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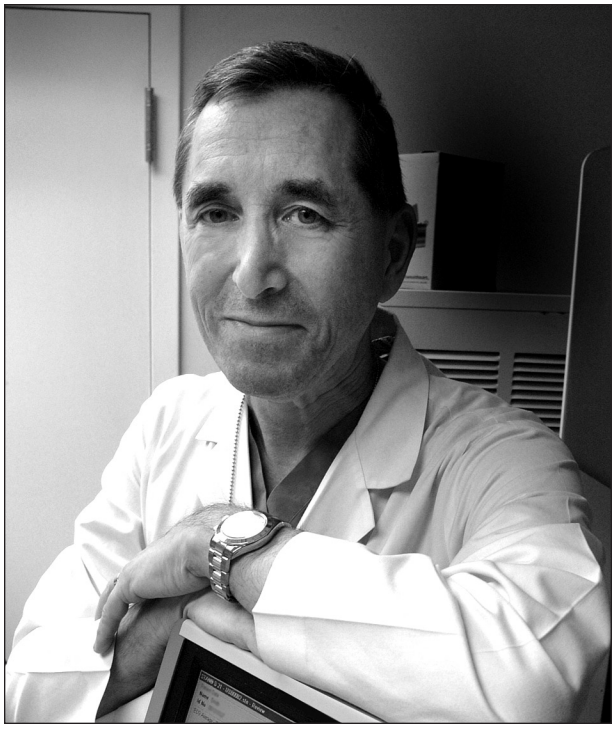
EDITORIAL

A Note from the Editor-in-Chief

Lawrence D. Devoe, M.D.

Welcome to the September-October 2019 Editor-in-Chief's page. This editorial column will focus on articles that discuss treatments that might impact reproductive technologies.



Lawrence D. Devoe, M.D., Editor-in-Chief

In This Issue

- ***Detection of Chromosome Abnormalities in Early Spontaneous Miscarriages: A Comparison Between G-Banding Karyotyping and Chromosomal Microarray Analysis***
  J. Song, F. Yu, M. Xie, B. Wang, and C. Zeng

  The investigators looked at a large number of prenatal samples obtained by chorionic villus sampling from spontaneous miscarriages and compared the detection of chromosomal abnormalities, using standard G-banding karyotyping (GBK) and chromosomal microarray analysis (CMA). More than half of the samples obtained had either numerical or structural abnormalities or mosaicism. CMA proved superior to GBK, and the authors conclude that this should be the first-line approach to studying such failed pregnancies. In fact, we have known for some time that GBK has shown that early failed pregnancies are associated with a relatively high rate of chromosomal abnormalities. It is also known that many of these abnormalities are ones never seen after the first trimester since they carry such a high rate of lethality. The real question here is how useful such information is, whether obtained by GBK or CMA, for counseling patients who are considering a subsequent pregnancy. One might also question the value of find-

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ing mosaicism since it is known that at least 1% of recovered trophoblasts will have mosaicism not seen in the fetus. Perhaps the real take-home message here is that CMA may provide patients a highly accurate means of explaining early pregnancy failure and, were costs of these two diagnostic approaches nearly equivalent, should become the preferred diagnostic method in the future.

- ***The Distinctive Variation in Killer Cell Immunoglobulin-like Receptor Genotypes in Patients with Unexplained Recurrent Spontaneous Abortions***
  L. Li, Q. Zhou, Y.-R. Zhao, Y.-L. Jiao, L.-C. Wang, and S. Wang

  This article deals with a frustrating problem for clinicians who care for infertile patients: unexplained recurrent spontaneous abortions (URSAs). The authors compared the genomic profile of women with a history of URSA and healthy women regarding killer cell immunoglobulin-like receptors (KIRs). After examining a group of KIR genotype profiles, the group identified specific KIR genotypes that occurred in the URSA population. What is potentially fascinating about this study is that it returns us to an earlier period when it was hypothesized that recurrent pregnancy failures without other obvious causes might represent a failure in the immunotolerance of the allograft that is the fetoplacental unit. Reopening this discussion also reopens some difficult clinical questions. Should such a subset of women be tested for these various genotypes and, if found, offered some form of immunotherapy—yet to be discovered let alone validated—in prospective clinical trials? A lesson that we have learned from the history of the elucidation of the antiphospholipid antibody syndrome and the application of this knowledge to clinical practice is that pursuit of immunology-based therapies for women with URSA might be worthwhile if this study's information gets supported by future research.