Program on the Ethics of the New Biosciences

Professor Savulescu, Director of the Program on the Ethics of the New Biosciences

Welcome to the first BEP newsletter. Things have been moving fast for BEP, with the arrival of our visiting researchers, and our first workshops, seminars and public lectures as well as publications and media appearances. We look forward to welcoming our new Senior Research Fellow and Junior Research Fellow in the summer, and to working together to research and disseminate the most important issues in bioethics.

The BEP team would like to thank James Martin for his generosity funding the school and the project

Mission

Science in the 21st Century may radically and profoundly change human life. Without practical ethics, our knowledge of what we can do will rapidly outstrip our understanding of what we should do.

Stem cell science, cloning, artificial reproduction, and the new genetics are "the new biosciences ". The mission of the Program on Ethics of the New Biosciences Ethics (BEP) is to identify and critically analyse ethical issues and problems arising in the new biosciences. The purpose of this ethical analysis is to provide knowledge and practical strategies to enable people now and in the future to lead better lives and to reason more critically for themselves about ethical issues confronting them. Its methodology is based on: 1) sound analytic philosophy; 2) interdisciplinary collaboration with other researchers in the humanities and sciences and the use of relevant empirical research from those disciplines; 3) seamless collaboration with scientists and medical professionals involved in the development of technology to identify ethical issues arising from imminent and long term developments. Continued p2

Appointments

Dr Liao

BEP welcomes four new members of staff to the team: Dr S. Matthew Liao, Senior Research Fellow and Deputy Director, and Research Fellows, Dr Mark Sheehan, Dr Steve Clarke and Dr Neil Levy.

Matthew Liao is interested in a wide range of philosophical issues in ethics, bioethics, metaphysics, and moral psychology and has published in journals such as The Monist, Journal of Value Inquiry, Journal of Political Philosophy, Journal of Moral Philosophy, Journal of Medical Ethics, American Journal of Bioethics, and Theoretical Medicine and Bioethics. As Deputy Director he will also be taking on administrative duties, and has already begun organising a conference in Beijing in August to tie in with the International Association of Bioethics.

Dr Sheehan

Mark Sheehan's current research interests in applied ethics concern arguments about interfering with nature, particularly as they are applied to new reproductive technologies, problems of distributive justice in healthcare and various issues in research ethics. He has published in a number of edited collections and in such journals as the Journal of Medical Ethics, the American Journal of Bioethics and the British Medical Journal.

Dr Levy

Dr Neil Levy specialises in free will and moral responsibility, and empirical approaches to ethics. He has published widely on many topics in philosophy, including bioethics, applied philosophy, continental philosophy and free will. He is the author of 4 books and over 50 articles in refereed journals. He is currently writing a book on neuroethics for Cambridge University Press.

Dr Clarke

Dr Clarke is a broad-ranging philosopher whose recent work has appeared in such journals as The British Journal for the Philosophy of Science, Philosophy of the Social Sciences, and the Journal of Medicine and Philosophy. He is currently co-editing a book (jointly with Justin Oakley) entitled Informed Consent and Clinician Accountability: the Ethics of Auditing and Reporting Surgeon Performance, which is under contract with Cambridge University Press. He is also working on the following topics: heuristics and biases in lay moral reasoning, the precautionary principle, situationism in ethics, John Dupre's critique of 'scientific imperialism', naturalism and the supernatural. For full information about the BEP team's education and employment history, please see p9.

Forthcoming Events...

Toward a Non-Consequentialist Approach to Acceptable Risks

Wednesday 21 June
4-6 pm
Lecture Room, Philosophy Faculty

A public lecture by

Carl Cranor

Professor of Philosophy, University of Calfornia

Program on the Ethics of the New Biosciences

...BEP Mission

In this way the Program's work will be both proactive as well as reactive. It will be constructive: as well as identifying the limits to research and development, it will identify strategies to facilitate good scientific development of these areas of science. The Program will have a global and broad impact on practice through internationally peer reviewed academic publication, stimulating rational public debate through popular media, informing political debate and influencing the development of law and policy. The Program will provide researchers, clinicians and the general public with relevant ethical expertise, insights and approaches to use when considering their own current and future activities.

World Forum

One of the most important aspects of the James Martin 21st Century School is the opportunity to collaborate with the other research institutes to bring together the best research across various disciplines. This collaboration got off to an excellent start with the James Martin Institute's World Forum in March 2006. Professor Savulescu chaired a session 'Fairer?' and lectured on enhancement in sport. A webcast is available at :

http://www.martininstitute.ox.ac.uk/JMI/Forum2006/Forum+2006+Webcast.htm

21st Century School Advanced Research Seminars

The 21st Century Advanced Research Seminars are now in their third term of weekly graduate seminars, covering topics relevant to the Program on the Ethics of the New Biosciences and the Future of Humanity Institute, BEP's fellow James Martin Project at the Philosophy Faculty. These two-hour seminars, held on Tuesdays during term time from 2.00 p.m.– 4.00 p.m. are a chance for graduates and visiting professors to air new work for constructive criticism and discussion or to canvas others' views on papers they have read.

This term's topics are to include the moral status of the embryo, cognitive enhancement, and neuroscience and moral psychology. On May 30 the seminar opens to a wider audience with a public seminar led by Professor Jeff McMahan of Rutgers University, who will be presenting his paper 'Killing Embryos for Stem Cell Research'. Other distinguished guest speakers over the past two terms have included Rony Duncan and Jessica Wolfendale.

Discussion in the Michaelmas Term seminars helped shape Julian Savulescu's book Enhancement of Human Beings, co-authored with Dr Nick Bostrom of the Future of Humanity Institute, which is to be published by Oxford University Press (forthcoming).

Please see p8 for the Trinity Term 2006 seminar programme. Anyone wishing to attend these seminars and to receive papers in advance should email miriam.wood@philosophy.ox.ac.uk to be added to the mailing list.

Public Lectures

On May 3, Professor Loane Skene of the University of Melbourne presented on the legal issues surrounding the restriction of genetic screening. Professor Skene argued that even if it were decided that genetic screening should be restricted, the difficulties involved in legislating against these tests mean that any such policy would be impossible to enforce. On May 30, Professor McMahan presented 'Killing Embryos for Stem Cell Research', arguing that embryos in the earliest stages did not qualify as organisms and did not meet criteria to have a soul according to major western philosophic traditions. He argued that it is inconsistent to allow unwanted embryos to be discarded after IVF treatment, but to prevent the use of embryos in research. A webcast of this talk will be available at www.bep.ox.ac.uk.

Neuroethics Workshop

BEP held a one-day workshop on neuroethics on March 6, where speakers, including Susan Hurley, Dick Passingham and Morten Kringelbach, discussed a selection of current issues in neuroethics, including problems of privacy and thought control. Participants continued the discussion over an informal dinner.

Enhance Workshops

Julian Savulescu and Steve Clarke took part in two EU workshops on May 4 and 5 on Cognitive Enhancement and Enhancement in Sport respectively. Delegates from Oxford and Stockholm met at St Cross College to discuss these issues. Professor Savulescu presented in the workshop and cognitive enhancement, and the May 5 workshop saw the launch of a book 'Genetic Technology and Sport' (ed. Tannsjo and Tamburrini) which includes a chapter by Professor Savulescu.

Hinxton Group formation

Professor Savulescu and Dr. S. Matthew Liao are founder members of the Hinxton Group, a selection of 'scientists, philosophers, bioethicists, lawyers, clinicians, journal editors and regulators involved in stem cell research calling for consensus on a fundamental ethical framework' within 'the reality of cultural diversity and moral disagreement about some elements of the research'. By agreeing and disseminating a set of principles, the Hinxton Group 'hopes to prepare the ethical framework for humankind to have the very best chance of realizing the benefits of stem cell research in an ethically acceptable manner'. The principles cover the role of scientists in ensuring ethical research, journal editors in disseminating research and governments in legislating for research. A full record of the principles is available following the link from BEP's homepage www.bep.ox.ac.uk. The creation of the Hinxton Group attracted widespread media coverage. For a full list of media please see p3.

Newsletter Mailing List

To be added to the mailing list to receive the BEP newsletter by email, including information of future events, vacancies and other BEP activities, please email miriam.wood@philosophy.ox.ac.uk

Program on the Ethics of the New Biosciences

Future Events

(Please find below a selection of BEP-related events)

Joint BEP and FHI Launch Conference

BEP will be hosting a one-day conference in Oxford in October 2006, organised jointly with the Future of Humanity Institute. To register your interest , email miriam.wood@philosophy.ox.ac.uk.

Anglo-German Workshop, Jena, Germany

Professor Knoepffler, currently visiting the Program on the Ethics of the New Biosciences, has invited the BEP team to join him in a workshop in Jena, Germany on genetic enhancement, to help increase stem cell research discussion in Germany, where academics have found it difficult to reach out to audiences with new ideas. A book will be produced from the papers that are discussed. The workshop is planned for June 2007.

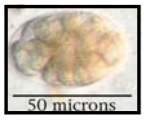
Bioethics Lecture

Professor Savulescu will be giving a lecture 'The Moral Imperative to Do Cloning and Stem Cell Research', at Cambridge on June 6 as part of the Bioethics lecture series.

Diversity in Practice– the Role of Religion in Healthcare Practice

Professor Savulescu will be presenting on the role of religion in healthcare in a seminar organised by the Junior Fellows of the Royal Society of Medicine in London on June 16 2006. His presentation will be based on his article recently published in the *BMJ* 'Conscientious Objection in Medicine'

Rational vs. Emotional Debates



Some pro-life campaigners have argued that women seeking terminations should be forced to look at pictures of human embryos, similar to the picture above, arguing that this forces women to realise that termination is the taking of innocent human life. Such pictures can be highly emotive, but may detract from useful ethical debate. Too often in discussing bioethics, people are manipulated rather than encouraged to engage with the real issues. The Program on the Ethics of the New Biosciences seeks to bring sound analytic philosophy backed up with relevant empirical research to these debates and so to provide knowledge and strategies for people to be able to reason more critically about the increasingly controversial issues in bioethics. The picture above is not a human embryo, but a nematode worm embryo.

Project Publications

Savulescu J, Bostrom N. eds., Enhancement of Human Beings Oxford: Oxford University Press, forthcoming, 2007

Savulescu, J., Autonomy, the Good Life and Controversial Choices, in Rosamund Rhodes (ed) The Blackwell Guide to Bioethics, forthcoming, 2006

Savulescu J., Genetic Interventions and the Ethics of Enhancement of Human Beings in Bonnie Steinbock (ed), 'The Oxford Handbook on Bioethics', forthcoming 2006

Savulescu, J., Persson, I Reproduction and Embryo Research: Bringing Embryos into Existence for Different Purposes, or Not at All, forthcoming in Festschrift for John Harris

Parliamentary Committee Seminar

Professor Savulescu will be presenting on the Ethics of Human Enhancement technologies in Sport to the Parliamentary Science and Technology committee in a seminar launching the enquiry into Human Enhancement technologies in Sport. 21 June, 9.30 am. Anyone wishing to attend should email scitechcom@parliament.uk

Media

Julian Savulescu, Nature, Article on Hinxton Group 'Rules tightened for Stem Cell Studies' March 2006

Julian Savulescu, The Scientist, Article on the Hinxton Group Set-Up– New Stem-Cell Recommendations, March 2006

Julian Savulescu, Press Conference to discuss the outcomes of the Transnational cooperation in stem cell research conference

Julian Savulescu, BBC, Article on Hinxton set-up 'Conflicting Laws Hinder Research'

Julian Savulescu, Financial Times, 'Stem Cell research Scientists Draw Up Ethical Charter' February 2006

Julian Savulescu, Times, 'Junk medicine– Stem Cell research'

Julian Savulescu, Financial Times, 'Chemically Enhanced: Should We Allow Doping in Sport' February 2006

Julian Savulescu Knack magazine, Interview, February 2006

Julian Savulescu, Interview with Damien Corrick to discuss abortion law in Australia February 2, 2006.

Please see p4– 8for some of the BEP media

Invited Lectures

30 March 2006, Human Reproductive Cloning and Genetic Enhancement, Designing Human Life, Imperial College, London

16 March 2006 'Fairer?', Plenary Session at the James Martin Institute World Forum 2006, Tomorrow's People: The Challenges of Technologies for Life Extension and Enhancement, University of Oxford

13 March 2006, Methods in Applied Ethics, Big Issues for Humanity: Advanced Methodology Workshop, Future of Humanity Institute, University of Oxford

8 March 2006, Stem Cell Research: The Ethical Issues, Stem Cell Research in a nutshell, Oxford University

1 March 2006, Bioethics to Biochemists, Lecture series to Oxford University Undergraduates, Oxford University

22 February 2006, Chair of Two Sessions Transnational Cooperation in Stem Cell Research, Cambridge

20 February 2006, Overview of Current Work on Human Enhancement, James Martin School Open Day, University of Oxford

6 February 2006, Williams on the Human Prejudice, Oxford Faculty of Philosophy, Moral Philosophy Seminar, University of Oxford

14 December 2005, Center of Human Values, Princeton, USA, Debate between Savulescu and Masback.

8-9 December 2005, Moderator for First Session at the Oxford Uehiro/ Carnegie Conference on Information Ethics: Agents, Artefacts and New Cultural Perspectives, University of Oxford

'Chemically Enhanced' David Owen, Financial Times, Feb 11, 2006

The Program on the Ethics of the New Biosciences seeks not only to research ethical issues, but to use the research to enable people to make decisions and formulate opinions. An important way of achieving this target is through media coverage. The formation of the Hinxton Group (see p2) generated wide coverage in a variety of media, and there have also been several in-depth interviews with Professor Savulescu. The article below by David Owen, an eminent Sports Journalist, appeared in the Financial Times weekend supplement and features an interview with Professor Savulescu explaining his views on the use of performance-enhancing drugs in sport.

I have a guilty secret. I think Ben Johnson's "victory" in the men's 100m at the 1988 Seoul Olympics is just about the most exciting 10 seconds of sport I have ever witnessed. Still.

I am not Canadian, though I was in Canada when it happened. And I was glad that "runner-up" Carl Lewis, the American super-athlete whom I had for some reason taken against, did not win. But what stood out for me mainly was the sheer bullocking power of Johnson's sprinting.

In the light of this, it is scarcely surprising that I have long held inconveniently ambivalent views on drugs in sport. If performance-enhancing drugs can contribute to such a spectacle, then, in my view, we should think long and hard about whether it is really in the best interests of sport to ban them. Particularly if the product of "clean" sport is the bloodless affair that passed for the women's 100m at the most recent summer Olympiad, in Athens in 2004. This was won by Yuliya Nesterenko of Belarus in a pedestrian 10.93 seconds, after a contest with all the international allure of an egg and spoon race.

My intention is not to defend Johnson. He broke the rules, even if he did recently complain he had been the victim of "sabotage" in Seoul, where he claimed his food and drink had been spiked.

What is more, the drug he tested positive for - stanozolol, an anabolic steroid - has been associated with serious side-effects. One website I consulted noted that in rare cases, "serious and even fatal" cases of liver problems had developed during stanozolol treatment. It is the sort of substance which, at the very least, one would want studied rigorously before any thought were given to easing present restrictions on its use by athletes.

Nonetheless, I have serious doubts about the present draconian but pettifogging approach to doping, under which scores of substances are prohibited and athletes are deemed responsible for whatever enters their system. These doubts have not been eased by five years as a specialist sports journalist. In fact, I have come to the conclusion that the system is flawed in several critical respects.

First, though good at catching unsophisticated or "one-off" dopers, I suspect present methods are less successful at weeding out recidivist cheats. Though there are times when the authorities manage to get ahead of the dopers - such as their 2003 discovery of THG, or tetrahydrogestrinone, a so-called "designer" steroid, that led to British sprinter Dwain Chambers' positive test and subsequent ban - I believe there is often scope for the truly dedicated drugs cheat to thrive, particularly if armed with a good chemist and a good lawyer.

As Don Catlin, the University of California, Los Angeles, scientist who did the testing for the Salt Lake City Winter Olympics, once said: "Everything we do assumes the athletes are guilty, meanwhile the ones who are really clever get away with it anyway."

The present approach also snares the careless and the unlucky. Scottish skier Alain Baxter, who lost an Olympic bronze medal in 2002 because of a stimulant ingested in a Vicks inhaler, is an example of the former. (He will have another chance to win a medal at this month's Winter Olympics in Turin, having been selected once again for the British team.)

The "unlucky" doping category would apply to any athlete whose positive test stemmed from an authorised food supplement that has been contaminated by a banned substance. Of course athletes are not obliged to take such supplements. But, as long as they are permitted, you can hardly blame them - and their coaches - for worrying that they would be uncompetitive against their pill-chomping peers without them.

In addition, the system places constant and onerous demands on athletes. They are clearly well-advised to keep track of just about everything they ingest and in many cases they must keep authorities informed of their whereabouts, in case an out-of-competition drug test is scheduled. The International Association of Athletics Federations (IAAF), athletics' governing body, requires athletes to "keep their whereabouts information on file on a quarterly basis" and to "notify the IAAF immediately that there is any change". For the top-class athlete of today, spontaneity is an indulgence best avoided.

I can't help thinking that those seeking to weed out drug cheats are banging their heads against a wall. The rewards of being the best are now so great in many sports that the temptation to secure an illicit edge over your rivals must be greater than ever. Rather than stamping out the use of performance-enhancing drugs, I suspect that the main result of the present game of cat-and-mouse has been to push their development underground. It must at least be worth assessing whether the achievements of the present drug control regime are worth the price we are paying in terms of unjustly tarnished reputations and diminished performance levels and entertainment value.

It is also worth underlining how present test procedures inflict some pretty striking indignities on those we are encouraged to see as national heroes. The IAAF's procedural guidelines make clear that doping control officers collecting urine samples take "all necessary steps" to ensure the sample's authenticity. "The athlete may be required to disrobe as far as is necessary to confirm that the urine has been produced by him," the guidelines state. "This usually means the exposure of the body from the middle of the back to below the knees." To some extent, the end may justify the means, but such intrusions really do make you wonder about the direction in which sport is heading.

That, then, is a summary of the view I had built up over the years, most as a fan, the last few as a sports writer. The trouble was, I found it difficult to come up with practical policy proposals. I could not see beyond a melancholy vision in which dwindling crowds, disillusioned by the mounting numbers of unmasked "drug cheats", led to the eventual demise of the worst-afflicted sports, including athletics, in many ways the simplest and most natural sport of all.

That was until one day, while waiting for a meeting at Sport England's London headquarters, I found myself leafing through some academic journals. One article, by British and Australian-based academics, jumped out at me.

When I got around to reading it, I realised that it not only trenchantly articulated some of the same reservations about the present doping control regime that had occurred to me, but also had some suggestions as to how authorities might act in the light of them.

The broad thrust of the piece, which you can find at www.bjsportmed.com, is summed up in its title, "Why We Should Allow Performance Enhancing Drugs in Sport". The actual argument is not quite as radical as this suggests, though radical enough. It is that while unsafe drugs should still be banned, the prime focus of sports authorities should be the health of the athlete. "If a drug does not expose an athlete to excessive risk, we should allow it even if it enhances performance."

Under the present world anti-doping code, drugs can be put on the prohibited list if they meet two of the following three criteria: they enhance, or have the potential to enhance, sport performance; they represent an actual or potential health risk to the athlete; and they violate what the code calls "the spirit of sport". Explanatory comments set out why none of the three criteria alone is deemed sufficient grounds for adding a drug to the list. "Using the potential to enhance performance as the sole criteria would include, for example, physical and mental training, red meat, carbohydrate loading and training at altitude."

The article's authors justify their stance in a number of ways. First, they say, the battle against performance-enhancing drugs cannot be won. "In a few years, there will be many undetectable drugs." Second, performance enhancement is not against the spirit of sport; it is the spirit of sport. Opening the door to what they refer to as "biological manipulation" would make sport "less of a genetic lottery". Third, in some cases, allowing performance enhancing drugs would actually be fairer. They cite the example of erythropoietin (EPO), a natural hormone that stimulates red blood cell production, hence aiding the delivery of oxygen to muscles, a key determinant of an individual's ability to perform well at sports. EPO is currently banned at concentrations significantly exceeding the level normally found in humans. The authors argue that it is not EPO itself that is potentially dangerous to the athlete, but raising the percentage of red cells in the blood to too high a level. This, therefore, is what authorities should turn their attention to. The sport of cycling already prevents cyclists from competing if their blood cell count is deemed too high. Moreover, there are other - legal - ways in which athletes can raise their blood count: altitude training and use of a hypoxic air machine, which reduces the amount of oxygen breathed by the user.

But these tend to be more expensive than using EPO, unless an athlete happens to live at high altitude. In this case, the authors argue, "by allowing everyone to take performance enhancing drugs, we level the playing field". Fourth, the present system tends to incentivise the development of undetectable drugs, rather than safe ones. A regime founded on monitoring athletes' health would change these priorities. And fifth, yes, the level of performance would improve. The authors note that classical musicians commonly use a category of drugs known as beta-blockers to control their stage fright. "Although elite classical music is arguably as competitive as elite sport... there is no stigma attached to the use of these drugs." And yet beta-blockers are prohibited in competition in a range of sports including billiards, bridge and gymnastics.

I bounced some of the paper's ideas off Olivier Rabin, science director at the Montreal-based World Anti-Doping Agency. This did little to dent my regard for the article, even though as you would expect, he clearly didn't agree with its main theme.

Asked, for example, if it would be easier to ban drugs only if they were detrimental to health, he said governments and sports authorities - "what I would consider smart people" - had concluded that prohibiting a substance on the basis of one sole criterion would be "too limited... This is why today you have got what I believe is the nice combination that has been adopted in the world anti-doping code."

Regarding EPO, he acknowledged, as the authors of the paper asserted, that its effect on the blood was the same as the legal methods of stimulating red cell production, but said EPO was "much more potent". Hypoxic conditions might increase an athlete's natural production of EPO by "a few per cent". However, "when you take EPO shots, you are going to multiply by two or three the amount of circulating EPO you have got in your body". Presumably, though, if athletes were restricted to a maximum count of red blood cells, the potency of the EPO surge that took them to this ceiling would be immaterial.

Our exchanges on THG, meanwhile, seemed to underline the good sense of the approach sketched out in the article. "When you talk to the athletes who have taken THG... they don't care at all [about health]," Rabin asserted. "So we have to care for them about it."

But is THG harmful to health? I asked.

"Well, it's an anabolic steroid that has never been properly tested... "

So we don't know if it's harmful to health, but it has not been proven safe?

"Yes. What we know is that those products that circulate - designer drugs - ...are not purified substances, [but contain] a whole bunch of side-products that can be really toxic."

A few days later, I am sitting in the freezing Oxford office of Julian Savulescu, lead author of the doping paper. Trim, dark- haired and fortyish, he is the Uehiro professor of practical ethics at the university. After lunching on mushroom strudel in the dining hall of St Cross College, we have settled down to establish just how liberal he thinks the drugs regime should be, and discuss the related subject of genetic doping.

He plainly thinks sport's puritanical approach to performance enhancing drugs is the product of an old-fashioned mindset. "Pharmacology has developed so we can create safe drugs, administer them in safe doses and monitor them in a way we couldn't in the past," he says. "The world of sport has not yet caught up with advances in pharmacology in recent years. Very little in the world is as well studied as medicinal substances and drugs. The problem arises when you have backyard preparations that are not subjected to trials."

But how far could we responsibly go in permitting the use of previously banned substances? Should we allow athletes to take the most demonised of all performance enhancing drugs - anabolic steroids?

He gives a careful reply. "The risks of anabolic steroids - although real - may in some cases have been overstated and in any case have to be put in the context of various aggressive forms of training and the risks we allow people to entertain every day of their lives." When I raise the subject again, however, he is more forthright. "I would prefer my child take anabolic steroids and growth hormone than play rugby," he says. "Growth hormone is safer than rugby. At least I don't know of any cases of quadriplegia caused by growth hormone."

By the time we move on to genetic doping, the room has grown so cold that Savulescu is bending down every now and then to tinker with a malfunctioning radiator. Athletes resorting to this form of enhancement would be injected with a particular gene intended to improve the function of a normal cell and boost their performance. According to the World Anti-Doping Agency (Wada), scientists have experimented with genes that produce a substance - insulin-growth factor 1 - which helps muscles grow and repair themselves. The idea is that the genes, carried into the body by a harmless virus, would produce more of the substance than the body would normally make, stimulating muscle growth. In a similar vein, EPO users might be able to inject the gene that produces the hormone as an alternative to straight EPO injections.

Wada does not yet believe that athletes are resorting to genetic doping, though it is impossible to be sure and it may not be long before they do. Indeed it was reported last week that the trial of a German track coach had uncovered evidence indicating that it might already be a reality in sport. In the meantime, it is spending up to $3m a year on research to try to ensure that testers will be able to detect cases of genetic doping should they start to materialise.

The agency recently organised its second symposium on the subject in Stockholm. It is already clear that it intends to combat the phenomenon as uncompromisingly as it does traditional doping. Richard Pound, the body's chairman, wrote last year that it was "hard to conceive what the consequences could be of altering a person's genetic make-up just to make them better in sports". He added: "This is a slippery slope we do not ever want to go down."

There are a couple of reasons why I find it easier to sympathise with the agency's stance on this issue than on conventional doping. First, while chemicals, however harmful, are quickly flushed out of the system, I presume that the consequences of genetic manipulation are likely to prove longer lasting, if not permanent. Second, the difference between a champion and an also-ran is often in the head. The notion of an athlete using gene therapy to reduce nervousness or increase aggression makes me profoundly uneasy, much more so than the idea of using it to grow bigger muscles.

Savulescu, it turns out, shares few of these scruples. "If you have very good evidence that it is safe, I am inclined to say you should allow it," he says. Such evidence does not appear to exist at present, although even Pound says he is "confident science will get us to the point where gene transfer technology can be applied safely and effectively". A Wada publication describes a French attempt to use gene therapy to treat a rare inherited disorder suffered by 11 boys. The bottom-line is that, though the treatment worked, three of the boys were reported subsequently to have developed leukaemia.

Savulescu argues that sporting rules could be used to prevent sports becoming more of a freak show than they are at present, should authorities so want. "People feel that if we take one step, there is a slippery slope here... that if we allow performance enhancement, there will be people with 6ft legs doing the high jump," he says. "It is false. We can draw a line wherever we want."

He appears positively excited by the possibility that so worries me: of using gene therapy to improve an individual's mental, rather than physical faculties. "The case is going to be even stronger for enhancing things like intelligence/memory that are helpful in non- competitive situations as well as competitive ones," he says. "I don't see any reason why [athletes] shouldn't take more psychological enhancers to improve physical performance or vice versa. We are looking at the radical modernisation of human beings."

Like me, he has few illusions about the profundity of the questions - and opposition - that significant steps along this path are likely to throw up. "I think what you are seeing is resistance to the internalisation of technology," he says. "People are in favour of computers, but less so computer chips in the human brain. What they are worried about is the use of technology to change ourselves."

These are deep waters, lapping at big subjects such as the nature of human identity. In time, the issues raised will make the debate over plastic surgery seem trite in the extreme. And yet they are issues that sport - an area of human endeavour rarely noted for the depth or quality of its thinking - may soon have to grapple with.

What am I left concluding? That sport should stop regarding performance enhancing drugs and procedures as a child regards the bogeyman: as a monster from which it needs unstinting protection. Yes, it makes a lot of sense to replace the present rickety dam- wall with a regime focused on health protection - though I acknowledge that this itself would raise many questions and that the nastiest drugs would still need to be banned. Child protection would need to be thought through with particular care.

But please let's not pretend that the present situation is satisfactory, or anything like it. Not so long ago, in the unlikely surroundings of the University of Buckingham, I went to hear a lecture by a lawyer named Gregory Ioannidis who has been defending the Greek sprinter Kostas Kenteris against charges that he tried to avoid doping controls. " These days," said Ioannidis, "the athlete who wins is the athlete who has the best chemist and the best lawyer." All too often, I am afraid he is probably right.

James Martin Advanced Research Seminar Programme– Trinity 2006

Seminar Programme

Week One- April 25

Presenter **Julian Savulescu and Guy Kahane**
Topic **Procreative Beneficence & Disability**

Presenter **Nick Bostrom**
Paper **Coherent Extrapolated Volition by Eliezer S. Yudkowsky**

Week Two- May 2

Presenter **Jessica Wolfendale and Julian Savulescu**
Topic **Ethics of Performance-Enhancing Technologies in the Military by Jessica Wolfendale and Response by Julian Savulescu**

Presenter: **Nikolaus Knoepffler**
Title: **Theraputic Cloning- an ethical evaluation**

Week Three- May 9

Presenter **Anders Sandberg**
Topic **Cognitive Enhancement**

Presenter: **Adrian Viens**
Topic: **Are Human Embryos Intrinsically Valuable?**

Week Four- May 16

Presenter **Toby Ord**
Topic **Moral Status of the Embryo**

Presenter **Steve Clarke**
Paper **Moral Heuristics by Cass Sunstein**

Week Five- May 23

Presenter **Dov Fox**
Paper **Genetic Enhancement, Civic Compassion, and the Egalitarian Ethos**

Presenter **Barbro Bjorkman**
Topic **TBA**

Week Six- May 30 *Please note time to 1.00 pm, and venue to Lecture Room, Philosophy Faculty*

Presenter **Jeff McMahan**
Paper **Killing Embryos for Stem Cell Research**

Week Seven- June 6

Presenter **Rebecca Roache**
Paper **TBA**

Presenters **Guy Kahane and Nick Shackel**
Paper **Neuroscience and Moral Psychology**

Week Eight- June 13

Presenter **Andrew Reisner**
Paper **TBA**

Presenter **Tom Douglas**
Paper **TBA**

The ideas interview: Julian Savulescu

Eugenics need not be Nazi, and drugs in sport are good, Oxford's leading ethicist tells John Sutherland

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The Boys From Brazil is one of Julian Savulescu's favourite movies. That would not raise an eyebrow, were it not for the fact that his main interest as Uehiro professor of practical ethics at Oxford University is "biological enhancement" - also known as "the new eugenics". Savulescu's views on cloning and the improvement of the body have caused controversy before. So having a soft spot for a film that imagines Josef Mengele cloning an army of Hitlers seems a little risky.

Yes, he says, but the film's value is that it foregrounds cloning as an all-important issue: "What was science fiction when the film was produced, is reality today."

That may be true. But however one renames it, can eugenics ever throw off the legacy of the Third Reich? "It depends what you mean by eugenics," he says. "In point of fact, we practise eugenics when we screen for Down's syndrome, and other chromosomal or genetic abnormalities. The reason we don't define that sort of thing as 'eugenics', as the Nazis did, is because it's based on choice. It's about enhancing people's freedom rather than reducing it."

"Enhancement" comes up time and again with Savulescu. Doesn't "enhancement", as he applies it, go well beyond screening for Down's? "Yes and no," he replies. "Enhancement can be seen as the whole range of things we do nowadays to manipulate, for example, the maternal environment to have a healthier or more intelligent child. In so far as we can use biological interventions or reproductive interventions, I see them as being no different from providing good schools or more nourishing school meals."

Does he, then, foresee parents using gene therapy to ensure their children get a head start in life? "Yes, in the same way that parents today give their children vitamins to make them brighter. But as for genetic manipulation, I don't think that it's 10 years away, but, yes, at some point we will be intervening at the genetic level in the way that we intervene in the dietary level now."

One of the hotspots into which Savulescu's brand of practical ethics has taken him is sport. He has contrarian views on performance-enhancing drugs. "I positively support certain kinds of performance enhancement. When you look at the objections, one of the principal ones is it's unsafe. I agree that this is a valid objection to some kinds of performance enhancers. But it doesn't, for example, apply to moderate levels of growth hormones or even moderate levels of anabolic steroids. It all depends on what you class as 'safe enough'."

Wouldn't this simply produce competition between chemists rather than athletes? "I don't believe human races are like horse races or dog races where you just line the contestants up, flog them, and find out who wins," he counters. "We humans have the ability to exercise choice over how we run our race, and also how we train, and we also reserve the right to decide what kind of athlete we are."

According to Savulescu, the permitted and controlled administration of performance-enhancing agents will "make sport fairer and, indeed, in the long term safer by getting rid of backyard illegal enhancements. What you'll see instead is the expression of human choice about not just how you are going to run the race, but what sort of competitor you want to be."

Right now, Savulescu believes, the biggest challenge concerning pharmaceuticals is how they and other medical interventions can be employed for non-medical uses. "How, that is, we can use that technology not just to treat or prevent disease but to enhance our lives."

What precisely, are the life-enhancing drugs he has in mind? Is Viagra, for example, a biological enhancer? "It is, because it's changing people's performance - people who are affected by the normal processes of ageing. Drugs that enhance our sexual satisfaction are going to be increasingly important in the future." As, he believes, will be the development of anti-ageing interventions that could biologically enhance us to the extent of doubling life expectancy.

Cloning, too, he sees as a challenge not a threat. When the United Nations, in March this year, issued its denunciation of cloning, in all its forms, as an insult to human "dignity", Savulescu shot back with a co-authored paper. Drawing a clear line between reproductive cloning (which he agreed should be banned) and therapeutic cloning (essential), Savulescu insisted: "The UN must immediately retract its misguided and immoral Declaration on Human Cloning before it consigns many more future people to early and avoidable suffering and death."

Does the future, then, hold nothing to scare him? "I'm very frightened," he says, "about biological-weapons programmes, about nuclear war, about global terrorism, about nanotechnology: any of which could result in global destruction. I think we face challenges of extinction over the next 100 years."

But he's not frightened by, say, cloning or genetic manipulation? "No, not at all. I see the job of practical ethics to increase the confidence in certain propositions where there is unjustified lack of confidence. The other job of practical ethics is to introduce uncertainty where we have unjustified certainty. And I think we have unjustified certainty that we'll continue to exist as a species in the next 100 years. Those threats are not going to come from cloning, or genetic enhancement, or pharmaceuticals. The challenge, for our children's sake, is to concentrate on the real risks."

Program on the Ethics of the New Biosciences

Newly Appointed...

S. Matthew Liao Senior Research Fellow and Deputy Director

Dr S. Matthew Liao obtained his doctorate in philosophy from Oxford University and graduated magna cum laude with an A.B. from Princeton University. He is interested in a wide range of philosophical issues in ethics, bioethics, metaphysics, and moral psychology, and has published in journals such as The Monist, Journal of Value Inquiry, Journal of Political Philosophy, Journal of Moral Philosophy, Journal of Medical Ethics, American Journal of Bioethics, and Theoretical Medicine and Bioethics. He was the Harold T. Shapiro Research Fellow at the University Center for Human Values at Princeton University in 2003-2004, and a Greenwall Research Fellow at Johns Hopkins University and a Visiting Researcher at the Kennedy Institute of Ethics at Georgetown University from 2004-2006.

Mark Sheehan Researcher

Mark Sheehan received his PhD in Philosophy from The City University of New York, an MA (Hons) and a BA (Hons)/ BSc from the University of Melbourne. Prior to joining the Program he was a lecturer in the Centre for Professional Ethics at Keele University, Ethics Fellow at the Mt. Sinai Medical School, New York and Adjunct Lecturer in the Philosophy Department at The City College of New York. His current research interests in applied ethics are arguments about interfering with nature, particularly as they are applied to new reproductive technologies, problems of distributive justice in healthcare and various issues in research ethics. He has published in a number of edited collections and in such journals as the *Journal of Medical Ethics*, the *American Journal of Bioethics* and the *British Medical Journal*.

Staff and Visitors

Director

Professor Julian Savulescu

Director of the Program on the Ethics of the New Biosciences and Uehiro Chair in Practical Ethics

Julian Savulescu's areas of research include: the ethics of genetics, especially predictive genetic testing, pre implantation genetic diagnosis, prenatal testing, behavioural genetics, genetic enhancement, gene therapy. Research ethics, especially ethics of embryo research, including embryonic stem cell research. New forms of reproduction, including cloning and assisted reproduction . Medical ethics, including end of life decision-making, resource allocation, consent, confidentiality, decision-making involving incompetent people, and other areas. Sports ethics. The analytic philosophical basis of practical ethics.

Researchers

Dr. Neil Levy

Research Fellow at the Program on the Ethics of the New Biosciences

Dr Neil Levy specialises in free will and moral responsibility, and empirical approaches to ethics. He has published widely on many topics in philosophy, including bioethics, applied philosophy, continental philosophy and free will. He is the author of 4 books and over 50 articles in refereed journals. He is currently writing a book on neuroethics for Cambridge University Press.

Dr Stephen Clarke

Research Fellow at the Program on the Ethics of the New Biosciences

Steve Clarke is a Senior Research Fellow in the Centre for Applied Philosophy and Public Ethics, Canberra division (Charles Sturt University and the Australian National University) as well as a Visiting Researcher at BEP. He holds a PhD in Philosophy from Monash University and has previously held appointments at the University of Melbourne, the University of Cape Town and La Trobe University. Steve is a broad-ranging philosopher whose recent work has appeared in such journals as *The British Journal for the Philosophy of Science*, *Philosophy of the Social Sciences*, and the *Journal of Medicine and Philosophy*. He is currently co-editing a book (jointly with Justin Oakley) entitled *Informed Consent and Clinician Accountability: the Ethics of Auditing and Reporting Surgeon Performance*, which is under contract with Cambridge University Press. He is also working on the following topics: heuristics and biases in lay moral reasoning, the precautionary principle, situationism in ethics, John Dupre's critique of 'scientific imperialism', naturalism and the supernatural.

Visitors

Professor Nikolaus Knoepffler

Nikolaus Knoepffler, born 1962, since 2002 director of the ethical centre at chair of applied ethics at Jena University, member of both the faculty of behaviour and social sciences and the medical school, member of the Bavarian bioethical committee and vice-president of the German Academy for Organ Transplantation.

Dr Jessica Wolfendale

Dr Jessica Wolfendale is a Research Fellow at the Centre for Applied Philosophy and Public Ethics at the University of Melbourne. Her research interests include the ethics of performance-enhancing technologies in the military, the moral psychology and ethics of torture, professional ethics in the military, the ethics of private military companies, and terrorism.

Administrative Staff

Jo Armitage

James Martin Research Projects Co-ordinator

Jo has worked for the Centre for Criminology, St Hilda's College and OUP during her time in Oxford. She has a BA from the University of Manchester, and a postgraduate qualification in personnel management from the Metropolitan University of Manchester.

Miriam Wood

James Martin Projects Officer

Miriam graduated from Cambridge University in June 2004. She spent a year working in Staff Development at the Oxford University Library Services before joining the Program on the Ethics of the New Biosciences as Projects Officer.

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