

CONTENTS

Articles

- 361 Effects of quantitative trait loci and the *myostatin* locus on trace and macro elements (minerals) in bovine liver, muscle and kidney
C A Morris, C D K Bottema, N G Cullen, S M Hickey, S O Knowles, W S Pitchford
- 369 A high-resolution radiation hybrid map of the river buffalo major histocompatibility complex and comparison with BoLA
N B Stafuzza, A J Greco, J R Grant, C A Abbey, C A Gill, T Raudsepp, L C Skow, J E Womack, P K Riggs, M E J Amaral
- 377 Use of the canonical discriminant analysis to select SNP markers for bovine breed assignment and traceability purposes
C Dimauro, M Cellesi, R Steri, G Gaspa, S Sorbolini, A Stella, N P P Macciotta
- 383 Tracing the genetic roots of the indigenous White Park Cattle
A Ludwig, L Alderson, E Fandrey, D Lieckfeldt, T K Soederlund, K Froelich
- 387 Genome-wide prediction of age at puberty and reproductive longevity in sows
J K Tart, R K Johnson, J W Bundy, N N Ferdinand, A M McKnite, J R Wood, P S Miller, M F Rothschild, M L Spangler, D J Garrick, S D Kachman, D C Ciobanu
- 398 Transcriptional profiling and miRNA-dependent regulatory network analysis of longissimus dorsi muscle during prenatal and adult stages in two distinct pig breeds
P Siengdee, N Trakooljul, E Murani, M Schwerin, K Wimmers, S Ponsuksili
- 408 Genome-wide association study of osteochondrosis in the tarsocrural joint of Dutch Warmblood horses identifies susceptibility loci on chromosomes 3 and 10
N Orr, E W Hill, J Gu, P Govindarajan, J Conroy, E M van Grevenhof, B J Ducro, J A M van Arendonk, J H Knaap, P R van Weeren, D E MacHugh, S Ennis, P A J Brama
- 413 Genetic parameters and across-line SNP associations differ for natural antibody isotypes IgM and IgG in laying hens
Y Sun, F Biscarini, H Bovenhuis, H K Parmentier, J J van der Poel
- 425 Allelic heterogeneity of *FGF5* mutations causes the long-hair phenotype in dogs
C Dierks, S Mömke, U Philipp, O Distl
- 432 Genetic characterization, at the mitochondrial and nuclear DNA levels, of five Canary Island dog breeds
N M Suárez, E Betancor, R Fregel, J Pestano

Short Communications

- 442 Evaluation of genetic diversity and population structure of west-central Indian cattle breeds
T M Shah, J S Patel, C D Bhong, A Doiphode, U D Umrikar, S S Parmar, D N Rank, J V Solanki, C G Joshi
- 446 Paternal origins of Chinese cattle
R Li, X M Zhang, M G Campana, J P Huang, Z H Chang, X B Qi, H Shi, B Su, R F Zhang, X Y Lan, H Chen, C Z Lei
- 450 Molecular genetics of coat colour variations in White Galloway and White Park cattle
B Brenig, J Beck, C Floren, K Bornemann-Kolatzki, I Wiedemann, S Hennecke, H Swalve, E Schütz
- 454 Genomic regions affecting backfat thickness and cannon bone circumference identified by genome-wide association study in a Duroc pig population
N Okumura, T Matsumoto, T Hayashi, K Hirose, K Fukawa, T Itou, H Uenishi, S Mikawa, T Awata
- 458 Two completely linked polymorphisms in the *PPARG* transcriptional regulatory region significantly affect gene expression and intramuscular fat deposition in the longissimus dorsi muscle of Erhualian pigs
H Wang, K Xiong, W Sun, Y Fu, Z Jiang, D Yu, H Liu, J Chen

- 463 Swine liver methylomes of Berkshire, Duroc and Landrace breeds by MeDIPS
W Y Bang, S W Kim, S G Kwon, J H Hwang, T W Kim, M-S Ko, I-C Cho, Y K Joo, K K Cho, J Y Jeong, C W Kim
- 467 A genome-wide association study indicates *LCORL/NCAPG* as a candidate locus for withers height in German Warmblood horses
J Tetens, P Widmann, C Kühn, G Thaller
- 472 Association of a missense nucleotide polymorphism in the *MT-ND2* gene with mitochondrial reactive oxygen species production in the Tibet chicken embryo incubated in normoxia or simulated hypoxia
X Y Wang, Y He, J Y Li, H G Bao, Ch Wu
- 476 A standardized microsatellite marker panel for parentage and kinship analyses in channel catfish, *Ictalurus punctatus*
G C Waldbieser, B G Bosworth
- 480 Quantitative trait loci affecting morphology traits in gilthead seabream (*Sparus aurata* L.)
D Loukovitis, C Batargias, E Sarropoulou, A P Apostolidis, G Kotoulas, A Magoulas, C S Tsigenopoulos, D Chatziplis