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Perhaps one of the hottest topics recently discussed is on drug testing on students. Opinions varied – there are pros and cons, some with insights, but some are ill-founded, purely out of political issue. It is comforting to read Dr Kent Tsang's article on "Substance Abuse in Hong Kong Adolescents" which not only views this important social problem at different perspectives but also provides valuable information to laboratory professionals in giving an overview of the different laboratory approaches on drug screening and testing. Ms Hermia Lam continues to share her experience on laboratory management. In this volume, she writes on "Purchasing a Laboratory Equipment – Points to Consider".

In June this year, HKIMLS hosted, for the third time since 1997, the 9th CLMC (Chinese Laboratory Medicine Conference), a biennial event held alternated between China, Taiwan and Hong Kong. While our Chairlady gives a good coverage of this important event, Mr C S Leung, a senior Council Member, also provides a comprehensive account of the events and proceedings, as well as the historical background of the Conference. Mr Leung in fact is, from the very beginning, the key man who delivers the CLMC into present being. Alongside, there are photos that would help revive the happy memories of those days that just passed.

The next time when HKIMLS will again host the CLMC will be in 2017, eight instead of six years from now, because Macau has just joined the party!

T T Cheung,
Editor

The 9th CLMC

Members of Organizing Committee

Mainland China Delegation

Taiwan Delegation

Heads from 4 Regions

Opening Ceremony

Substance Abuse in Hong Kong Adolescents: Are you prepared to drug screening and testing?

KS Tsang
Hong Kong Institute of Medical Laboratory Sciences Quality Assurance Programme

Substance Abuse

A series of awesome incidents of drug abuse among adolescents dominated newspaper headlines in Hong Kong since the start of June 2009. Three students of a secondary school were found unconscious in a park due to drug overdose. Two days later, two 15-year-old girls were found dazed on a beach. The latest victim of the youth drug scandal is four female students caught using drugs at school premises.

According to the data released by Narcotics Division, Central Registry of Drug Abuse, Hong Kong Special Administrative Region (HKSAR), most commonly abused drugs by youngsters in Hong Kong are heroin and psychotropic substances. Psychotropic substances refer to ketamine, cocaine, cannabis, nimetazepam, methylene-dioxy-methamphetamine (MDMA), triazolam/midazolam/zopiclone, cough medicine and methylamphetamine (Table 1). Among psychotropic substances abused, ketamine, MDMA and cannabis were the three most commonly abused drugs among the youngsters. Despite the overall number of people taking drugs has dropped recently, the proportion of substance abusers under the age of 21 has been on the rise since 2004. Substance abuse is more common among males accounting for 70%. Statistics shows that in 2007 there was an alarming 16.3% increase in the number of adolescent drug abusers (Table 2). The trend continued in 2008, with a 14.4% (431/2999) growth. Among reported drug abusers of less than 21 years of age, 25.7% (880/3430) were students in 2008. In 2008 a majority of reported adolescent drug abusers abused psychotropic substances (99%) with ketamine topping the list, while only 2% of them consumed heroin (Table 3).

Ketamine, ecstasy and other drugs are shattering health, studies, career, and families. Unlike the notorious heroin, psychotropic substance abuse is more subtle because the drugs can be sniffed or swallowed, rather than injected. The harmful effects may not be overt and explicit at the beginning; nonetheless the damage is long-term and often irreversible. It is sad to see many youngsters not being aware of the severe and permanent damage that these psychotropic substances can cause.

Recently, the government of HKSAR had introduced an array of measures to tackle the growing problem of substance abuse among adolescents. Hong Kong Police Force stepped up measures and surveillance to fight against drug dealing and trafficking. Nine million Hong Kong dollars were allocated to district-based anti-drug community programmes in hope to draw youngsters to more healthy activities, help them ward off the temptation of drugs and implement a trial scheme of school-based drug testing in the coming school year.

Table 1. Street names of commonly abused drugs and their harms

Drug/Psychotropic Substance	Street names	Effects of abuse
Heroin	White powder, Number 4, American money, Hong Kong money	Dependence, drowsiness, respiratory depression and nausea
Ketamine	Special K, K, Kit Kat, Vitamin K	Slurred speech, impaired long-term memory, cognitive difficulties, and respiratory and heart problems
Triazolam/midazolam Zopiclone	Blue gremlin, None	Dependence, drowsiness, dizziness, sedation, depression, hostility, ataxia, loss of memory, and impaired cognitive and neuromotor functioning
Methylenedioxymethamphetamine (MDMA)	Ecstasy, E, XTC Adam	Dehydration, exhaustion, muscle breakdown, overheating, convulsion and collapse
Cocaine	Coke, Crack, Flake, Snow Stardust	Agitation, feelings of persecution, extra sensibility, mood swings, affected memory, damage to sensory tissues of nose, impotence, delirium and death
Cannabis	Marijuana, Pot, Grass, Hash Joint	Disoriented behaviour, impaired judgement, bronchitis, conjunctivitis and endocrine disorders
Nimetazepam	Give me five, Ng Chai	Same as triazolam/midazolam/ Zopiclone
Cough medicine: Codeine Dextromethorphan	Robo DXM None	Dependence, respiratory depression, constipation, loss of appetite and dizziness
Methylamphetamine	Ice	Insomnia, depression, toxic psychosis, loss of appetite, and heart and kidney failure

Table 2. Reported young drug abusers by age in Hong Kong in year 2006 - 2008

	2006	2007	2008
Age	n %	n (%)	n (%)
<21	2,578 (19.4)	2,999 (22.1)	3,430 (24.2)
21-25	1,584 (12.0)	1,638 (12.1)	1,883 (13.3)
26-30	1,900 (14.3)	1,846 (13.6)	1,716 (12.1)
31-35	1,664 (12.6)	1,703 (12.5)	1,746 (12.3)
36-40	1,283 (9.7)	1,308 (9.6)	1,265 (8.9)
≥41	4,243 (32.0)	4,097 (30.1)	4,135 (29.2)
Total	13,252 (100)	13,591 (100)	14,175 (100)

Table 3. Reported young drug abusers by types of drugs abused in Hong Kong in year 2006 - 2008. More than one type of drugs may be reported for each individual reported drug abuser. The percentage refers to the proportion of all reported drug abusers.

	2006	2007	2008
	n (%)	n (%)	n (%)
Heroin	51 (2.0)	62 (2.1)	62 (1.8)
Psychotropic substances	2 525 (99.0)	2 948 (99.0)	3 380 (98.8)
Ketamine	1 876 (73.5)	2 392 (80.3)	2 921 (85.4)
MDMA	1 088 (42.6)	631 (21.2)	532 (15.6)
Triazolam/midazolam/zopiclone	264 (10.3)	407 (13.7)	510 (14.9)
Cocaine	170 (6.7)	356 (12.0)	317 (9.3)
Cannabis	475 (18.6)	363 (12.2)	309 (9.0)
Nimetazepam	343 (13.4)	273 (9.2)	223 (6.5)
Cough medicine	178 (7.0)	132 (4.4)	104 (3.0)
Methylamphetamine	67 (2.6)	52 (1.7)	36 (1.1)

MDMA: Methylenedioxymethamphetamine

Trial Scheme of School-based Drug Testing

Basically, the so-devised school-based drug testing scheme is a voluntary manoeuvre at the goodwill of schools, having regarded to the current practices in some international schools in Hong Kong. The existing arrangement is that randomly selected students with the written consent from their parents, or with reasonable cause, will undergo drug tests as administered by the school itself or by other professionals as appropriate. Students may then be requested to attend follow-up counselling or treatment. The prospective drug testing generates a lot of discussions. Experience elsewhere tells us that a degree of coercion and deterrent is necessary to fight against drug abuse among adolescents. Advocates believe that it would be a powerful tool to identify youngsters taking drugs, help them realise the harm and instigate early intervention and rehabilitation.

On the other hand, negative impacts of drug testing on students, families, schools and the whole community can hardly be predicted and not to mention the inadequacy of rehabilitative supports and cares to the unforeseeable numbers of adolescent substance abusers unveiled in the coming testing exercise. Parents and teachers may refer adolescents being suspected of, or, indicative to, substance abuse to a physician because of behavioural changes that affect school performance or social functioning, such as verbal or physical aggression, academic difficulties, impulsivity, hyperactivity, depressed mood, and poor social skills. However, it is often necessary and prudent to direct the concerned to one or more appropriate professionals who specialize in substance abuse disorders, psychology, or psychiatry, for rehabilitating options including anticipatory guidance, brief therapeutic counselling, school-based drug-counselling programs, outpatient substance abuse clinics, day treatment programs, and inpatient and residential programs (Griswold et al., 2008). Confidentiality guidelines should be complied rigorously. Despite toxicological testing may be an important part of ongoing assessment of substance use and abuse during and after treatment, a proper balance need be struck.

Biological testing for substance abuse has a long history for many different purposes including historical interest, employment, criminal investigation and medical monitoring. The American government began mandatory testing for drug abuse in the US army in an attempt to control what was perceived as the widespread narcotic addiction among troops serving in Vietnam. The mandatory drug testing was later extended to federal employees under the settings of reasonable suspicion, positions dealing with sensitive information and affecting national safety. Nowadays many organizations are equally interested in screening their employees in hopes of improving health and productivity. However, routine school-based drug testing was not recommended by the American Academy of Paediatrics (Knight et al., 2007).

Matrices for Testing Substance Abuse

Forensic scientists have long used a variety of matrices including urine, blood, oral fluid, sweat, nail and hair to detect drugs and their metabolites for testing substance abuse. Some substances can only be detected for a few hours after use, but their metabolites can be detected for several days to months. Table 4 shows the periods of detection for common substances of abuse in various biological matrices.

Blood tests are the most accurate, but most expensive and intrusive, and least common

Table 4. Detectability of substances of abuse in various biological matrices.

Substance of Abuse	Blood	Oral Fluid	Sweat	Urine	Hair
Amphetamine	12 hrs	3 days	NA	1-4 days	90 days
Methamphetamine	1-3 days	NA	NA	3-5 days	90 days
Benzodiazepines	NA	NA	NA	1-42 days	NA
Cannabis	2-3 days	12-24 hrs	NA	2-3 days	90 days
Cocaine	NA	1 day	NA	4-5 days	90 days
Heroin	NA	NA	NA	2-4 days	90 days

NA: not available

method of testing. Sweat has to be collected over a long period of 10 to 14 days and is almost exclusively used when urine testing is not practical. However, it has fallen out of favour due to documented problems with certain drugs.

Urine drug screens have been the most common method for analysis because of ease of sampling and less intrusive than the blood test. However, adulteration, substitution and dilution of urine sample are common malpractices used to avoid detection of drug abuse (Moeller et al., 2008). Bleach, table salt, laundry detergent, toilet bowl cleaner, vinegar, lemon juice, and etc. are noted for adulterating urine specimens. Most of these adulterants can be detected by routine integrity checks of creatinine, nitrite, pH, temperature, and specific gravity. However, certain adulterants such as Klear, Whizzies, Urine Luck, and Stealth, cannot be detected and can successfully mask drug testing, if the concentrations of certain abused drugs are moderate (Dasgupta, 2007). Adulteration testing is needed to identify tampered samples.

Oral fluid testing for drugs of abuse offers significant advantages over urine as a test matrix. Collection can be made in almost any location, with less embarrassment and under direct observation with reduced risk of adulteration and substitution. Drugs generally appear in oral fluid by passive diffusion from blood, but may be deposited in the oral cavity during oral, smoked, and intranasal administration. Drug metabolites also can be detected in oral fluid (Cone and Huestis, 2007).

Hair differs from other biomaterials used for toxicological analysis because of its unique ability to serve as a long-term storage of foreign substances with respect to the temporal appearance in blood (Pragst and Balikova, 2006; Curtis and Greenberg, 2008). Hair testing has gained increasing attention and recognition for the retrospective investigation of chronic drug abuse as well as intentional or unintentional poisoning. Nonetheless, 10-25% of the population will not have sufficient head hair to collect. The Society of Hair Testing has promulgated several recommendations for forensic hair testing that address sample collection, storage, shipping, decontamination, extraction, and guidelines to assure laboratory proficiency (Society of Hair Testing, 2004).

Appropriate steps have to be employed in order to minimise the possibility of external contamination causing a misinterpretation (Musshoff and Madea, 2007; Tsanaclis and Wicks, 2008). Cosmetic treatments; such as straightening, perming, relaxing and bleaching, change the chemical composition of hair and decrease the amount of drug present in a sample. Adulterant shampoo is also noted to decontaminate hair to avoid positive drug screens.

Testing Methods

Immunoassay and liquid/gas chromatography-mass spectrometry are commonly used for drug testing. Each technique has advantages and limitations relating to costing, ease of performance, cut-off limit and time of detection, accuracy, precision, validation, reliability and measurement of uncertainty. Liquid/gas chromatography-mass spectrometry is accurate, sensitive and reliable, however the procedure is time-consuming, requires a high level of expertise and is costly.

The simplicity of technique, automation and access to rapid results has increased the demand for and the use of immunologic methods to conduct large-scale screening for the presence of specific drugs or metabolites. There are enzyme-multiplied immunoassay technique, fluorescence polarization immunoassay, immunoturbimetric assay and radioimmunoassay. These immunoassays are not considered definitive as there are often false-positive results, which can lead to serious medical or social consequences, and require a second analysis, such as liquid/gas chromatography-mass spectrometry, for confirmation.

Chromatography is basically a separation technique for extraction of molecules of interest from complex mixtures. The working principle is to let liquid-/gas-carried substances pass through a stationary support of resistance. Molecules which interact more strongly with the stationary matrix will move less rapidly. Substances in a given sample are thereby fractionated by mass and chemical properties. By calibrating the chromatograph of a given sample with reference molecules, the expected time of elution from the column of stationary matrix for various molecules of interest can be determined. The eluted fractions expected to contain substance of interest are then analyzed using mass spectrometry.

Mass spectrometry separates molecules according to the mass-to-charge ratio. Chemicals leaving the chromatographic column are first ionized and then subjected to electromagnetic flux in an analyzer which exerts forces on ions based upon their mass and charge. Compound will fractionate into molecular fragments of various mass-to-charge ratios – mass spectrum. The intensities of ions for each mass/charge ratio are measured. By comparing the signal intensity in the mass spectrum with an internal standard, the amount of substance can be quantified. In tandem mass spectrometry, analytes derived from the first mass spectrometer are fragmented by various means and then run through the second mass spectrometer. The procedure allows the identification of subtly different molecules present in small quantities and detection of the sequence of large molecules being linked together.

Reliability and Reproducibility of Readouts

An increasing number of medical laboratories are expected to analyze biological matrices collected from the suspected abusers in school, criminal justice and rehabilitation settings. Readouts derived from medical laboratories testing the biological samples of suspected substance abusers have to be reliable and error-free, as the results may be used to make critical decisions both clinically and legally. Misinterpretation of drug tests can trigger serious consequences. Are you prepared to drug testing?

Quality assurance is a key principle of any medical laboratory and the assessment of performance on external quality assurance programme is an important element of a quality management system. Literature on proficiency testing to ensure reliability and comparability of results of drug testing is limited. Notwithstanding, the major source of error observed in immunoassays was the failure to achieve their specified cut-off. A lack of precision in quantitative measurements for some analytes in oral fluid was evident and a small number of sensitivity errors were attributable to unauthentic confirmation of chromatographic techniques (Clarke and Wilson, 2005). In a voluntary study of laboratories in Italy, where hair testing is accepted by the courts, nearly 50% of laboratories reported false positive results (Pichini et al., 2004). It was also noted in a survey that physicians who ordered urine drug testing to monitor their patients on chronic opioid therapy were not proficient in their interpretation (Reisfield et al., 2007). It highlights the need for physicians to work closely with registered laboratory professionals when ordering and interpreting urine drug tests. Quality assurance is a major issue in drug testing. New recommendations and guidelines on method validation, qualitative and quantitative data evaluation, and inter-laboratory comparisons have been formulated to enhance reliability (Ventura et al., 2008).

To date, there is no device that allows both reliable and practical point-of-care testing.

References:

Clarke J, Wilson JF. Proficiency testing (external quality assessment) of drug detection in oral fluid. Forensic Sci Int. 2005; 150: 161-164.

Cone EJ, Huestis MA. Interpretation of oral fluid tests for drugs of abuse. Ann N Y Acad Sci 2007; 1098: 51-103.

Curtis J, Greenberg M. Screening for drugs of abuse: hair as an alternative matrix: a review for the medical toxicologist. Clin Toxicol (Phila) 2008; 46: 22-34.

Dasgupta A. The effects of adulterants and selected ingested compounds on drugs-of-abuse testing in urine. Am J Clin Pathol 2007; 128: 491-503.

Griswold KS, Aronoff H, Kernan JB, Kahn LS. Adolescent substance use and abuse: recognition and management. Am Fam Physician 2008; 77: 331-336.

Knight JR, Mears CJ, for the Committee on Substance Abuse and Council on School Health, American Academy of Pediatrics. Testing for drugs of abuse in children and adolescents: addendum—testing in schools and at home. Pediatrics 2007; 119: 627-630.

Moeller KE, Lee KC, Kissack JC. Urine drug screening: practical guide for clinicians. Mayo Clin Proc 2008; 83: 66-76.

Musshoff F, Madea B. New trends in hair analysis and scientific demands on validation and technical notes. Forensic Sci Int 2007; 165: 204-215.

Pichini S, Ventura M, Pujadas M, Ventura R, Pellegrini M, Zuccaro P, Pacifici R, de la Torre R. HAIRVEQ: An external quality control scheme for drugs of abuse analysis in hair. Forensic Sci Int 2004; 145: 109–115.

Pragst F, Balikova MA. State of the art in hair analysis for detection of drug and alcohol abuse. Clin Chim Acta 2006; 370: 17-49.

Reisfield GM, Webb FJ, Bertholf RL, Sloan PA, Wilson GR. Family physicians' proficiency in urine drug test interpretation. J Opioid Manag. 2007; 3: 333-337.

Society of Hair T. Recommendations for hair testing in forensic cases. Forensic Sci Int 2004; 145: 83–84.

Tsanaclis L, Wicks JF. Differentiation between drug use and environmental contamination when testing for drugs in hair. Forensic Sci Int 2008; 176: 19-22.

Ventura M, Stramesi C, Pichini S, Ventura R, Pujadas M, Di Giovannandrea R, Zuccaro P, Pacifici R, Langohr K, de la Torre R. HAIRVEQ 2006: evolution of laboratories' performance after different educational actions. Forensic Sci Int 2008; 176: 2-8.

購買新化驗儀器 (一)

林寶珠
衞生署科學主任(醫務)

當我們要在化驗室開展一些新化驗項目，或因化驗方法及程序轉變，要將人手處理的化驗項目轉爲儀器操作，或因工作量增加，要將化驗程序轉爲自動化操作，我們都需要引入新儀器。

化驗儀器不同一般的家庭電器或影音產品，其結構、操作、功能都十分複雜，而且產生的化驗結果，對病人影響很大，引入時絕不能掉以輕心。

首先，我們要决定準備在這儀器做的化驗項目，然後就要展開市場調查，要知道市場上有那些產品可以做這些項目，也可以在網上從香港認可處認可的化驗所名單中查看它們的認可範圍，如果已經有別的化驗所引入了，可以聯絡他們，聽取意見，以作參考。知道了市場上的供應以後，我們要選擇適合自己化驗室工作量的產品，速度太慢固然幫不了忙，速度太快也會浪費資源，引起成本高漲，最好是足夠應付目前的工作量之餘又足以應付未來幾年的預期增長。

如果市場上只有一部合適的儀器，所有化驗所都是使用它，事情就十分簡單，否則就需要從合適的幾部儀器中作出選擇了，選擇時有幾方面要考慮。

其一是價錢：現時一般的化驗儀器供應商都會提供賣斷或租借的選擇，賣斷的又有全新機、翻新機、或示範機，而一般的化驗儀器壽命大概預算是 7 年，如果操作頻密，用上 5 年就開始百病叢生了，雖然也有保養得宜，可用上 10 年的例子，但科技日新月異，10 年後儀器雖然或可繼續操作，但零件未必有供應，而且化驗方法及程序大有可能轉變，所以如果不是新機，就要爲年期折舊好好算清楚，就是新機也要研究形號面世多久，新形號是否即將上市，好好考慮，一般是形號太新，儀器的軟件可能還須調較，而且同行之間欠缺支援，形號太舊，零件供應的年期不會長，而當其他人紛紛換機後，也就會變成獨一無二了。

如果是租機，計算不是簡單化而是更複雜，因爲供應商的利潤來自試劑，在商言商當然不可能供應一台價值数十萬的儀器而每年只收回一萬幾千，所以磋商時訂的化驗数量很重要，訂得太少，每個化驗報告的價錢就會很高，日後要是工作量增加，費用就會增加很大，訂得太多，数量達不到時就會浪費，所以是一盤十分難計的数，磋商的技巧要十分高，方案也有多類，其中有包銷試劑的、有包營業額的、也有分階段收費的，形形式式，不能盡錄。

至於其他要考慮的問題，下次再續。

The 2009 HKIMLS Award

The 2009 HKIMLS Award goes to Mr KOH Ching Chiek Gene, a third year student of BSc (Hons) in Medical Laboratory Science programme. A cash award of HK$3000 was presented to Mr KOH by our President during the closing session of the 2009 AGM held on June 28, at the function room of the Academy of Medicine, Wong Chuk Hang.

The HKIMLS Award was established in June 2008, offered to the final year student in full-time study of BSc (Hons) in Medical Laboratory Science programme in the Hong Kong Polytechnic University.

Mr KOH has achieved both the highest overall GPA in the class as well as the highest grade (A+) for the subject Honours Project, entitled “Baseline Levels and Age and Sex-related Differences in Biomarkers of Cardiovascular Disease Risk in Apparently Healthy HK Chinese: Focus on Glycaemic and Inflammatory Status”.

Report of the 9th CLMC

Hermia Lam
Chairman, Organising Committee

The Ninth Chinese Laboratory Medicine Conference (9th CLMC) with the theme, "Striving for Excellence in the Practice of Medical Laboratory Sciences" hosted by The Hong Kong Institute of Medical Laboratory Sciences at the Hong Kong Academy of Medicine, on June 26th - 29th 2009 had finally ended.

This year we had around a hundred local and two hundreds overseas medical laboratory professionals, researchers and academicians joining the function.

Renowned speakers from Hong Kong, Taiwan and China were invited to present plenary lectures and key-note speeches. Free paper presentation and poster viewing of accepted abstracts were also conducted to ensure a stimulating and wide-ranging scientific programme covering : Anatomical Pathology and Cytology, Chemical Pathology and Toxicology, Clinical Immunology, Haematology and Coagulopathy, Transfusion Science and Haematopoietic Stem Cell Transplant, Medical Microbiology, Mycology and Virology, Medical Genetics and Molecular Pathology.

12 suppliers and the American Society for Clinical Pathology (ASCP) displayed and promoted their products and services with lots of updated information and gimmicks in the Trade Exhibition.

For the overseas participants a welcome dinner was held at Paramount Banquet Hall on 26th June under the threatening no. 3 typhoon signal. Luckily the typhoon had moved away on the next day. On 28th June a farewell banquet was held in the Panda Café, Ocean Park for them together with the AGM dinner of HKIMLS. All the participants had made use of the evenings for acquaintance with each other and meeting with old and new friends.

Laboratories visits were also arranged to visit the pathology departments of Queen Elizabeth Hospital and Hong Kong Sanatorium Hospital, and the Central Laboratory of Quality Healthcare Medical Services.

The abstracts of the plenary lectures, keynote speeches, free paper, oral and poster presentations were uploaded to our website. Members can read them at their ease.

籌備第九屆華人檢驗醫學學術會議的點滴

梁志誠 副主席

華人檢驗醫學學術會議不僅是香港醫務化驗學會一個重要的學術活動，而且成爲中港台以及全世界華人同業的學術交流平台。從一九九五年到現在會議已經舉辦九屆了，中港台地區每隔兩年輪流主辦一次，今年由香港負責籌辦，在不久的將來，澳門診療技術員協會也會加入主辦這個活動的大家庭。

香港醫務化驗學會雖然有主辦這類大型學術會議的經驗，但是相對於中台地區的人力配合和物資支援，是無法相提並論的。中華醫學會檢驗分會擁有數以十萬計的會員，而台灣也有十三所學院提供檢驗醫學的學位課程，每年有近千的畢業生。幸好香港人的打拼精神和靈活的工作態度補綴了這些不足，將今次的活動主辦得有聲有色。

記得在二零零三年三月籌備第六屆會議的期間，香港正值 SARS 爆發，委員們都很憂心和徬徨，究竟要繼續，還是要取消呢？加上委員本身檢驗室的工作，所遭遇的壓力大家是可以感受得到的。幸好疫情漸漸消除，到十一月開幕的時候，以破紀錄的過千同業參與當年的會議，其中來自中國大陸的代表有七百多人。巧合地，今年四月我們又遇上人類豬流感病毒侵襲，陰霾籠罩着整個籌備會議的工作，因爲距離會議開幕的日子很接近，所以這次的影響更爲嚴重。五月份香港衛生防衛中心啓動隔離和停課的緊急策略，各地區已報名的代表紛紛查詢“會議能開嗎？”。籌備委員們又面臨一次考驗他們的智慧和決斷力的時刻。

當讀者看到這篇報導時，已經知道我們又一次渡過難關了。回想當時的情景，雖然得到協辦的中國大陸和台灣友會的大力支援，但參加人數寥寥可數，多次延長報名截止日期，都不見成效，更有甚者，部份地區主講學者因工作單位要準備抗疫而不能來香港參加會議，而廠商亦遲遲不願落實參加展覽和贊助會議。這個時候，我們心裏想，真的押錯了嗎？學會因此而損失大量的儲備，怎麼辦呢？幸而疫情沒有惡化，各項工作在六月起漸漸地有轉機和進展，因此今年後期報名參加會議的代表特別多，尤其是開會前的數天，牛氣沖天，人數不斷上升，負責場地餐飲的委員，爲了應付臨時增加的需求而不斷地張羅。最後，與會人數超過三百，而來自海外的也有二百多人。

會議除了三個地區的大會報告外，今年增加邀請多位中國大陸和台灣的專家學者，於不同專題講座發表最新的科研報告和技術。聯誼活動有歡迎晚餐和惜別晚會，今年籌委會擴大參觀檢驗所的層面，提供公立醫院，私家醫院以至私營化驗所給外地的代表選擇。各位沒有參加的會員可以從照片中分享當時的盛況，出席過會議的會員亦可以重溫豐收的時刻。

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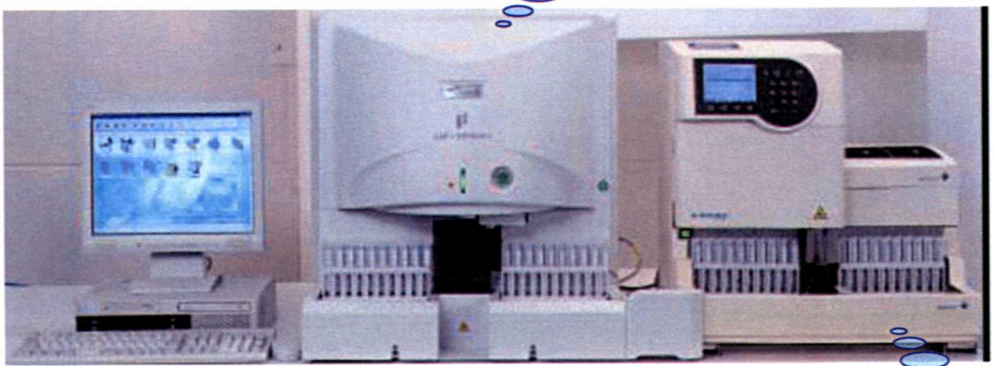

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