SLIDE 1

Good afternoon ladies and gentlemen

My name is Guy Collyer and I am from the National Counter Terrorism Security Office. This is a national police unit based in London. We are responsible for providing protective security advice to a number of key areas within the UK. My area of specialism is focused on the security of pathogens and toxins within the UK.

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Today I am going to take you briefly through the main areas of the work we have been doing in the UK, which will give you an idea of the technical and tactical requirements for law enforcement relating to biosecurity. I am sure that many of these themes would have been touched on already or will be re emphasised over the duration of this conference.

But first the basics…….

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The key element of this work is focused around the prevention of crime…….all be it that bioterrorism is a particularly severe crime.

For a crime to be committed, 3 key elements must all come together. There must be a victim. There has to be an offender. And the offender has to have an opportunity to

commit their crime. Remove one element of this, and a crime cannot take place.

Biosecurity is focused on reducing opportunity, but at the same time, raising the awareness of the victim of such opportunities arising. By making a location more secure and ensuring that the persons at that location are aware of the opportunities that are there to commit crime, we can reduce the risk of that person – or location – becoming a victim to any form of crime.

It is a simple matter of risk management. We cannot remove all the risks, but we should be doing all we can to reduce risks as much as possible.

When it comes to biological material, the argument can be made that dangerous pathogens and toxins can be found in the environment as well as laboratories. But it would require added expertise to isolate such agents from the environment, rather than stealing them from a laboratory, where they are likely to be found in more refined and larger, more dangerous quantities.

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We have seen a change in the terrorist threat and this was particularly highlighted since the autumn of 2001. But bioterrorism has been with us for a number of centuries. Blankets being used to infect people with small pox, animal carcasses being catapulted over castle walls to infect the inhabitants, salad bars in the US being infected with salmonella and the Sarin attacks in Tokyo. And then only 4 years ago, the anthrax attacks in Washington.

These incidents all show a pattern whereby the knowledge and expertise in life sciences has increased, where dual use is concerned. By dual use I mean the lawful use of pathogens, and the unlawful use. Legitimate science versus terrorist act.

The internet now provides an instant library for anyone to access for whatever reason. Scientists commit their whole lives to detailed and dedicated research. They want to be able to share this work with others. Sharing knowledge within the scientific community is a good and positive thing. But it has also led to a lot of sensitive information regarding dangerous pathogens becoming readily available.

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As a result of the anthrax attacks in the US during the latter part of 2001, the UK Government introduced the Anti Terrorism, Crime and Security Act 2001. The legislation covers many different areas of concern but Part 7 of the act focuses solely on the security of pathogens and toxins within the UK.

Part seven gives the police a power to enter laboratories to examine their security arrangements. The police also have the power to serve a notice on the laboratory to improve security arrangements if they are not satisfactory. If improvements are not made as directed, the Secretary of State can issue a notice that will direct the removal of any dangerous pathogens and toxins to a safe place, until improvements are made.

Now this sounds worse than it actually is. When the Act was first published there was a lot of concern from the scientific community, and I will elaborate on this in a minute.

Part seven also gives the police the power to request details of all those persons who have access to dangerous pathogens and toxins. This would not be done as a routine matter, but when the need arises.

Schedule 5 of the legislation provides a list of the pathogens and toxins to which the legislation applies. As it stands, the list is also known as the Australia list and was developed as a list for arms control use. In the UK we have been working to modify the list so that it is put in the context of terrorist use. The amendment should become law within the next few months but the major difference is that the previous list was focused on military weaponisation whereas the new list will focus on these substances from a terrorism point of view.

Appended to the legislation is what is called a Statutory Instrument. This is a secondary piece of legislation that provides for exceptions. The exceptions include:

Pathogens and toxins used for medical reasons, such as vaccines and beauty treatments.

Toxins that are kept in quantities under 5 mili grams (except clostridium prefringens and botlinum toxin)

Carcasses that contain one of the listed agents.

And diagnostic laboratories where the agent is destroyed as soon as its identity has been verified.

In the case of diagnostic laboratories - at busy diagnostic labs where they are regularly isolating such substances, they are asked to aspire to the legislation even if they are not legally bound by it.

When working with this legislation, which is focused on biosecurity issues, we also need to take into account the **biosafety** legislation, which has been in place for a lot longer time. This includes guidance and regulation introduced by the Health and safety Executive, the Advisory Committee on Dangerous Pathogens and the Containment of Substances Hazardous to Health regulations.

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The key elements of biosecurity are listed here. I do not intend to cover them in detail because Natalie Barnett from Sandia Laboratories in the USA has/will be covering them.

I cannot emphasize enough that the main risk will come from an insider threat. Personnel security is not only critical, but it is also the most cost effective way of improving security. Policy and procedures can do a lot to enhance security, whereas a strong door with many locks and gadgets can be left open by mistake so easily.

Good personnel and recruiting practices should be part of a good management process regardless of any terrorist threat.

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The first thing that was asked for, after the legislation came into power, was a benchmark. Both the scientific community, and police officers, wanted to know what level of security was being demanded.

In the UK we have a scheme called ‘Secured by Design’. This is managed by the Association of Chief Police Officers and makes awards or accredits new and refurbished developments. In particular this is focused at social housing and business premises, where crime in the past has been high.

It was decided that we could not have a security level lower than that for domestic housing in the UK. So taking the housing standard as a base line, we then looked at the many varying environments where laboratories exist. Hospitals, Universities and private companies, are just a few of the examples where the same laboratory could be subjected to a different environmental features. By this I mean places where the public have access, places where students have access to the same building and buildings that contain laboratories, but are themselves contained within a secure perimeter with strict access control and a 24 hour guard force.

The standard was then developed using British security testing standards, as developed by the British Standards Institute and the Loss Prevention Certification Board. What has resulted is the document, Security Standards for Laboratories. Its circulation is controlled via our CTSA network.

The Counter Terrorism Security Advisers (CTSA) are all staff employed by the police services in the United Kingdom. Most are police officers of varying rank. Their appointment is left to each police force. They are based within Special Branch and will have previous experience in SB work or crime prevention related work. They are then provided with extensive training by NaCTSO on the various work areas that they cover. The security of pathogens and toxins is just one task that they carry out on our behalf.

With a good knowledge of security techniques, they then receive specific and specialist training focused on pathogens and toxins.

It is vital that they fully understand the environment they are entering. The various different types of laboratories, the substances held within them, the scientists that work there and the local protocols that should be observed. Laboratories in the UK are also inspected by the Health and Safety Executive and others, so the CTSA's are asked to negotiate convenient visiting times and be as amenable to the laboratory staff and their work, as possible. The CTSA's must also abide by the other safety legislation and guidance and other legal issues such as fire regulations. Finally, the CTSA's need to be able to speak and understand the language of scientists. To be able to see things from the scientific point of view.

At the same time as developing the CTSA network within the UK, we also commenced a hearts and minds campaign. The idea behind this was to engage with those working in laboratories first, focusing on the biological safety officers and laboratory managers. This was built on by speaking with more senior scientists and university employees such as senior security personnel, before culminating in talks to

university vice chancellors and principles and well as senior health officials.

Having established these communication links, it is critical that such lines of communication are kept open. We asked constantly for feedback on how the project was progressing, and areas that were not working well and whether there was anything we could do to assist the scientific community further. Resulting from this has been an on going review and development program. The training to police staff is constantly up dated and the Security Standards for Laboratories is now under review.

It is also worthy to highlight at this point that Sussex University, in the south of England, have been reviewing our work in the laboratories across the UK. On the 16th March they will be publishing their findings of 18 months of research that has found an over 80% satisfaction rate among scientists in the UK who have been affected by this legislation.

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So what are the fundamental ingredients for success? Because if we make life too difficult for our scientists, they will conduct their research in other countries, which would be detrimental to our own.

First of all, whatever you do, it must be achievable. You can ask for the impossible but you are unlikely to achieve it. You can set the bar high, but never get over it. My advice is to start at a lower level and build on what you do with the consent of all those involved.

These efforts must also be sustainable. The effort and cost will be futile if in 5 years time, you are back where you started.

The advice given must be commensurate to the risk. You can only go so far with bio security before conceding that if a person or group are that determined and actually have the expertise, they will succeed. It is then that you move focus to preparedness and response.

Finally, it is very important that the scientific community are allowed to continue to work with the minimum amount of disruption as possible. You don't have to look very far to see the massive impact that the world of microbiology has on all our lives. Hinder this and the terrorist has won.

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So we have targeted the scientific community and will continue to do so. We will consult with them in everything we do and only move forwards with the agreement of all parties involved. We need to focus the culture within the laboratory community on security and terrorism issues. The next stage of our awareness campaign will be posters developed by the International Committee of the Red Cross, or Red Crescent, which highlight dual use issues. This is advice from scientists, to scientists.

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We must also bear in mind the awareness of every nation in the globe. This is a global threat, a global risk and hence a global problem. The risks are small but the consequences could be catastrophic. As seen with natural outbreaks of

disease, pathogens do not know any boundaries, whether it is by country, race or religion, all are at risk.

If you wanted to smuggle a bomb or a gun or other sinister article into a country, you would have to find a good way of hiding it to protect in from detection by border authorities. Pathogens are microscopic. You cannot see them and they can be carried within the human body totally undetected.

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So it is worth underlining that the 'Bio' problem is different. It is usually included within the CBRN problem – Chemical, Biological, Radiological and Nuclear.

But there may not be any scene, just a silent release.

You cannot decontaminate someone who has a disease, and maybe doesn't even know it.

And an investigation would commence once a disease had been detected – some days or even weeks after its initial release.

Most biological material is alive. It is growing and multiplying and spreading all the time, trying to seek new hosts.

Prevention is a law enforcement issue. We hope that we never have to use the legislation that we have in the UK. But the fact is that it exists. It is there and can be used if we need to, as a final resort.

The response to an attack is a health issue. It is only by the surveillance of hospitals and doctors, that we are likely to detect an attack, and the laws of epidemiology will help us to trace the cause.

The law enforcement agencies will be left to deal with panic management. As we saw in the US in 2001, you don't actually have to infect or kill many people, to cause huge public concern and a change in human behavior.

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Thank you for listening.