

Robert W. McGaughey, Ph.D.



Robert W. McGaughey, Ph.D.
ART Laboratory Director
Arizona Center for Fertility Studies

EDUCATION:

Augustana College B.A. 1963
University of Colorado M.A. 1965
Boston University Ph. D. 1968

AREAS OF SPECIALIZATION:

Developmental Biology, Reproductive Biology.
Regulation of mammalian oocyte maturation.
In Vitro Fertilization and Embryo Transfer.

PROFESSIONAL EMPLOYMENT:

Worcester Foundation for Experimental Biology,
Research Associate, 1965-1968

Worcester Foundation for Experimental Biology,
Staff Scientist, 1968-1969

Lalor Foundation (Cambridge, England),
Postdoctoral Fellow, 1969-1970

University of Colorado
Research Associate, 1970-1971

Arizona State University
Assistant Professor, 1971-1974

Arizona State University
Associate Professor, 1974-1980

Arizona State University
Professor, 1980-2004

Arizona State University
Professor Emeritus, 2004

Arizona Center for Fertility Studies
Laboratory Director, 1984

**PROFESSIONAL
ORGANIZATIONS:**

Society for the Study of Reproduction

American Society for Reproductive Medicine

**PEER REVIEWS OF
RESEARCH ARTICLES
FOR PUBLICATION:**

Developmental Biology

Biology of Reproduction

Cell Biology

Proceedings of the National Academy of Sciences

Gamete Research

**SELECTED
PUBLICATIONS:**

Journal of Reproduction and Fertility

Human Reproduction

McGaughey, R.W. and J.C. Daniel, Jr. 1966.
Effects of estradiol-17 β on fertilized eggs in vitro.
J. Reprod. Fertil. 11:325-33

McGaughey, R.W., J.H. Marston and M.C. Chang.
1968.
Fertilizing life of mouse sperm in the female tract.
J. Reprod. Fert. 16:147-150.

McGaughey, R.W. 1977.
*The maturation of porcine oocytes in minimal, defined
culture media with varied macromolecular
supplements and varied osmolarity.*
Exptl. Cell Res. 109:25-30

Van Blerkom, J. and R.W. McGaughey. 1978.
*Molecular differentiation of the rabbit ovum: I. During
oocyte maturation in vivo and in vitro.*
Devel. Biol. 63:139-150.

Racowsky, C. and R.W. McGaughey. 1982.
*Further studies of the effects of follicular fluid and
membrana granulosa cells on the spontaneous
maturation of pig oocytes.*
J. Reprod. Fertil. 66:505-512.

McGaughey, R.W. 1985.
*Amino acids can induce nondisjunction during
maturation of mammalian oocytes in vitro.*
J. Exp. Zool. 234:160-165.

Capco, D.G. and R.W. McGaughey. 1986.
*Cytoskeletal reorganization during early mammalian
development: Analysis using embedment-
free sections.*
Devel. Biol. 115:115-458.

Nemiro, J.S. and R.W. McGaughey. 1986.
An alternative to IVF-ET: The successful transfer of human oocytes and spermatozoa to distal oviduct.
Fertil. Steril. 46:644-652.

McGaughey, R.W. and J.S. Nemiro. 1987. *Correlation of estrogen levels with oocytes aspirated and with pregnancy in a program of clinical tubal transfer.*
Fertil. Steril. 48:98-106.

Homa, S.T., R.W. McGaughey and C. Racowsky. 1988.
Isolated subpopulations of mass-harvested pig oocytes and their characterization by size, incidence of atresia and competence to mature in culture.
Journal of Reprod. Fert. 82:81-86.

McGaughey, R.W. and J.S. Nemiro. 1988.
Initial success with establishment of pregnancy by tubal transfer (GIFT).
Infertility 11:233-243.

McGaughey, R.W. and D.G. Capco. 1989.
A unique cytoskeletal element in mammalian eggs: Cytological and molecular evidence for its composition.
Cell Motility and the Cytoskeleton. 13:104-111.

Webster, S. and R.W. McGaughey. 1990. |
The cortical cytoskeleton and its role in sperm penetration of the mammalian egg.
Devel. Biol. 142:60-74.

McGaughey, R.W., C. Racowsky, V. Rider, K. Baldwin, A.A. DeMarais and S. Webster. 1990.
Ultrastructural correlates of meiotic maturation in mammalian oocytes.
J. Electron Micro. Techn. 16:257-280.

Gallicano, G.I., R.W. McGaughey and D.G. Capco. 1991.
Cytoskeleton of the mouse egg and embryo: Reorganization of planar elements.

Cell Motility and the Cytoskeleton. 18:143-154.

Gallicano, G.I., R.W. McGaughey and D.G. Capco.
1992.

*Cytoskeletal sheets appear as universal components
of mammalian eggs.*

J. Experimental Zoology. 263:194-203.

Capco, D.G., G. I. Gallicano, R.W. McGaughey, K.H.
Downing, and C.A. Larabell. 1993.

*Cytoskeletal sheets of mammalian eggs and
embryos: A lattice-like network of intermediate
filaments.*

Cell Motility and the Cytoskeleton. 24:85-99

Gallicano, G.I., R.W. McGaughey and D.G. Capco.
1993.

*Ontogeny of the cytoskeleton during mammalian
oogenesis.*

Micro. Research and Technique. 27:134-144.

Gallicano, G.I. R.W. McGaughey and D.G. Capco.
1997.

*Activation of Protein Kinase C after Fertilization is
Required for Remodeling the Mouse Egg into the
Zygote.*

Molecular Reprod. And Develop. 46:587-601.