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An egg of the frog, *Xenopus*, previously injected with messenger RNA for the M1 muscarinic acetylcholine receptor, undergoing cortical contraction after exposure to acetylcholine. Application of acetylcholine after introduction of the receptor into the egg membrane initiates this and other responses similar to those normally initiated by sperm (×110). See page 464. [Douglas Kline, University of Connecticut Health Center, Farmington, CT 06032]