Embryos must undergo womb ‘exam’

Cells lining the womb set an “entrance exam” that decides whether or not to allow an embryo to take up residence, research has shown.

Scientists hope the discovery will prove to be a milestone in the development of new pregnancy treatments. An early stage embryo can only develop into a foetus and baby if it successfully implants into the soft lining of the womb.

Implantation failure is a major cause of miscarriages, yet many aspects of it remain a mystery.

Researchers from the University of Warwick found high-quality embryos secrete a chemical called trypsin that produces a reaction in the womb lining, rendering it supportive of implantation.

In low-quality embryos with a high proportion of abnormal cells, the chemical’s absence triggers an alarm response in the womb which results in rejection.