

Royal Veterinary College Hawkshead Campus Hawkshead Lane Hatfield AL9 7TA Tel: 0044-1707-666662 Fax: 0044-1707-666375 Email: afouladi@rvc.ac.uk

To Society for Reproduction and Fertility (SRF)

Subject: SRF Academic Scholarship-report

21 March 2017

Dear Dr Watkins

I would like to take this opportunity to acknowledge the academic support scholarship I received from the SRF for a project entitled "Understanding and assessing impact of hyaluronidases (hyals) in supporting preimplantation embryo development".

The fund provided by the SRF allowed me to maintain employment of my postdoctoral research fellow Dr Tina Tremaine for 3 months. During that period Tina was able to carry out the in vitro embryo culture experiments as proposed in the application.

In addition, she helped me with ultrasound examination of pregnancy rate in sheep after surgical embryo transfer. She did also collect the samples and data from live birth rate from the experiments. I am pleased to inform the SRF that we found remarkable differences between the treatment groups and control. Unfortunately, I am not able to present the details of the data which are still unpublished. Overall, we have shown that specific size hyaluronan significantly improve sheep embryo development to blastocyst stage (on average 60% v 40% in control). These blastocysts had higher survival after cryopreservation, and, after transfer to recipient sheep resulted in higher pregnancy and live birth rates (80% v 55% in control).

I am also pleased to inform you that, the results attracted interest from a commercial company involved in human assisted reproduction. Subsequently, they provided funds to extend Tina's contract for another year.

We hope to publish all of the data during this year. Tina is currently working on 4 manuscripts containing some data which were generated during her employment using the fund from SRF. In addition, the manuscripts contain some data which were generated when Tina's employment was funded by Origio a commercial company

involved in production of culture media for human assisted reproduction. Acknowledgements will be made to SRF in all relevant publications.

Results from these studies have helped me to submit an outline proposal for BBSRC Super-Follow-on Fund submitted in March 2016 which was accepted. Subsequently, I submitted the full proposal in October 2016 entitled "HY-life: testing efficacy and safety of hyal 2 in IVF". The outcome shall be known within the next few weeks. If successful, it will provide two years employment for Dr Tina Tremaine.

Best wishes

A.A. folladis

Ali Fouladi-Nashta Reader in Reproductive Biology and Technology