Education
•29-3-1995: DVM, Royal Veterinary and Agricultural University (KVL), Denmark.
•30-5-2001: PhD (Follicular growth and atresia in the mare), University of Edinburgh, UK.

Other scientific/academic qualifications
•2005: Diplomate of European College of Animal Reproduction (Equine reproduction) by examination

Employment
•1995 - 1996: Veterinarian in equine practice in Surrey, England.
•1996 – 2000: PhD and resident at University of Edinburgh, UK.
•2000 – 2001: Resident veterinarian, Large Animal Surgery, KVL.
•2001 – 2002: Resident veterinarian, Veterinary Reproduction and Obstetrics, KVL.
•2002 – 2006: Assistant Professor, Veterinary Reproduction and Obstetrics, KVL, including 6 months at the University of Guelph, Canada.
•2006 – present: Associate Professor, Veterinary Reproduction and Obstetrics, Department of Large Animal Sciences, University of Copenhagen, Denmark.

Project management
2003-2004: European Fifth Framework Programme: Porcine embryo cryopreservation and non-surgical transfer to improve genetic preservation and international trade: Embryo chromosomal abnormalities.
2003-2007: SJVF project: Basic reproductive research in the mare: follicular and oocyte maturation: Follicle growth and death.
2011-2015: Mælkeafgiftsfonden: Endometritis in dairy cattle.

Scientific focus areas
Equine follicle growth and regression and reproductive endocrinology:
Development of methods for determining granulosa cell apoptosis in equine follicles in order to pinpoint the timing of selection of the dominant follicle. Studies were conducted to determine whether holding ovaries at different temperatures and lengths of time would alter the state of the granulosa cells and the oocyte chromatin as most equine studies on oocytes involves transporting the ovaries for a considerable period of time. When the technique of detecting atresia and the storage conditions of ovaries were optimized, specific research into the timing of selection was conducted. Initially stage of oestrous cycle was used in order to find the selection time, but it turned out that follicle size was more important. GnRH agonist and GnRH antagonist treatments in order to determine the gonadotrophin requirements of the follicles and corpus luteum.

Chromosomal configuration in bovine and porcine embryos
Chromosomal configuration in embryos was used as a measure of embryo quality. The effect of culture and vitrification of porcine embryos on presence of chromosomal abnormalities. Culture of porcine embryos induced mixoploidy, whereas vitrification in itself did not induce mixoploidy. There was no adverse effect of hormonal stimulation of gilts on embryo chromosome constitution. The studies in pigs were used in connection with development of protocols that would allow freezing embryos for later commercial embryo transfer. The method of determining sex chromosome constitution of embryos was used to confirm that different insemination times in relation to ovulation did not affect embryo sex in cattle.

Endometritis in cattle
We are in the process of investigating the microbiome of the bovine uterus with or without endometritis at different stages post partum. Endometrial biopsies and flush samples have been taken from dairy cows at different time points post partum. These samples have been subjected to analysis for presence of inflammatory cells in the lumen of the uterus, on histological sections, and to FISH analysis for presence of bacteria, as well as 16S rRNA PCR, which in combination with next generation sequencing allows for detection of the uterine microbiome.

PhD students
Camilla D Rasmussen: Dormant streptococci infections in the equine endometrium, ending 2015.
Cecilia C Karstrup: Endometritis in dairy cattle, ending 2016.
Eva L Rasmussen: Uterine inflammation and fertility in dairy cattle, ending 2017