

# Elevate Laboratory Performance with a Preliminary Air Quality Assessment: Improved Outcomes through Improved Air

*Aire~Analysis*<sup>™</sup> provides a comprehensive air quality evaluation to assist IVF laboratories in enhancing their outcomes by detecting and eliminating harmful airborne contaminants.



# Identify sources of embryotoxic airborne contamination in your facility

Elimination of low-level (ppb level) airborne pathogens can increase ongoing pregnancy rates by up to 14.9% (Palter et. al. 2016).

# Are you ready to take action in seeking out these invisible threats?

### Novel EBTOX<sup>™</sup> Scoring Included

- Use of the Embryonic Burden and Toxicity Score (EBTOX<sup>™</sup>): a first of its kind risk assessment method for IVF culture environments
- Supported by published models (Fox et. al., 2022)
- · Presents specific risks for each VOC identified
- Identifies problematic sources

### PROBLEMS

Even ISO 5 cleanrooms, which are designed to be exceptionally clean, can fall prey to unseen pathogens that are known to impact IVF outcomes.

Parts per billion (ppb) levels of VOCs can be detrimental to embryo culture (Mortimer et. al., 2018).

Each embryotoxic VOC has unique characteristics and risk factors to the culture environment (Fox et. al., 2022).

EBT0X <sup>™</sup> Scores	
Contaminants	EBTOX Score
Acetone	0.15
Acrolein	0.38
Benzene	0.00
Isopropanol	6.57
Phenol	2.37
Tetrahydrofuran	0.01

#### EBTOX™: % Contribution to Toxicity





#### What makes our Aire~Analysis unique?

LifeAire's Aire~Analysis program offers comprehensive insights from years of experience and ongoing research specific to the roll of the culture environment in preimplantation toxicology. The analysis focuses on VOC speciation understanding that looking at individual effects are more impactful than a total VOC count. This is because different VOCs are known to influence different outcomes: with widely varying partitioning kinetics profiles and relative toxicity levels, it is crucial that the practitioner understand exactly what chemical species exist within their culture environment.

#### What does our Aire~Analysis include?

- Preliminary examination of air quality using EPA Method approved canister testing
- · Explanation of the relationship of air quality to embryogenesis
- · A comprehensive report containing insights for specific VOCs unique to your lab
- Personal Q&A session on removal of identified embryotoxic pollutant sources

## THE AIRE~ANALYSIS PROCESS



INTERESTED IN LEARNING MORE?

