the monolayer cell-based assays."

The EpiAirway Tissue-based Assay is designed to facilitate the high throughput screening of drug candidates and drug delivery systems focused on inhaled therapeutics development.

John Sheasgreen, MatTek's President, added, "This latest innovation by MatTek is another example of how we fulfill our corporate goal of simultaneously improving the quality of test data produced while decreasing and/or eliminating the use of live animal studies. MatTek's initial product offerings, EpiDerm™ and EpiOcular™, designed to replace skin and eye animal safety studies respectively, have been very useful in both areas. Increased reproducibility, elimination of species extrapolation error inherent in all animal studies, and reduced testing costs are achieved when MatTek's 3-D, *in vitro* models replace traditional animal testing."

[Link to EpiAirway/Tissue-based Assay Info](#)

[Link to EpiAirway Data Sheet](#)

[Link to EpiAirway Nasal Drug Delivery Overview](#)

About MatTek - MatTek Corp., founded in 1985 by two MIT professors, is a global industry leader in tissue engineering. The company manufactures human cell-based, three-dimensional organotypic *in vitro* models for use in product development/efficacy, claims substantiation, safety assessment, drug discovery/development, and target organ research applications in the Pharmaceutical, Biotech, Cosmetics and Household Cleaning Products industries. The current *in vitro* product offering includes EpiDerm™, MelanoDerm™, EpiOcular™, and EpiAirway™. MatTek's tissue models are used for applications as diverse as skin irritation and basic research into cystic fibrosis.

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