

AVAILABLE ON MOBILE DEVICES

New From Annual Reviews:

Annual Review of Animal Biosciences

Volume 1 • February 2013 • http://animal.annualreviews.org

Co-Editors: Harris A. Lewin, University of California, Davis R. Michael Roberts, University of Missouri

The Annual Review of Animal Biosciences places a particular emphasis on biotechnology, genetics, genomics, and breeding; veterinary medicine, especially veterinary pathobiology, infectious diseases, and vaccine development; and conservation and zoo biology, particularly genomics.

Complimentary online access available now. Access this and all other Annual Reviews journals via your institution at www.annualreviews.org.

TABLE OF CONTENTS FOR VOLUME 1:

- Accelerating Improvement of Livestock with Genomic Selection, Theo Meuwissen, Ben Hayes, Mike Goddard
- After 65 Years, Research Is Still Fun, William Hansel
- Cats: A Gold Mine for Ophthalmology, Kristina Narfström, Koren Holland Deckman, Marilyn Menotti-Raymond
- Comparative Aspects of Mammary Gland Development and Homeostasis, Anthony V. Capuco, Steven E. Ellis
- Comparative Biology of γδ T Cell Function in Humans, Mice, and Domestic Animals, Jeff Holderness, Jodi F. Hedges, Andrew Ramstead, Mark A. Jutila
- Conservation Genomics of Threatened Animal Species, Cynthia C. Steiner, Andrea S. Putnam, Paquita E.A. Hoeck, Oliver A. Ryder
- Cross Talk Between Animal and Human Influenza Viruses, Makoto Ozawa, Yoshihiro Kawaoka
- Effects of Heat Stress on Postabsorptive Metabolism and Energetics, Lance H. Baumgard, Robert P. Rhoads Jr.
- Epigenetics: Setting Up Lifetime Production of Beef Cows by Managing Nutrition, R.N. Funston, A.F. Summers
- *Evolution of B Cell Immunity,* David Parra, Fumio Takizawa, J. Oriol Sunyer
- Genetically Engineered Pig Models for Human Diseases, Randall S. Prather, Monique Lorson, Jason W. Ross, Jeffrey J. Whyte, Eric Walters

- Genetics of Pigmentation in Dogs and Cats, Christopher B. Kaelin, Gregory S. Barsh
- In Vivo and In Vitro Environmental Effects on Mammalian Oocyte Quality, Rebecca L. Krisher
- Integrated Genomic Approaches to Enhance Genetic Resistance in Chickens, Hans H. Cheng, Pete Kaiser, Susan J. Lamont

- Making Slaughterhouses More Humane for Cattle, Pigs, and Sheep, Temple Grandin
- Phytase, A New Life for an "Old" Enzyme, Xin Gen Lei, Jeremy D. Weaver, Edward Mullaney, Abul H. Ullah, Michael J. Azain
- Porcine Circovirus Type 2 (PCV2): Pathogenesis and Interaction with the Immune System, Xiang-Jin Meng
- Systems Physiology in Dairy Cattle: Nutritional Genomics and Beyond, Juan J. Loor, Massimo Bionaz, James K. Drackley
- The Equine Endometrial Cup Reaction: A Fetomaternal Signal of Significance, D.F. Antczak, Amanda M. de Mestre, Sandra Wilsher, W.R. Allen
- The Evolution of Epitheliochorial Placentation, Anthony M. Carter, Allen C. Enders
- The Role of Productivity in Improving the Environmental Sustainability of Ruminant Production Systems, Judith L. Capper, Dale E. Bauman



ANNUAL REVIEWS • Guiding Scientists to Essential Research Since 1932 TEL: 800.523.8635 (us/can) • TEL: 650.493.4400 (worldwide) Fax: 650.424.0910 (worldwide) • EMAIL: service@annualreviews.org



Instructions to **Contributors**

Full Directions to Contributors, of which this is a summary, can be found at the following web site http://titles.cambridge.org/journals/journal_catalogue.asp?mnemonic=dar

General

The Journal of Dairy Research publishes reports on all aspects of dairy science from any country. Material for publication should be sent to the Editor: **DG Chamberlain, Hannah Research Park, Mauchline Road, Ayr KA6 5HL, UK.** Receipt of all material will be acknowledged. Submission of a paper will be taken to imply that it reports original unpublished work, that it is not under consideration elsewhere, and that if accepted by the Journal it will not be published elsewhere in any language without the consent of the Editors. Authors of articles published in the journal assign copyright to Cambridge University Press (with certain rights reserved) and you will receive a copyright assignment form for signature on acceptance of your paper.

Submission of Papers

Papers should be written in English using the spelling of the Concise Oxford Dictionary and should as far as possible be comprehensible to the non-specialist reader. They should be concise, but without omitting necessary material, and contain sufficient detail to allow repetition of the work.

Papers may be submitted electronically. The summary should be included as a separate Word file suitable for distribution to potential referees. Electronic submissions may be sent by post on disc or as e-mail attachments (jdr@hannahresearch.org.uk) a Word document file. Submitted manuscripts must be limited in length to a maximum of 6000 words allowing 250 words per fig or table. This is approximately the equivalent of a Word document of 18 A4 pages of doublespaced 12pt Times New Roman font.

Layout of Papers

Authors should consult the most recent issue of the Journal to familiarize themselves with Journal conventions and layout. Attention to these and other details will speed publication.

The paper should generally be divided as follows. (a) **Cover sheet** with the title of the article, names of authors each with one forename, together with their affiliations, a shortened version of the title suitable as a heading, and the name, postal address and e-mail address for correspondence. (b) A brief Summary should encapsulate the whole paper, showing clearly the new knowledge acquired. (c) The introduction, without heading, should not contain a full literature review, but should indicate why the subject of enquiry is interesting or important, and why the authors have chosen the approach described. (d) The Experimental or Materials and Methods section should contain adequate descriptions of procedures or appropriate references; sources of all materials (including address with post code) and sources or strains of animals, microorganisms and so on should be indicated. (e) Results should be as concise as possible, without repetition or inclusion of irrelevant material. Tables and illustrations should be used efficiently. (f) The Discussion should not repeat the results but discuss their significance. A combined Results and Discussion section is quite acceptable. Any acknowledgements are given in a separate paragraph without heading. It is the responsibility of the authors to ensure that individuals or organizations acknowledged as providing materials or otherwise are willing to be identified. (g) References. For some types of paper, other divisions may be preferable. Pages should be numbered; the addition of line numbers will aid refereeing.

References

References should be given in the text as Brown & Jones (1987) or (Schmidt, 1985; Nakamura et al. 1989); the first author with

et al. is used for papers with three or more authors. Where necessary, papers are distinguished as Lenoir (1988a), (Litov et al 1990a, b). When several references appear together in the text, cite them in chronological order, and alphabetically within years. The Reference list at the end of the paper, which should begin on a fresh page, is given in strict alphabetical order. Authors should refer to a recent issue for the format of references.

Tables

Tables should be numbered and carry headings enabling them to be understood without reference to the text. Each Table should be typed on a separate sheet. Symbols for footnotes should be in the order: \uparrow , \downarrow , \S , \P , $\uparrow\uparrow$, etc. The use of *, **, etc, should be limited to indicating levels of significance.

Illustrations

Printed originals of figures and photographs should be provided as best possible quality. Figures such as graphs must be supplied in an editable file format, such as Excel. The use of bar graphs and histograms should be restricted, as the information can often be better presented in a table. In the presentation of results, experimental points should be indicated by symbols, used in order: $\bigcirc, •, \triangle, \blacktriangle, \square, \blacksquare, \times, +$. Scale marks should be on the inside of the axes. Each Figure should be provided with a legend such that with the Figure it is comprehensible without reference to the text. Figure legends should be typed on a separate sheet or sheets, beginning Fig. 1.

Photographs should be glossy black and white prints accompanied by a legend as above. Scale bars on the photograph should be used, not magnifications in the legend. Colour plates can be included but these will normally result in a charge to the authors. Uncompressed electronic copies (e.g. TIFF files) may also be supplied.

Statistical Treatment

Individual results should not normally be given. The methods of statistical analysis should be clearly described; a suitable reference is adequate. Authors should make it clear whether they are quoting (e.g.) sp or se. Any statement that two groups of values are different should be supported by the level of significance involved, as a single or range of *P* value: (*P* = 0.008) or (*P* < 0.01). Differences should not be claimed or implied if *P* > 0.05.

Gene Sequences

Original DNA sequences reported in JDR must also be submitted to GenBank. Instructions can be found at http://www.ncbi.nlm.nih. gov/Genbank/index.html>

Ethics of Experiments

Authors are expected to adhere to the relevant codes covering human subjects and the use of animals.

Proofs

Authors will be advised when to expect proofs, which should be returned without delay to the appropriate editor. Proofs are sent for the correction of any printer's or editorial errors, not for addition of new material or revision of the text. Excessive alteration may have to be disallowed or made at the authors' expense, and may delay publication. Order forms for offprints are sent with proofs and should be returned directly to The Cambridge University Press.

Journal of Dairy Research

CONTENTS

ORIGINAL ARTICLES

ORIGINAL ARTICLES	
 Growth hormone gene variability and its effects on milk traits in primiparous Sarda goats ML Dettori, AM Rocchigiani, S Luridiana, MC Mura, V Carcangiu, M Pazzola and GM Vacca 	255
 Protective effect of bifidobacteria in an experimental model of <i>Clostridium difficile</i> associated colitis FM Trejo, GL De Antoni and PF Pérez 	263
 Selective enumeration of propionibacteria in Emmental-type cheese using Petrifilm[™] Aerobic Count plates added to Lithium Glycerol broth R de Freitas, LM Pinheiro Luiz, MP Alves, F Valence-Bertel, LA Nero and AF de Carvalho 	270
 Composition and textural properties of Mozzarella cheese naturally-enriched in polyunsaturated fatty acids M Caroprese, A Sevi, R Marino, A Santillo, A Tateo and M Albenzio 	276
 Effect of high pressure on the structure and antibacterial activity of bovine lactoferrin treated in different media I Franco, MD Pérez, E Castillo, M Calvo and L Sánchez 	283
 Regulation of milk protein solubility by a whey-derived proline-rich peptide product SN Selby-Pham, K Howell, H Jegasothy, P Sheean, T Singh, C Taylor and LE Bennett 	291
 Effect of farming strategies on environmental impact of intensive dairy farms in Italy M Guerci, L Bava, M Zucali, A Sandrucci, C Penati and A Tamburini 	300
 Oral supplementation of medium-chain fatty acids during the dry period supports the neutrophil viability of peripartum dairy cows S Piepers and S De Vliegher 	309
 Salt equivalence and temporal dominance of sensations of different sodium chloride substitutes in butter VR de Souza, TV Marques Freire, CG Saraiva, J de Deus Souza Carneiro, AC Marques Pinheiro 	010
and CA Nunes	319

 A simple competitive enzyme-linked immunosorbent assay for the specific detection of the multiphosphorylated 1-25 β-casein fragment A Kume, A Sasayama, T Kaneko, J Kurisaki and M Oda 326 · Principal component analysis for the early detection of mastitis and lameness in dairy cows B Miekley, I Traulsen and J Krieter 335 Overmilking causes deterioration in teat-end condition of dairy cows in late lactation JP Edwards, B O'Brien, N Lopez-Villalobos and JG Jago 344 Ultrasonicated Enterococcus faecium SF68 enhances neutrophil free radical production and udder innate immunity of drying-off dairy cows H-Y Peng, A Tiantong, S-E Chen, P Piamya, W-B Liu, H-C Peh, J-W Lee, M-T Chen, H Nagahata and C-J Chang 349 · Relationship between previous history of Streptococcus uberis infection and response to a challenge model S-A Turner, JH Williamson, SJ Lacy-Hulbert and JE Hillerton 360 · Isolation and identification of antioxidant peptides derived from whey protein enzymatic hydrolysate by consecutive chromatography and Q-TOF MS Q-X Zhang, H Wu, Y-F Ling and R-R Lu 367 · Use of whey permeate containing in situ synthesised galacto-oligosaccharides for the growth and preservation of Lactobacillus plantarum M Golowczyc, C Vera, M Santos, C Guerrero, P Carasi, A Illanes, A Gómez-Zavaglia and E Tymczyszyn 374 **ERRATUM** A simple competitive enzyme-linked immunosorbent assay for the specific detection of the multiphosphorylated 1-25 β-casein fragment 334

Content alerts

Register online to receive free content alerts journals.cambridge.org/dar-alerts



MIX Paper from responsible sources FSC[®] C007785

