From the Editor

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With the advent of a new decade comes a call for rejuvenation and reflection; this is evidenced in the January issue of JARG, in which we institute changes in format and content that are aimed at satisfying the growing needs of our readership in reproductive medicine. Our field has been transformed over the past decade, from one that heralded advances in clinical science that fully justified the expansion of human ARTs, to today's unprecedented level of quality in both the diagnosis and treatment of reproductive disease. With the number of live births fast approaching four million worldwide and the number of "variations on the theme" of ARTs escalating on an almost monthly basis, keeping track of these advances has become a daunting task for the physician-scientist searching for treatment options that will satisfy the specific needs of their patients in the context of age, lifestyle, and predisposing disease conditions.

The secrets of our gametes—the ones that give them the extraordinary capacity to regenerate our species—are no longer beholden to the "black box" that we call our gonads. We have both an ethical imperative and a social obligation to translate the latest human ART discoveries in animal models to the clinic to ensure that consumers quickly receive the benefit of advances in reproductive medicine. Never before has the need for a mechanistic understanding of human reproduction been greater. And never before have the prospects for unveiling this level of understanding been so accessible with the technological advances that exist today.

JARG aims to provide its global readership with this new knowledge. With the leadership and direction entrusted from Springer and the ASRM, this challenge has been formally accepted and acted upon. To wit, I call your attention to the changes we have implemented in this, the January 2010 issue, of JARG.

First and foremost, we will continue to publish leading-edge reviews on topics that have direct bearing on the practice of reproductive medicine. Thus, the review on sperm DNA integrity by Smith and colleagues sets the tone for a much-needed account of the state of this field. The article covers the rationale, guiding principles, and technologies available for the analysis and characterization of sperm DNA quality. Surely, andrology laboratories will receive this account with open arms. As part of our restructuring of the JARG format, which will be reflected in the February issue of the journal, we have introduced changes in bundling of papers in order to better meet the demands of a changing discipline. In the future, emphasis will be placed on Technical Innovations. We foreshadow this commitment with this issue's paper from Parmagiani et al., which provides an important update on the use of the hyaluronic acid (HA) sperm selection technique currently being scrutinized by clinics around the world.

As noted above, our developmental fate is set during residence within the gonads. The newly created JARG section on Gonad Disease and Physiology is intended to bring clarity in this area. In this issue papers by Kosar et al and Wang et al will demonstrate the importance of these advances in their studies on oligospermia and PCOS. Another important consideration in our reformatting of the JARG categories was that, as complex as gonadal function is, we need to keep our focus on gamete and embryo quality. In this issue, the paper by Barrett uncovers a much unappreciated role for cumulus cells in the maturation of

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mouse oocytes. This role bears directly on the problem of oocyte IVM as we know it today and as it will be practiced in the future, illustrating once again that with appropriate use of animal models the full spectrum of developmental potential can be studied longitudinally. Tateno et al explore the importance of using acrosome-inducing agents on the chromosomal integrity of mouse zygotes, further expanding our insights into the practice of ICSI. And, from the laboratory of Rui et al comes an interesting study that assesses the consequences of somatic cell nuclear transfer on the production and viability of pig embryos. The study draws attention to the regulation of genes responsible for apoptosis during early cleavage, as well as genes that regulate methylation status during the maternal to zygotic transition.

This issue will close with a series of Letters to the Editor pertaining to past JARG publications and I encourage feedback from our readership to maintain this important form of discourse.

Of special note will be the inclusion of a section on Fertility Preservation. Having just returned from the First

International Congress on Fertility Preservation in Brussels (note that we will have a special issue on this topic in the coming months: and this issue will include a meeting summary), two things were most apparent. First, this is a rapidly growing subdiscipline in reproductive medicine, due to both the urgency for deriving patient care and a striking degree of networking between the basic and clinical science communities. Second, the rapid growth in this area of research will clearly contribute to ongoing and future ARTs and is very likely to advance reproductive medicine and human reproductive biology. This is especially true given the imperative at hand—to restore or maintain fertility in young men and women subject to compromising treatments of other health conditions. My suspicions tell me that fertility preservation will become a *modus operandi* for our discipline in the next 10 years.

Thank you for your support of JARG and we look forward to working with you to achieve our goals over the next 10 years. Happy New Year!