

## **CURRICULUM VITAE: HENRY J LEESE**

**Present Position:** Professor of Biology Emeritus, Hull York Medical School, Universities of Hull and York.

### **Previous employment:**

1969-72 Research Fellow, (MRC) Department of Biology, University of York.

1972-73 Royal Society European Programme Fellowship, ETH, Zurich, Switzerland.

1973-90 Lecturer in Biochemistry, Department of Biology, University of York.

1980-81 Visiting Associate Professor, Harvard Medical School, USA.

1991-93 Senior Lecturer, Department of Biology, University of York

1993-97 Reader, Department of Biology, University of York.

1997-2010 Professor, Department of Biology, University of York

2010-Professor Emeritus, Universities of Hull and York.

### **Degrees and Qualifications:**

BSc Physiological Chemistry, 1<sup>st</sup> Class, University of Reading, 1966,

PhD and DIC Imperial College, University of London, 1969

### **Honours and Awards:**

2002: Honorary Membership, Association of Clinical Embryologists

2003: Fellow of the Royal College of Obstetricians and Gynaecologists (FRCOG *ad eundem*)

2010: Honorary Membership, British Fertility Society

2010: Marshall Medal of the Society for Reproduction and Fertility

2011: Honorary Membership of the Society for Reproduction and Fertility

2015- 2018 President, British Fertility Society

2016: Patrick Steptoe Lecturer, British Fertility Society

### **Selected appointments and Advisory Groups:**

1998 – 2014 Founding Editor-in-Chief, *Human Fertility*

1998 - 2002. Member, Human Fertilisation and Embryology Authority

2003 – 2015 HFEA Horizon Scanning Group

2009 Scientific Advisory Committee of the Royal College of Obstetricians and Gynaecologists

Testified before House of Lords Select Committee on Stem Cell Research (2002) and House of Commons Science and Technology Committee reviewing the HFE Act (2004).

## Research

- Nutrition and metabolism in mammalian preimplantation embryos and their environment in the female reproductive tract.
- Devised and pioneered non-invasive methods for monitoring embryo health.
- Proposed the 'quiet embryo hypothesis' relating metabolic activity to embryo viability.

30 PhD students:

## Patents:

Co-inventor of 5 patents on the use of metabolic profiling to determine cellular health

## Commercial activities;

Co-founded University of York Spinout: *Cellutions Ltd*: Scientific Adviser to *Novocellus Ltd* (Angle plc) and Irvine plc

**Publications:** ~300 publications on Google Scholar: >16,000 citations: H score 75

## Books:

*Human Reproduction and In Vitro Fertilisation* Macmillan Education 1988;

*The Eating Habit*: Quay Publishing 1994).

*Cell Signalling during Mammalian Early Embryo Development*. Co-editor DR Brison: Springer, New York, 2015

## 10 Top Publications:

**Leese HJ** (1988) The formation and function of oviduct fluid. *J. Reprod Fertil* 82, 843-856. Times Cited 454

**Leese HJ**, Barton AM (1984) Pyruvate and glucose uptake by mouse ova and preimplantation embryos. *J. Reprod. Fertil* 72, 9-13. Times Cited 452

Hardy, K, Martin, KL, **Leese HJ**, Winston RML, Handyside, AH (1990 ) Human preimplantation development in vitro is not adversely affected by biopsy at the 8-cell stage. *Hum Reprod* 5, 708-714. Times Cited 453.

DR Brison, FD Houghton, D Falconer, SA Roberts, J Hawkhead, **Leese HJ** (2004) Identification of viable embryos in IVF by non-invasive measurement of amino acid turnover *Hum Reprod* 19, 2319-2324 Times Cited 391

Houghton FD, Hawkhead JA, Humpherson PG, Hogg JE, Balen AH, **Leese HJ** (2002) Non-invasive amino acid turnover predicts human embryo developmental capacity. *Hum Reprod* 17, 999-1005 Times Cited 375

Byrne AT, Southgate J, Brison DR, **Leese HJ** (1999) Analysis of apoptosis in the preimplantation bovine embryo using TUNEL. *J Reprod Fertil* 117, 97-105. Times Cited 329

**HJ Leese** (2002) Quiet please, do not disturb: a hypothesis of embryo metabolism and viability. *Bioessays* 24, 845-84 Times Cited 291

**Leese HJ** (2012) Metabolism of the preimplantation embryo: 40 years on. *Reproduction* 143: 417-427 Times Cited 207

**Leese HJ**, Baumann CG, Brison DR, McEvoy TG, Sturmey RG (2008) Metabolism of the viable preimplantation embryo: quietness revisited. *Molec Reprod Dev* 14: 667-672 Times Cited 197

Leary C, **Leese HJ**, Sturmey RG (2015) Human embryos from overweight and obese women display phenotypic and metabolic abnormalities. *Hum Reprod* 30:122-32 Times Cited 87