

## Finding Answers for Couples With an Intrauterine Fetal Demise (IUFD) or Stillbirth

Chromosomal abnormalities are an important contributor to fetal death, particularly when fetal anatomic abnormalities are present. **ACOG's Committee Opinion** No. 581 states: "In cases of **intrauterine fetal demise** or stillbirth when further cytogenetic analysis is desired, chromosomal microarray analysis on fetal tissue (i.e., amniotic fluid, placenta, or products of conception) is recommended because of its increased likelihood of obtaining results and improved detection of causative abnormalities."

CombiMatrix is a clinical diagnostic laboratory specializing in cytogenomic testing for prenatal diagnosis, miscarriage analysis, pediatric developmental disorders, and pre-implantation genetic testing. As one of the most experienced microarray laboratories in the country, CombiMatrix has performed over 40,000 microarrays since 2006. We are committed to helping patients who have experienced a fetal loss find the answers they deserve.

### Abnormalities Detected by SNP Microarray versus Karyotyping

Abnormality Type	Microarray	Karyotyping
Whole chromosome aneuploidy	✓	✓
Partial chromosome aneuploidy	✓	✓
Sub-microscopic imbalances	✓	⊘
Triploidy	✓	✓
Molar pregnancy	✓	⊘
Maternal cell contamination can be detected on placental samples	✓	⊘

*\*Microarray does not detect completely balanced chromosomal rearrangements, however, such rearrangements are not anticipated to be associated with fetal abnormalities or fetal death.*

In addition to its superior diagnostic power, microarray testing does not require cell culture, which means results are obtained in >90% of cases, compared to 60-80% with karyotyping. Also, because microarray can be performed directly on fetal DNA, results are available in 10-12 days rather than ≥ 3 weeks with karyotyping (if successful).

#### 1<sup>st</sup> Trimester Losses (no visible fetal parts)

- Fetal villi from fresh tissue
- Fetal villi from formalin-fixed, paraffin-embedded (FFPE) samples (Both unstained slides or tissue blocks)

#### 2<sup>nd</sup> and 3<sup>rd</sup> Trimester IUFD and Stillbirth

- Skeletal muscle is the optimal tissue choice
- Umbilical cord, cord blood and placenta are an excellent options if the family wishes to leave the fetus untouched.

Genetic testing can provide your patients with important information regarding the cause of the loss, as well as recurrence risks for future pregnancies.

For more information, including our sample recommendations, please contact your local CombiMatrix representative or call Client Services at 949.255.0920.

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Better **Care.**

