## SCIENCE'S COMPASS

Near Eastern focus on the origins of animal husbandry that is primarily an artifact of the history of archaeological exploration.

> Ronan T. Loftus David E. MacHugh **Patrick Cunningham** Daniel G. Bradley

Department of Genetics, Smurfit Institute, Trinity College, Dublin 2, Ireland. E-mail: rloftus@tcd.ie

### References

- 1. R. H. Meadow, in The Origins and Spread of Agriculture and Pastoralism in Eurasia, D. R. Harris, Ed. (University College London Press, London, 1996), pp.
- 2. R. T. Loftus, D. E. MacHugh, D. G. Bradley, P. M. Sharp, P. Cunningham, Proc. Natl. Acad. Sci. U.S.A. 91, 2757 (1994); D. E. MacHugh, M. D. Shriver, R. T. Loftus, P. Cunningham, D. G. Bradley, Genetics 146, 1071
- 3. D. G. Bradley, D. E. MacHugh, P. Cunningham, R. T. Loftus. Proc. Natl. Acad. Sci. U.S.A. 93, 5131 (1996).
- 4. T. Watanabe, Y. Hayashi, N. Ogasawara, T. Tomoita, Biochem. Genet. 23, 105 (1985).
- 5. S. Hiendleder, K. Mainz, Y. Plante, H. Lewalski, J. Hered. 89, 113 (1998).

## Carbon Sink: A Clue from **Biosphere 2?**

The possibility of a "vast greenhouse gas sponge," or carbon sink, existing in North America (J. Kaiser, News of the Week, 16 Oct., p. 386) calls to mind the enigma of the progressive decline of oxygen in the atmosphere of Biosphere 2 during the 1991-93 period, when I was the inside physician. The oxygen concentration went from 21% to 14% in approximately 16 months after closure and sealing of the structure, at which time, because of developing hypoxia of the crew, oxygen was pumped in. Carbon dioxide was elevated during most of those 16 months, ranging from about 1200 to 3000 parts per million. Investigation finally revealed that the carbon dioxide was combining with the cement of the structure, carrying oxygen along with it to form calcium carbonate (1), hence the fall in oxygen concentration. One notes from Kaiser's article that the alleged carbon sink seems biggest over the eastern seaboard, that is, where there is a high concentration of cities as opposed to forests. I do not suggest that a sink of this magnitude could be explained in this fashion, but thinking wholly in terms of traditional sites of carbon storage on land (forest regrowth, abandoned farmland, soils and wetlands) may not account for the

Roy L. Walford Department of Pathology, Medical Center, University of California, Los Angeles, CA 90095, USA. Email: rwalford@pathology.medsch.ucla.edu

#### References

1. J. P. Severinghaus, W. S. Broecker, W. F. Dempster, T. MacCallum, M. Wahlen, Eos 75, 33 (1994).

## **CORRECTIONS AND CLARIFICATIONS**

Contrary to the Editors' note and the photo caption in the Letters section of 1 January (Science's Compass, p. 33), Cressy, shown in the photo, was indeed a heifer. Her lactation was induced by hormone treatment, not by bearing a calf. The editors apologize to the readers, to the researchers whose work was described, and to Cressy for the mixup.

In the 18 December NetWatch section (p. 2147), the Web address given for Science's Breakthrough of the Year was incorrect. It should have been "www.sciencemag.org/ cgi/content/full/282/5397/2156a."

In the Review Article "Magnetoelectronics" by Gary A. Prinz (Science's Compass, 27 Nov., p. 1660), the next-to-last sentence in the first column of page 1662 should have begun, "Spin-polarized tunneling between two ferromagnetic films was first reported in 1975...."

## 1999 Current Topics in **Gene Expression Systems Meeting**

March 28-31, 1999 Catamaran Resort Hotel, San Diego, California

Join researchers from around the world at the fourth Current Topics in Gene Expression Systems Meeting and learn about the latest advances in gene expression technology.

Current Topics in Gene Expression Systems is the leading meeting of its kind. It represents an excellent opportunity for scientists to learn more about emerging technologies in gene expression systems and to interact with leaders in the field. Attendees will be exposed to a diversity of gene expression systems including bacterial, yeast, insect, mammalian, and

Space is limited so don't miss your chance to participate in this stimulating, international meeting. For more information about registration or presenting your work in a talk or poster, contact Elizabeth Garon or visit the meeting web site at www.invitrogen.com/99gene\_expmtg.html.

Registration deadline: February 26, 1999

## Contact:

Elizabeth Garon Phone: (760) 603-7208 • Fax: (760) 603-7201 e-mail: bethg@invitrogen.com

This meeting is cosponsored by Invitrogen and Research Corporation Technologies



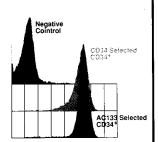


whole story.

# Primary Human Hematopoietic Cells

- Unprocessed bone marrow
- Bone marrow CD34<sup>+</sup> cells
- CD34<sup>+</sup>CD38<sup>-</sup> cells
- Cord blood CD4<sup>+</sup> T cells
- Dendritic cell precursors
- Cord blood CD19<sup>+</sup> B cells
  - Committed erythroid progenitors
  - 4-species panel of bone marrow mononuclear cells
  - Hematopoietic assays (colony assays, LTC-IC and ELISA)

Flow cytometric analysis of human bone marrow progenitors. CD34+ progenitor cell purity is >95%. Quantities of 3 x 10<sup>5</sup> to 2 x 10<sup>7</sup> cells are available from single or multiple donors. AC133<sup>+</sup> progenitors, a subset of the CD34+ cell population, are also available.



· Bone marrow mononuclear cells

Bone marrow AC133<sup>+</sup> cells

Irradiated stromal cells



The 1999 Poietic Technologies catalog is now available. Contact us today and we will send you this 8 page listing of all of our products and assays.

## Poietic Technologies, Inc.

904 Wind River lane # 102, Gaithersburg, MD 20878 tel: 888-926-9211; fax 301-926-9224 www.poietic.com

Circle No. 24 on Readers' Service Card