

## Supporting Human ART Through Basic Science

### Preface

The following articles represent some of the talks given at a symposium 'Supporting Human ART Through Basic Science' that was held prior to the Annual Meeting of the International Embryo Transfer Society (IETS) in Portland, Oregon, in January 2004. The rationale for the symposium came from observations that: (1) the efficiency of human assisted reproductive technologies (ART) is still unacceptably low, when calculated on a per embryo basis; (2) there are many similarities between human and animal ART protocols; and (3) basic scientists and clinical embryologists have few opportunities to share knowledge and experiences – they usually attend different meetings, even read different journals. Improvements in the embryological components of human ART require extrapolation of information derived from basic research with suitable animal models. Many aspects of human ART parallel those used for *in vitro* production (IVP) of animal embryos. The first human *in vitro* fertilisation successes were derived directly from studies with animals. However, with only a few notable exceptions, during the past two decades there has been little information or technology transfer between these two applications in ways that have benefited the practice of human ART/IVP.

The primary aim of the Symposium was to foster communication, exchange of information and awareness of how animal embryo research can address key problems in human IVF practice. These problems include: measurement of oocyte quality, selection of the most viable embryos for transfer and the nature of defects in IVP embryos. At the same time, basic scientists should be more aware of the practical problems inherent in human IVF clinics, by interactions with clinical personnel. The organisers wanted members of the human clinical ART community to attend not only the Symposium but the entire IETS meeting as well. This would help build a bridge between IETS and human ART, the latter being very poorly represented within the IETS.

The Symposium was very successful, with 150 attendees from 25 countries. We hope to repeat this event in association with future IETS meetings.

The organising committee of the Symposium is most grateful to our sponsors: The Reproductive Sciences Branch, National Institute of Child Health and Human Development, NIH, and Organon, Inc.

Barry Bavister

#### Organising committee

Barry D. Bavister, PhD  
Department of Biological Sciences  
University of New Orleans

Carol A. Brenner, PhD  
Department of Biological Sciences  
University of New Orleans

William Gibbons, MD  
Department of Obstetrics and Gynecology  
Eastern Virginia Medical School