

EDITORIAL

FIRST REPORTED LARGE SCALE CLONING OF CAMELS

A biotechnology miracle of cloning, through somatic cell nuclear transfer (SCNT) was done by a team of scientists from UAE, Japan, UK and China. Multiple cloned camels from racing, show and dairy exemplars were produced in a recent research. Several parameters were compared including oocyte source, donor cell and breed differences, transfer methods, embryo formation and pregnancy rates and maintenance following SCNT. Researchers successfully achieved 47 pregnancies, 28 births and 19 cloned offspring who are at present healthy and have developed normally. It is first report on cloned camels from surgical embryo transfer and correlated blastocyst formation rates with the ability to achieve pregnancies. There was no difference in the parameters affecting production of clones by camel breed, and showed clear differences on oocyte source in cloning outcomes. Taken together researchers demonstrated that large scale cloning of camels is possible and that further improvements can be achieved. Congratulations to the team P. O. Olsson, Y. B. Son, Y. Jeong, Y. W. Jeong, L. Cai, S. Kim, E. J. Choi, X. Yu, W. S. Hwang, A. H. Tinson, N. Al Shamsi, K. S. Kuhad & R. Singh, K. Sakaguchi.

(Source: Olsson, P.O., Tinson, A.H., Al Shamsi, N. *et al*, Blastocyst formation, embryo transfer and breed comparison in the first reported large scale cloning of camels. *Sci Rep* 11, 14288; 2021).

This JCPR issue completes 28 years of age and is composed of twenty one manuscripts on diverse speciality of camels. Unique papers include those from CVRL, Dubai, i.e. *Rhodococcus equi* isolated from raw camel milk and 'Alpaca Fever' in dromedary camel calves. The manuscripts on infertility on female camels and DNA barcoding of spermatozoa make good contribution towards reproduction section. Histochemical and immunohistochemical study on the thyroid gland, biomarkers of stress, ultrasonography of the thorax, mold contamination and total aflatoxins in chilled muscle and edible offals, milk somatic cell count, sarcoptic mange, testosterone and growth hormone levels in female dromedary and camel culture with wrestling union in Turkey mark important section of dromedaries. This issue has a distinct segment of six manuscripts based on Bactrian camels. These manuscripts point to the advancement of research on this species. Important manuscripts of this section include transcriptome analysis of renal tubular epithelial cells, evaluation of recombinant antigen rCPI for iELISA detection of camel parabronemiasis, neuroglobin in the Bactrian camel brain, milk-derived exosomes, *In vitro* activity of CYP2J recombinant protease and antioxidant effect of milk on acute alcoholic liver. This issue includes book review and recent news also.

I wish all my authors and members of editorial team a Merry Christmas and Happy New Year 2022. I assure you that the year 2022 will bring a new flavour and colour to the Journal of Camel Practice and Research.

(Dr. T.K. Gahlot)
Editor