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- Cover Story
- In the News
- In the Societies
- Letter to the Editor
- Ethics, Law and Public Policy Column
- Resources
- Announcements

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The Role of Scientific and Engineering Societies in Eastern Europe

By Mark S. Frankel

The democratic and economic transition in Eastern Europe has far-reaching implications for science and for scientists, who have gained greater professional autonomy and new possibilities to participate in policymaking and to develop standards of conduct. As they emerge from the clutches of communism, scientists and engineers will need to develop mechanisms of professional self-regulation that will foster a commitment to high standards of research and professional ethics, consider ways to participate in the policymaking process in a manner that transcends professional self-interest, and find ways to inform the public about the technical aspects of policy issues and to address the public concerns regarding the social and ethical implications of advances in science and technology. Scientific and technical societies have a major role to play in these processes.

Under communism, the activities of scientific and technical societies in Eastern Europe were circumscribed--albeit to varying degrees, by country and by discipline--by the exigencies of single party rule and central planning. These societies benefited from the relatively high priority accorded to science and technology by the ruling communist parties; scientific conferences and journals were heavily subsidized by the state, as were educational programs designed to explain science to the public. At the same time, their self-regulatory role was undermined by the centralized system of funding and administration, which eroded the standards of open scientific debate and resulted in much poor quality research. They had little role to play in policymaking. Similarly, they had few opportunities to engage the public in debate over the social and ethical implications of advances in science and technology or to negotiate on public policy.

Scientists and engineers in Eastern Europe are now seeking to expand the role of their societies. They are doing so in difficult circumstances. Efforts to participate in policymaking are hindered by their inexperience with democratic procedures and the pressure of immediate economic problems and political tensions. In communicating with the public, scientists and engineers now have to contend with widespread public fascination with, and sensationalist media coverage of, pseudoscience of all kinds. The scientific and engineering communities are themselves fragmented by the legacy of the institutional divisions between teaching, research, and development under communism. Professional societies also have to contend with a severe lack of resources.

To address these issues, AAAS convened a NATO Advanced Research Workshop in Visegrad, Hungary, on October 28-31, on the topic, "Developing an Infrastructure for Science and Technology in Eastern Europe: The Role of Professional Societies." The workshop brought together 43 participants (six from Western Europe, 32 from Eastern Europe, and five from the United States. The meeting was organized around three main themes: (1) the role of scientific and technical societies in the political process; (2) communicating science to the public; and (3) the legal and ethical components of professional self-regulation. How the scientific and engineering communities in Eastern Europe pursue these activities is likely, in the years ahead, to have a profound impact on the way science and engineering are perceived and conducted in the region.

The meeting produced a series of recommendations on the role of scientific and technical societies in relation to all three themes. They are produced below. Scientific and engineering societies in the United States are encouraged to develop partnerships with their counterparts in Eastern Europe in order to lend assistance to on-going efforts in the East to implement these recommended actions. While representatives from the East participating in the workshop urged that any attempts at Western "imperialism" be avoided, they expressed support for the notion that they had much to gain from the experience of scientific and technical societies in the West.

Recommendations Produced by Participants at the October 1994 NATO Advanced Research Workshop

Science, Technology and the Political Process

In the industrial democracies of the West, scientific and technical societies provide a source of technical expertise for government policy makers and serve as a mechanism through which scientists and engineers can participate in the political process. Under communism, societies in Eastern Europe had little role in policymaking and few possibilities to engage in open debate on the social implications of advances in science and technology. Under the new democratic and economic reforms in the East, scientific and technical societies are seeking to expand their role in the political process—to provide expert advice to government, to ensure adequate resources for their countries' research and development activities, and to serve as an independent, private check on the power of government. In some cases, scientists and engineers seek to influence the political process directly. In other cases, they may attempt to exert leverage by influencing public opinion.

Recommendations

- S/T societies should urge governments to enact laws ensuring the right of association and supporting the establishment of non-governmental S/T societies.
- S/T societies should educate governments about the limits of public regulation of science and encourage them to avoid unduly restrictive laws and heavy tax burdens on the activities of S/T societies.
- S/T societies should work to preserve and promote the free exchange of ideas and information within the international scientific community.
- The scientific and technical communities in the East should educate their governments about the importance of S/T societies and the value of research and development.
- S/T societies and their members have a responsibility to ensure that policy makers are informed about the limitations and risks associated with particular policies, projects, and studies.
- S/T societies should help to improve the management of science by government.
- S/T societies should selectively lobby governments on behalf of research and development.
- S/T societies should help to create a new and politically active young generation of scientists and engineers.
- S/T societies should encourage some of their members to become active in political parties and to hold public office.

Communicating Science to the Public

Scientific and technical societies view communicating science to the public as one of their primary tasks. With the rapid pace of developments in science and technology and their ever broadening impact on every-day life, increasing public understanding of science has come to be seen not only as a cultural value in its own right, but as a precondition for effective public participation in the democratic process and for public support for government-funded research and development programs. Political and economic reforms in Eastern Europe have brought far-reaching changes in both the context in which societies communicate with the public and the content of this communication. They now have to

persuade policy makers and the public of the long-term value of investment in research and development and respond to the public's concerns about the social and ethical implications of advances in science and technology. At the same time, cuts in R&D funding have been matched by the elimination of subsidies for popular science publications; and the media, competing for audience, provide ample coverage of pseudoscience of all kinds. The prestige of scientists and engineers is declining as new career opportunities open up in business, law, and other fields. Throughout Eastern Europe, scientific and technical societies are seeking new ways to increase public understanding of science and to foster interest in science and technology among young people.

Recommendations

- S/T societies should organize regular meetings for editors in both the print and electronic media; society officials and individual members should establish personal contacts with media editors and develop a relationship of trust.
- S/T societies should work with science journalists to develop joint programs designed to communicate science and technology to the public.
- S/T societies should organize press conferences on, and provide the media with information about, new developments in their field and major policy issues relating to science and technology.
- S/T societies should consider awarding, jointly or singly, prizes for science journalism.
- S/T societies should seek out scientists and engineers with the ability to communicate complex concepts clearly and simply to a non-specialist audience.
- S/T societies should develop guidelines to assist scientists and engineers in communicating with the public.
- S/T societies should encourage more rigorous research on public understanding of science and technology: What are the public's perceptions and expectations of science and technology? How does the public receive and process information about science and technology? Why does pseudoscience appeal to the public?
- S/T societies should collaborate in organizing refresher courses and seminars for science teachers.
- S/T societies should encourage their members to establish contacts with local schools and contribute to science classes; society members engaged in research should be encouraged to organize class visits to their laboratories.
- S/T societies in Eastern Europe should consider producing videos and teaching kits for use in schools.
- S/T societies should play a part in the certification of textbooks used in teaching science, and should advise education authorities on curricula content.
- S/T societies should establish awards for the brightest students.
- S/T societies should work with museums in their area to develop hands-on science and technology centers and innovative exhibits designed for young people.
- Meetings of S/T societies should include hands-on exhibits and other activities designed for young people.
- S/T societies should work together to produce, publish, and secure funding for science and engineering journals for young people.
- East European S/T societies should share experiences in communicating science within each country and on a regional basis.
- East European S/T societies should consider obtaining information on public outreach programs from counterparts in Western Europe and the US, and evaluating their applicability to local conditions.

Science, Engineering and Self-Regulation

Professional self-regulation is consistent with democratic traditions. In science and engineering, it reflects a commitment to open and free scientific inquiry as essential for the advancement of knowledge and all the benefits to humanity that result, while also acknowledging a responsibility on the part of scientists and engineers to foster a commitment to the highest standards of ethical practices in their work. As non-governmental, self-governing organizations, scientific and technical societies are an important source of identity for their members and help to develop and preserve norms that ought to govern professional conduct. Under communism, the independence and self-regulatory role of professional societies were undermined by a highly centralized system that severely circumscribed professional autonomy. In the post-communism era, scientific and technical societies in the East are now free to assume more responsibility for developing mechanisms of self-regulation that promote scientific inquiry while also providing for accountability on the part of scientists and engineers. While the autonomy of scientific and technical societies is preferred over public regulation, the limits of self-regulation are recognized through the creation of a framework of social and legal controls that helps to define the boundaries between professional autonomy and public regulation.

Recommendations

- S/T societies should provide a forum for the exchange of information and the discussion of issues related to ethical conduct in science and engineering.
- International scientific and technical organizations should assist national S/T societies in developing codes of ethics.
- S/T societies in the East and West should work together in developing global ethical standards, where appropriate.
- Codes of ethics adopted by S/T societies should include some mechanism for enforcement.
- S/T societies should be positioned to protect scientists and engineers who are unfairly attacked for abiding by a formally adopted code of ethics.
- S/T societies should consider establishing ethical guidelines for scientists and engineers when providing advice to government.
- An international clearinghouse on S/T laws and ethics guidelines should be established.

The author gratefully acknowledges funding for the workshop from the NATO Scientific and Environmental Affairs Division, the National Science Foundation, the Stefan Batory Foundation in Poland, and the Open Society Fund in Bulgaria, the contribution of the meeting participants in helping craft the recommendations, and the assistance of Jane Cave, who was responsible for co-organizing the workshop.

IN THE NEWS

U.S. Restrictions on Cryptography Ruled Unconstitutional

A long-running dispute between University of Illinois professor, Daniel Bernstein, and the Clinton administration over government restrictions on the export of encryption programs has cleared its first legal hurdle. A U.S. District Court judge in California ruled that the Clinton administration's restrictions on encryption software exports are unconstitutional. The judge's decision was based on her belief that computer codes are a form of expression, "like music and mathematical equations," and that to restrict them would constitute a violation of free speech. The professor was denied an export license for the electronic copy of the source code for an encryption program he developed as a

graduate student, but was later granted approval to export a printed version. In addition, the new regulations, like the old ones, set no timetables or standards for the government's licensing decision and fail to provide for judicial review. The ruling "will have a very large impact on U.S. leadership in the software industry and electronic commerce industry," says a spokeswoman for the electronic Frontier Foundation, "and a huge impact on privacy rights for the next 100 years." The U.S. government announced its intention to appeal the ruling and, in response, the judge has issued a stay of the injunction, limited to the particular source code cited in the case. "Because the legal questions at issue are novel, complex and of public importance, the injunctive relief should be as narrow as possible pending appeal," she says. In other words, until this issue is resolved, export controls on encryption software will remain in place.

Misconduct Scandal Shakes German Science

A German panel has concluded that two biomedical researchers have fabricated or falsified data in at least 37 publications spanning from 1988 to 1996. The findings have sparked vigorous debate over how well Germany is prepared to detect and respond to scientific misconduct. One of the two researchers had denied any wrongdoing, while the other claims that she was pressured to manipulate the data, but in far fewer instances than identified by the German investigatory panel. The panel is continuing to examine others papers published by the pair; in the meantime, their research grants have been frozen. In response to the episode, Germany's main science granting agency has established an international commission of scientific experts to examine the following issues: why the misconduct was not detected at an earlier stage; why other scientists appeared as co-authors on the fabricated papers, yet had only limited knowledge of the research; and whether certain fields are moving so rapidly that reviewers cannot adequately assess the quality of pre-publication manuscripts. The commission will convene its first meeting in September and a final report is expected next Spring.

Skeleton Leads to Legal Dispute Over Scientific Inquiry

A human skeleton more than 9,000 years old is at the center of a legal battle between scientists on one side and the federal government and several Native American tribes on the other. Discovered in July 1996 on federal land in the state of Washington, the skeleton may hold important clues, according to scientists, in answering questions about the origins of the first Americans. Scientists began DNA studies on the skeleton soon after its discovery, but a group of Northwest tribes laid claim to the skeleton under the 1990 Native American Graves Protection Act, which provides for the repatriation to tribes of Indian skeletons and other artifacts when a relationship between the remains and Indian tribes can be demonstrated. The Army Corps of Engineers, which has jurisdiction over the federal lands where the skeletal remains were found, halted the research and pledged to return the skeleton to the tribes. But eight anthropologists sued to prevent the transfer to the tribes without further study of the remains. The lawyer for the scientists characterized the lawsuit as being "about the basic constitutional question of the right of inquiry. How can scientists formulate and test hypotheses if they're denied access to the basic data." A U.S. District Court judge has halted the transfer to the tribes. And while the judge has not given the green light to further research, he has ordered the Army Corps of Engineers to reassess the scientists' claims. The Corps must submit its new report to the Court before further action is taken.

European Bio-industry Congress Stresses Ethics

In Amsterdam on June 27th, the first annual European Bio-industry Congress closed with a presentation of EuropaBio's *Draft Core Ethical Values*, and an invitation to all interested parties to comment. EuropaBio, the European Association for Bioindustries, represents more than 600 European companies and 11 national associations involved in the research, development, testing, manufacturing, sales and distribution of biotechnology products and service. Industry sectors using modern biotechnology, which are represented within EuropaBio's membership, include human and animal healthcare, diagnostics, chemicals, crop protection, agriculture, food and the environment. EuropaBio's *Draft Core Ethical Values* confirm opposition to reproductive human cloning, and commit the Association's members to dialogue with those concerned about ethical and societal implications of biotechnology. Other issues addressed include animal welfare, protection of medical information, alteration of human sperm, eggs and embryos, consumer information for food products, and conservation of genetic diversity. Dr. Erik Tambuyzer, chairman of EuropaBio's Ethics Task Force, also reported on progress in setting up a standing panel of independent

advisors to advise the industry on ethical issues. "following a period of comment, revision and final adoption, commitment to these core ethical values will be one of the mainstream issues for our members," said Andrew Dickson, Secretary General of EuropaBio. A copy of the EuropaBio draft may be obtained directly from EuropaBio by post (Avenue de l'Armee 6, B-1040 Brussels, Belgium). Contact Andrew Dickson, Secretary General, EuropaBio; +32-2 735-0313; Fax +32-2 735-49-60; E-mail mail@europa-bio.be.

IN THE SOCIETIES

AAAS Sponsors Congressional Briefing on Cryptography

On August 1, 1997, three programs of AAAS's Directorate for Science and Policy Programs cosponsored a briefing for Members of Congress and their staff on "Cryptography: Scientific Freedom and Human Rights Issues." The public policy discussion surrounding existing regulations on cryptography, the science of secret codes essential for providing security on the Internet, has revolved around perspectives on the implications for industry, privacy, and national security/law enforcement. The Scientific Freedom, Responsibility and Law Program, the Science and Human Rights Program, and the Center for Science, Technology, and Congress convened the briefing to present two other perspectives: 1) the impact these restrictions place on the mathematicians and computer scientists engaged in cryptographic research around the country; and 2) the importance of cryptographic applications to the work of human rights organizations and workers internationally. The briefing was "cybercast" live over the Internet by Democracy.net, a joint project of the Center for Democracy and technology and the Voters Telecommunications Watch designed to explore ways of enhancing citizens' participation in the democratic process via the Internet. Four distinguished speakers presented their views, all of which have been archived on the WWW at <http://www.aaas.org/spp/cstc/briefings/crypto/>.

PSEG Discusses NBAC and It's Role in Bioethics and Public Policy

The AAAS Professional Society Ethics Group (PSEG) met on June 24, 1997 at the AAAS headquarters to discuss the much publicized work of the National Bioethics Advisory Commission (NBAC). The invited speaker, William Raub, NBAC's Acting Executive Director, walked PSEG members through the history and purpose of NBAC. President Clinton established the commission by executive order in October 1995 to examine cross-cutting issues at the nexus of biology and ethics with an impact on policy. NBAC has two main objectives: 1) the protection of human research subjects; and 2) the investigation of the implications of genetic information. With the cloning of Dolly announced in February 1997, President Clinton asked NBAC to conduct a 90-day study and submit their recommendation on the issues surrounding the cloning of humans. A unanimous decision came from the group that attempting to clone humans through the use of somatic cell nuclear transfer technique is unsafe and therefore, recommended a ban on such research. Even though NBAC will expire in 1999, any law that would be written based on its' recommendations would extend beyond that time. Raub stated that "not now" was the consensus of the commission on cloning research involving human subjects, but within that there were three schools of thought: not ever, maybe someday, and as soon as it is safe. Some of the initial reactions were due to the fact that a large portion of the general public did not understand the process. He stated that the public thought in terms of immediate, adult duplicates of a cloned individual rather than a "delayed genetic twin" that is reared in different circumstances. NBAC proposed a "sunset" clause of 5-years and stated the necessity to carefully craft the wording of a ban on cloning so that it does not apply to a variety of scientific/research activities, including agriculture, animal research, and biotech/pharmaceutical. In the question and answer portion of this meeting, Raub fielded questions ranging from what constitutes "safe" to what about reproductive rights? There are many social, ethical, and religious questions left to be answered by individuals other than those in science such as "When does life begin?"

LETTER TO THE EDITOR

I was appalled to read in the Winter 1997 edition of *Professional Ethics Report* the article "Attempts at suppressing data" by Adil E Shamoo and the responses by Norman Quist and Edmund Howe, not because of the problems Dr.

Shamoo had with publishing his research in the *Journal of Clinical Ethics*, but because I recently had a very similar experience with a nutrition journal (details and copies of relevant correspondence are available to the editors of PER upon request to verify the facts of this situation). Thus, it appears as if threat of litigation by an aggressive or intimidating person, thereby suppressing important data or ideas in scientific journals, may be more widespread than previously thought.

About two years ago, a vocal and well-known scientist published a letter to the editor of a widely-read nutrition journal in which he made several broad and, in one case, an incorrect statement regarding suppression of publication of contrary ideas by a major pharmaceutical company in the US. A colleague and I had previous experience with receiving financial support from this same pharmaceutical company in support of three international conferences, one of which fully supported the expenses of an invited speaker who presented on the adverse effects of high intakes of one of the compounds produced by that company. The proceedings of that conference were published, complete with the manuscript of the speaker in question, and the pharmaceutical company never exerted any influence over selection of speakers, of topics presented, or of any aspect of the publication of any of the manuscripts.

In an attempt to correct the misinformation presented by the vocal scientist in his letter to the editor, my colleague and I drafted a rebuttal letter to the editor of that same journal which, after some minor editing, was accepted in writing by the Editor-in-Chief. He then sent a "for information purposes only" copy of our accepted letter to the vocal scientist who then proceeded to threaten legal action against the journal, the Editor-in-Chief, the Editorial Assistant, and against my colleague and I who wrote the letter, if that letter was published. After several discussions with our respective university lawyers, it was determined that there was nothing libelous in the letter as accepted. However, the threats of legal action became more and more vicious, and the Editor-in-Chief then rescinded his previous acceptance of our letter. Numerous requests for a reconsideration of his actions were rejected, and the letter never appeared, with the effect of the false information presented in the original letter to the editor now standing uncontested.

As I am certain that our experience and that of Dr Shamoo are not unique, it may be advisable...to consider investigating how wide-spread is the practice of a journal or editor "caving in" to legal threats, and to provide some legal guidelines for both editors and contributors for these situations. The impact of such legal threats against scientific journals on free expression of scientific thought and controversy should also be investigated.

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ETHICS, LAW & PUBLIC POLICY

[In the following statement, edited slightly due to space constraints, the AAMS presents a thoughtful discourse on the need to consider the likely effect on health-related research of proposed legislation and preserve confidentiality of medical information. It is being republished with the permission of the AAMC—Ed.]

Health Data Security, Patient Privacy, and the Use of Archival Patient Materials in Research

Association of American Medical Colleges

The conjunction of remarkable advancements in electronic information technology and basic biomedical research...augers profound changes in the way that society will deal with fundamental issues of health and disease.... The changes are generating deep public concerns [about] individual autonomy and ... about the security and confidentiality of sensitive, personally identifiable medical information.

These concerns have generated two different kinds of responses, one scientific and the other, legislative. The first is exemplified by the recommendations of several committees and working groups...convened to consider matters of genetic privacy, genetic testing and the use of human tissues in research. The work of these groups has been guided by an abundance of bioethical and legal perspective, but has suffered from inadequate participation by, and input from, the broad scientific community. Perhaps because of this failing, the proposals issued by these committees have

commonly focused on erecting stringent new barriers to the generation of genetic information in research, but they have demonstrated little interest or creativity in attempting to strengthen both the protection of genetic information from inappropriate disclosure and the penalties for its misuse.

The legislative response is exemplified by the numerous bills that have been introduced into the Congress and state legislatures...have been concerned broadly with the confidentiality of the medical record, i.e., with the protection of all medical information, most of the legislative efforts, both federal and state, have focused more narrowly on genetic privacy, genetic testing and the discriminatory misuse of genetic information in employment and the health insurance markets. Unfortunately, most of these initiatives are riddled with ambiguities and exceptions, and appear to be hasty and inadequately considered responses to the growing public concerns.

Society must slow down this headlong rush into restrictive legislation and regulation and think more clearly and dispassionately about the difficult issues before it. The nation has made a major commitment to the support of biomedical, behavioral and health services research, and there is a compelling public interest in ensuring access to the materials required to pursue that research. A great deal of contemporary research is dependent on the ready accessibility of personally identifiable, i.e., linkable, archival patient materials, such as medical records and tissue specimens removed in the course of routine medical care. In the area of molecular genetics and the study of human disease, for example, recent scientific and technological advancements make it possible for investigators to perform sophisticated genetic analyses on archival human tissue samples that may be decades old.... Similarly, epidemiologic and health services research are absolutely dependent on access to archival patient records.

As a rule, these kinds of studies do not require that the identity of the patient be known to the investigator. But in the great majority of them, the investigator must have the ability to obtain additional, or follow up information about particular sets of subjects in order to evaluate the significance of the findings and interpret them in an appropriate biological, clinical or epidemiological context. The only way such additional information can be gathered in studies of archival patient materials is if the materials are coded in such a way that they remain permanently linkable to specific patients. This important point is not widely recognized either among the general public or legislators, who often do not understand why all archival patient materials to be used in research can not be made anonymous, that is, totally and irrevocably unidentifiable.

The public also does not understand that archival patient materials constitute invaluable and irreplaceable research resources that survive indefinitely, and may prove useful years, or even decades, later for research studies, posing questions and employing novel methodologies and technologies that are now unimaginable.

The central challenge is to enhance the security of all confidential medical information (not just genetic information) and reduce the probability of its misuse without substantially impairing the accessibility of the information, which is essential to the effective delivery of medical care, the efficient functioning of the health care delivery system (including audit and accreditation functions), and sustaining the pace of biomedical, behavioral, epidemiological and health services research. Some principles that would contribute to meeting this difficult challenge follow.

PRINCIPLES

1. The AAMC supports the principle that individuals have the right to expect that their identified health and medical information will not be disclosed without their express consent. At the same time, the public has a collective interest in the advancement of biomedical knowledge through research. The AAMC endorses principles and practices that encourage the responsible conduct of research and protect individuals from the unauthorized release of their *identified* health and medical information.
2. Vital public purposes are served by the availability of medical information that covers the full spectrum of human experiences with health and disease over time. These purposes include the better understanding of disease processes, health care delivery practices, health care outcomes, health care organization, pricing, regulation and accreditation, and the quality and efficiency of health care. These public purposes are sufficiently compelling that any new legislation or proposed regulations must assure the continued availability of medical information for these purposes.
3. As a rule, molecular, clinical, epidemiological and health services research on archival patient materials does not

require that patient identities be known. However, the research typically does require that additional or follow up information about specific individuals and groups of individuals can be readily obtained to permit proper evaluation of the research findings in a valid biological, clinical or epidemiological context. This requires that archival research materials, although coded and not identified, must remain linkable to individuals. The routine anonymization of archival patient-derived research materials is neither realistic nor feasible.

4. Archival patient materials constitute a unique and irreplaceable research resource that endures over time. It is not possible to specify - or even wildly speculate - about the potential research studies in which the materials may someday be used, or the kinds of research methodologies that might be employed. Therefore, the forms of stringent informed consent appropriate for research in the typical clinical setting are neither appropriate nor even possible with respect to archival patient materials. Similarly, to require repetitive recontact of patients (or their next of kin) to seek specific re-consent for each study in which the archival materials may be involved in future years, or even decades, is unrealistic and would impose on research a crippling burden of administrative, financial and logistical costs. The AAMC believes that research on archival patient materials, whether linkable or not, should be permitted under a general informed consent mechanism.

5. Organizations that deliver medical care, or conduct biomedical epidemiological or health services research, must be responsible and accountable for the development and implementation of appropriate policies to ensure protection of confidentiality of medical information through such mechanisms as informed consent, IRB review and approval and adherence to accreditation standards and state laws and regulations. One possible approach to this task would be to give each patient at his/her first encounter with the health care system two unique identifiers, one for clinical use, the other for research. Both numbers would be permanently associated with the specific individual. The linkage between the two numbers would be securely maintained in a protected location with controlled access, in accordance with the provisions of recommendation 7. This approach would help to achieve the objectives both of strengthening the security of confidential medical information and promoting the accessibility over time of archival patient materials for research.

6. There must be a concerted effort to strengthen the protection of medical information from unauthorized disclosure and hurtful misuse. The AAMC believes that an appropriate federal mechanism (for example, modeled on the statutory "Certificate of Confidentiality") should be developed that would protect institutions conducting research on patients or archival patient materials from the forced disclosure of confidential medical information. The existence of such a mechanism would provide important reassurance to patients and human research subjects that identified or identifiable medical information developed in research could not be forcibly disclosed without their express authorization to anyone, including employers, insurers, health care organizations, or government agencies.

7. Eligibility of research institutions for the protections to be afforded by the new federal mechanism should be determined through an assurance mechanism, requiring that the awardee institution have in place an institutional confidentiality policy that met specified requirements. Among these would be unambiguous measures for protecting [medical information] from inappropriate or unauthorized disclosure...the provision of severe penalties for violators...and the existence of credible mechanisms to secure identified or identifiable medical information from unauthorized trespass...[particularly at] the locus at which linkages between identifiable codes and specific patients are maintained.

8. The AAMC believes that any new federal legislation or regulation that is crafted to deal with these issues should over-ride state legislation and regulation in order to ensure consistent nation-wide governance of access to archival patient materials in research. Such pre-emption would be especially important in...epidemiological or health service research...encompass many (or even all) states. In making this recommendation, the AAMC does not favor preemption by federal rules that are more restrictive than existing states rules governing these matters.

It is important that policies emerge from the current debate that are attentive to patient privacy and respectful of informed consent. But at the same time, these policies must not unduly encumber access to the clinical and research databases that are essential for the continued accretion of biomedical knowledge, as well as for effective patient care and the efficient functioning of the healthcare delivery system- Policies to be developed must thoughtfully and sensitively balance the competing values of private interest and public benefit and not be unduly or precipitously

shaped by emotionally charged and often exaggerated public fears.

Approved: AAMC Executive Council, February 27, 1997

RESOURCES

On-Line

The WWW Ethics Center for Engineering & Science has moved from MIT to Case Western Reserve and now includes an 1100-item bibliography in science and engineering ethics [See PER, Spring 1997, p.5]. The bibliography is accessible via the Center's main page at <http://www.cwru.edu/affil/wwwethics/>.

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The PHS Administrative Actions Bulletin Board, which contains information on administrative actions imposed on individuals against whom there is a finding of scientific misconduct, is now available on the WWW. Each scientific misconduct entry on the BBS includes the name of the respondent, the name of the institution where the misconduct was investigated, the type of misconduct found, the administrative actions imposed, and the starting and ending dates for the actions. The BBS is intended for use by PHS officials, scientific review officials, committee management officials, grant and contract officials, and administrators at PHS applicant or awardee institutions in providing assistance in the implementation of PHS administrative actions. The BBS is on the WWW at <http://www.silk.nih.gov/public/cbz1bj.e.@www.orilist.html> or <http://www.drg.nih.gov/> (under the "referral and review" link).

Video

A videotape set is available from a **Forum on Cloning** held on June 25, 1997 at the American Association for the Advancement of Science (AAAS) in Washington, DC. Sponsored by the AAAS Programs of Dialogue Between Science and Religion and Scientific Freedom, Responsibility and Law, the forum featured a scientific overview by Ian Wilmut of the Roslin Institute and a report from Ezekiel Emanuel of the National Bioethics Advisory Commission (NBAC) on the NBAC's recommendations on cloning to President Clinton. Panels were also held on scientific freedom and responsibility issues and ethical and theological issues raised by cloning. The videotape set of the forum proceedings, containing four VHS tapes totaling nearly seven hours of programming, is available for \$35, including shipping and handling; \$32 for AAAS members (provide membership number). Send checks payable to AAAS to Bob Bobala, Directorate for Science and Policy Programs, AAAS, 1200 New York Ave., NW, Washington, DC 20005. DC residents add 5.75% sales tax; CA residents add appropriate sales tax; Canadian orders add 7% GST; airmail orders add 25%. For inquiries, call 202-326-6733.

ANNOUNCEMENTS

Studies in History and Philosophy of Biological and Biomedical Sciences, a new journal whose first issue will be published at the beginning of 1998, has **issued a call for papers**. The journal will be devoted to historical, sociological, philosophical and ethical aspects of the life and environmental sciences, of the sciences of mind and behaviour, and of the medical and biomedical sciences and technologies. The period covered will be from the middle of the nineteenth century (the time of the so-called "laboratory revolution" in medicine and the life sciences) to the present. The editors are seeking original English language articles in the field of the new journal. For these the word limit is c. 10,000. They would also welcome proposals for 3-4000 word essay-reviews. All articles and volunteered essay-reviews will be blind refereed. Contributions and proposals should be sent to Marina Frasca-Spada, Associate Editor, *Studies in History and Philosophy of Biological and Biomedical Sciences*, Department of History and Philosophy of Science, University of Cambridge, Free School Lane, Cambridge CB2 3RH, UK, E-mail mfs10@cam.ac.uk.

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The editors of *Angelaki* have **announced a call for papers** for an upcoming issue on the growing interest in techno-politics and the new cultural theories and practices being developed by researchers and activists in political science, philosophy, literature and cultural studies. The edition will incorporate discussions of the relationship between new information and communications technologies, virtual, or cyber-politics and contemporary cultural theory. The editor invites contributions which address the technological nature, political importance and cultural development of: cybernetic capitalism, Virtual Reality, the Internet, virtual class warfare, cloning, posthumanism, cyborgs, cyberfeminism, speed, cyberspace, Temporary Autonomous Zones (TAZs), cyberwar, cybernetic art, literature, cinema and popular culture. Essays, review articles, interviews, proposals and requests for further information should be addressed to the editor: John Armitage, Division of Government and Politics, University of Northumbria at Newcastle Newcastle upon Tyne, NE1 8ST; United Kingdom; +44 (0) 191 227 3943; Fax: +44 (0) 191 227 4654; E-mail: John.Armitage@unn.ac.uk; WWW <http://www.bookshop.co.uk/angelaki/>.

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The **1997 Society for Social Studies of Science** annual meeting will be held in Tucson, Arizona, October 22-26, 1997. An updated program, additional conference details, and registration information can be found at the conference website: <http://www.u.arizona.edu/~jlc>. Contact jennifer L. Croissant, Program on Culture, Science, Technology, and Society, CSTS/MSE, 16c Bldg. 12, University of Arizona, Tucson, AZ 85721; (520) 626-7110; Fax (520) 621-8059; E-mail jlc@u.arizona.edu.

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The **Association for Practical and Professional Ethics** invites **submissions** for its Seventh Annual Meeting, to be held February 26-28, 1998 in Dallas, Texas. Submissions of papers, pedagogical demonstrations, posters, and case studies are invited addressing ethical concerns in fields such as public administration, law, the environment, accounting, engineering, computer science, research ethics, business, medicine, journalism, the academy, and on issues that cut across professions. Demonstrations in ethics teaching, discussion of moral education, and curriculum development are also welcome. **Deadline for submissions is October 31, 1997.** Contact the Association for Practical and Professional Ethics, 410 North Park Avenue, Bloomington, IN 47405; (812) 855-6450; Fax (812) 855-3315; E-mail appe@indiana.edu.

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Emory University will host the **23rd Annual Conference of the Association for Moral Education**, known as AME'97, from November 20-22, 1997. The theme of this year's conference is "The Voices of Care and Justice: Enhancing the Dialogue among Theorists, Researchers, and Practitioners." Presentations will address the importance of care and justice as they relate to enhancing ethical relations in specific contexts such as schools, families, communities of faith, and the professions. The tentative program includes contributors from about 35 states and 20 countries who will present symposia, panel discussions, roundtable discussions, poster sessions, demonstrations, and a moral education curriculum fair. The conference chair is Dr. John Snarey, Professor of Human Development and Ethics at Emory University. For registration materials, e-mail your postal address to John at jsnarey@emory.edu or write to him at Emory University, 3 Pitts Library Building, Atlanta, GA 30322.