



# EUROPÄISCHE AKADEMIE

zur Erforschung von Folgen wissenschaftlich-technischer Entwicklungen  
Bad Neuenahr-Ahrweiler GmbH

Direktor: Professor Dr. Dr.h.c. Carl Friedrich Gethmann

## NEWSLETTER

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### EDITORIAL

■ The Europäische Akademie was founded in 1996 and in these past ten years has presented its work in a straightforward, informative and classical style in various publications and presentation media. This year, on the occasion of its 10<sup>th</sup> anniversary, the management decided that it would be appropriate to re-design the academy's image for its online presence and in the print media.

This new design was to comprise a modern, leaner form of logo, whereby prime attention was to be placed on ensuring that elements of the previous logo should be recognizable in the new version, which, at first glance, should not present an appearance starkly different from the former, familiar form. The image presented by the academy to its viewers was to be preserved.

By changing the layout from centred to left-aligned text, insertion in various different media has been facilitated; typefaces and visual elements have been harmonised and adapted to the new logo.

The new design was conceived by a student of the Design Faculty at the University of Applied Sciences Darmstadt; his conceptual designs underline the unostentatious, serious presentation of the academy, in which content takes precedence over outward appearance. For the new presentation of the academy he employed, above all, lighter forms of script and more white spaces, combining subdued colours with modern design.

KM/FW

### FOCUS

#### What to Do About the Organ Scarcity

Friedrich Breyer

**Human organ transplants are a scarce commodity. In particular, kidneys are a case in point. In Germany, each year the number of new entries to the waiting list exceeds the number of post-mortem kidney transplantations by about 1.000. The shortage of organs would be even graver if Germany were not a net-importer of cadaveric organs within the Eurotransplant network, which is formed by Germany, the Netherlands, Slovenia, Belgium and Austria. In the following the main causes underlying the organ shortage will be identified and a number of possible reforms of the organ procurement process will be proposed which would be suitable to reduce the shortage considerably.**

■ Eurotransplant was founded by private initiative in the early days of transplant medicine to utilize scarce organs more efficiently through reciprocal organ exchange between transplant centres. Though Eurotransplant has clearly been a success, the shortage of donated organs still has tragic consequences that render it a pressing problem:

- Each year, some 1.000 German patients die on waiting lists for kidneys and other organs due to the lack of transplants.
- The quality of life for patients with kidney failure who receive constant renal dialysis treatment is normally far lower than after transplantation.
- In addition, long-term dialysis treatment is considerably more expensive than transplantation (including all costs).

The problem could be alleviated considerably. According to surveys, 70% of Germans express that they are prepared to donate their organs after death. However, this number stands in stark contrast to the share of persons in possession of a donor card. Of all post-mortem explantations performed in Germany in the year 2000, only 4% were supported by the written consent of the donor. These figures show a conspicuous discrepancy between the general, but non-commit-

tal, approval of organ donation and the willingness to take active steps to declare one's will.

In principle, organs can be procured from brain-dead persons (post-mortem donation) or – in the case of kidneys and liver parts – from living donors. At least in Germany there is widespread consensus to treat living donations as a last resort since it puts the donor's health at risk. This view was endorsed by the German Transplantation Act which was enacted in 1997. At that time it was expected that increasing legal certainty concerning transplantation medicine would help to reduce the extreme shortage of organs. While the law has achieved the former, it has failed to make any progress towards the latter goal. Its main provisions are:

1. Organ donation must be entirely altruistic. No financial or other rewards may be given to the donor or his family.
2. Organs must be allocated strictly according to medical criteria set by Eurotransplant (urgency, waiting time and tissue compatibility).

International studies show that theoretically the reservoir of potential post-mortem donors of transplantable organs in Germany amounts to some 3.700 persons per year. Of this reservoir, less than one-third (1.100) is actually being tapped. This is due to two main reasons. First, only

about one in two potential post-mortem donors is actually reported by the hospital, and secondly, in about one-third of these cases, the consent to an organ removal by the donor himself (expressed in particular by a donor card) or his next of kin (in all other cases) is lacking. Thus strategies for increasing organ supply should be directed both at hospitals and at potential organ donors.

The low reporting rate shows that the shortage of organ transplants in Germany is caused to a considerable extent by insufficient cooperation of hospitals in the procurement of cadaveric organs. This factor is directly influenced by current regulations. In particular fees for the resource-intensive diagnosis of brain-death are insufficient and do not cover all the costs involved, especially for cases which do not result in the removal of organs. Small hospitals which can not afford to invest in the necessary personnel and machinery for brain-death diagnostics are insufficiently supported by the monopolistic coordinating agency, the German Organ Transplantation Foundation (Deutsche Stiftung Organtransplantation, DSO), which has concentrated its resources in the central office and reduced its services for the hospital over the years. Moreover receiving permission for organ removal from the closest relative of a brain-dead patient is particularly burdensome for the physicians involved in the treatment process. The necessary interview must take place under serious time pressure after a tragic loss and thus represents a high psychological barrier for staff that is not specially trained in such matters.

The necessity of asking relatives could be avoided if potential donors would make provisions for their own death. But most people do not like making such provisions. Some may even believe that thinking about one's death makes it more likely to occur. Further obstacles derive from the fear that persons with donor cards may not be optimally treated in a life-threatening situation and the wish to die in dignity rather than being kept at life-supporting machines for days. These psychic costs are not counter-balanced by gains. The potential donor has no advantage from his willingness to donate such as a higher priority on the waiting list should one of his organs fail. The preceding renders the present legal situation unsatisfactory. But real world cases like the following one that occurred as recently as January 2006 in Berlin show that it is even morally undefensible: A family of a brain-dead patient declared their willingness to donate his organs provided that one of his kidneys was given to his wife who suffered from end-stage renal failure. After consulting both the head of the DSO and the director of Eurotransplant and getting their approval, the hospital's chief physician accepted the proposed deal. Most people will agree that he did the right thing because this deal saved the lives of the recipients of the other organs. More-

over, it had been the wish of the brain-dead husband to donate one of his kidneys to his wife. However, allowing the patient's wife to "jump the queue" was clearly against both provisions of the Transplantation Act cited above. Firstly, a family must not pose a condition for their permission to a removal of organs, and secondly, after a post-mortem donation all organs must be allocated to patients at the top of the waiting lists. (Interestingly, this is not true for living donations which must be directed at a particular recipient.) Something fundamental must be wrong with a legal provision if it so fundamentally contradicts prevalent intuitions of fairness and justice. It makes it almost mandatory that the law be changed rather than to muddle through with some interpretational fix by the courts.

Possible reforms of the Transplantation Act could lead in two directions: Firstly, the rights of the potential organ donors could be strengthened to provide additional incentives to donate. Secondly, other changes could be made which are suitable to reduce organ shortage so that "tragic choices" like the one described above will be less likely to occur in the future.

Along the aforementioned directions of possible change, the Europäische Akademie's project group, which has recently finished its work, has identified a number of possible strategies to reduce organ shortage, of which the first two involve organizational changes within the existing legal framework, while the two subsequent ones require reforming the Transplantation Act.

#### **1. Removal of financial obstacles for reporting hospitals**

The fees for all preparatory measures in the process of organ procurement, in particular brain-death diagnostics, should be set in such a way that the costs of these procedures are fully covered. Payments should be effected directly to the hospital initially responsible for reporting and must not be counted towards the respective hospital budget. The hospital can then decide whether to conduct diagnostic services and other measures in-house or by outsourcing.

#### **2. Establishment of a nationwide organ donor register**

The organ donors' register already provided for in the Transplantation Act should be implemented. It would keep track of declarations of intent made by a potential organ donor. Thereby the will of the potential donor could be reliably verified prior to organ removal and it could be guaranteed that objections would indeed become known.

#### **3. Reorganisation of the coordination process**

To some extent, the shortage of organs from cadaveric donors can be traced back to an inefficient organisation of the organ procurement process. The monopoly power of the Deutsche

Stiftung Organtransplantation (DSO) as the coordinating agency is certainly partly responsible for this inefficiency. Furthermore, its remuneration by the German government is not linked to the number of organs procured. To achieve more efficiency, therefore, the monopoly should be abolished and the way be paved for competitive organisations to provide support to hospitals in the organ procurement process. The aim to increase the number of donors must be explicitly stated and the re-imburement of the coordination centres must depend on the number of donations actually made.

#### **4. Introduction of the presumed-consent Rule**

As most people do not want to think about their own death, it is safe to assume that a reversal of the burden of declaration through the introduction of the opting out ("presumed consent") rule would lead to a considerable increase in the number of available donor organs. In fact, the experience of countries such as Austria and Spain, which procure two to three times as many organs per million population, confirms this assumption. Moreover, removing the burden of decision from the next of kin of brain-dead patients and the necessity to ask for their consent would enhance the participation of hospitals in the organ procurement process.

Clearly, the presumed-consent rule exacts a higher degree of solidarity from the citizen because initially every individual is given the status of an organ donor. However, this seems acceptable even in a liberal society based on norms of interpersonal respect since the presumed-consent rule at the same time leaves the principle of self-determination untouched: the individual may reject the legal status of an organ donor at any time simply by making a declaration to that effect without giving any reasons. Along with the central registry this seems a sufficient safeguard for individual rights as long as the population is suitably and sufficiently informed about the possibility of opting out of the system.

At least the last strategy listed here is associated with "moral costs" to society, and others will be difficult to implement in the political process. The least acceptable alternative with the highest moral costs, however, is acquiescence with the fact that a great many patients will die on waiting lists prematurely despite the fact that most of them could be rescued by relatively straightforward reforms.

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*Professor Dr. rer. pol. Friedrich Breyer holds a chair for Economics with emphasis in microeconomics, economic policy and social policy at the Universität Konstanz. He was chairman of the Europäische Akademie's project group "Incentives for Organ Donation".*

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## WORKING GROUPS

**“Pharming”**

■ The first meeting of the new project group “Pharming” took place on 13<sup>th</sup> March 2006 at the Europäische Akademie. Farming is a new branch of biotechnology that uses transgenic plants or animals as living “factories” to produce pharmaceuticals. The project group will emphasise the hitherto largely neglected comparison of phytopharming (in plants) with zoopharming (in animals). Fields of analysis will include pharmacological and biological risk assessment, the economic context, bioethical issues, public attitudes towards pharming, and legal implications. So far, the members of the project group are Dr. Margret Engelhard (Europäische Akademie; soil microbiology and plant molecular biology), Kristin Hagen, PhD (Europäische Akademie; animal welfare), Rikke Bagger Jørgensen, PhD (Risø National Laboratory, Roskilde; gene drift), Professor Dr. Rafael Pardo-Avellaneda (Fundacion BBVA, Madrid; empirical social science), Professor Dr. Eckhard Reh binder (Universität Frankfurt; law); Professor Angelika Schnieke, PhD (TU München, Weihenstephan; zoopharming) and Dr. Felix Thiele (Europäische Akademie; philosophy). The project is funded by the Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung, BMBF).

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**“Intervening in the Psyche”**

■ The project group had its mid-term meeting on 2<sup>nd</sup>/3<sup>rd</sup> March in Hamburg. External reviewers had been invited to comment on the six main chapters of the emerging study. On the first day, the meeting took place in the Guest House of the University of Hamburg. The presentations started with a lecture by Benedetto Vitello, M.D., psychiatrist by training and Chief of the Child and Adolescent Treatment and Preventive Interventions Research Branch at the National Institute of Mental Health in Bethesda (Maryland, USA). He reviewed the chapter on “Developmental Psychopharmacology”.

With respect to the chapter on “Electrical Brain Stimulation” the project group immensely profited from Professor Alim Louis Benabid’s, Ph.D., unique wealth of experience. 20 years ago Benabid, now Chairman of neurosurgery at the Joseph Fourier University in Grenoble, discovered that electrical stimulation of a certain brain area suppresses tremor in Parkinson patients. Since then he continuously furthered the development of Deep Brain Stimulation. Being Director of the Artificial Vision Laboratory at the Bioengineering Institute of the University Miguel Hernandez

in Alicante, Professor Eduardo Fernandez, Ph.D., is pioneering the development of a cortical visual neuroprosthesis for the profoundly blind. This special expertise he shared with the group when commenting on the chapter about “Central Neural Prostheses”.

On the second day, the participants convened in the grand library hall of the Aby Warburg Mansion. The first chapter to be addressed on that day deals with “Neurotransplantation and Gene Therapy”. For this purpose another reviewer from the USA had been invited: Professor Karl Kiebert, M.D., is Chief of the Movement and Inherited Neurological Disorders Unit at the University of Rochester School of Medicine and Dentistry (New York).

Professor Dr. Dieter Birnbacher, one of Germany’s leading experts for the whole field of Applied Ethics, who is Professor of philosophy at the Universität Düsseldorf, commented on the chapter “Persons, Personal Identity, and Personality”. Finally, Professor Werner Heun, public law expert and Director of the Institute for General Theory of State and Political Science at the Universität Göttingen offered his review of the chapter on “Treatment, Prevention, and Enhancement”.

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## NEWS

**Book Presentation on Environmental Noise: “Leben mit Lärm?”**

■ On 28<sup>th</sup> June the Europäische Akademie GmbH will present the study “Leben mit Lärm? Risikobeurteilung und Regulation des Umgebungslärms im Verkehrsbereich” at the Berlin-Brandenburgische Akademie der Wissenschaften in Berlin. The study is the result of the academy’s project group “Environmental Noise. Risk Assessment and Regulation for the Case of Traffic Noise” which considered that noise is becoming a problem for ever larger sections of population in industrial countries.

To register for the presentation please contact us at:  
europaeische.akademie@ea-au.de or see  
www.europaeische-akademie-au.de

Publication: M. Kloepfer, B. Griefahn, A. M. Kaniowski, G. Klepper, S. Lingner, G. Steinebach, H. B. Weyer, P. Wysk: “Leben mit Lärm? Risikobeurteilung und Regulation des Umgebungslärms im Verkehrsbereich”, Springer-Verlag, Berlin 2006. ISBN-3-540-34509-4

**Committee “European Politics”**

■ Professor Dr. phil. Hans-Gert Pöttering (Member of the European Parliament) and a delegation of the local working committee

“European Politics” of the German Party Christian Democratic Union (CDU) visited the Europäische Akademie on 3<sup>rd</sup> March. The participants were informed about aims and mission of the academy as well as its recent projects by Dr. phil. Georg Kamp (Europäische Akademie). Furthermore Dott. Rupert Leitner spoke about the recently published book “Enabling Social Europe” with focus on a comparison of the social policies in European states such as Estonia, Belgium, the United Kingdom and Germany. Afterwards Dr. phil. Margret Engelhard presented the project “Incentives for Organ Donation”.

The event closed with a plenary discussion about the legal situation of organ donation in Germany. Pöttering is convinced that this visit was a starting point to link the Europäische Akademie and the European Parliament more closely.

**Book Presentation on Organ Shortage: “Organmangel. Ist der Tod auf der Warteliste unvermeidbar?”**

■ On 12<sup>th</sup> May 2006 the Europäische Akademie GmbH presented the newly published study “Organmangel. Ist der Tod auf der Warteliste unvermeidbar?” at the Berlin-Brandenburgische Akademie der Wissenschaften in Berlin. The study is the result of the academy’s interdisciplinary project “Incentives for Organ Donation” in which recognised scientists from various European universities and other institutions worked on this subject. The book informs about the overall severe shortage of transplants which remains unchanged in all European countries. Recent reports documented the first cases of illegal organ donations within Europe, reflecting the actuality of this issue. The study discusses strategies and incentives to increase organ availability and thereby to improve this situation. Special emphasis was laid on a moral analysis of a “market for organs”. Furthermore, novel proposals towards providing incentives for organ donation and the moral problems involved – i.e. ownership of organs, assurance of voluntariness of organ donation or organ import from Third World countries – are discussed.

For more information please see:  
europaeische.akademie@ea-au.de or see  
www.europaeische-akademie-au.de

Publication: F. Breyer, W. van den Daele, M. Engelhard, G. Gubernatis, H. Kliemt, C. Kopetzki, H. J. Schlitt, J. Taupitz: Organmangel. Ist der Tod auf der Warteliste unvermeidbar?, Springer-Verlag, Berlin 2006. ISBN-10 3-540-33054-2

### New project "Verantwortung für zukünftige Generationen. Schulische Umsetzung von Nachhaltigkeit"

■ The Europäische Akademie started a new project on "Responsibility for future generations. Implementation of sustainability in schooling". The project, which is scheduled from summer 2006 on, is funded by the Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung, BMBF). A core group has been established on the basis of an extended study outline. On 2<sup>nd</sup> March an accompanying consultation meeting with representatives of the Ministry (Dr. Binder, Dr. Korn-Riedlinger) was conducted at the premises of the Europäische Akademie.

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### CONFERENCES

#### "Die Zukunft der Raumfahrt"

■ From 22<sup>nd</sup> to 23<sup>rd</sup> June 2006 the Europäische Akademie and the German Aerospace Center (Deutsches Zentrum für Luft- und Raumfahrt, DLR) will hold the conference "Die Zukunft der Raumfahrt. Ihr Nutzen und ihr Wert" (The Future of Space Travel. Use and Value). The interdisciplinary approach will comprise two sections: societal and technical aspects of space travel in the future and the exploration of the space from a historical and cultural point of view.

Those who are interested are welcome to attend the evening lecture on 22<sup>nd</sup> June by Professor Dr. rer. nat. Messerschmid (Stuttgart), who will speak about "Perspektiven der bemannten Raumfahrt – der europäische Beitrag" (Perspectives of Manned Space Travel – the European Contribution). The conference will take place at the SETA-Hotel in Bad Neuenahr-Ahrweiler.

For further information about the detailed programme please see our homepage [www.europaeische-akademie-aw.de](http://www.europaeische-akademie-aw.de)

### PUBLICATIONS

#### Carl Friedrich Gethmann

■ "Ethik, angewandte", in: J. Mittelstraß (ed) Enzyklopädie Philosophie und Wissenschaftstheorie (Band 2), Stuttgart, 2005<sup>2</sup>, 411–413

■ "Ethik, ökologische", in: J. Mittelstraß (ed) Enzyklopädie Philosophie und Wissenschaftstheorie (Band 2), Stuttgart, 2005<sup>2</sup>, 421–423

#### Felix Thiele

■ "Deep ecology", in: J. Mittelstraß (ed) Enzyklopädie Philosophie und Wissenschaftstheorie (Band 2), Stuttgart, 2005<sup>2</sup>, 133

■ "Ethik, medizinische", in: J. Mittelstraß (ed) Enzyklopädie Philosophie und Wissenschaftstheorie (Band 2), Stuttgart, 2005<sup>2</sup>, 417–421

### LECTURES

#### Carl Friedrich Gethmann

##### 25.4.06

■ "‘Dadurch-dass’ oder ‘Indem’? Handlungstheoretische Überlegungen zur Diskussion um die Wissenschaftsfreiheit"

Kolloquium der Zentralen Einrichtung für Wissenschaftstheorie und Wissenschaftsethik an der Universität Hannover

##### 26.4.06

■ "Philosophische Bemerkungen über Geisteswissenschaften"

Podiumsdiskussion "Wie (un-)verzichtbar sind die Geisteswissenschaften?" des WissenschaftsforumSaar (Saarbrücken)

##### 8.5.06

■ "Mensch sein – Mensch bleiben. Zur Semantik askriptiver Redehandlungen"

Kulturwissenschaftliches Institut (Essen)

##### 15.5.06

■ "Ethische Probleme der gentechnischen Veränderung von Pflanzen"

Konferenz "Agro-Gentechnik im ländlichen Raum – Potentiale, Konflikte und Perspektiven" Berlin-Brandenburgische Akademie der Wissenschaften (Berlin)

### PERSONALITIES



■ Hans J. Schlitt studied medicine in Würzburg where he graduated and finished his Dr. med. thesis in 1986. Supported by the DFG he started research in transplant immunology at the Medizinische Hochschule Hannover (MHH). From 1988 to 1996 he received his surgical training at the Department of Surgery of the MHH (Professor Pichlmayr, Professor Borst, Professor Tscherné). He became senior surgeon ("Oberarzt") in 1994 and in the same year finished his "Habilitation" thesis on the role of chimerism in solid organ transplantation. From 1992 to 2002 he was secretary of the SFB 265. He was appointed Associate Professor in 1999. In 2002 he became Chairman for Transplantation and Upper Gastrointestinal Surgery at the University of Sydney, Australia, where he established innovative techniques in liver transplantation. In 2003 he returned to Germany as Chairman and Director of the Department of Surgery at the University of Regensburg. Professor Schlitt is member of many national and international professional societies, fellow of the American College of Surgeons, the Royal College of Surgeons of England, and the Royal Australasian College of Surgeons. Since 2005 he has been Vice President of the German Transplantation Society and Council member of the European Society for Organ Transplantation. His main clinical interests are oncologic surgery, hepato-pancreato-biliary surgery, and organ transplantation. Experimental research focuses on transplantation immunology, gene therapy, molecular oncology, and stem cell research. He is also involved in clinical studies focussing on surgical technique, on oncologic surgery as well as on transplant-related problems. Hans Schlitt has received various awards, has published more than 250 manuscripts in international journals and books, and is active reviewer and editorial board member of many journals.

Professor Dr. med. Hans Jürgen Schlitt holds a chair for Surgery at the Universität Regensburg. He has been a member of the Europäische Akademie's project group "Incentives for Organ Donation", which has recently finished its work.

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