Discussion of the problem of anabolic-androgenic steroid abuse has been generally limited to the context of professional sports and major international sporting events such as the Olympics. Anabolic-androgenic steroid abuse is not, however, limited to professional and elite athletes, nor to athletes only, but it has now spread to amateur and lower level athletes as well as to the general public. It is now an issue of great concern because of the significant and increasing percentage of young people involved in steroid abuse. In dealing with this issue, similarities and differences between the trafficking and abuse of steroids and other controlled substances need to be considered. Additionally, it is apparent that the problem of steroid abuse is international in scope and that the control actions that have been taken by only a relatively few nations are insufficient to deal with the problem.

Aware of the growing steroid abuse problem, the US Drug Enforcement Administration (DEA) arranged for an International Conference on the Abuse and Trafficking of Anabolic Steroids which was held 7-10 December, 1993 in Prague, Czech Republic. The purposes of the conference, the first of its kind, were to develop recognition of the consequences of steroid abuse, to examine steroid trafficking at the national and international levels, and to explore appropriate responses to the steroid abuse problem. Approximately 19 countries were represented at this conference as well as several international organisations. Countries participating included: Australia, Austria, Belgium, Bulgaria, Canada, Czech Republic, Denmark, Finland, Germany, Greece, Hungary, Norway, Peoples Republic of China, Poland, Russia, Slovak Republic, Sweden, the UK and the USA. Representatives from the International Criminal Police Organization (ICPO)/Interpol, the International Olympic Committee, the International Narcotics Control Board, the World Health Organization, the US Department of State, the US Food and Drug Administration, and the US Drug Enforcement Administration were also in attendance. Those invited to participate included representatives from law enforcement, regulatory and health agencies, and other non-governmental scientific and medical experts. To underscore the importance of this conference in creating a unified effort against steroid trafficking and abuse, Prague - at the centre of Europe - was selected as the site, and funding for the meeting was underwritten by the DEA.
The programme for this conference consisted of presentations by international experts and representatives of various international organisations on the numerous facets of the steroid problem. The topics discussed included the public health risks of steroid abuse, the legitimate medical uses of steroids, the magnitude of the steroid abuse problem, the degree and nature of steroid trafficking, and the national and international efforts to control and prevent steroid abuse.

The US Ambassador to the Czech Republic, Adrian A. Basora, and Dr Stein, a representative from the Czech Republic Interior Ministry, inaugurated the conference. The conference was convened by Mr Gene R. Haislip, Deputy Assistant Administrator of the US Department of justice's Drug Enforcement Administration. According to Mr Haislip, steroid abuse, once limited to ‘lite athletes, has now spread within the general population. This change, and the development of an international illicit traffic to support it, has rapidly changed the attitude of concerned officials and experts. 'We need to be concerned now with the full range of issues - education, prevention, illicit drug traffic, and health consequences - before the problem gets out of control,' said Mr. Haislip. Conference participants claimed that steroid-related problems are already being experienced in a wide variety of countries. Steroids are legitimately manufactured primarily in the USA and western and eastern Europe where they are sometimes misprescribed or diverted into illicit traffic. 'We have to be concerned about Eastern Europe as a source of drugs and chemicals for the illicit traffic,' said Haislip, 'because of the switch to privatization and the inadequacy of previously existing laws applied to the new situation.' Haislip emphasised that a strong professional police and firm legal controls should be considered by these governments.

Mr Haislip went on to emphasise that steroids, as a class of drugs, do not fit the conventional frame of reference of other drugs of abuse. They are not narcotics, stimulants, depressants or hallucinogens. Unfortunately, governments and their societies tend towards rigid and familiar patterns and responses, and are reluctant to modify their conceptions. This has been a definite problem in the USA in dealing with the steroid issue. No US agency wished to step forward and claim the problem as its own and no agency had sufficient authority to do so. In reality, all US government agencies were already busy with established priorities and had no desire for new and unfamiliar responsibilities. Nowhere was this more true than in those agencies which were already engaged in the effort to combat the massive problem of drug traffic and abuse of substances such as cocaine. Moreover, experienced bureaucrats knew that new and vexing assignments were seldom accompanied with new resources. In the USA, the will to respond to the steroid problem arose principally from the US Congress, aroused by private experts, and not from the bureaucracy.

It was also pointed out by Mr Haislip that anabolic steroids are being used in ways which are
radically different from their therapeutic use. The populations increasingly becoming involved include large numbers of adolescents and young adults undergoing growth and development which can be seriously and permanently disrupted by the consumption of multiple and massive doses of steroids. There is increasing evidence of adverse physical and psychological side effects, including increased levels of violence and the development of dependency on steroids. Existing studies point to a wide variety of damage involving the cardiovascular, reproductive and renal systems, and aggressive behaviour. Moreover, many steroid abusers administer the drugs by injection, thus creating an additional risk for the spread of AIDS.

During the 4-day conference the magnitude of the anabolic steroid use problem was discussed, as was the extent and nature of illicit trafficking in anabolic steroids and the need for international police cooperation. There was much discussion about the adverse health consequences of steroid use including physical and psychological dependence and the deficiencies of anabolic steroid data sources.

In the USA, anabolic steroids were made a controlled drug and added to Schedule 111 of the US Controlled Substances Act in February, 1991. Since that time over 185 investigations of major dealers of steroids have been initiated, 283 arrests have been made, and 6 million dosage units and US$2.5 million in assets have been seized. Seizures have ranged from a few hundred dosage units to several kilograms of powder. Most cases investigated by the DEA have involved international trafficking with steroids entering the USA from all over the world. The DEA also reported that many steroid traffickers are involved with drugs other than steroids, especially cocaine, and that traffickers are well organised at the highest level, never coming in contact with the drugs. Traffickers also have been found to use electronic data transfer equipment, such as facsimile machines, to place orders. Mail service agencies, including Federal Express, frequently have been used to ship steroids.

European and South American countries continue to be the primary source areas for steroids entering the USA. Since Europe is one of the source areas for steroids, traffickers have used various European countries for the trafficking in steroids. In addition, eastern European, produced steroids are frequently trafficked through bases in western Europe to the USA. Consequently, the US DEA encourages all countries to place steroids under control. At the present time, only Canada, Sweden and the US have controlled steroids. Following the many conference presentations and panel discussions, several conclusions were agreed upon by those in attendance including:

0 The term 'anabolic agents' means those substances which increase muscle mass and strength and includes anabolic steroids, human growth hormone (hGH), P2-agonists such as
clenbuterol, and others.

The abuse of anabolic agents is no longer confined to Olympic and professional sport; it is now a problem in a number of countries affecting the wider society, especially adolescents and young adults.

There is increasing evidence of serious health and social consequences including cardiovascular, liver, reproductive systems, virilisation of women; premature bone growth closure in children; and transmission of HIV and blood-borne diseases associated with the abuse of anabolic agents.

There are limited scientific studies and case reports of withdrawal depression, mood disturbances, aggressive behaviour, and a type of compulsive drug taking and dependency among some abusers.

There is a growing number of cases of national and international illicit trafficking in anabolic agents involving substantial profit in North America, western and eastern Europe, and elsewhere.

There is an urgent need for increased health, psychological and epidemiological research, and for the dissemination of present knowledge to concerned experts and authorities. Current knowledge regarding the abuse of anabolic agents is primarily limited to doping in sports.

Societal values, importance to sport performance, and physical appearance often influence the demand for anabolic agents.

The following recommendations were made before the conclusion of the conference:

Further research should be encouraged involving the possible public health and social consequences of the abuse of anabolic agents, and the findings of these studies should
promptly be made public.

Governments and international organisations should share whatever information they are able to collect on the abuse of, and illicit trafficking in, anabolic agents.

National and international laboratories should consider the desirability of collecting and sharing anabolic agent reference standards and analytical methodologies.

Health, police, customs and policy officials involved in the issues of drug control, abuse and illicit traffic should familiarise themselves with the available information regarding anabolic agents in order to formulate informed policies and programmes.

In order to stop the growing demand for anabolic agents among young people, prevention efforts should be strengthened through expanded information and education programmes.

Governments, national, international and professional organisations should maintain and enhance their progress in detecting and tackling the use of anabolic agents in sports at all levels which undermines sporting ethics and puts at risk the health of those who abuse them.

Governments should examine their national legislation with a view to strengthening controls over anabolic agents so as to curb their diversion into illicit traffic and also to identify manufacturers, quantities produced, imported and exported.

National regulatory authorities and sports organisations should cooperate in the development of a joint strategy regarding efforts to combat the abuse of anabolic agents consistent with the principles expressed in the Anti-Doping Convention of Europe, Code of Conduct, etc.

National authorities, consistent with their national legislation, should increase their cooperation concerning the international commerce and movement of anabolic agents with a view to combating the diversion of these substances.
Active cooperation and involvement of the pharmaceutical industry should be encouraged to discourage and combat the diversion of anabolic agents.

Police and customs authorities should provide operational assistance to each other in the investigation of trafficking in anabolic agents to the extent possible within legal and resource restraints. The 1CP0/Interpol and the Customs Cooperation Council should continue to collect, review and analyse existing information in order to assist the international community in developing sound policies and programmes regarding anabolic agent abuse and trafficking.

The World Health Organization should continue its analysis of global trends regarding the use and abuse of anabolic agents and the assessment of current educational, prevention, and regulatory activities with these substances and resources should be made available to continue these efforts.

The meeting was brought to a close by Mr Haislip, the conference organiser and director, who thanked participants for their input and assistance in making the meeting a success. He urged those in attendance, members of the law enforcement and scientific communities, to continue their cooperation in order to control steroid abuse.

Michael S. Bahrke is Project Director for a research grant entitled, 'Anabolic Steroids: A New Issue in Prevention Research', funded by the National Institute on Drug Abuse, and located at the University of Illinois at Chicago. The views, opinions and findings in this report are those of the author and should not be construed as official Drug Enforcement Administration policy. Proceedings from the conference will be available at a later date from the DEA.