

The Moment of Conception is Marked (Literally) by Fireworks. Just Watch

So say researchers from Northwestern University, according [to this story from the Telegraph](#) last week authored by the paper's science editor Sarah Knapton. They call it "the zinc spark." And they provided pictures to prove it.

"Over the last six years," writes the article's author, "this team has shown that zinc controls the decision to grow and change into a completely new genetic organism." As one team member, senior author Prof. Teresa Woodruff, put it: "To see the zinc radiate out in a burst from each human egg was breathtaking."

To be more precise, zinc in the gametes lights up when "sperm enzyme" meets an ovum, and is brightest when sperm actually enters the ovum. The phenomenon has been seen before in other animals, but this is the first time it's been observed in human gametes and recorded.

So what does it mean?

Well, for one thing, the intensity of the flash is a good indicator of the "quality" of the fertilized egg.

"This means if you can look at the zinc spark at the time of fertilization, you will know immediately which eggs are the good ones to transfer in in vitro fertilization," said Woodruff.

About half of fertilized ova never develop into a viable human, likely because of poor genetic quality. Scientists soon may have the ability to determine which fertilized eggs have the best chance of survival.

“It’s a way of sorting egg quality in a way we’ve never been able to assess before,” said Woodruff. “So the practical import of this discovery—or at least the one that excites the team—is that we will soon be able to make transfers of only viable embryos, thus sparing users of artificial reproductive technology the heartache of pregnancies going bust.

But is that really the only practical import? Neither Knapton or Woodruff seem to have taken account of something that is momentous and should be obvious.

If the fertilization of a viable blastocyst is now so clearly observable, we can now actually see when an individual human life begins. Until now, we could only infer, imprecisely, when such a life began, from the fact that the blastocyst developed successfully into zygote, embryo, fetus, and, when permitted, into a live, healthy baby at birth.

If nature announces with fireworks when an individual human life begins, is that not an important fact in the abortion debate?