

- M. Harding *et al.*, *Am. J. Hum. Gen.* **60**, 722 (1997);
 N. Maeda, J. Bliska, O. Smithies, *Proc. Natl. Acad. Sci. U.S.A.* **80**, 5012 (1983).
 7. E. E. Harris and J. Hey, *Proc. Natl. Acad. Sci. U.S.A.* **96**, 3320 (1999).

Response

Wolpoff's substantive criticism of our paper is that we recognized far more species of *Homo* than are compatible with the "majority interpretation of Pleistocene human evolution." In response, we should like to point out that we never actually claimed that our interpretation is the majority one. Rather, we made it clear (in the second column of page 65) that there are two schools of thought regarding the number of species of *Homo*, and that we were deliberately opting for the more speciose of the taxonomies favored by these schools. We suggested that there were theoretical and practical reasons for recognizing multiple *Homo* species, and cited a paper by Tattersall in which those reasons are explained. In short, Wolpoff may disagree with our taxonomy and reject our reasons for choosing it, but he cannot say that we presented a misleading account of current views on specific diversity in *Homo*.

Bernard Wood

Department of Anthropology, George Washington University, 2110 G Street, NW, Washington, DC 20052, USA. E-mail: bwood@gwis2.circ.gwu.edu

Mark Collard

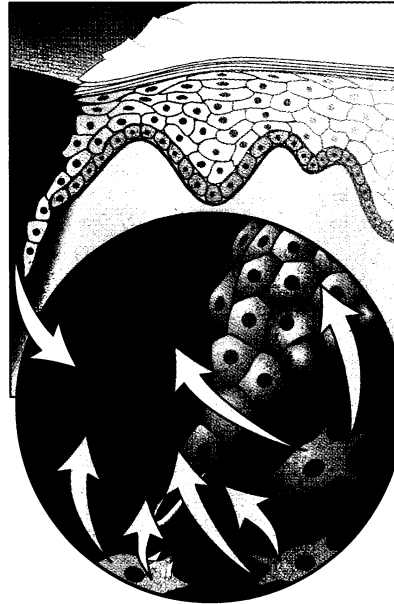
Department of Anthropology, University College London, Gower Street, London WC1E 6BT, UK. E-mail: m.collard@ucl.ac.uk

Wound Healing

The excellent work of Vishwanath R. Iyer and his colleagues, described in the report "The transcriptional program and the response of human fibroblasts to serum" (1 Jan., p. 83), will surely lead to important advances in wound healing. However, some of the comparisons to wound healing that are made by the authors and in the accompanying News of the Week article (E. Pennisi, 1 Jan., p. 17) do not appear to be fully warranted.

Reexposing starved, pure cultures of fibroblasts to dilute serum is only superficially similar to wound healing, where fibroblasts (i) are not alone, (ii) are not serum starved, and (iii) are exposed to an environment which, although based in serum, is highly modified.

The implication should not be given that fibroblasts are commonly thought to be passive responders in wound healing. We know that fibroblasts participate actively in wound healing. We know that they condition the environment with a variety of substances ranging from lactate to growth factors. However, fibroblasts are not prime movers, either. In wound healing, the temporal relationship is injury, fol-



"Reexposing starved, pure cultures of fibroblasts to dilute serum is only superficially similar to wound healing."

lowed by inflammation, followed by fibroplasia and angiogenesis. Without inflammation, fibroplasia is severely limited. In terms of spatial relationships, macrophages lead fibroblasts and endothelial cells into the blood or fibrin clot or the residual connective tissue matrix. It is well understood that fibroblasts replicate much of what macrophages and lymphocytes do, but to a lesser degree.

Thomas K. Hunt

Department of Surgery, School of Medicine, University of California, San Francisco, San Francisco, CA 94143-0522, USA

John Burke

Emeritus, Department of Surgery, Harvard University Medical School, Boston, MA 02115, USA

Adrian Barbul

Department of Surgery, Johns Hopkins Medical School, and Department of Surgery, Sinai Hospital of Baltimore, Baltimore, MD 21218, USA

Michael L. Gimbel

Department of Surgery, School of Medicine, University of Pittsburgh, Pittsburgh, PA 15213, USA, and Department of Surgery, School of Medicine, University of California, San Francisco, San Francisco, CA 94143-0522, USA

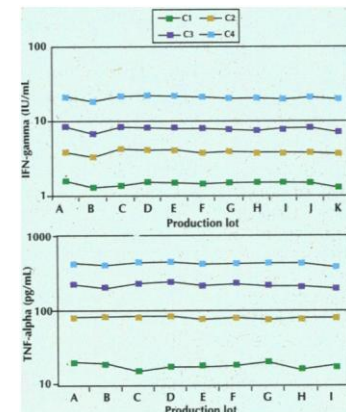
Critical Volume Fraction: Second Model

With respect to the report I co-authored with S. F. Ackley and V. I. Lytle, "The percolation phase transition in sea ice" (18 Dec. 1998, p. 2238), I would like to thank Jay Janzen for making me aware of his work on the critical volume fraction ϕ_c for conduction in a compressed powder of large polymer particles and much smaller metal particles. Had I been aware of two of his papers (1, 2) (which were



Validated for Human Serum and Plasma

- One or two plate ELISA format
- Manufactured under strict ISO9001 guidelines
- Lot-to-lot consistency
- Use of F(ab)₂ fragments
- Well referenced in literature
- Standardized to NIBSC (when available)



Individual production lots were analyzed using 4 levels of control specimens according to standard protocol. Inter-lot CV for all controls ranged from 5.1-6.6% for IFN- γ and 3.1-8.7% for TNF- α .

For research use only.



(800) 242-0607 • FAX: (805) 987-3385
 e-mail: tech.support@biosource.com
 www.biosource.com

Circle No. 31 on Readers' Service Card

SCIENCE'S COMPASS

not mentioned in some subsequent reviews of this field), I most certainly would have referenced them. In addition, I would have given in my footnote 23 his form of the approximate formula for ϕ_c , along with R. P. Kusy's (3).

Upon reading Janzen's papers, I found them more theoretically appealing than Kusy's approach, although, as remarked in the abstract of Janzen's 1980 *Journal of Applied Physics* paper (2), the two models yield quantitative results that are "practically equivalent." I find that both approaches shed significant light on the problem.

Kenneth M. Golden

Department of Mathematics, University of Utah,
Salt Lake City, UT 84112-0090, USA. E-mail:
golden@math.utah.edu

References

1. J. Janzen, *J. Appl. Phys.* **46**, 966 (1975).
2. —, *ibid.* **51**, 2279 (1980).
3. R. P. Kusy, *ibid.*, **48**, 5301 (1977)

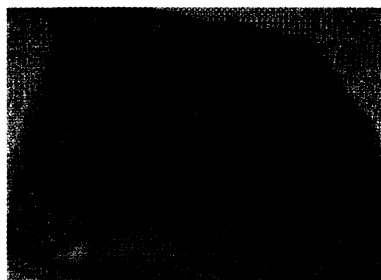
CORRECTIONS AND CLARIFICATIONS

In figure 3C (p. 953) of the report "Requirement for type 2 NO synthase for IL-12 signaling in innate immunity" by A. Diefenbach et al. (7 May, p. 951), the line above DETA and DETA/NO should have been bro-

ken between lanes 7 and 8 to show the demarcation between treatments.

In the Letter "Inner sanctum" by R. M. Cook-Deegan (*Science's Compass*, 23 Apr., p. 589), the first sentence should have read, in part, "abandoning the term 'peer review' in favor of 'merit review'...."

The photograph accompanying the News Focus article by Elizabeth Pennisi "From embryos and fossils, new clues to vertebrate evolution" (23 Apr., p. 575) was printed upside-down. The photograph appears correctly below.



In the ScienceScope item "Delayed ... or dead? (2 Apr., p. 21), it should have been stated that the park being discussed is Yellowstone National Park.

In the map accompanying Richard Stone's article "Coming to grips with the Aral Sea's grim legacy" ("Dying Seas," *News Focus*, 2 Apr., p. 30), the country labeled "Iraq" is actually Iran.

In the title and the text of the article "DESY puts the spin into gluons" (A. Hellemaans, *News of the Week*, 2 Apr., p. 27), it is incorrectly stated that gluons have been found to have spin by the HERMES detector at DESY. As is also stated in the article, HERMES actually found that gluons in nucleons carry part of the nucleon's spin.

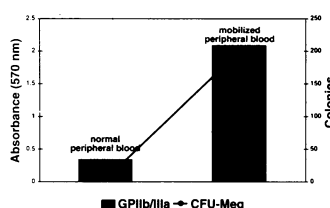
In the Tech.Sight item "Sequencing the genome, fast" by J. C. Mullikin and A. A. McMurray (*Science's Compass*, 19 Mar., p. 1867), an error was introduced during editing. The second sentence should have read, "The four bases found in the nucleotides that are linked to form long double helical chains are adenine, thymidine, guanine, and cytosine."

In the fourth paragraph (p. 1827) of the response by Bruce P. Lanphear (Letters, *Science's Compass*, 4 Dec., p. 1826) to the letter by Lynn R. Goldman (4 Dec., p. 1825), under the title "Lead regulation," "25 grams" should have been "25 milligrams."

Primary Human Hematopoietic Cells

- Unprocessed bone marrow
- Bone marrow CD34⁺ cells
- CD34⁺CD38⁻ cells
- Cord blood CD4⁺ T cells
- Dendritic cell precursors
- Bone marrow mononuclear cells
- Bone marrow AC133⁺ cells
- Irradiated stromal cells
- Cord blood CD19⁺ B cells
- Committed erythroid progenitors
- 4-species panel of bone marrow mononuclear cells
- Hematopoietic assays (colony assays, LTC-IC and ELISA)

Poietic Technologies performs an array of contract bioassay services. Data from the Lineage Marker ELISA, which documents the differentiation of CD34⁺ progenitors into specific cell lineages (e.g. megakaryocytes as shown here), correlate well with traditional colony assay data. This assay provides a high-throughput format for screening/drug discovery research.



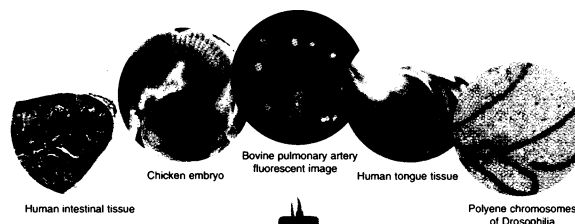
The 1999 Poietic Technologies catalog is now available. Contact us today and we will send you this 8 page listing of all of our products and assays.

POIETICS™

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

BIO*WHITTAKER
A CAMBREX Company

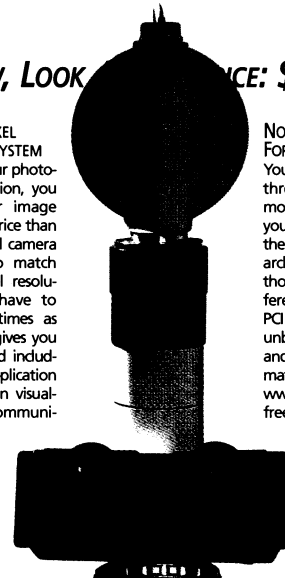
LOOK AT THESE IMAGES.



Now, Look at THESE IMAGES: \$1195.*

THE 1-MILLION-PIXEL DIGITAL CAMERA SYSTEM
No matter what your photomicroscopy application, you cannot get better image quality at a lower price than with a Pixera digital camera system. In fact, to match Pixera's million-pixel resolution, you would have to spend at least 5 times as much. And Pixera gives you everything you need including a full suite of application software so you can visualize, create and communicate.

NOW—THE PERFECT TOOL FOR TELEMEDICINE.
You can capture two- or three-dimensional still or moving images directly to your PC, Mac, or laptop and then manipulate, organize, archive, and communicate those images via video conferencing or e-mail. A new PCI card makes the system unbelievably easy to install and to use. For more information, visit our web site at www.pixera.com or call toll-free 1-888-4 PIXERA.



pixera

*US list price

All images were captured at 1280 x 1024 pixels with a Pixera Professional Digital Camera mounted on a microscope with a standard C-mount adapter.
140 Knowles Drive, Los Gatos, CA 95030 www.pixera.com ©1998 Pixera Corporation.

Circle No. 32 on Readers' Service Card