

**The Society for the Study of Addiction**

**Annual Symposium**

**“From Biology to Sociology: Evidence base and implementation strategies for alcohol, drugs and tobacco policies”**

**Speakers’ Abstracts**

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**4<sup>th</sup> - 5<sup>th</sup> November 1999**

## **Keynote Address: Lee Robins**

### *Beliefs about the intrinsic dangerousness of a substance shape its prevalence and influence policy*

Most people in the US believe that heroin is the world's most dangerous drug. It is thought to be extremely addictive, that addiction to it is so overwhelming that addicts will rob or steal to satisfy a craving, and that recovery is rare or impossible without prolonged treatment. As a result of these beliefs, the government has sponsored a large number of treatment facilities directed specifically at heroin use; and passed laws making possession or sale a serious crime, so that jails are bursting with users and sellers. These beliefs have been stable over time, resulting in a stable prevalence of use - about 1% of the US population has ever tried heroin. In a large study from the 1980s, heroin was the least frequently used drug, reflecting the view that it is so dangerous that any use will lead to addiction. The prevalence of use has been stable at about 1%, while use of other drugs has varied substantially. Are there good grounds for these beliefs about heroin.? Yes and no. Looking at outcomes of heroin users vs users of other of other drugs only, heroin users fare far worse. But is this because heroin is intrinsically dangerous or because ti is thought to be, so that only certain types of people are willing to try it, and then only after they have tried every other drug available. We try to separate out the selection of its users and its position as the "end of the line" after every other drug has been tried to estimate the intrinsic characteristics of heroin as drug. We use the very large sample from the ECA, which provided almost 400 people who had used heroin more than experimentally. We control on childhood predictors of its use and the variety of other drugs used. Is such an effort credible? Should policy be based on such results rather than on the simple correlations between drug and outcome? Or is the answer to this question also "Yes and No"?

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## **Virginia Berridge**

### *What makes research effective? The historical evidence base*

Evidence based medicine and health policy has attained high priority in recent years. This paper considers the role of evidence outside the usual run of evaluations and randomised controlled trials. It considers evidence form history, a discipline that is evidence based by its very nature. The paper considers a number of case studies from the history of drugs, smoking and alcohol policy where research has been demonstrably effective, whether in changing policy or more broadly in changing the way in which the subject is conceptualised by policy makers, the field and the public. It draws out some common themes that seem to have operated historically. It uses these to point to issues that are relevant for today's moves to bring evidence and policy into a closer relationship.

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## **Bruce Ritson**

### *Implementing alcohol policy - "Fine Words Butter no Parsnips"*

It is well known that the transition from policy to action rarely takes place as planned. This paper will examine some of the barriers to change and possible ways of circumventing these. In recent years many governments in Europe and elsewhere have shown a commitment to developing alcohol strategies and plans, eg the European Alcohol Action Plan of WHO. In the UK alcohol policies have been placed within broader strategic frameworks, for instance "Towards a Healthier Scotland" or "Our Healthier Nation". A number of groups are working actively on formulating alcohol policies and these are being influenced by a number of specialist research and other interest groups. Different cross currents are likely to influence the course of these policies as they approach their objectives and these will be discussed. They include the balance between community responses to alcohol related problems and national plans; economic and political imperatives; the role of media in setting agendas for change; the presentation of research evidence; the way in which the hazards and benefits of alcohol are perceived by the population and the feasibility of attitude change. Genuine cooperation between agencies which are often competing for limited resources may be one of the keys to effective progress.

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## **Ann McNeill**

### *The White Paper: An overview and the evidence base for smoking cessation*

In December 1998, the British government produced its first ever White Paper on smoking: **Smoking Kills**. This detailed a comprehensive strategy to reduce smoking prevalence in Britain with three main target groups: the young, current smokers, particularly those who are most disadvantaged, and pregnant smokers. A range of measures were introduced including support for the Europe-wide ban on tobacco advertising and sponsorship and a new £50m publicity campaign. A key part of the White Paper was the recognition that smoking is an addiction and that many smokers need help in quitting. New monies were allocated to developing NHS smoking cessation services. The evidence base for these new developments in smoking cessation will be discussed.

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## **Martin Jarvis**

### *Prospects for reducing tobacco-related harm: what does research on smoker behaviour teach us?*

It has been said that people smoke cigarettes for nicotine but die from the tar, and it is generally acknowledged that the cigarette is an extraordinarily dirty drug delivery system. However, despite the fact that nicotine itself is not a particularly toxic drug in smoking doses, harm reduction approaches have

had relatively little emphasis in tobacco control. The strategy of gradually and progressively reducing machine-smoked deliveries of tar and nicotine has been demonstrated to be entirely bankrupt, due to the ease, intended by tobacco manufacturers, with which smokers can achieve much higher intakes from low-tar cigarettes than the nominal yields would suggest. To have any chance of succeeding, policies for cigarette product modification must be firmly grounded in an understanding of the factors driving smoking behaviour. This presentation will outline evidence on the role of nicotine in tobacco smoking and the arguments for and against the two main contending strategies: reduce the absolute bioavailability of nicotine from cigarettes to the point where they will no longer be reinforcing; or leave nicotine largely unregulated while reducing emissions of gas phase and tar components.

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## **Peter Hajek**

### *Nicotine replacement therapy and smoking cessation policy in the UK*

Nicotine replacement therapy (NRT) remains at present the only approved pharmacotherapy for smokers in the UK. For a long time, NRT was available on private prescription only. Smoking was not considered a pathological condition, and there were fears of high costs to the NHS if NRT became an NHS prescription drug. A few years ago, NRT became available over-the-counter, and very recently nicotine chewing gum went on general sale. These moves may well have public health implications. In addition to this, in 1999 the UK government started to support smoking cessation initiatives, including a provision of free NRT for one week for smokers entitled to free prescriptions. Several issues concerning implementation of this policy require clarification. This includes NRT choice and collaboration with pharmaceutical companies, the question of ensuring the NRT supply is contingent on receiving smoking cessation advice and what this advice should involve, and a rationale and financial implications of expanding this policy beyond one week for smokers who benefit from treatment. Overall, NRT now plays an important role in smoking cessation policy in this country.

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## **Keynote Address: Michael Russell**

### *A personal view of the application of research findings to policy formation*

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## **Neil McKeganey**

### *Pre-teen drug misuse: a challenge for policy and practice in the United Kingdom*

This paper will review recent data on the nature and extent of illegal drug use amongst pre-teens within the UK. On the basis of research conducted within the US, early age of onset of illegal drug use is one

of the strongest predictors of the development of longer term problem drug use especially where such early onset occurs alongside other behavioural problems. Surveys conducted within the UK have identified that by age 12 as much as 10% of young people may have begun to at least experiment with illegal drugs. In this paper I will identify some of the risk factors associated with early onset of illegal drug use. The paper will also raise questions about the various challenges to policy and service provision which such pre-teen drug misuse poses and will make the case that this is an area which we have neglected in favour of a focus upon what may appear to be more problematic forms of drug misuse. There is a strong possibility that many of those individuals who start to use illegal drugs by age 12 will go on to become the problematic drug users of tomorrow. A strong case can be made for meeting the needs of such pre-teen drug misusers however

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## **Laurence Gruer**

### *Substance misuse in Glasgow and Edinburgh: one country, worlds apart*

Edinburgh and Glasgow are only 50 miles apart but their contrasting geography, history and economy have made them vastly different places in which to live. The average life expectancy of people in Edinburgh is about 4 years longer than in Glasgow. This reflects the much greater levels of socio-economic deprivation in Glasgow where 30% of the population live in areas categorised as the most deprived, compared with only 3% in Edinburgh. Across Scotland, harmful drug and alcohol misuse is more strongly related to socio-economic deprivation than any other variable. This largely explains the much greater levels of drug misuse and alcohol related harm in Glasgow than in Edinburgh. In the early 1980's, both cities experienced an epidemic of drug injecting. HIV arrived earlier and spread more quickly in Edinburgh than in Glasgow, possibly due to more intensive needle sharing. Edinburgh quickly responded with a successful methadone programme cutting both injecting and HIV rates. Glasgow went for needle exchange which was sufficient to prevent significant spread of HIV but not hepatitis C. Glasgow only developed a methadone programme from 1994 onwards, introducing pharmacy supervised consumption on a large scale. Edinburgh's provision of unsupervised methadone has led to far more methadone related deaths and non-prescribed methadone dependence than in Glasgow. Death from heroin overdose is common in Glasgow, rare in Edinburgh. In responding to drug related harm, both cities have had conspicuous success but the fatal lure of drugs, particularly to their disenfranchised youth, seems greater than ever in both cities today.

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## **Roy Robertson**

### *Social deprivation and other environmental influences in drug abuse*

The environmental influence on drug taking is familiar to all drug users and to most policy makers. Understanding the relationship between social deprivation and other environmental influences such as housing and awareness and beliefs is however extremely complicated and less easy to understand.

Environmental influences have effects on generating drug problems but also on the course of drug careers and the outcomes of treatment interventions. The Advisory Council on the Misuse of Drugs produced a report called “Drug Misuse and the Environment” in 1998 and the talk will largely centre on the key areas the Committee identified and the outcome of their deliberations. It will concentrate on the environmental influences generating and driving drug dependency and misuse and on the implications for treatment and health policy.

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## **Clare Gerada**

### *General Practitioner and the drug user - what can we do?*

The number of drug users continues to rise with more taking drugs at a younger age. Despite nearly two decades of policy makers trying to get GPs involved and a decade of Primary Care Led NHS we still appear to be no further along. The publication of the Clinical Guidelines has been surrounded by controversy amongst GP professionals (though ironically also amongst others in the field). GPs stating in their annual conference that they are being blackmailed into caring for this patient group. Government strategy, especially in relation to delivering the optimistic targets set out in the Drug Strategy, will depend heavily on GP involvement. What can be done then to turn the heads (and hands) of the largest medical professional group in the National Health Service? This talk will explore new Government initiatives that could go some way in helping to involve Primary Care. If they fail, what next?

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## **The Society Lecture: Robert Kendell with discussant Lee Robins**

### *Drug misuse and public policy in the UK*

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## **David Goldman**

### *Genetic research in alcohol dependence*

The genetic evidence base for alcohol policy includes the genetic epidemiology of this clinically-defined disorder as well as an emerging understanding of the role of specific genes and gene/environment interactions. Although alcoholism and alcohol use are common phenotypes which are heterogeneous in their origins, their heritabilities are substantial. Surprisingly, a substantial portion of the genetic variance in alcoholism risk is substance-specific rather than being attributable to a shared diathesis of vulnerability to substances. The evidence for substance-specificity in alcoholism is also compatible with the functions of the genes which have so far been confirmed as having a role in inheritance of this disorder. In certain Asian populations, the aldehyde dehydrogenase2 (ALDH2) and alcohol dehydrogenase2 (ADH2) enzymes have common functional polymorphisms leading to an excess of acetaldehyde after

consumption of ethanol. Acetaldehyde is toxic and aversive, discouraging alcohol intake. In particular ALDH2 Glu487/Lys487 heterozygotes - about half of Japanese- have substantially reduced vulnerability, and no Lys487/Lys/487 homozygote has yet been found to be alcoholic. The sieving of the genome has also detected several putative candidate genes and loci which may represent genes for vulnerability shared across substances. An empirical understanding of the genetic bases of alcoholism and other behaviours is still in infancy. However, the abundances of genetic variants, their modes of action, and their applications in treatment and prevention are of profound importance because appropriate approaches to alcohol will ultimately be science-based.

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## **David Ball**

*What does the Human Genome Mapping Project have to offer alcoholics?*

Recent advances in molecular genetics have increased our knowledge of the hereditary material to such a level that it is now possible to look for the genes that contribute to alcoholism. Throughout the world the concerted effort by scientists affiliated to the Human Genome Mapping Project is rapidly determining the sequence of the 23 volumes of hereditary information, the chromosomes, that is the human genome. It is estimated that a first draft of this genetic encyclopaedia will be available in the spring of 2000, which will contain some 100,000 gene entries. Subsequently the 'typographical' errors that constitute genetic variation and mutation will be identified and as a consequence the multiple small genetic contributions to common and complex diseases elucidated. These findings will effect our lives and have a profound impact upon subsequent generations. Genes and environment interact during the development of alcohol dependence. Finding the genetic contributions will profoundly alter the way we understand this condition and will permit the introduction of improved management policies. New treatments will be developed and targeted to subgroups identified by genetic tests. It will also be possible to develop genetic tests that alter an individual predicted risk which could be used for counselling, screening and prevention programmes. Particular benefits in the future will therefore result from the collaboration between researchers from many diverse disciplines seeking to explore the spectrum of factors in the nature nurture continuum. Whilst this information could be used to reduce morbidity and mortality, such information would also be of interest to those in personnel departments and insurance companies. In the future it may be necessary to provide a genetic curriculum vitae, in the form of a blood sample, prior to obtaining life assurance, a mortgage, job or promotion. In looking forward to this exciting future the important moral and ethical lessons of the past should be heeded and the implications considered and widely debated.

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## **Duncan Raistrick**

*Tackling Alcohol Together*

Tackling Alcohol Together is a Society for the Study of Addiction project. The aim of the project is to bring together and present the evidence base for a UK Alcohol Policy, to promote a recommended 'policy mix' to politicians, commissioners of services, the drinks industry, and those working in the alcohol field. The recommendations are based on a series of position papers which were written by invited experts and then distilled out by the project steering group. The need for central co-ordination of policy is stressed and, with this in mind, it is proposed that there should be an identified lead agency responsible for the different strands identified within the policy mix. A theme which runs through Tackling Alcohol Together is the ambivalence of the UK population towards drinking. For example in one study of attitudes 92% of respondents supported enforcement of laws on under age drinking whereas only 46% supported limiting outlets for alcohol. It was decided, therefore, that the first policy objective should be *To Increase Public Information and Debate*. There are costs and benefits attributable to the drinks and leisure industries. On the one hand this sector of business employs over a million people and, in 1996, generated in excess of £10,000 million revenue for the government: on the other hand it has been estimated that 60% of para suicides, 30% of divorces, 40% of domestic violence and 20% of child abuse cases are associated with alcohol misuse. The second policy objective, *To Encourage the Drinks and Leisure Industries to Introduce Innovative Schemes to Discourage Drunkenness*, follows from this. The third objective, *To Maximise Community and Domestic Safety*, seeks to establish a broad range of local, community based partnerships to target specific high risk or anti-social behaviours. The fourth objective, *To Reduce Alcohol Related Health Problems below 1990 Indicator Levels*, depends upon the deployment of effective treatment services and maintaining per capita consumption below the 1990 level of 7.6 litres.

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### **Jonathan Chick**

*Evidence of efficacy of pharmacological methods to prevent relapse in alcohol dependence*

Published randomised controlled studies of Acamprosate present data on some 3000 patients treated for periods varying between 3 and 12 months with up to 12 months post-medication follow up. Methodological issues about measurement of survival time to the first drink and cumulative abstinence days have been raised. The compound appears safe, but the indications of when and for whom to prescribe it are not yet fully answered. The role of opiate antagonists such as Naltrexone continues to be elucidated in randomised controlled trials which reveal that its efficacy is greatest when alcohol has been consumed at some point during the recovery period, when there is high compliance with medication, and when cognitive behaviour therapy is offered. This paper will attempt to extrapolate to normal clinical practice from these results. Anti depressants are widely prescribed to people with alcohol problems. The evidence for their efficacy, in the absence of primary depression, is equivocal.

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### **Hilary Little**

### *The pharmacological basis of treatments*

This talk will cover current knowledge of the mechanisms of action of pharmacological treatments for alcohol dependence, with a particular focus on the prevention of relapse drinking during abstinence. There will first be a brief discussion of the neuronal basis of the alcohol withdrawal syndrome and the mechanisms of action of pharmacological treatments for this syndrome. Information on the basis of the reinforcing and rewarding effects of alcohol, and their importance in the development of alcohol dependence will then be presented. Our current knowledge of the changes that take place in central nervous system function during chronic excess alcohol consumption, and how these might affect behaviour, will be described. Two relatively new developments in treatment of relapse drinking, naltrexone and acamprosate, will then be discussed, with information about common knowledge, or lack of knowledge, of their mechanisms of action. Potential pharmacological candidates that may provide new approaches to the treatment of dependence in the future will be described. The presentation will also cover the advantages and limitation of the models used for the development of pharmacological treatments for alcohol dependence.

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### **Alex Copello**

#### *Social Behaviour and Network Therapy in the UK Alcohol Treatment Trial: basic principles and early experiences*

The present paper reports on the basic principles of a treatment approach that is currently being used in a National Randomised Controlled Trial of Alcohol Treatments in the UK (UKATT). The treatment: Social Behaviour and Network Therapy (SBNT) is novel as a package but developed by integrating a number of strategies that have been found to be effective in other approaches. The treatment is based on the notion that to give the best chance of a good outcome people with serious drinking problems need to develop positive social support for change. An outline of the basic principles that guided the development of SBNT will be followed by process data from the first 40 cases. Three case studies illustrating three common scenarios therapists find when applying SBNT will be described.

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### **Plenary Session: Lee Robins, Michael Farrell, Michael Russell**

#### *Making connections between evidence and policy*

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