pecific lung nodules may make radiologic confirmation difficult. This case demonstrates the use of a minimally invasive technique to sample blood from the pulmonary veins (in a fashion analogous to sampling from the inferior petrosal vein) to localize an ectopic pulmonary source of corticotropin and determine its cause.

Lan Vu, M.D.
Pierre R. Theodore, M.D.
University of California at San Francisco
San Francisco, CA 94131
theodorep@surgery.ucsf.edu


Developing Countries and Bioethical Research

TO THE EDITOR: According to some estimates, less than 10 percent of the world’s biomedical research-and-development funds are dedicated to addressing problems that are responsible for 90 percent of the world’s burden of disease. What is more, some observers think that the focus of bioethical discussions is biased toward ethical problems that affect wealthy, developed nations. This imbalance could be explained in part by the scarcity of authors who live in developing countries. Our research has looked into whether there is a serious underrepresentation of investigators from the developing world in publications in the field of bioethics.

We categorized countries on the basis of the World Bank’s classification of high-income economies and developing economies. Thereafter, we hunted for research articles in nine international, peer-reviewed journals in the field of bioethics (Bioethics, the Cambridge Quarterly of Healthcare Ethics, the Hastings Center Report, the Journal of Clinical Ethics, the Journal of Medical Ethics, the Kennedy Institute of Ethics Journal, Nursing Ethics, Christian Bioethics, and Theoretical Medicine and Bioethics) that were published from 1990 to 2003. The country of the first author’s affiliation was indexed. A total of 4029 research articles were retrieved from the nine journals under study (Table 1). Investigators from high-income economies contributed to 3873 of the publications (96.1 percent), and those from developing economies contributed to 156 (3.9 percent).

In addition, the findings suggest that there has been no significant upward trend in the number of publications from developing countries. The results of the chi-square test for two independent samples ($\chi^2=2.6775$, $P=0.10$) indicate that from 1997 to 2003, the number of studies coming from developing countries (96) did not increase significantly over that from 1990 to 1996 (60). There were no publications at all from 123 of 154 developing countries (79.9 percent). Most publications from developing economies come from China (24 [15.4 percent]), Turkey (18 [11.5 percent]), and South Africa (17 [10.9 percent]).

Our research documented a low input from re-

<table>
<thead>
<tr>
<th>Variable</th>
<th>High-Income Countries (N=54)</th>
<th>Developing Countries (N=154)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research articles published — no./total no. (%)</td>
<td>3873/4029 (96.1)</td>
<td>156/4029 (3.9)</td>
</tr>
<tr>
<td>Countries represented in publications — no./total no. (%)</td>
<td>28/54 (51.9)</td>
<td>31/154 (20.1)</td>
</tr>
<tr>
<td>Top 5 countries contributing articles — no./total no. (%)</td>
<td>United States — 2390/3873 (61.7)</td>
<td>China — 24/156 (15.4)</td>
</tr>
<tr>
<td></td>
<td>United Kingdom — 544/3873 (14.0)</td>
<td>Turkey — 18/156 (11.5)</td>
</tr>
<tr>
<td></td>
<td>Canada — 160/3873 (4.1)</td>
<td>South Africa — 17/156 (10.9)</td>
</tr>
<tr>
<td></td>
<td>Australia — 154/3873 (4.0)</td>
<td>Hungary — 11/156 (7.0)</td>
</tr>
<tr>
<td></td>
<td>The Netherlands — 109/3873 (2.8)</td>
<td>Philippines 10/156 (6.4)</td>
</tr>
</tbody>
</table>
searchers in developing countries to the scientific bioethical literature. This finding corresponds with those of similar studies on the geography of biomedical publications. Although peer-reviewed journals in the field of bioethics present themselves as international in scope, they certainly do not live up to what one would expect from an “international” journal. They remain mainly European and American. As potential remedies, the inclusion of internationally representative members on editorial boards, partnerships between researchers from high-income countries and researchers from developing countries, and twinning arrangements should be considered. This effort could shift the focus much more to ethical problems that arise in developing countries and give bioethics a real international scope.

Pascal Borry, M.A.
Paul Schotsmans, Ph.D.
Kris Dierickx, Ph.D.
Katholieke Universiteit Leuven
3000 Leuven, Belgium
pascal.borry@med.kuleuven.be


Correspondence Copyright © 2005 Massachusetts Medical Society.

INSTRUCTIONS FOR LETTERS TO THE EDITOR

Letters to the Editor are considered for publication, subject to editing and abridgment, provided they do not contain material that has been submitted or published elsewhere. Please note the following: • Letters in reference to a Journal article must not exceed 175 words (excluding references) and must be received within three weeks after publication of the article. Letters not related to a Journal article must not exceed 400 words. All letters must be submitted over the Internet at http://authors.nejm.org. • A letter can have no more than five references and one figure or table. • A letter can be signed by no more than three authors. • Financial associations or other possible conflicts of interest must be disclosed. (Such disclosures will be published with the letters. For authors of Journal articles who are responding to letters, this information appears in the original articles.) • Include your full mailing address, telephone number, fax number, and e-mail address with your letter.

Our Web address: http://authors.nejm.org

We cannot acknowledge receipt of your letter, but we will notify you when we have made a decision about publication. Letters that do not adhere to these instructions will not be considered. Rejected letters and figures will not be returned. We are unable to provide prepublication proofs. Submission of a letter constitutes permission for the Massachusetts Medical Society, its licensees, and its assignees to use it in the Journal’s various print and electronic publications and in collections, revisions, and any other form or medium.