



Carl G. Hartman Award

(Supported by a grant from Cook Medical)

This award is the most prestigious award conferred by the Society for the Study of Reproduction. Each year, this award recognizes an exemplary research career in reproductive biology. The 2010 recipient of the Carl G. Hartman Award is **John J. Eppig, Ph.D.**

The recipient of the 2010 Carl G. Hartman Award is Dr. John J. Eppig of The Jackson Laboratory. Dr. Eppig received his Ph.D. in 1970 from The Catholic University of American, Washington, DC but conducted his thesis research on melanogenesis in amphibians at the Oak Ridge National Laboratory. He then conducted postdoctoral research at Oak Ridge that ultimately led him to studying oogenesis in *Xenopus*. After a brief stint as an Assistant Professor at Brooklyn College (1972-1975), he joined The Jackson Laboratory as an Associate Staff Scientist, rising rapidly through the ranks to Senior Staff Scientist, where he conducted his seminal studies on mammalian oocyte development.

John is the world's leading authority on the cellular and molecular basis for mammalian oocyte development and how the oocyte orchestrates its own maturation and competence by establishing a feed-back loop with the somatic cells that surround it within the ovarian follicle. The constant underlying theme of John's research program for the past 30 years has been to develop culture systems that support oocyte development *in vitro* such that the oocytes that develop *in vitro* will give rise to complete embryogenesis. This work came to a stunning culmination several years ago with the birth of live offspring that were derived from oocytes that developed from primordial follicles *in vitro*. Although this triumphant *tour de force* has

numerous practical applications, e.g., preserving the female germline in endangered species, what has driven John is his quest to understand the basic mechanisms that govern oocyte development, a major problem in reproductive biology. In addition, his research has had several successful spin-offs regarding basic issues of cell-cell communication and interaction, cell cycle regulation, and initiation of follicle growth. In a departure from a long-held paradigm, John pioneered the concept that the oocyte initiates and directs the dialog that exists between itself and the surrounding companion somatic cells, rather than the other way round, by devising a chimeric ovary model in which oocytes and granulosa cells of different developmental age and even of different species can be aggregated and still generate competent oocytes. With Dr. Marty Matzuk, he has shown that two oocyte-specific genes, *Gdf9* and *Bmp15*, have instructive roles that allow the oocyte to out-source many of its metabolic requirements, including the provision of glycolytic intermediates and cholesterol, to the surrounding somatic cells.

John has published his research findings in ~200 publications. In addition, he communicates his findings as a highly sought-after speaker at both national and international meetings, as well as presenting seminars at first-tier universities and research institutes. When John speaks, he focuses on unpublished, not published, results, and speaks about his research with both clarity

and a real sense of his excitement about the work. His work and leadership role is reflected in numerous awards, including this Society's Research Award (1999); Gordon Conference on Mammalian Gametogenesis and Embryogenesis, (Vice-Chair, 1996; Chair 1998); Amoroso Lecturer, Society for the Study of Fertility (1997); NIH Merit Award (2000-2010); Gregor J. Mendel Honorary Medal for Merit in Biological Sciences – Academy of Sciences of the Czech Republic (2002); and the Pioneer in Reproduction Research Award, Frontiers in Reproduction, Marine Biological Laboratory, NICHHD, (2007).

John is also a most generous colleague; he is generous with his time, ideas, and resources. As a collaborator, John is totally free with his ideas and always credits the contributions of others to his own thinking. Ask any of his collaborators and they will state categorically and without hesitation that it is simply a joy to work with John. John often has scientists come to his laboratory to learn the tricks of the trade in establishing the culture systems for oocyte growth *in vitro*. This act requires that he and his staff take time from their own research. John is scientifically provocative and his colleagues and collaborators take delight in talking science with him; he knows how to listen and then push their thinking in a productive manner.

John has also provided leadership at several levels. First, he has nurtured the scientific careers of several post-doctoral students who have trained in his laboratory. But more important is that as a mentor John conveys a sense of excitement to his students about science, i.e.,

that science is fun despite its constant demands and the stress of competition for funds and that science is a wonderful, intriguing, and stimulating profession. He establishes beautiful relationships with his students who have all really flourished under his deft guidance. John knows how to let students develop the independence that is required for their success and provides a rich environment for them to learn this most difficult task. John also imparts to his students an understanding about the meaning of true collaboration and the long-term benefits that will be derived by establishing open and frank interactions with colleagues.

John has also served our Society well, serving on the Board of Directors (1992-1995); Ovarian Workshop, Board of Directors (1990-1996) and as Chair in 1996; NIH Human Embryo Research Panel (1994); President-Elect (1998-99) and then President (1999-2000), and, most recently, as Co-Editor-in-Chief (with Mary Ann Handel) of *Biology of Reproduction* (2004-2009). In the last capacity, he (and Mary Ann) successfully undertook the huge and most important task of revitalizing the journal at a most critical time when journals of scientific societies are facing an onslaught of issues that concern the age of electronic publishing. He continues to serve, with Mary Ann, as Consulting Editor for *BOR*.

John Eppig is clearly a most deserving recipient of the Carl G. Hartman award for he personifies everything that this award represents; his receiving this award reflects well on our Society (*Submitted by Dr. Richard Schultz*).