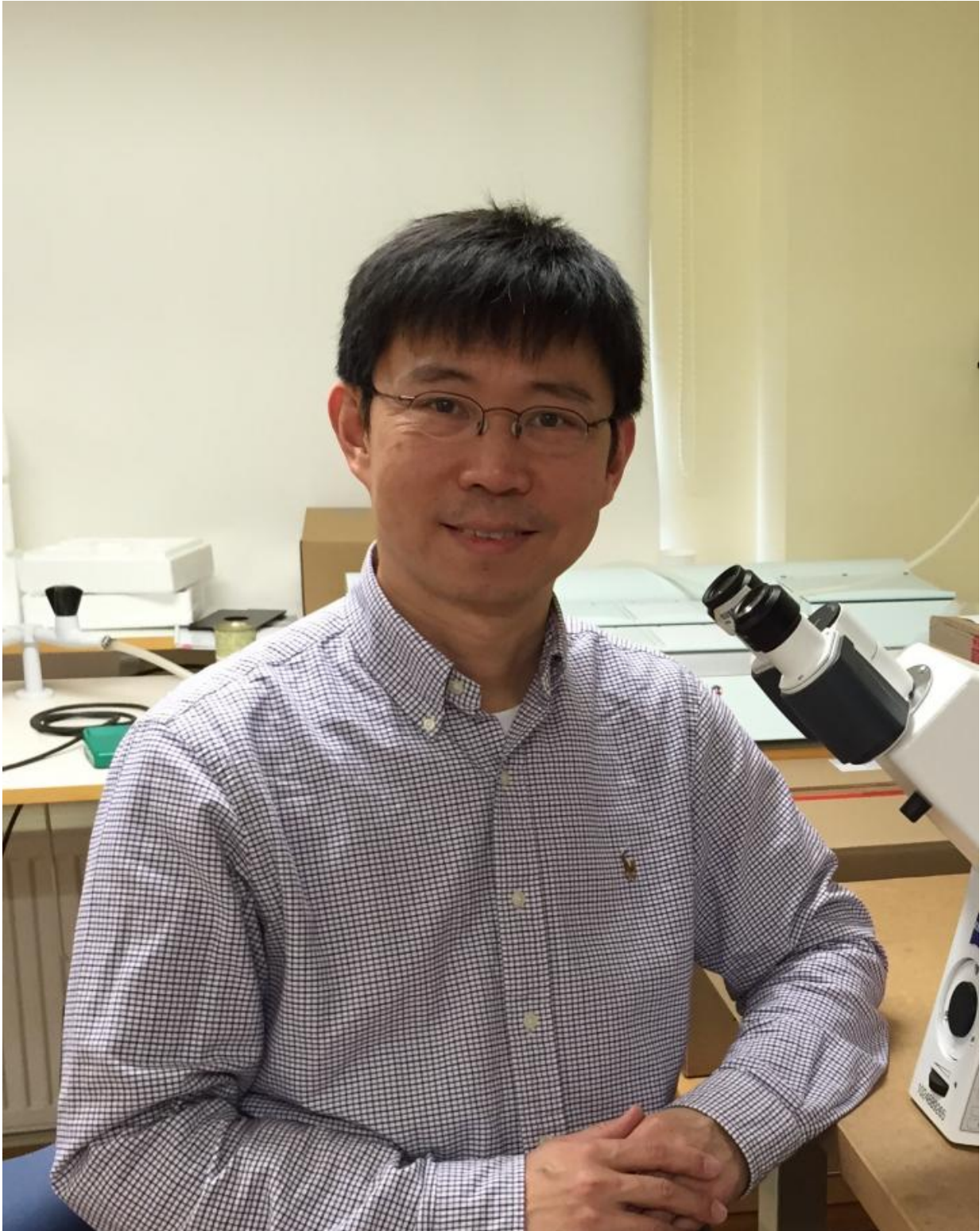


New studies question the treatment of female infertility with stem cells

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Kui Liu is a Professor at the Department of Chemistry and Molecular Biology, University of Gothenburg. Credit: University of Gothenburg

It has been claimed that a treatment for female infertility will be available by stem cell therapy. But a new study by Swedish researchers from the University of Gothenburg and Karolinska Institutet published in *Nature Medicine* questions whether new egg cells can be produced using stem cells.

Researchers have long hoped that stem cells could generate new egg cells that can be used to treat infertility in women.

"Since 2004, there have been researchers who have claimed in their studies that they found egg stem cells in both mice and humans. A new [treatment](#) has even been launched by the US company OvaScience," says Professor Kui Liu at the Department of Chemistry and Molecular Biology, University of Gothenburg.

In a new study, Professor Kui Liu and his colleagues question whether stem cells can generate new [egg cells](#). He led the study together with Professor Outi Hovatta of Karolinska Institutet and they assert that the procedure of isolating stem cells is aspecific and also that the stem cells have not been capable of forming eggs.

"Consequently, it is not realistic to hope for a new treatment of female infertility with stem cells. In recent years, investors have been fascinated by a possible new therapy with stem cells, but since our laboratory and other laboratories have proven that the reported stem cells are not real stem cells, we think such treatment is not reliable, says Kui Liu.

Professor Outi Hovatta, an expert on studies of stem cells, believes that the reported egg [stem cells](#) are not functional and capable of generating new eggs. This includes both stem in mice and human ovaries.

"This is a question of whether or not researchers should over-interpret their results and provide new hope of a new treatment to society and the patients before certain evidence is obtained. We believe that such 'hype' should cool down and we are warning the society of irresponsible promises to patients and investors," says Professor Liu.

More information: Hua Zhang et al. Adult human and mouse ovaries lack DDX4-expressing functional oogonial stem cells, *Nature Medicine* (2015). [DOI: 10.1038/nm.3775](https://doi.org/10.1038/nm.3775)

Provided by University of Gothenburg

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