

that a more balanced approach would be to publish an article which presents the strengths and achievements of environmental epidemiology.

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Science Professionals in Spain

In 1992, a large number of young Spanish scientists in postdoctoral training abroad were attracted back to Spain by a national program that offered 3-year contracts associated with granted research projects. However, the Spanish government has decided not to extend those contracts, apparently forgetting the reason why those people were attracted back. Permanent or nonpermanent positions offered by the universities or the Council for Scientific Research (CSIC) are scarce and mostly determined by friendship rather than by scientific criteria.

Spain cannot afford to waste time and money invested in our training, but this may happen because most of us are considering going abroad.

In view of this situation, we call for a

dignified, professional career, adequately paid, that would secure continuity of employment after regular assessments. We propose:

1) The removal of the 3-year limit on hiring contracts, as well as the reinstatement of those researchers already unemployed due to the termination of their contracts.

2) The creation of a position of researcher, not civil servant, with a 5-year contract that could be extended on the basis of professional performance. Researchers would have total independence in setting their research priorities, should be able to participate in more than one research project—even as main researcher, and be allowed to supervise the training of pre- and postdoctoral personnel. This figure is similar to that of other countries. It has been considered by some members of CSIC and has also been contemplated in the first draft of the bill for updating the University Reform Law (LRU).

3) The creation of enough long term positions, in a sustained manner in accordance with training initiatives, to secure the incorporation of this group of researchers into the scientific system in Spain.

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Heso-no-O: A Gift

We read with great interest "Umbilical cords: Turning garbage into clinical gold" by Clare Thompson (Research News, 12 May, p. 805), which indicated that umbilical cord blood is a valuable source for blood transplantation because it contains many stem cells and can be stored. We would like to propose one more useful application of umbilical cords. It is a traditional custom for Japanese parents to keep their baby's umbilical cord stumps (Heso-no-O). When an umbilical cord falls from a baby, it is preserved under dryness, put in a tiny box, and handed to the parents, so that they can keep the mummified tissue as long as they


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want. We propose that the mummified cord stump serve as a source of genetic information for an individual.

We found a family with decreased cholinesterase activity in serum and carried out a genetical study on the gene encoding for the enzyme butyrylcholinesterase (1). The family members were cooperative and agreed to provide blood samples. But the parents were reluctant to have blood drawn from their children (a 1-year-old boy and a newborn infant) and provided small pieces of umbilical cord stumps instead. Sequencing was successful and revealed a mutation (1).

One of us happened to remember that he had been keeping the umbilical cord stump of his son. We analyzed its DNA and obtained a normal sequence of the gene for use as a control. The son was 20 years old at the time of our investigation, which indicates that an umbilical cord stump can be used for genetic analyses even after 20 years.

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References

1. S. Iida *et al.*, *Hum. Mutat.* **6**, 349 (1995).

I write to commend Clare Thompson on her excellent article. She has provided a lucid summary of recent developments in a complex area that includes hematology, immunology, and genetics. I would like to note that, with respect to the "first cord blood bank in the UK," one was established by the Northern Ireland Blood Transfusion Service in November 1994.

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I would like to object to the flippant references to umbilical cords in Thompson's otherwise excellent and illuminating article. In the title and first three sentences alone the umbilical cord is referred to as "garbage," "detritus," and "discard." This "garbage" intimately and beautifully connects sentient beings for 9 months.

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Corrections and Clarifications

In the reply by Kathy Hudson and Francis Collins (1 Dec., p. 1423) to the letter from Arnold Dicke (1 Dec., p. 1422), Republican Senator Mark Hatfield of Oregon is incorrectly identified as a Democrat. *Science* regrets the error, which was introduced during editing.

The authors of the two Policy Forums in the special section "Science in China" (17 Nov., pp. 1153 and 1154, respectively) should have been identified as Zhou Guangzhao and Zhu Lilan, respectively, in the Table of Contents for the issue of 17 November (p. 1095).

Letters to the Editor

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