Approximately 1 in 20 young men today have sperm counts low enough to impair fertility, whereas this may not have been the case historically. The cause(s) of such a decline in male reproductive health is unknown, despite it being a global health issue. Concomitantly, little progress has been made in answering fundamental questions in andrology or in developing new diagnostic tools or alternative management strategies to various assisted reproductive technologies (ARTS) along with intra-cytoplasmic sperm injection (ICSI) modalities in infertile men. Male infertility is part of a very dynamic and yet rapidly growing health industry and the ART market is a worldwide, highly innovative, multi-billion dollar enterprise. Combined with the fact that reproductive medicine is newsworthy and rapidly captures the attention of the general public, the perception from the non-clinical world is that all is well in the world of male reproduction. However, this is merely an illusion. Numerous basic clinical and scientific questions in andrology remain unanswered—some for over half a century. A sentinel example is the lack of any real progress in developing robust methods for objective semen analysis, despite it being the cornerstone of routine male infertility investigations. If a simple diagnosis cannot be correctly identified, then how can we progress? These limitations have been well rehearsed elsewhere but do not diminish our collective universal failure in this area. Moreover, diagnostic tools/treatments are introduced too fast and usually without proof of their efficacy. A recent assessment demonstrated that the overwhelming majority of ‘add ons’ in ART (including andrology examples) had no robust evidence to support their use is damning in this respect. To a large extent, this situation is simply a consequence of our continuing ignorance about male infertility, as it creates a vacuum that encourages the premature introduction of new putative diagnostic assays and/or treatments because there is nothing else to offer the patients. Couples seeking assistance in attempting to procreate via ART because the male partner has poor semen quality are likely to grasp at any new initiative, irrespective of cost, and are in no position to judge the benefits or efficacy of such efforts. The paucity of effective non-ART treatments for male infertility, at least since 1992, simply adds to the pressure. We are at the cross-roads of many challenges for treatment of male infertility and we must take a giant step in gaining better understanding of the problems which can lead to huge potential benefits, into the male’s reproductive health!

Biography
Panayiotis Zavos is recognized worldwide as a leading Researcher and a strong authority in the areas of male reproductive medicine, gamete physiology, male infertility, andrology and other ART procedures including the development of in-vitro round spermatid manipulations (ROSI procedures). He is also recognized as an international authority on cloning, SCNT and embryonic stem cells, pioneering the creation of the first cloned embryos and transferring them in women for reproductive purposes. He is also known for his pioneering work on many other aspects of reproductive medicine and smoking and its effects on human reproductive performance.

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