

IFRG 2014 meeting report – De Werelt Conference Centre, Lunteren, the Netherlands. 29/09-30/09/2014

The 2014 meeting of the Incubation and Fertility Research Group was held at the De Werelt Conference Centre, Lunteren in the central Netherlands. The conference centre is located in tranquil forest north of Wageningen, a town that is easily accessible by train from Amsterdam. 42 participants registered for the two days of the meeting, which consisted of oral sessions on *Immunity of embryos and chicken*, *Sperm quality and fertility*, *General Aspects of Incubation and Fertility*, *Thermal stimulation and epigenetics*, *Sex determination and in ovo sexing* as well as a *Poster Session*. Participants were drawn from within Europe: Eire (1) France (1), Germany (5), the Netherlands (9), Belgium (5), UK (7), Poland (2), Italy (1) and from outside: Israel (1), Turkey (3), USA (6). The *Immunity of embryos and chicken* session featured invited presentations from Prof. Silke Rautenschlein on development of immunity in the chicken and from Drs. Merlijn Kense on antibiotic usage, as well as a presentation from Pieter de Gouw from the Adaptation Physiology group at Wageningen University reporting the effects of hatching environment on immunological development. The session on the *Sperm quality and fertility* consisted of two invited presentations, the first from Dr Margherita Marzoni from University of Pisa, Italy who reviewed sperm structure and the second from Dr Murray Bakst from USDA, Maryland, USA, who was sponsored by Aviagen, on the role of sperm storage tubule microvilli in sperm storage. The session on *General Aspects of Incubation and fertility* included two presentations from Turkey, from Dr Okan Elibol (Ankara University) on the effects of heating during egg storage, and from Dr Umut Yamak (O M University) on a comparison of methods used to measure eggshell thickness. The session continued with a presentation by Mark Foote (Cobb Europe) about the effects of incubation temperature on broiler performance and from Carla van der Pol (Hatchtech and Wageningen University, the Netherlands) on the effects of light during incubation. The *Thermal stimulation and epigenetics* session opened with an invited review of the phenotypic effects of temperature training by Dr Barbara Tzschentke (Humboldt University, Germany) and was continued with two presentations from Dr Anne Collin, an invited speaker from INRA, Nouzilly, France. Dr Collin reported on the durable effects of temperature cycling on anti-oxidant pathways of the embryo, and reviewed our current knowledge of epigenetics and phenotypic variability in birds. This session concluded with a paper on modelling of embryo thermoregulatory responses by Dr. ir. Ali Youssef from KU, Leuven, Belgium. The final session on *Sex determination and in ovo sexing* opened with a review of sex determination in birds by Dr Marleen Boerjan (PAS Reform). This was followed by a wide-ranging talk by the last invited speaker, Dr Henri Woelders (Wageningen University), about the manipulation of sex ratios in poultry, which illustrated nicely the important role of science in addressing practical problems of the industry. The poster session also reflected the international flavour of the meeting with a contribution from Turkey (Bozok University) on natural and artificial incubation in geese.

MB, GB October 2014