

Making human eggs from scratch: Scientists are trying to replicate this complex chemical recipe

Starting about a decade ago, scientists in a handful of developmental biology labs around the world began cataloging the complex chemical recipe an embryo uses to make gametes — sperm or egg cells — with the idea that if they could copy it, they could coax any cell along the same path. Working mostly in rodents, these pioneers in so-called in vitro gametogenesis, or IVG, have since turned mice stem cells [into sperm and eggs](#), including a recent success creating [eggs from the stem cells](#) of a male mouse.

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Key to these breakthroughs is first creating a clump of reproductive tissue to send these would-be-gametes the coordinated signals they need to become sperm or eggs. [Researcher Christian] Kramme spent most of his PhD figuring out how to make the human version of this ovary-in-a-dish, supported by New York City-based biotech Gameto.

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These mini-ovaries, or “ovarioids,” aren’t yet [sufficiently like the real thing](#) to produce the worlds’ first lab-grown human egg, a milestone that would open the door to an array of [radical new reproductive possibilities](#). But Gameto licensed the technology for what it sees as a much more near-term (and slightly less sci-fi) application: boosting the odds of success for people seeking in vitro fertilization.

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