

1. Institution

Academic Unit of Reproductive and Developmental Medicine
Department of Human Metabolism
The University of Sheffield
Level 4, Jessop Wing, Tree Root Walk
Sheffield S10 2SF
United Kingdom

2. Principal investigator and contact person

Alireza Fazeli, PhD

3. Key personnel

NAME		EMAIL	RESEARCH AREA DETAILS
Alireza	Fazeli	a.fazeli@sheffield.ac.uk	Maternal interaction with gametes and embryos and epigenetics
Basatvat	Shaghayegh	s.basatvat@sheffield.ac.uk	Toll-like receptors in the female reproductive tract, and their implications in the early implantation of the embryo
Carmen	Alminana	calmi@um.es	Embryo development and maternal communication with embryo through genomics and proteomics technologies
Ignacio	Caballero-Posadas	i.caballero@sheffield.ac.uk	Toll-like receptors in the female reproductive tract, and their implications in the early implantation of the embryo
Ignacio	Del Valle	i.delvalle@sheffield.ac.uk	Assessment techniques to investigate the protective effect of the heat shock proteins during the cryopreservation of bovine semen
Javier	Sanchez-Lopez	mdp09jas@sheffield.ac.uk	Innate immune system of the female reproductive tract and its relation with problems of implantation
Laszlo	Tecsi	l.tecsi@sheffield.ac.uk	Co-ordinating and administrating research activities
Mehrnaz	Montazeri	mds09mm@sheffield.ac.uk	Activation of innate immunity during embryo implantation in the human female reproductive tract
Najmeh	Moeinvaziri	mdp09nm@sheffield.ac.uk	Characterizing the effect of heat shock proteins on reproductive physiology
Nasim	Maslehat	mdp10nm@sheffield.ac.uk	Innate immunity activation in the embryo and in the endometrium
Sarah	Elliott	s.elliott@sheffield.ac.uk	Technical support to all staff and students working with molecular biology and tissue culture techniques
William	Holt	bill.holt@ioz.ac.uk	Assessment and preservation of gametes, especially spermatozoa, in a variety of species

4. Research profile

Overview

My main research interests are in understanding maternal interaction with gametes and embryos, and the regulation of innate immunity in the female reproductive tract.

Websites

<http://fazellilab.group.shef.ac.uk/>
<http://www.shef.ac.uk/medicine/staff/fazeli.html>
<http://www.researcherid.com/rid/G-3679-2010>

Subjects

Biochemistry and Molecular Biology; Cell Biology; Genetics and Heredity; Life Sciences and Biomedicine; Obstetrics and Gynecology; Reproductive Biology; Veterinary Sciences

5. Key technologies and tools

Cell Culture

Enzyme Linked Immunosorbent Analysis (ELISA)

Quantitative Reverse Transcriptase Polymerase chain Reaction (RT-PCR)

Atomic Force Microscopy

Immunofluorescence Microscopy

Cryopreservation of Sperms

Flowcytometry

Fluorescence Recovery after Photobleaching (FRAP)

Microarray Analysis

Molecular Cloning

6. Selected publications (max. 5)

1. Alminana C, Fazeli A. Exploring the application of high-throughput genomics technologies in the field of maternal-embryo communication. *Theriogenology*, **2012**, 77: 717-737.
2. Aboussahoud W, Bruce C, Elliott S, Fazeli A. Activation of Toll-like receptor 5 decreases the attachment of human trophoblast cells to endometrial cells in vitro. *Human Reproduction*, **2010**, 25: 2217-2228.
3. Van Soom A, Vandaele L, Peelman LJ, Goossens K, Fazeli A. Modeling the interaction of gametes and embryos with the maternal genital tract: From in vivo to in silico. *Theriogenology*, **2010**, 73: 828-837.
4. Pewsey E, Bruce C, Georgiou AS, Jones M, Baker D, Ow SY, Wright PC, Freberg CK, Collas P, Fazeli A. Proteomics Analysis of Epithelial Cells Reprogrammed in Cell-free Extract. *Molecular & Cellular Proteomics*, **2009**, 8: 1401-1412.
5. Fazeli A. Maternal communication with gametes and embryos. *Theriogenology*, **2008**, 70: 1182-1187.