

THE BECKLEY FOUNDATION

STATEMENT OF INTERESTS

EVIDENCE SUBMITTED TO THE ACADEMY OF MEDICAL SCIENCES REGARDING THE FORESIGHT BRAIN SCIENCE, ADDICTION AND DRUGS PROGRAMME

Evidence suggests that psychoactive substances have been used since the earliest history of humankind, and as such may have played a part in our cultural evolution (Nichols, 2005). Today, known legal and illegal drugs, plus new classes of substances, such as cognition enhancers, are widely available and utilised perhaps more than ever in our known history. Present approaches to control of substances, including prohibition and the classification of illicit drugs, are based on political, cultural, historical and other considerations (Berridge, 2003). The current measures are now widely acknowledged to be failing to achieve the aim of public protection from harms. In addition, these measures do not cover the full spectrum of substances, such as the most harmful substances, tobacco and alcohol, nor the rising trend in use of prescription and enhancement drugs.

In the past 6 years, the Beckley Foundation has brought together top scientists, policy analysts, representatives of the police and others to develop a forward-thinking, rational approach to these issues. Hence, the Beckley Foundation aims and approach fully synchronise with those of the Foresight programme and the Academy of Medical Sciences. Here, I present a brief overview of the Beckley Foundation work followed by a synopsis of evidence on key interests.

OVERVIEW OF BECKLEY FOUNDATION WORK

POLICY PROGRAMME

Reacting to concerns that international drug policy debates are insufficiently informed by the growing evidence base, the Beckley Foundation has initiated a programme of research and policy analysis that produces regular reports. This material aims to address the current dilemmas in drug policy that result from the continued growth of the global market for illicit drugs, such as heroin, cocaine, methamphetamine and cannabis.

The Beckley Foundation Drug Policy Programme (BFDPP) is a project dedicated to providing a rigorous, independent review of global drug policy. The initiative consists of a number of interlinked components:

- The commissioning, publication and distribution of Beckley Foundation [reports](#) and [briefing papers](#) on international drug policy issues.
- The hosting of policy-focused [seminars](#) that bring together policymakers, academics and practitioners to discuss international drug policy issues.

- The establishment of an [International Drug Policy Consortium](#), consisting of a network of Non-Governmental Organisations (NGOs) and professional networks from around the world.
- The establishment of an [International Society for the Study of Drug Policy](#), a group of outstanding academic experts from around the world who have produced notable work on the subject of drug policy evaluation and other relevant issues.

SCIENCE PROGRAMME

The intention of the Beckley Foundation Science Programme is to advance our understanding of human brain function and the nature of consciousness. It has resulted in the formation of various collaborative research projects with leading scientists in the fields of neurophysiology, biochemistry, psychiatry and psychology, at renowned scientific institutions in Great Britain and abroad.

The Beckley Foundation Science Programme aims to:

- explore the processes that underpin conscious states.
- characterise the attributes of 'normal' human consciousness and determine the changes that occur in pathologically, naturally or chemically altered states.
- evaluate the potential of techniques that could be employed in the alteration of conscious states to provide therapeutic and medicinal benefits.

The research programmes initiated by the Beckley Foundation investigate changes in cerebral blood flow, electrical activity and magnetic field variations underlying different states of consciousness. Other changes to be measured include neurotransmitter concentrations, neural immune function, cognition and mood ratings. Using sophisticated technologies in combination with substances that alter consciousness, new areas can be explored, enabling us to see further into the human brain and the workings of the mind than ever before.

EVIDENCE

THE CURRENT SITUATION

A major crisis is now being documented on the global drug problem by agencies such as the United Nations Office on Drugs and Crime (UNODC), the International Narcotics Control Board (INCB), the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) and other regional and national monitoring bodies (Roberts *et al.*, 2005). Despite enormous efforts, the global illicit drug market is expanding year on year. Forty years of prohibition, costing hundreds of billions, has done nothing to truncate the use of drugs. Indeed, they are purer, cheaper and more readily available than ever before. The question facing governments globally should perhaps change from how to eliminate drug use to how to minimise the damage done by it to the individual and society at large.

A recent Home Office study revealed that drug-related crime, health service use, drug-related deaths and social care for addicts totaled £15.4 billion in 2003-4, which equates to £44,231 per year per problematic drug user (Singleton *et al.*, 2006). For the drugs cannabis, amphetamines, ecstasy, cocaine and heroin, the total market size is estimated as £5.3bn in the UK as a whole: roughly 33 and 41 per cent of the size of the tobacco and alcohol markets respectively (Singleton *et al.*, 2006). So far this year 159,306 people have accessed drug treatment services in England alone (National Drug Evidence Centre, 2006).

Historically and in other regions, the position is different. Until a few decades ago, heroin was available on prescription to state-registered addicts, a British system that was thought to eliminate a black market (Berridge, 2005). Since this policy was abandoned, Britain has seen a large escalation in the use of heroin and crack cocaine, and in associated costs, including drug-related crime (Blakemore, 2003, 2004). The Swiss experiment to prescribe iv heroin to addicts has met with success, and was supported by the public in a national referendum in 1997.

In the 2004 Beckley Foundation seminar, Prof. Colin Blakemore quoted the *Runciman Report* (2000): “In the course of our enquiry it has become inescapably clear to us that eradication of drug use is not achievable and is not therefore either a realistic or a sensible goal of public policy.” This sentiment was echoed at the same seminar by Jan Wiarda, chair of the European Union police chiefs, who acknowledged that the flow of heroin and cocaine into the EU could not be stopped. “We cannot eradicate drugs out of society. We can only mitigate community problems, human problems and the damage to the credibility of governments caused by drugs.”

Prof. Blakemore also noted that although drugs are traditionally classified as social drugs (legal and illegal), medical drugs and enhancement drugs, the boundaries between these classes are increasingly blurred, and that new classification systems are needed based on current scientific information. He again pointed to the *Runciman Report* (2000): “We believe that the present classification of drugs in the MDA [Misuse of Drugs Act] should be reviewed to take account of modern developments in medical, scientific and sociological knowledge.”

In this year's House of Commons *Select Committee on Science and Technology Report*, the committee summarised their views on the current drug classification system: “With respect to the ABC classification system, we have identified significant anomalies in the classification of individual drugs and a regrettable lack of consistency in the rationale used to make classification decisions. In addition, we have expressed concern at the Government's proclivity for using the classification system as a means of 'sending out signals' to potential users and society at large—it is at odds with the stated objective of classifying drugs on the basis of harm and the Government has not made any attempt to develop an evidence base on which to draw in determining the 'signal' being sent

out...The current classification system is not fit for purpose and should be replaced with a more scientifically based scale of harm...In light of the serious failings of the ABC classification system that we have identified, we urge the Home Secretary to honour his predecessor's commitment to review the current system, and to do so without further delay."

The Beckley Foundation has long promoted a harm reduction approach to drug use, given the clear failures of the prohibition approach, the vagaries of the current classification system, and its failure to include licit drugs in its calculus of harms and benefits. The Foundation's work is particularly focused on five aspects:

- Evaluation
- Future drug policy
- A scale of harm for all drugs
- Use of psychedelics as research tools in neuroscience
- Research into the use of psychedelics for their therapeutic potential, particularly as an aid to psychotherapy in certain treatment-resistant conditions, and as tools to assist in promoting well-being, both in healthy people and in those dealing with emotional distress, including palliative care for the terminally ill.

EVALUATION

Evaluation of the impact and effects of drug use is key to developing policy, managing harmful drug effects, and harnessing any benefits such substances may bring. The Beckley Foundation is pursuing both the scientific and policy aspects to further the evaluation of psychoactive substances.

The policy programme has produced more than twenty reports and briefing papers, which include:

- [Reducing drug related harms to health: A review of the global evidence](#) (2004)
- [Reducing drug related crime: An overview of the global evidence](#) (2005)
- [Facing the future: The challenge for national and international drug policy](#) (2005)
- [Monitoring drug policy outcomes: The measurement of drug related harm](#) (2006)
- [Treatment for dependent drug use: A guide for policymakers](#) (2006)

A key area of work in our policy programme has been the Beckley Foundation Seminar Series, "*Society and Drugs: A Rational Perspective*":

- [Drugs and the Brain](#) (Oxford, 2002)
- [The Role of Drugs in Society](#) (London, 2003)
- [An Interdisciplinary Perspective on Alcohol and Other Recreational Drugs](#) (London, 2003)
- [Global Drug Policy - Future Directions](#) (London, 2004)

- [International Drug Policy Seminar 2005](#) (London, 2005)
- [Drug Policy Seminar 2006 - UNGASS and the Contribution of Civil Society](#) (London, 2006)

The *Beckley Foundation Drug Policy Seminar 2005* consisted of a number of interlinked meetings that took place across a three day period. The two main seminars brought together politicians and policy experts, academics and NGOs, in order to review and debate the latest evidence and experience on illegal drug use, and the policies and programmes designed to respond to these issues. The key meetings were:

- [The Beckley Foundation Global Drug Policy Seminar 2005](#), which evaluated the latest evidence and challenges in national and international drug policy and the effects of policy on supply, crime and health. The afternoon session examined the impact of international drug controlled systems on scientific and medical research.
- [The Beckley/Foresight Seminar on Future Policy Challenges](#), jointly hosted with Foresight, a UK Government think-tank, reviewed the Foresight Report on how best to manage the use of psychoactive substances for the good of the individual, the community and society over the next 20 years.
- [The International Society for the Study of Drug Policy](#), in which internationally acclaimed drug policy analysts met to give academic talks and discuss future collaboration.
- [The International Drug Policy Consortium](#), at which NGOs from around the world concerned with drug policy and related problems met to discuss future collaboration.

The Proceedings Documents from the 2005 seminars will soon be available to download from <http://www.beckleyfoundation.org/seminar/seminar2005.html>.

A key work currently in progress will be presented at the United Nations meeting in 2008, when the effectiveness of global drug policy over the past 10 years will be reviewed and the strategy for the next 10 years laid down. The Beckley Foundation is compiling a state of the art overview of science, policy, production, use and impact of the world's most common illicit drug, cannabis. This Cannabis Commission will comprise a series of reviews by the world's leading experts in the field and their independent conclusions on future directions.

FUTURE POLICY

The essence of the Beckley Foundation's paradigm is clear and straightforward (Roberts *et al.*, 2005). It comprises four core propositions:

1. The guiding principle for international drug policy should be to reduce drug-related harm.
2. The principal harms are crime and public nuisance, drug related deaths, physical and mental health problems, social costs and environmental damage.

3. The development of drug policy must be guided by evidence collection and evaluation, which is open to public scrutiny and informs periodic and objective policy review.
4. Drug policy should respect human rights, local judicial norms and divergent cultural attitudes to drugs and drug use.

Beckley reports have highlighted five key areas of responsibility for policymakers (Roberts *et al.*, 2005):

- Building the evidence base
- Refocusing law enforcement
- Managing drug-related harm
- Expanding treatment for addiction
- Recognising the social context of drug use.

We propose the following model for the reduction of drug related crime (Stevens *et al.*, 2005):

- Primary – universal approaches that aim to prevent drug-related crime before it occurs.
- Secondary – approaches that focus on those people who are most at risk of perpetration of drug-related crime.
- Tertiary – approaches that focus on people who have already committed drug-related crime.

A SCALE OF HARM FOR ALL DRUGS

In the UK, at least 100,000 premature deaths per year are related to tobacco use while up to 40,000 premature deaths are related in some way to alcohol use (Iversen *et al.*, 2005, Drummond, 2003). By comparison, the National Programme on Substance Abuse reported 1,382 drug-related deaths in 2005, of which 59% were accidental and 70% were related to opiates and opioids, including heroin and methadone. Excess alcohol use is implicated in 17,000 road traffic injuries, half of psychiatric inpatient admissions, and half of casualty attenders on weekends, while 20-30% of people admitted to hospital with general medical problems and 30% of GP attendees have alcohol problems (Drummond, 2003). Recent data suggest that problem drinking is increasing, especially among the young.

Prof. Colin Blakemore (*Beckley Foundation Seminars*, 2003, 2004) has noted that the increasing emphasis on harm reduction seems to be more sensible than attempts to eliminate drug use entirely. Any effort to reduce harm clearly requires rigorous methods to estimate the potential harm from illegal drugs, set in the context of other socially acceptable risks. To be rational and consistent, any methodology for assessing the potential harm from illegal substances should include, as a calibration, an estimate of the harm associated with the use of legal drugs, especially alcohol. Thus, he first proposed a scientifically based scale of harm for all drugs in conjunction with the Beckley Foundation, and is developing this work with Prof. David Nutt.

Features of such a scale of harm would include:

- There should be a continuous review of scientific and sociological evidence by a panel of experts, with representation from the police, relevant NGOs and the general public.
- The classification should be regularly reviewed, as new evidence emerges.
- Drugs should be ordinally ranked according to the current evidence of relative harm, rather than grouped into sharp, arbitrary categories.
- Alcohol, tobacco and certain medicinal drugs that are abused should be included for purposes of calibration.
- Such a classification would not suffer from the inherent conservatism and inflexibility of the current ABC system. It has taken over 15 years to reclassify cannabis from Class B to Class C.

The scale of harm would be based on such criteria as: biological harm, toxicity, mortality and dependency; relation to violent behaviour; relation to crime; cost to the NHS; general impact on others; total economic impact.

The Advisory Council on the Misuse of Drugs already uses a risk assessment matrix that utilises a more simplistic approach to that outlined above, based on physical harm, dependency, and social harms. The House of Commons Select Committee on Science and Technology (*Report, 2006*) criticised this approach as being “almost as much an art as a science”. The Select Committee welcomed a classification based on scientific evidence, noting that this is particularly important given the evidence that “the fact that the classification system is of such minor importance to the police suggests that it is not fit for purpose”. The Select Committee further recommended that: “decoupling penalties and the harm ranking would permit a more sophisticated and scientific approach to assessing harm, and the development of a scale which could be highly responsive to changes in the evidence base.” However, despite the Select Committee conclusion that a review is much needed, no governmental action has been indicated.

USE OF PSYCHOACTIVE SUBSTANCES AS RESEARCH TOOLS AND POTENTIAL THERAPEUTIC AGENTS

Over the years, the Beckley Foundation has promoted the use of psychoactive substances, alongside other techniques to alter consciousness, as powerful research tools in neuroscientific investigation. Use of such substances in controlled, clinical conditions, together with the use of powerful new imaging techniques, are likely to shed light on the biological substrates that underpin consciousness in usual and altered states. The Beckley Foundation is particularly interested in exploring the brain effects of psychedelic drugs (hallucinogens), including cannabis, since these substances usually have low risk to physical health.

At the Beckley Foundation 2005 seminar, a key issue explored was the effect of regulation of illicit substances as a barrier to research, particularly in respect of the psychedelics and cannabis, which have powerful effects on consciousness, and yet are most often of little criminal interest. The issue

was raised and discussed by Prof. Colin Blakemore, Prof. Les Iversen, Prof. David Nichols, and others. Prof. Nichols (2005) noted that once psychedelics became popular recreational drugs, repressive laws were quickly passed that also effectively stopped scientific research, and researchers who wished to study psychedelics were stigmatised by their peers because of the sensationalised and negative coverage of these drugs by the media.

Such substances may be useful tools to explore brain mechanisms, such as cognitive, sensory and emotional processing and dysfunction, and to point to new treatments for mental states resistant to current tools utilised in medicine and psychiatry, e.g. psilocybin to treat obsessive-compulsive disorder and LSD as a treatment for alcoholism. In recent years, there has been a resurgence of interest in use of these substances to enhance well-being and to induce mystical and spiritual states similar to those achieved through meditation and other means (Griffiths et al). Given this potential, the Beckley Foundation Science Programme is currently conducting the first studies for more than 30 years using LSD and cognitive testing in healthy human subjects, and the most comprehensive studies to date of the brain correlates of the effects of cannabis that users find beneficial. Projects in planning include investigation of the connection between LSD, schizotypy and creativity, and brain imaging research to assess the correlates of potential therapeutic effects of psilocybin or LSD. Other projects devised and supported by the Beckley Foundation aim to investigate the brain changes underlying other means of inducing altered states of consciousness, such as meditation. A collaboration in Russia is studying changes in the dynamic relationship between blood and CSF, which may underlie cognitive deterioration in normal ageing and in dementia.

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