
forging
HSA
new
Annual Report
frontiers
2005-2006

vision

To be the leading innovative authority
protecting and advancing
national health and safety

mission

- To wisely regulate health products
- To serve the administration of justice
- To secure the nation's blood supply
- To safeguard public health

values

- We are committed to professional excellence
- We create value for our clients
- We uphold our professional integrity
- We value and nurture our staff
- We encourage innovation and enterprise

chairman's statement

Professor Lim Mong King
Chairman

The Health Sciences Authority is a young organisation but in its first five years, HSA's professional centres have already established a strong reputation for excellence, building on the scientific and professional strengths of their predecessor departments.

Given the dynamic local and global scientific environment in which HSA functions, it is timely that HSA has undertaken a fundamental strategic and structural review to redefine its roles and aspirations under a new leadership team. This positions HSA to face challenges and seize opportunities that lie ahead with a renewed robustness and clarity of vision.

HSA is an organisation with a unique blend of regulatory and scientific skills, coupled with its public health protection role. It is well poised to support the development of Singapore as a medical and biomedical research hub, and to assume thought leadership in key areas of its regulatory, forensic, scientific and bloodbanking domain expertise.

As a Ministry of Health statutory board, HSA espouses and practises the values of the Singapore Public Service and aligns itself with the strategic directions of its parent ministry. On an ongoing basis, it should proactively review its performance and processes, and re-engineer its systems to continue being an efficient and innovative organisation that is stakeholder sensitive and people-centric.

With the united vision of the Board, leadership and staff, there is every reason for HSAians to be optimistic and hopeful as HSA advances in innovation, enterprise and professional excellence.

ceo's foreword

Dr John Lim
Chief Executive Officer

HSA's fifth anniversary was celebrated in the midst of a major strategic review and revisioning exercise launched at the end of 2005. With the extraordinary pace of change in our operating environment, we saw it fit to take a fresh look at our *raison d'etre* and redefine ourselves to face the challenges ahead. This collective process involved representatives from HSA's professional centres, corporate units and the HSA Board engaging in several phases of strategic conversation, culminating in the Board's endorsement of the new Vision and Mission.

The introduction of our new Vision and Mission on 31 May 2006 initiated a transformational stage in HSA's development. The statements clarify what we see ourselves doing and becoming as we aim to remain at the forefront of developments in health sciences regulation and services, as Singapore builds its capabilities as an international medical hub and a centre for biomedical research.

They define our collective future aspiration – *to be the leading innovative authority protecting and advancing national health and safety* – and describe our purpose – *to wisely regulate health products, to serve the administration of justice, to secure the nation's blood supply,* and *to safeguard public health.*

We have also revised our organisational structure to define three key groupings – Health Products Regulation, Health Services and Applied Sciences. These are the professional pillars encompassing HSA's wide scope of scientific expertise and activities. This provides flexibility to develop the unique strengths of the professional centres within each group, and to synergise the strengths of the groups at the overall corporate level.

Within this framework, we will continue to enhance our systems and processes, advance our strategic alliances locally and globally, promote innovation and creativity, and add value for our customers and stakeholders. Above all, we will continue to develop our people because they are not only HSA's key resource of professional knowledge but also of corporate wisdom. We will harness the potential of individuals and collectively transform HSA's future.

Together, we will forge new frontiers.

hsa board

as at july 2006

Chairman
01. **Professor Lim Mong King** • Deputy President • Nanyang Technological University

Deputy Chairman
02. **Professor Edison Liu** • Executive Director • Genome Institute of Singapore

Board Members
03. **Mr Giam Chin Toon** • Senior Counsel • Wee Swee Teow & Co

04. **Mr Khoo Chin Hean** • Chief Executive • Energy Market Authority

05. **Dr Lee Chien Earn** • Director, Health Regulation • Ministry of Heath

06. **Professor Edmund Lee** • Professor of Pharmacology • Faculty of Medicine, National University of Singapore

07. **Dr Jennifer Lee** • Corporate Advisor • Temasek Holdings Pte Ltd

08. **Mr Lim Hock San** • President & CEO • United Industrial Corporation Ltd

09. **Professor Low Teck Seng** • Principal & CEO • Republic Polytechnic

10. **Ms Olivia Lum** • President & CEO • Hyflux Ltd

11. **Mr Ng Wai Choong** • Deputy Secretary, Industry • Ministry of Trade and Industry

board committees

Audit Committee

Mr Lim Hock San	Chairman
Ms Olivia Lum	Member
Mr Ng Wai Choong	Member

Staff Establishment Committee

Mr Giam Chin Toon	Chairman
Professor Edmund Lee	Member
Professor Low Teck Seng	Member
Dr Jennifer Lee	Member

Finance Committee

Mr Khoo Chin Hean	Chairman
Mr Lim Hock San	Member
Dr Lee Chien Earn	Member
Dr John Lim	Ex-officio

Regulatory Oversight Committee

(covering the Centre for Drug Administration, Centre for Medical Device Regulation and Centre for Radiation Protection)

Professor Edmund Lee	Chairman
Mr Giam Chin Toon	Member
Dr Lee Chien Earn	Member

Service Provision Oversight Committee

(covering the Centre for Transfusion Medicine, Centre for Forensic Medicine, Centre for Forensic Science and Centre for Analytical Science)

Professor Low Teck Seng	Chairman
Mr Khoo Chin Hean	Member
Ms Olivia Lum	Member
Mr Ng Wai Choong	Member

board & leadership changes

We would like to express our deepest appreciation to Dr Arthur Chern and Associate Professor Kong Hwai Loong who stepped down from the HSA Board on 1 January and 1 April 2006 respectively.

We also warmly welcome Professor Edison Liu, Executive Director of the Genome Institute of Singapore, who joined the HSA Board as Deputy Chairman on 1 April 2006, and Dr Lee Chien Earn, Director of Health Regulation at the Ministry of Health and Dr Jennifer Lee, Corporate Advisor of Temasek Holdings Pte Ltd who joined the HSA Board on 1 January and 1 April 2006 respectively.

Dr Tan Chor Hiang stepped down as Chief Executive Officer to return to the Ministry of Health as Deputy Director of Medical Services, Clinical Quality on 1 December 2005. We thank her for her contributions as CEO HSA.

Dr John Lim was appointed Acting Chief Executive Officer on 1 December 2005 and then HSA's Chief Executive Officer on 1 July 2006. Dr Lim has held various senior positions in the Ministry of Health and the Ministry of Education, was formerly Director of HSA's Centre for Drug Administration and also Deputy Chief Executive Officer since September 2005.

corporate governance statement

The Board and Management are committed to maintaining a high standard of corporate governance and endorse the recommendations of the Code of Corporate Governance. The Board believes that good governance is essential to enhancing corporate performance and accountability, ensuring transparency and protecting stakeholders' interests at all times. Our stakeholders include the Ministry of Health, Ministry of Finance, other government agencies, industry, clients, suppliers and the public at large.

This statement outlines the main corporate governance practices of the organisation that are in place.

The Board

The Board comprises the Chairman and 10 members who are appointed by the Minister for Health for a 3-year term. The Board meets every quarter to set strategic directions and to formulate policies, as well as to assume the role of monitoring and reviewing of policies leading to improved management and outcomes.

Board Members' Remuneration

HSA follows the Government's Directorship and Consultancy Appointments Council (DCAC) guidelines in determining the remuneration of the Board Members.

Notice and Declaration of Directorships and Interest in Shares and Debentures

Board Members are required to declare their directorships in various organisations and their interests in shares and debentures in various corporations. Board Members are deemed to be interested in any transactions which may be made by and between such corporations.

Accountability and Audit

The Senior Management Team is accountable to the Board and the Board is accountable to the Minister for Health. The Board is furnished with complete and adequate information in a timely manner to allow the Board to discharge their duties properly. Senior management staff are invited to give briefings and to answer any queries that the Board may have on the operations and planning of the organisation.

For Accountability purposes, the Board has established the following sub-committees:

(a) The Audit Committee

This Committee assists the Board in reviewing and assuring itself of the adequacy of internal accounting controls and financial reporting controls. It meets at least twice a year with the Management and auditors to determine the scope of the external and internal audit and to review the findings of the auditors.

(i) Internal Audit

HSA has engaged an external party to provide the internal audit function on an annual basis. To date, internal audit has covered areas such as the Inventory and Procurement processes, Billings and Collections, Human Resource and Payroll, Accounts Payable, and Fixed Assets.

(ii) External Audit

The external statutory audit of the financial statements has been conducted by Auditor-General's Office. They commenced their assignment in 2005 for the FY2005 financial statements.

(b) The Staff Establishment Committee

The Staff Establishment Committee assists the Board in reviewing the adequacy of staffing numbers and budgets to meet operational needs and of Human Resource Policies for compensation and benefits. It oversees some staff matters such as the appointment of senior management positions.

(c) The Finance Committee

This Committee assists the Board in ensuring that financial resources are managed and utilised prudently and in the most effective and efficient manner, contributing towards the organisation's overall mission.

(d) The Regulatory Oversight Committee

This Committee assists the Board in providing an independent oversight of issues related to the regulatory functions of the Centre for Drug Administration, Centre for Medical Device Regulation and Centre for Radiation Protection.

(e) The Service Provision Oversight Committee

This Committee assists the Board in providing an independent oversight of issues related to the provision of services by the Centre for Analytical Science, Centre for Forensic Science, Centre for Forensic Medicine and Centre for Transfusion Medicine.

Communication with Stakeholders

The Professional Centres conduct regular consultations with the industry and their clients, seeking to keep them informed of new directions and regulations, and to listen to their concerns. HSA publishes an annual report to meet statutory requirements and to provide information to our stakeholders.

In addition, regular updates on matters of interest to our stakeholders are posted on our internet website. Our Quality Service Manager promptly handles all feedback and queries received from interested parties.

Code of Business Conduct

The Board, officers and employees are required to observe and maintain high standards of integrity, and are in compliance with the law and government regulations, and organisation policies.

Risk Management

The Management is continually reviewing and improving the business and operational activities to identify areas of significant business risks as well as appropriate measures to control and mitigate these risks. The Management also reviews all significant control policies and procedures and highlights all significant matters to the Board and the Audit Committee.

hsa leadership

as at july 2006

01. Dr Diana Teo • Senior Director, Health Services Group • Director, Centre for Transfusion Medicine

02. Dr Chow Shui Tse • Director, Centre for Forensic Science

03. Dr John Lim • Chief Executive Officer • Senior Director, Health Products Regulation Group

04. Dr Paul Chui • Senior Director, Applied Sciences Group • Director, Centre for Forensic Medicine

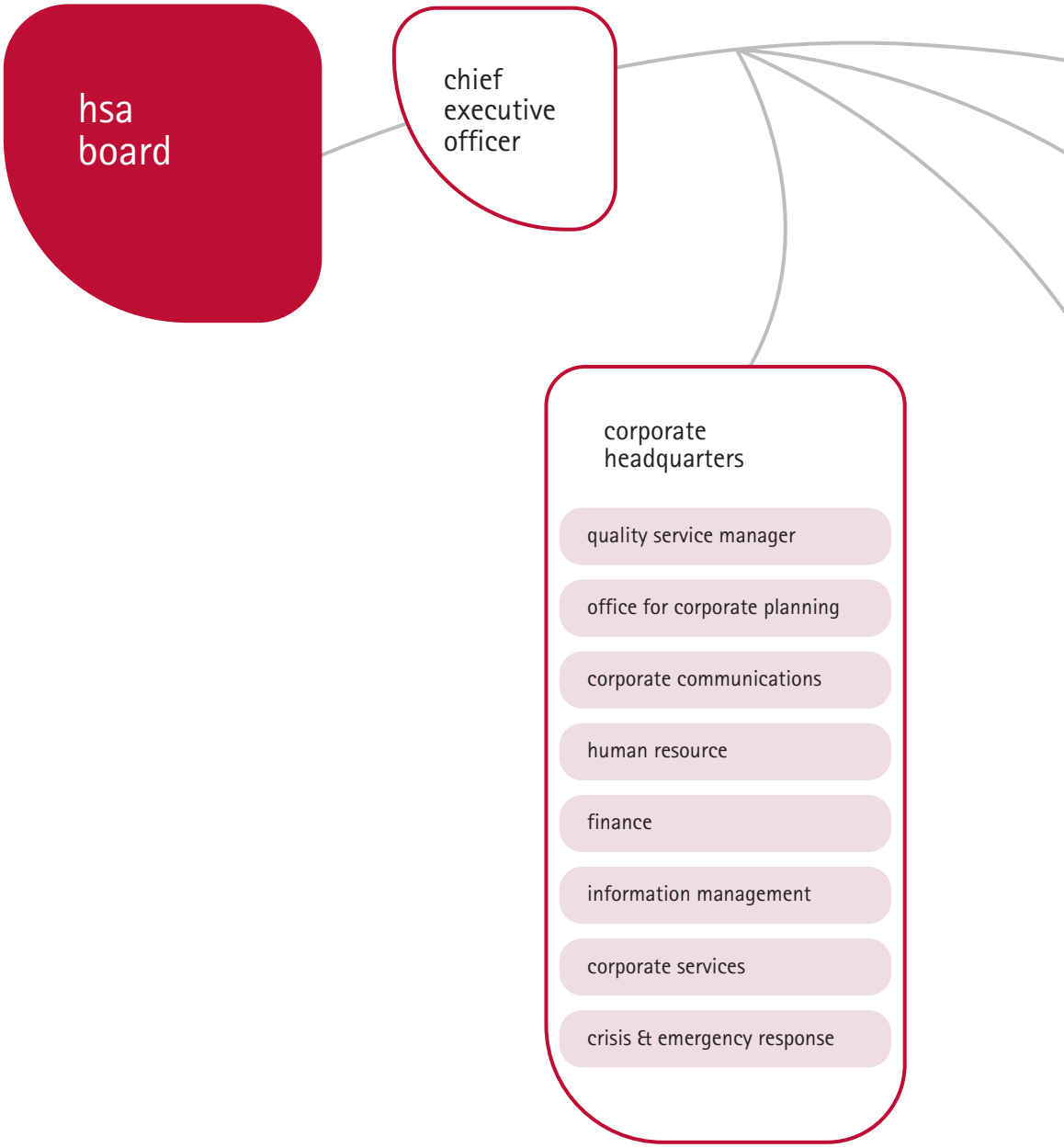
05. Mr Stephen Chong • Director, Centre for Radiation Protection

06. Professor Bosco Chen Bloodworth • Director, Centre for Analytical Science • Quality Service Manager

07. Mr Wong Yew Sin • Director, Centre for Medical Device Regulation

organisation chart

as at july 2006




senior director
health products regulation group
centre for drug administration
centre for medical device regulation
centre for radiation protection
senior director
health services group
centre for transfusion medicine
senior director
applied sciences group
centre for forensic medicine
centre for forensic science
centre for analytical science

principal officers

as at august 2006

Chief Executive Officer
Dr John Lim

CORPORATE HEADQUARTERS

Quality Service Manager
Professor Bosco Chen Bloodworth

Office for Corporate Planning
Deputy Director
Ms Lim Peck Seah

Corporate Communications
Acting Deputy Director
Ms Lily Lim

Human Resource
Deputy Director
Mrs Sarojini Padmanathan

Finance
Deputy Director
Ms Grace Chan

Information Management
Director
Professor Bosco Chen Bloodworth

Senior Deputy Director
Ms Low Sau Chan

Corporate Services
Deputy Director
Chua Hong Tong

Special Projects
Director
Vincent Fong

Crisis & Emergency Response
Manager
Wong Soon Lee

HEALTH PRODUCTS REGULATION GROUP
CDA | CMDR | CRP

Senior Director
Dr John Lim

CENTRE FOR DRUG ADMINISTRATION

Senior Deputy Director
Yee Shen Kuan

Senior Clinical Pharmacology Advisor
Professor Vernon Oh

Product Evaluation & Registration Division
Deputy Director & Head, New Chemical Entities, Innovative Therapeutics Group
Dr Gerard Wong

Senior Assistant Director
Dr Kerwin Low

Head, Policy & Regulatory Affairs
Ms Lee Hui Keng

Acting Head, Drug Registration Branch
Dr Sandra Lim

Head, Clinical Trials Branch
Foo Yang Tong

Head, Regulatory & Project Management
Tan Tek Seng

Compliance & Complementary Medicines Division
Complementary Medicines Branch Deputy Director, Complementary Medicines Branch & Head, Cosmetics Control Unit
Mrs Marie Tham

Head, Chinese Proprietary Medicines Unit
Ms Chu Swee Seng

Head, Health Supplements Unit
Chao Ye Peng

Compliance Branch
Head, Prosecution Unit
Kelvin Tan

Head, Investigation & Surveillance Unit
R. Sivalingam

Head, Tobacco Regulation Unit
Tham Lup Hong

Manufacturing & Quality Audit Division
Deputy Director &
Head, Good Manufacturing Practice Unit
Sia Chong Hock

Head, Good Distribution Practice Unit
Ms Hui Foong Mei

Head, Certification Unit
Dr Lai Weng Fai

Head, International Operations Unit
Boon Meow Hoe

Pharmacovigilance, Communications & Research Division
Deputy Director
Mdm Suwarin Chaturapit

Head, Pharmacovigilance Unit &
Head, Information & Research Unit
Ms Chan Cheng Leng

International & External Programmes
Deputy Director
Mrs Marie Tham

Head, Regulatory Support Unit
Ho Yu Nam

CENTRE FOR MEDICAL DEVICE REGULATION

Director &
Registrar, Contact Lens Practitioners Board
Wong Yew Sin

CENTRE FOR RADIATION PROTECTION

Director & Head, Environment Radiation & Waste Management Unit
Head, Nuclear Safety & Emergency Planning Unit
Stephen Chong

Head, Ionising Radiation Control Unit & Head, Ionising Radiation Dosimetry Laboratory
Ms Annie Tan

Head, Non-Ionising Radiation Control Unit & Head, Non-Ionising Radiation Dosimetry Laboratory
Dr Phua Tan Tee

Chief Radiographer
Tan Joo Thai

HEALTH SERVICES GROUP
CTM

Senior Director
Dr Diana Teo

CENTRE FOR TRANSFUSION MEDICINE

Director
Dr Diana Teo

Deputy Director, Clinical Service
Dr Mickey Koh

Deputy Director, Blood Resources
Dr Tan Hwee Huang

Scientific Head, Blood Processing, Testing & Inventory
Ms Sally Lam

Scientific Head, Hospital Services
Dr Marieta Chan

Head, Blood Programme Support
Ms Koh Geok Tin

Quality Manager
Ms Tan Meng Kee

APPLIED SCIENCES GROUP
CFM | CFS | CAS

Senior Director
Dr Paul Chui

CENTRE FOR FORENSIC MEDICINE

Director
Dr Paul Chui

Deputy Director &
Head, Professional Standards & Research
Associate Professor Gilbert Lau

Principal Consultant Forensic Pathologists
Dr Clarence Tan
Dr Wee Keng Poh

Consultant Forensic Pathologist &
Head, Professional Training & Education
Dr George Paul

Consultant Forensic Pathologist
Dr Teo Eng Swee

Associate Consultant Forensic Pathologist
Dr Lai Siang Hui

CENTRE FOR FORENSIC SCIENCE

Director
Dr Chow Shui Tse

Physical Evidence Division
Deputy Director &
Head, Criminalistics Laboratory
Dr Tay Ming Kiong

Head, DNA Profiling Laboratory &
Head, DNA Database Laboratory
Mrs Tan Wai Fun

Head, Document Examination Laboratory
Ms Lee Gek Kwee

Drugs & Toxicology Division
Deputy Director &
Head, Narcotics I Laboratory
Dr Lee Tong Kooi

Head, Narcotics II Laboratory
Dr Lui Chi Pang

Head, Toxicology Laboratory
Dr Yao Yi Ju

CENTRE FOR ANALYTICAL SCIENCE

Director
Professor Bosco Chen Bloodworth

Deputy Director (Food Division) &
Head, Food Laboratory
Ms Joanne Chan

Deputy Director (Pharmaceutical Division) & Head, Pharmaceutical Laboratory
Ms Low Min Yong

Head, Water Testing Laboratory
Dr Chow Yue Thong

Head, Cosmetics & Cigarette Testing Laboratory
Head, Planning, Research & Development Unit & Quality Manager
Ms Cheah Nuan Ping

Head, Quality Support Unit
Ng Soon

about hsa

HSA is a multidisciplinary agency in health sciences expertise and comprises three professional groups – Health Products Regulation, Health Services and Applied Sciences.

Our core capabilities encompass administering the national regulatory frameworks for pharmaceuticals, complementary medicines, medical devices and other health products; radiation protection; the running of the national blood bank and provision of transfusion medicine services; and the provision of forensic medicine expertise, investigative forensic and analytical science services.

Our three professional groupings broadly define the specific areas of expertise that exist within each group, and also give the groups freedom and maneuverability to develop and grow.

We embrace innovation and manage risk to achieve excellence and efficiency in our role as a protector of national public health and safety.

We adopt cutting edge scientific technology, apply dynamic and responsive regulation, and engage in a wide range of international collaborations to support the growth of the biomedical and forensic sciences in Singapore.

Building on a foundation of sound corporate governance advocated by the HSA Board, guided by the strategic direction of HSA's leadership, and supported by a dedicated corporate team, HSA continues to advance as a statutory board of the Ministry of Health that embodies the values of the Singapore Public Service in achieving its vision to be the leading innovative authority, protecting and advancing national health and safety.

HEALTH PRODUCTS REGULATION GROUP

Centre for Drug Administration* | *Centre for Medical Device Regulation* | *Centre for Radiation Protection

Our Centre for Drug Administration safeguards public health and contributes to the development of the biomedical sciences by administering a robust, scientific and responsive regulatory framework, which ensures that medicines, innovative therapeutics and health-related products in Singapore meet appropriate standards of safety, quality and efficacy.

Our Centre for Medical Device Regulation ensures that medical devices meet the requirements of safety, efficacy and quality so as to protect public health and safeguard the interests of the patients and users.

Our Centre for Radiation Protection excels in radiation science so as to enforce and promote the radiation safety of workers, the public and the environment; and ensure that irradiating apparatus and nuclear materials meet the statutory requirements of quality, safety and efficacy.

HEALTH SERVICES GROUP

Centre for Transfusion Medicine

Our Centre for Transfusion Medicine excels in transfusion medicine to ensure a safe and adequate national supply of blood and blood products, the appropriate use of blood and blood products, and to provide high quality bloodbanking services.

APPLIED SCIENCES GROUP

Centre for Forensic Medicine* | *Centre for Forensic Science* | *Centre for Analytical Science

Our Centre for Forensic Medicine excels in applying forensic medicine and related sciences to serve law enforcement and the administration of justice; support healthcare services, medical audit, medical education and health regulations; and enhance safety in the community.

Our Centre for Forensic Science excels in forensic science for the purpose of law enforcement, medico-legal investigations and administration of justice.

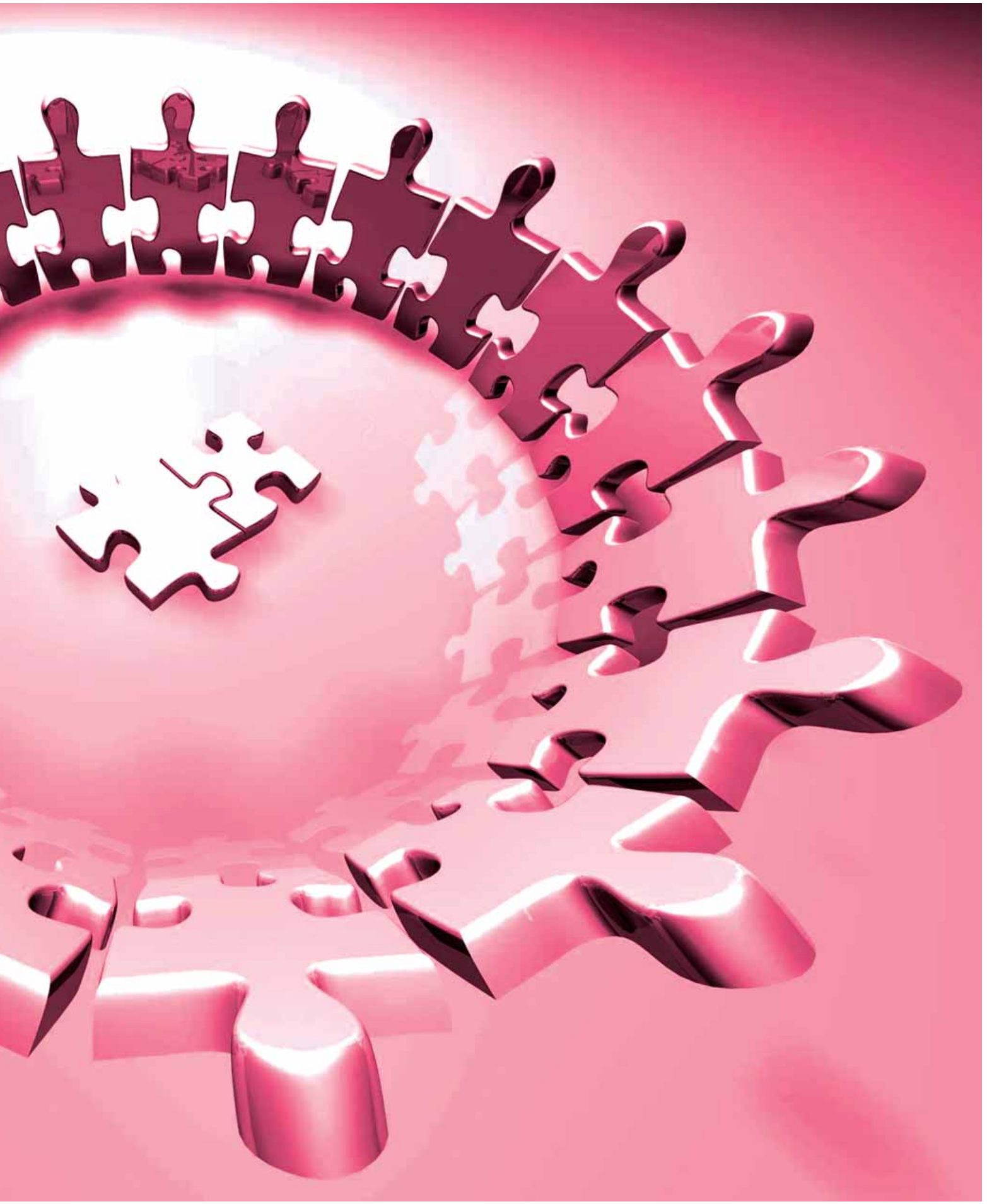
Our Centre for Analytical Science excels in applying analytical science to safeguard public health by providing high quality, cost-effective and timely service to our clients.

For more details on the Health Sciences Authority, visit www.hsa.gov.sg.

conquering
new challenges

Only by contending with challenges that seem to be beyond your strength to handle at the moment you can grow more surely towards the stars.

- Brian Tracy



HEALTH PRODUCTS REGULATION GROUP

- Centre for Drug Administration
- Centre for Medical Device Regulation
- Centre for Radiation Protection

We ensure that drugs, innovative therapeutics, medical devices, health-related products, irradiating apparatus and nuclear materials in Singapore are wisely regulated to meet appropriate standards of safety, quality and efficacy.

Regulating Pharmaceuticals And Health-related Products

Our **Centre for Drug Administration [CDA]** regulates medicinal products, complementary health products, cosmetics and tobacco products in Singapore. We administer and enforce the Medicines Act, the Poisons Act and the Smoking [Control of Advertisements and Sale of Tobacco] Act, amongst others, to safeguard public health. A robust, scientific and responsive regulatory framework is in place and continues to be refined to ensure that these medicinal and health-related products meet the appropriate standards of safety, quality and efficacy.

Pharmaceutical Regulatory Information System [PRISM]

PRISM, an electronic licensing and information management system to facilitate paperless transactions has been progressively rolled out to enhance CDA's regulatory work processes. With PRISM, importers, wholesalers and manufacturers are able to apply for, renew, and enquire about the status of their licence and product applications online. 81% of the PRISM application modules for licences, permits and certificates have been implemented.

Evaluation and Licensing of Medicinal Products

• Product Licences

New product licences issued	120
Product licences processed*	2,800

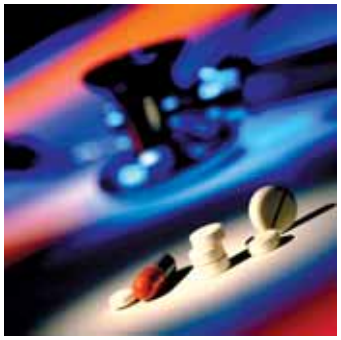
**includes variations and transfers*

• New Drug Approvals

We processed and approved 15 new chemical and biological entities, presented in 42 new medicinal products, for marketing in Singapore. A list of new drugs approved in each calendar year from 2001 to 2005 is available at our website at http://www.hsa.gov.sg/html/business/cda_adr_bulletins.html.

• Import for Re-Export System for Medicinal Products

We processed 1,730 requests for importation of medicinal products for the purpose of re-exportation. With effect from February 2006, importers need only inform CDA before proceeding with such imports.



Facilitating Consumer Access to Medicines

• Registered Medicinal Products

As of 31 March 2005, the forensic classification of 6,475 medicinal products registered in Singapore is shown below:

Forensic Classification	No. of Registered Products	Percentage
Prescription Only Medicines [POM]	4,468	69%
Pharmacy-Only Medicines [P]	842	13%
General Sale List Medicines [GSL]	1,165	18%
Total	6, 475	100%

• Approval for Importation of Unregistered Medicinal Products on a Named Patient Basis

We processed 2,656 requests by doctors to import medicinal products that are not registered in Singapore for use on specific patients for compassionate reasons.

Certification of Clinical Drug Trials

During the year, 201 clinical trial certificates* were granted to the various institutions. The number of applications increased by about 9% compared to 2004. There was also a significant increase of 45% in phase I studies in the same period. Trials in therapeutic areas of oncology and gastroenterology, in particular Hepatitis B studies, formed the bulk of studies being conducted in Singapore.

Approved Clinical Trials* According to Phases from January to December 2005

Phase	I	II	III	IV	Total
Number of Clinical Trials Approved	44	50	90	17	201

** One CTC is issued for each participating site in a clinical trial.*

With effect from January 2006, all clinical trial applications could be submitted in parallel to both the Institutional Review Board and CDA to expedite processing.

As part of our ongoing safety monitoring of clinical drug trials, all serious and unexpected adverse drug reactions related to investigational products are subject to expedited reporting to CDA. In 2005, 3,819 initial reports and 4,597 follow-up reports were received from January to December.

Clinical Trials by Therapeutic Areas in 2005

- Oncology 27%
- Clinical Pharmacology 23%
- Gastroenterology/ Hepatology 10%
- Cardiology 10%
- Neurology 7%
- Respiratory 4%
- Endocrinology 3%
- Infectious Disease 3%
- Ophthalmology 3%
- Psychiatry 3%
- Renal Medicine 3%
- Others 4%

145 Clinical Trials Approved as of 15 February 2006

Licensing and Certification of Manufacturers, Dealers and Pharmacies

• Auditing And Licensing Of Manufacturers

New licences issued to manufacturers/assemblers	5
Licences processed*	124

**includes renewals and amendments for existing manufacturers/ assemblers of medicinal products, Chinese Proprietary Medicines [CPM] and cosmetic products*

• Auditing And Licensing Of Dealers and Pharmacies

Wholesale Dealer's Licences issued*	556
Import Licences issued*	752
Certificates of Pharmacy Registration issued to pharmacies	304
Form C Poisons Licences** issued to registered pharmacists	695
Form A Poisons Licences+ issued to dealers	421
Export Licences issued to dealers	138

**refer to licences issued for medicinal products and CPM*

+Form A Poisons Licence is a licence to import, store and sell poisons [items as listed in the Poisons Act] by way of wholesale.

*** Form C Poisons Licence is a licence to import and deal generally in poisons [items as listed in the Poisons Act] by wholesale and retail.*

As part of our continual effort to streamline regulatory controls, the legal requirement for pharmacies to display the Certificate of Pharmacy Registration at the operating premises was removed with effect from 1 October 2005. In addition, Acetyl chloride was de-gazetted from the Poisons List with effect from 1 June 2005. Zolpidem was also de-gazetted from the Misuse of Drugs Act and Regulations, and classified as a psychotropic substance regulated under the Medicines [Export Licence for Psychotropic Substances] Regulations with effect from 1 August 2005.

• Certification Of Manufacturers and Dealers

Good Manufacturing Practice [GMP] Certificates issued	60
Good Distribution Practice [GDP] Certificates issued	4
Certificate of Pharmaceutical Products	432
Free Sale Certificates for CPM issued	28
Statements of Licensing Status issued	42

• Overseas GMP Conformity Assessment Programme

Applications received and processed	46

We granted a total of 45 approvals for Verification of GMP Evidence with an audit team formed in April 2006 to conduct GMP audit of new overseas pharmaceutical manufacturers.

Good Manufacturing Practice [GMP]

We continued to play a leading role in GMP inspection regionally through spearheading the ASEAN Mutual Recognition Agreement [MRA] Task Force on GMP Inspection together with Malaysia's National Pharmaceutical Control Bureau.

Our staff were appointed as ASEAN GMP Experts to level up the quality systems in Thailand's Food And Drug Administration and Bureau of Food & Drug Administration of the Philippines, and for the implementation of ASEAN Cosmetic GMP standards. We also continued to contribute in harmonisation of international GMP inspection at the annual Pharmaceutical Inspection Convention/Pharmaceutical Inspection Cooperation Scheme [PIC/S] meetings and seminars. We have been tasked by the PIC/S Secretariat to host the PIC/S Seminar 2007 with the theme "Inspection of Manufacturers of Solid Dosage Forms".

Regulation of Chinese Proprietary Medicines [CPM]

• Listing of CPM

CPM products listed as at 31 March 2006	8,947
Applications received for CPM product listing	1,311
Applications approved for CPM product listing	762

We rejected 467 CPM products due to harmful content, objectionable names or inability to fulfil documentation requirements. Six rejected CPM products were detected to contain poisons like codeine, dexamethasone and tadalafil.

• De-listing of CPM Affected by China's Re-evaluation Exercise

More than 2,000 CPM products were de-listed in Singapore over the past year following the product re-evaluation exercise by the State Food and Drug Administration [SFDA] of China. These products, no longer accorded free sale status by SFDA, had to be removed from the Singapore market.

• Formation of International Expert Panel for Herbal Medicines

In February 2006, an Expert Panel for Herbal Medicines, comprising five experts from Australia, China, Japan and Singapore, was established to provide advice on safety and quality issues of herbal medicines.

Regulation of Health Supplements

During the year, we received 4,589 trade and public enquiries, which were mainly made on product classification, import and sales requirements for health supplements. The Health Supplements Guidelines were also issued to assist the health supplements industry comply with the existing legal requirements.

Regulation of Cosmetics

New Cosmetic Product Licences issued	7,651
Cosmetic Product Licences issued*	17,469
New Import Licences approved	90
Import Licences approved*	349

**includes renewals and amendments*

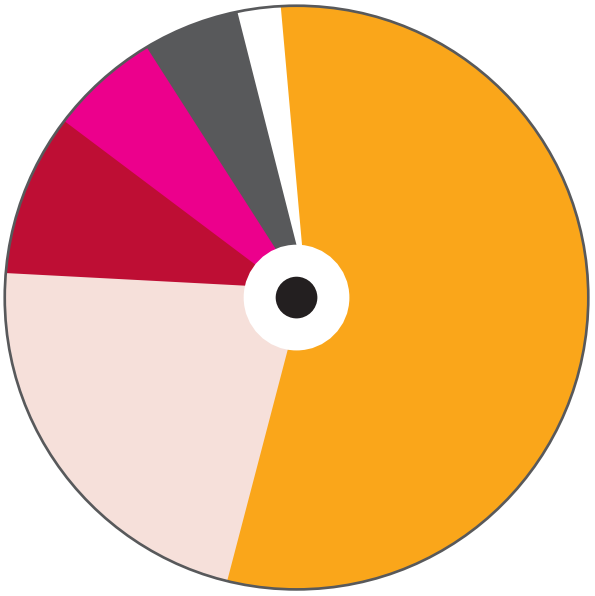
13 applications for Cosmetic Product Licence were rejected due to the presence of banned ingredients. We also issued 577 Letters of Free Sales to facilitate exportation of Cosmetic Products.

Adverse Drug Reaction [ADR] Monitoring

ADR reports received	1,171

We received 1,171 ADR reports submitted by healthcare professionals mainly in the public hospitals. Antibiotics, non-steroidal anti-inflammatory drugs, contrast media and anti-epileptic drugs were among the top commonly reported drugs causing ADRs.

Breakdown of ADR reports by type of reporters



Top 15 drugs [by active ingredients] suspected of causing ADRs

Top	Active ingredient	No. of reports [% *]
1	Diclofenac	75 [4.9]
2	Naproxen	50 [3.3]
3	Iohexol	42 [2.8]
4	Coamoxiclav	41 [2.7]
5	Ceftriaxone	40 [2.6]
6	Amoxicillin	30 [2.0]
7	Mefenamic acid	30 [2.0]
8	Cotrimoxazole	28 [1.8]
9	Cloxacillin	26 [1.7]
10	Aspirin	22 [1.5]
11	Ciprofloxacin	22 [1.5]
12	Phenytoin	22 [1.5]
13	Carbamazepine	18 [1.2]
14	Tramadol	18 [1.2]
15	Omeprazole	17 [1.1]

** % of total no. of suspected active ingredients*

NB: More than one suspected drug may be implicated in an ADR report.

Although the current reporting rate of 280 per million population is regarded as a good reporting rate by international standards, we continued to conduct talks and workshops to promote ADR reporting. In 2005, eight lectures and two workshops were conducted.

• Provision of Unbiased Drug Information to Consumers and Healthcare Professionals

Enquiries from members of the public and healthcare professionals constituted 41% and 28% of the 249 drug enquiries handled in 2005. The information sought covered product safety, product withdrawals or recalls, forensic classification, clinical usage and pharmacological actions of medicinal products. Enquiries through telephone [68%] remained the main mode of communication with the public.

• Major Drug Safety Issues Reviewed in 2005

In 2005, several major safety issues were reviewed and appropriate regulatory actions were undertaken to minimise the risks to the public. Some safety concerns dealt with included alerting local healthcare professionals of the risk of prescribing Seroxat® [paroxetine] during pregnancy and issuing public and professional advisories on the discontinuation of Bextra® [valdecoxib] following safety concerns of serious skin reactions reported overseas.

• Risk Communications Through ADR News Bulletin

In 2005, we published three issues of the HSA Adverse Drug Reaction News Bulletin highlighting current safety concerns and disseminated to 9,500 doctors, pharmacists and dentists. Some of the key safety issues reported include the increased risk of thromboembolic events and fatalities associated with use of erythropoietins [EPOs] in cancer patients, deregistration of thioridazine due to unfavourable risk-benefit profile, and risk of vision disorders associated with erectile dysfunction drugs.

Regulation of Medical Advertisements and Sales Promotions

Applications received for medical advertisement permits	1,221
Medical advertisement permits issued	1,154

Being a council member of the Advertising Standards Authority of Singapore [ASAS], an Advisory Council to the Consumers Association of Singapore [CASE], we continued to provide professional advice to ASAS in assessing advertisements of medicinal and health-related products.

We also actively monitored the activities of the Disease Awareness Campaigns [DACs] based on the DACs guidelines jointly developed in 2004 with the Singapore Association of Pharmaceutical Industries [SAPI].


FDA

Investigation, Surveillance and Prosecution

Investigations conducted	1,025
Product recalls	33
Prosecution cases completed	44

The post-market surveillance programme was extended to include traditional Malay and Indian medicines. Punitive actions were taken against the dealers when some of these traditional medicines were found to be adulterated or non-compliant with specifications approved in Singapore.

• Counterfeit Medicines

We worked closely with other agencies such as the Immigration & Checkpoints Authority to tackle counterfeit medicines. Periodic meetings were also held with pharmaceutical companies upon receipt of information on counterfeit drugs to ensure that the local distribution chain was not affected. During the year, several cases involving foreign visitors were investigated for illegal importation of medicines into Singapore.

• Illegal sales of Medicinal Products

A Codeine Taskforce was set up to look into the diversion of codeine cough mixtures from legitimate sources into illegal markets. Several joint operations with the Singapore Police Force were conducted successfully to crackdown on the illegal peddling and sale of cough mixtures containing codeine. In recognition of our enforcement efforts, we were awarded the Minister's Certificate of Appreciation for Operational Excellence by the Ministry of Home Affairs on 16 March 2006.

Tobacco Regulation

Tobacco retailer licences issued	6,446

We continued enforcement to curtail smoking by youths under the age of 18 years. 5,768 youths were caught smoking or in possession of cigarettes. 5,516 young offenders were compounded and 245 were prosecuted in court.

• Implementation of the New Pictorial Health Warnings and Labelling [HWL]

In November 2005, we informed all tobacco importers and wholesalers on the revision of the new pictorial health warnings and labelling, effective from August 2006. This early notification to the traders was to provide sufficient lead-time for them to print new health warning labels.

Regional Harmonisation Efforts

• ASEAN Healthcare Integration

CDA continued to be actively involved with numerous ongoing ASEAN harmonisation activities in the Singapore-led priority sector for healthcare integration. This aims to meet specified goals in the ASEAN healthcare integration roadmap through the various regional harmonisation working groups meetings in pharmaceuticals, cosmetics, traditional medicines and health supplements, under the auspices of the ASEAN Consultative Committee for Standards and Quality [ACCSQ].

• ACCSQ Pharmaceutical Product Working Group [PPWG]

We successfully hosted the 10th PPWG Meeting in August 2005 in Singapore. At the 11th PPWG Meeting in March 2006, Singapore and Malaysia were assigned to lead the ASEAN Good Manufacturing Practice [GMP] Taskforce to look into the Mutual Recognition Arrangement [MRA] on GMP Inspection.

Singapore [co-led by Malaysia] also worked with ASEAN members to formalise the ASEAN Post-Marketing Alert System [PMAS] in December 2005, subsequently implemented for a 1-year trial implementation. The Implementation Working Group [IWG] chaired by Singapore and co-chaired by Indonesia, held its first dialogue session with the industry in Hanoi to gather feedback and inputs related to implementation issues in ASEAN Common Technical Dossier [ACTD].

• ASEAN Harmonised Cosmetic Regulatory Scheme

As the lead country on Product Safety Evaluation & Post Marketing Surveillance, we helped to develop a common Product Notification Template and Post-Marketing Alert System for sub-standard cosmetics.

• ACCSQ Traditional Medicines and Health Supplements Product Working Group [TMHS PWG]

In January 2006, the TMHS PWG agreed to adopt the ASEAN Harmonised Regulatory Scheme, a system of steps proposed by Singapore, represented by CDA, as a practical approach to achieve harmonisation. The TMHS PWG is now studying the various regulatory requirements of the ASEAN member countries to develop an appropriate harmonisation model for the region.

With the support of the local traditional medicine and health supplement associations, we hosted the 5th PWG meeting in July 2006 in Singapore. CDA will be participating in the development and implementation of the ASEAN Harmonisation Scheme for technical requirements for traditional medicines and health supplements. The scheme aims to reduce technical barriers to facilitate trade access among the member countries in the region.

• Assistance Rendered under the EC-ASEAN Economic Cooperation Programme on Standards, Quality and Conformity Assessment

Under the EC-ASEAN Economic Co-operation Programme, Singapore provided assistance as ASEAN Experts to lead in a number of sub-programme training activities in the pharmaceutical and cosmetics sectors. As the lead country, Singapore hosted a regional cosmetic products workshop on Product Safety Evaluation and an EC-ASEAN workshop on ASEAN Process Validation Guidelines, both conducted in November 2005. In addition, Singapore facilitated the development of training materials for the ASEAN Guidelines for Cosmetic GMP and provided experts for a related training workshop held at Kuala Lumpur in November 2006.

• Permanent Forum on International Pharmaceutical Crime [PFIPC]

In April 2005, CDA represented Singapore at the annual PFIPC in Australia to promote co-operation among member states in combating crimes in counterfeit drug distribution, product tampering, extortion, crisis management, computer forensics and pharmaceutical crime. We will be hosting the next PFIPC in 2008.

International Alliances and Activities

• Memoranda of Understanding [MOU]

The MOU with US Food and Drug Administration [US FDA] related to the US FDA-HSA Medical Products Working Group was signed in June 2005 following the establishment of a Joint Confidentiality Commitment in August 2004. This enables closer exchange of information and facilitates CDA enhancing our regulatory decisions on health products through more in-depth referencing of the US FDA's assessments.

Co-operation activities are ongoing under the signed MOU with China's State Food and Drug Administration [SFDA] and Australia's Therapeutic Goods Administration [TGA]. Expanded co-operation activities are being planned with TGA especially in the areas of biological products and vaccines.

Under the MOU on drug administration signed with SFDA in 2003, a Plan of Co-operation [POC] on Traditional Chinese Medicine [TCM] was established. The Singapore-China Workgroup on TCM Co-operation formed under the POC have held meetings to discuss various areas of co-operation, including regulation of Chinese Medicinal Materials [CMM], CMM clinical trials, post-marketing activities and adverse reactions monitoring.

We are exploring new MOU initiatives with other key international health agencies, including Canada and Malaysia.

• Other Activities with Regulatory Partners

HSA hosted the 2nd Technical Meeting with Malaysia's NPCB in April 2005 to discuss collaboration and co-operation activities.

Under the WHO Fellowship Programme, we hosted training attachments from various health authorities including Bangladesh in May 2005, Sri Lanka in July 2005 and China SFDA in October 2005.

WHO appointed Singapore as a consultant for several projects, including the finalisation of the WHO Manual for registration of generics; co-chairing the first-day session at the WHO Conference on Combating Counterfeit Drug; conducting several Good Clinical Practice [GCP] Inspections; bioequivalence studies performed by Indian pharmaceutical companies and Contract Research Organisations [CROs] under the WHO Prequalification Project.

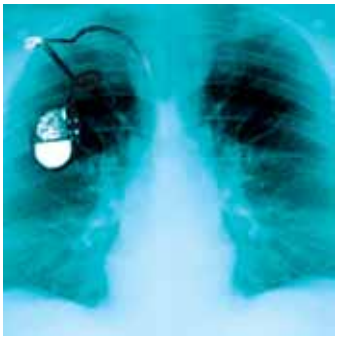
• International Obligations and Commitments

We continued to observe our national obligations and commitments in a number of regional and international agreements and forums. These include the MRA on GMP Inspections with Australia, the Singapore-Japan Joint Statement on Medicinal Product GMP Inspection under the Japan-Singapore Economic Partnership Agreement, the Pharmaceutical Inspection Convention/Pharmaceutical Inspection Cooperation Scheme [PIC/S], the Permanent Forum for International Pharmaceutical Crime, the WHO-supported Western Pacific Regional Forum for the Harmonisation of Herbal Medicines [FHH], the Regional Emerging Disease Centre [REDI], the Brunei Malaysia Indonesia Singapore Thailand [BMIST] Public Health Conference, and the ASEAN Working Group on Technical Cooperation in Pharmaceuticals [AWGTCP].

• Conferences and Related Activities

We actively participated in international conferences, including conferences organised by the Asia-Pacific Economic Cooperation [APEC] Life Sciences Programme, International Conference on Harmonisation, International Conference of Drug Regulatory Authorities, International Federation of Pharmaceutical Manufacturers and Associations, International Society for Pharmaceutical Engineering and the Centre for Medicines Research.

During the year, we shared our knowledge and experience at several international conferences, including the 6th Kitasato-Harvard Symposium in October 2005 in Tokyo, the APEC Regulatory Science Meeting in November 2005 in Taipei, the Centre for Medicines Research International Institute Workshop on the Emerging Markets in March 2006 in Geneva, and the 12th International Conference of Drug Regulatory Authorities in Seoul in April 2006. CDA was also invited to speak on various regulatory topics by local institutions and associations such as the National University of Singapore.



Regulating Medical Devices

Total Pre-Market Applications Received* 3,940

**since the implementation of VPRS in 2002*

In the past year, our Centre for Medical Device Regulation [CMDR] has seen an increasing number of pre-market applications received under the Voluntary Product Registration Scheme [VPRS] for higher-risk medical devices since its inception in 2002.

A new regulatory system for medical devices based on a risk management approach has been targeted for implementation in 2006. This is part of the phased roll out of subsidiary legislation under the Health Products Act which is in the final stages of development.

This new legislation is based on the principles of the Global Harmonisation Task Force comprising benchmarked agencies from the USA, Canada, Europe, Australia and Japan. An internet-based system known as the Medical Device Information and Communication System [MEDICS] has been developed to support the impending medical device regulatory framework.

Improved Turn-Around-Time [TAT]

By end March 2006, the VPRS has been in operation for four years and has received an encouraging response and support from the medical device industry. As of March 2006, we achieved a target TAT of 100% for applications received in 2006.

During the year, we were notified of 11 product recalls and 42 adverse incidents relating to medical devices worldwide and locally. Appropriate corrective actions including recalls of products that were sold in Singapore were duly taken.

3-Day Education Programme For Medical Device Industry

We collaborated with the Singapore Manufacturers' Federation to hold a 3-day Education Programme to address the training needs of the local medical device industry, which is facing a constant influx of new personnel with limited knowledge of regulatory matters on medical devices. The event was successfully held from 11 to 13 July 2005 and was attended by 163 participants from the industry.

This programme is part of CMDR's overall strategy to be a contemporary regulator in partnership with the industry. It also aims to build a core group of personnel from the local industry and authorised representatives to be conversant with our local regulatory requirements and other medical device regulatory affairs.

Control of Condoms and Contact Lens Substances

Licensed Contact Lens Practitioners	502

In addition to administering and enforcing the Contact Lens Practitioners Act through the registration and licensing of Contact Lens Practitioners, CMDR has since 1 January 2006 started administering the controls of both condoms and contact lens substances [CLS], which are classified as medical devices.

As part of our efforts to engage traders dealing with condoms, we collaborated with PSB Corporation Pte Ltd to hold two separate briefings for condom importers and traders in February and March 2006. Plans are in the pipeline to hold similar briefings for the CLS traders.

Regional Harmonisation Activities

We are actively involved in several regional initiatives geared towards trade facilitation and integration of medical device regulatory control.

• Asian Harmonisation Working Party [AHWP]

In November 2005, we participated actively at the 10th AHWP Regional Meeting held in Malaysia to strategise and develop new work programmes for the next three years.

As co-chair of the AHWP Technical Committee, CMDR is working towards the development of common submission dossier and will be proposing a post-market alert system at the next AHWP Meeting held at Korea in September 2006.

• ASEAN Consultative Committee for Standards and Quality [ACCSQ] Medical Device Product Working Group

We co-chaired with Malaysia the 2nd ACCSQ Medical Device Product Working Group [MDPWG] Meeting held at Indonesia in July 2005.

At the 3rd ACCSQ-MDPWG Meeting held at Thailand in February 2006, CMDR played a critical role in its planning committee, as well as garnering support for the Seminar from regional regulators and industry representatives.

Ensuring Radiation Safety

Our Centre for Radiation Protection [CRP] is the national regulatory authority for the safe use of ionising and non-ionising radiation in Singapore. We administer and enforce the Radiation Protection Act for radioactive materials and irradiating apparatus.

Radiation Control: Licensing and Inspections

Licences for Irradiating Apparatus & Radioactive Materials	27,670
Inspections on Facilities using Ionising Radiation	562
Inspections on Facilities using Non-Ionising Radiation	53

In 2005, 27,670 licences were issued for radioactive materials and irradiating apparatus, an increase of about 6.4% as compared to 2004. Endorsements given for the import/export of components of irradiating apparatus without the radiation emitting component numbered 3,123 while 126 endorsements were given for ships carrying nuclear consignments such as nuclear fuel rods, uranium hexafluoride with natural uranium or enriched uranium, and large shipments of Cobalt-60 for irradiators or radiotherapy machines, to transit in Singapore.

In 2005, we made 562 inspections at medical, dental and veterinary practice premises and industrial and educational institutions. For non-ionising radiation, 53 inspections were conducted to measure radio frequency [RF] radiation levels emitted by base stations installed by mobile phone service providers. We also surveyed RF facilities and Radio & Television transmitting stations to ensure that the Regulations were complied with and attended to complaints from members of the public whose homes are near these base stations.

During the year, CRP also checked 11 new models of microwave ovens from different manufacturers to ensure that radiation leakage from microwave ovens sold in Singapore are below that specified in the Regulations.

Personal Monitoring Service

In 2005, about 8,000 thermoluminescent dosimeters [TLDs] were issued and processed monthly to monitor the radiation dose received by workers performing radiation work. During the year, CRP investigated 35 cases of excessive doses received by radiation workers mainly in industrial radiography.

Wipe Tests for Sealed Sources

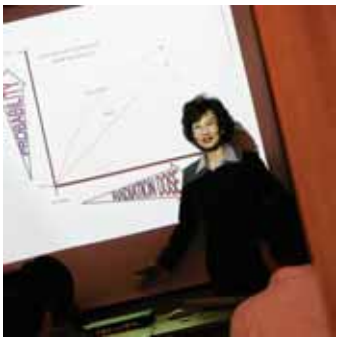
In 2005, we performed 510 wipe tests for the presence of radioactivity in sealed radioactive sources used in industrial, medical and research applications.

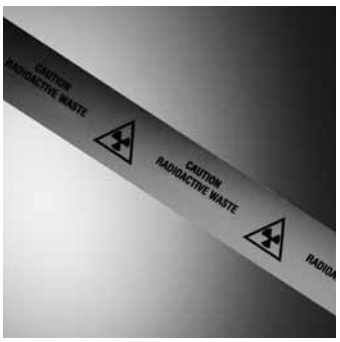
Radioactivity Analysis

During the year, radioactivity analysis using very sensitive equipment was conducted on 268 environmental and industrial samples such as soil, water, copper, marble and granite. In addition, 1,540 food samples were tested and certified free from radioactive contaminants.

Ionising Radiation Dosimetry

In 2005, the reference dosimeters maintained by CRP calibrated a total of 397 radiation monitoring devices used by companies and hospitals in Singapore. Inter-comparisons periodically conducted by International Atomic Energy Agency [IAEA] on accuracy of radiation dose measurement showed that the results obtained by CRP were well within acceptable limits.




CAUTION
RADIOACTIVE WASTE
CAUTION
RADIOACTIVE WASTE

Consultancy Services

We continued to provide consultancy services on all aspects of ionising and non-ionising radiation protection to industries, ministries, statutory boards, hospitals and the general public. The service covers a wide spectrum from radioactive waste management system; radiation accident procedures and emergency planning; radiation shielding requirements; radiation exposure limits; choice and use of radiation instruments and radioactivity analysis in building materials and industrial raw materials.

Training and Education

CRP conducted eight training courses during the year on radiation safety for about 160 participants including those training to be industrial radiographers and others using ionising radiation for various purposes. A course on Emergency Response in the event of a radiological accident was conducted for MINDEF officers. Two courses on Laser Safety were conducted for 28 participants.

We also conducted 338 tests in 2005 for applicants of ionising radiation safety licences, while 907 tests were conducted for applicants of laser safety licences.

Regional Training Centre in Radiation Protection

In April 2005, CRP hosted a 2-day regional workshop attended by 22 delegates from ten countries. Our Centre Director was nominated by IAEA as the Training Course Director for the workshop which aimed to create awareness among cardiologists on the need for radiation protection in cardiac catheterisation procedures in order to apply the International Basic Safety Standards [IBSS] for radiation protection.

We organised the first ever IAEA regional training course on authorisation and inspection of medical cyclotrons in August 2005 attended by 30 participants from 17 countries. Practical sessions were carried out at the cyclotron site at Singapore General Hospital.

Under the Singapore-IAEA MOU signed in March 2000, CRP plays an important role in the provision of training on radiation protection to professionals from countries in the region. From 3 October to 2 December 2005, two IAEA fellows from Pakistan and Mongolia were attached to CRP for On-The-Job training programme on Radiation Protection and Quality Assurance [QA] in medical diagnostic radiography, radiotherapy and nuclear medicine.

Other International, Regional and National Professional Activities

During the year, we took part in a number of IAEA-related events including presenting the Singapore National Report on the Convention on Nuclear Safety in Austria in April 2005 and hosting of the International Team of Experts Mission which aimed to promote adherence to nuclear safety and security-related instruments, codes of conducts and guidelines.

As member of the World Health Organisation International Electromagnetic Field Project, we participated in a 2-day scientific workshop on safety of base-stations held in Geneva in June 2005.

In September 2005, CRP hosted a visit by IAEA Educational and Training Appraisal [EduTA] Team on an appraisal mission to assess Singapore's education and training programme in radiation safety. We further hosted the IAEA/RCA National Coordinators Meeting on Radiation Protection in March 2006 to review regional projects in radiation protection and developments.

Investigations into Bausch & Lomb's ReNu MoistureLoc Multipurpose Contact Lens Solution and its association with fungal keratitis

The Singapore National Eye Centre [SNEC] informed HSA in January 2006 that an increased incidence of Fusarium keratitis had been observed in contact lens users seen at SNEC. HSA promptly initiated a series of activities, ranging from market surveillance, product investigation and testing, and practitioner education outreach programmes. This, together with subsequent activities in other jurisdictions, eventually resulted in the global voluntary withdrawal of Bausch & Lomb's [B&L] ReNu MoistureLoc contact lens solution [CLS] on 15 April 2006.

On receiving SNEC's information, HSA and the Ministry of Health [MOH] moved swiftly to identify the possible risk factors for Fusarium keratitis in contact lens users. The infections were found to be associated with the use of B&L's ReNu multipurpose CLS. B&L voluntarily suspended the sale of ReNu products in Singapore on 17 February 2006 while further investigations into possible causalities continued.

MOH led the epidemiological investigations with active case tracing of patients from January 2004, while HSA spearheaded the product and microbiological investigations. HSA also worked closely with our international partners to share our findings.

This case demonstrated the importance of post-marketing surveillance in ensuring the continued safety and efficacy of a product after it is placed in the market.

In recognition of the critical role HSA played in managing the Fusarium keratitis outbreak in Singapore, the following six officers from HSA received the newly inaugurated Minister for Health Award 2006:

- Ms Chan Cheng Leng, Centre for Drug Administration
- Ms Lim Peck Seah, Office for Corporate Planning
- Ms Marianne Yap, Centre for Medical Device Regulation
- Mr Seet Wing Gang, Centre for Medical Device Regulation
- Dr Lu Set, Centre for Drug Administration
- Mr Sivalingam Rasiah, Centre for Drug Administration

Moving forward

To continue our ongoing efforts to strengthen our regulatory system for medicinal and health-related products, several new initiatives have been lined up. These include improving the provision of drug information, ADR monitoring and drug safety review. CDA also plans to implement proactive monitoring of complementary health products to expeditiously detect safety problems, and further develop the Risk/Benefit Assessment methodology to enhance the robustness of product reviews.

We will be implementing initiatives to enhance communication with the pharmaceutical industry to align understanding of requirements and expectations of drug registration dossiers with the common goal of improving the quality of drug registration submissions.

As part of overall efforts to ensure that all products marketed in Singapore are of appropriate quality, there are plans to extend the Overseas GMP Conformity Programme to existing overseas drug manufacturers which supply medicinal products in Singapore.

HSA will continue to investigate and carry out tough enforcement against codeine abuse. We will continue to provide support to the Health Promotion Board to reduce the smoking prevalence in our population.

In the coming years, we will be setting up the new regulatory framework, translating the ASEAN Cosmetic Directive's requirements into local legislation, reviewing the Post-marketing Surveillance System appropriate for cosmetics, modifying the existing online licensing system and continuing the communication of new regulatory requirements to stakeholders.

To pave the way for the introduction of a medical device regulatory framework in Singapore, CMDR will continue its consultation process with the industry and maintain open dialogues with key stakeholders so as to achieve our objectives with minimal negative impact on industry and consumers.

In the year ahead, CMDR also plans to conduct more medical device roadshows to address the training needs of the local industry personnel with limited knowledge of medical device regulatory matters.

Key challenges for CRP include enhancing radiation safety for patients undergoing radiation treatment and diagnosis in the hospitals and clinics; strengthening of our inspection capabilities for industrial and medical facilities; and strengthening our regulatory infrastructure to address public concerns of Electromagnetic Field [EMF] exposure.

We will continue to collaborate with the IAEA on an internationally-harmonised categorisation of radiation sources and a Code of Conduct on the Safety and Security of Radiation Sources.

The Health Products Regulation Group will review and update the regulatory philosophy and approaches that underpin the range of regulatory activities we carry out, and ensure that the overarching regulatory framework continues to be robust, responsive and relevant to national requirements. The organisational structure of the Group will be refined to facilitate more efficient distribution of resources and expertise, and rationalisation of pre- and post-market functions for the spectrum of health products we regulate.

New capabilities will be built up to enhance the regulatory infrastructure to support Singapore's life sciences research and development initiatives, particularly in translational clinical research and the evaluation of innovative therapeutics and biologics. The legal framework will be streamlined through the Health Products Act and subsidiary legislation that will be rolled out over time. In addition, reviews to rationalise the Group's functions will be carried out, for example determining the scope of radiation protection functions that should appropriately be sited in HSA.

going
the distance

To make our way, we must have firm resolve, persistence, tenacity. We must gear ourselves to work hard all the way. We can never let up.

- Ralph Bunche

HEALTH SERVICES GROUP

- Centre for Transfusion Medicine

We secure the nation's blood supply to ensure that all patients have access to adequate and safe blood when they need it.

Serving The Blood Needs of Our Nation

Whole Blood Donations	83,605
Apheresis Donations	8,722
Blood Donors	51,137
Screening Tests	782,688
Processed Blood Components	211,211

As the national blood service, our Centre for Transfusion Medicine [CTM] manages the national blood programme to provide an adequate and safe blood supply to support Singapore's healthcare needs. In 2005, we collected 83,605 whole blood donations from 51,137 donors. These were processed into 211,211 blood components. Additionally, 8,722 platelet and plasma donations were collected through apheresis.

Every blood and apheresis donation is tested for the ABO/Rhesus blood group, Human Immunodeficiency Virus, Hepatitis B, Hepatitis C and Syphilis. 782,688 screening tests were conducted on donated blood. A further 89,875 patient diagnostic immunohaematology tests were conducted by our Reference Laboratories, including investigations for patients with red cell and platelet serological problems and tissue typing for patients undergoing organ or bone marrow transplantation.

The expenditure for the national blood programme in FY2005/06 amounted to $28.56m while revenue collected amounted to $19.58m. Revenues were generated from blood processing fees and laboratory testing fees. In order to ensure that all Singaporeans have access to a high quality blood supply, the Government provides substantial subsidies for blood provided to Singaporeans.

CTM Financial Highlights	FY05/06 ($'000)
Revenue	19,581
Expenditure	(28,558)
- Manpower Cost	(6,575)
- Other Operating Expenses	(21,983)
Net Deficit before Government Grants	(8,977)
Government Grants	8,977
Net Surplus/(Deficit) after Government Grants	0

Managing Our Nation's Blood Supply

While the blood supply could meet the normal transfusion needs of the hospitals, seasonal fluctuations in blood collection continued to pose a challenge, particularly during the year-end festive period. Heightened donor awareness campaigns during this period and the strong support of the media in encouraging blood donors to come forward allowed us to deal with the situation.

The prolonged outbreak of dengue in 2005 caused an acute demand for platelets for dengue patients. We were able to meet the increased platelet needs through preparation of more platelet concentrates from whole blood donations and by increasing the number of platelet donations collected by apheresis.


HSA
Centre for Transfusion Medicine (Clinical Laboratory)
Laboratory Report

Going The Extra Mile

We continued to emphasise the importance of retaining regular blood donors through excellent donor care and service. The expanded use of donor feedback forms provided a channel for continuous improvement. A customer satisfaction survey conducted in March 2006 identified areas of focus for further service development.

New designs were used in the stress balls provided to blood donors to increase blood flow to the arm during the donation. Incorporation of festive themes, such as the use of stress balls shaped like oranges during Chinese New Year, were a novelty appreciated by our donors who were given the stress balls as souvenirs for their donations.

We are adding more e-services for donors via our DonorCare@HSA website. Through this portal, blood donors can access information on blood donation, update their particulars, and obtain appointments for blood donation in order to reduce their waiting time.

More materials on blood donation and transfusion-transmitted infections were provided to inform and educate our donors on the importance of safe blood donation. To further ensure donor privacy, screens were used to partition off the medical interview stations at mobile blood drives.

In view of the shift to a 5-day work week in more and more organisations, we revised our operating hours at the Bloodbank@HSA from June 2005. The extended opening hours in the evenings on weekdays, and on Saturday afternoons for both whole blood and apheresis donations received favourable response from blood donors. This also allowed the Bloodbank@HSA to be closed on Mondays.

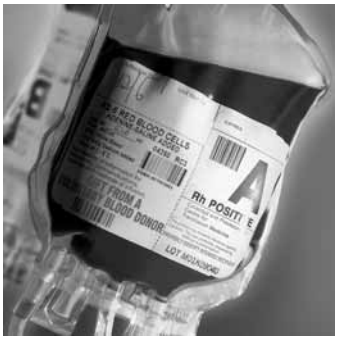
In August 2005, our blood collection teams took on a new look. The new uniform not only provided our staff with a greater sense of professionalism and pride, but also received praises from the donors.

Providing A National Blood Service of Excellence

We are committed to upholding our blood service as a centre of excellence in transfusion medicine. Promising new processes and technologies that can be applied to advance the quality and efficiency of our operations are regularly evaluated. This enables us to provide our patients and hospitals with an advanced level of services that best meet their needs.

New blood collection bags incorporating in-line sampling needles and protection devices were introduced to enhance the safety of blood collection procedures. We also introduced the use of pre-storage leucoreduction blood bags to provide higher quality components for patients needing leucoreduced red cell transfusions. Bacterial testing was implemented for all platelet components as a further enhancement to blood safety.

New technologies were adopted in the specialised Reference Laboratories, with addition of high-resolution DNA-based techniques to the panel of tissue typing tests; these are particularly important in the donor-recipient matching for unrelated stem cell transplants. The use of flow cytometer techniques in pre-transplant screening of renal and bone marrow transplant recipients has also improved the sensitivity and accuracy of these tests.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Promoting Regular Blood Donations

Our strong partnership with the Singapore Red Cross [SRC], our national blood donor recruiter, continued to underpin the steady growth of the blood donation programme. New programmes to strengthen national awareness of blood donation and to recruit and retain safe blood donors were introduced. In particular, two major initiatives were launched with the SRC in 2006.

The Blood Donor Club [BDC] was launched in February to encourage regular blood donations and to provide a platform for regular blood donors to participate in activities that promote healthy lifestyle and contribute to the national blood programme.

The Youth Donor Club [YDC] was successfully launched in March to encourage youths aged 16 to 25 years to embrace blood donation as an integral part of their lives. The YDC seeks to instil social responsibilities amongst youths through blood donation activities.

Celebrating World Blood Donor Day [WBDD]

More than 7,000 regular blood donors and their families were treated to a picnic at the park and a movie under the stars to celebrate WBDD on 14 June 2005. This annual event was jointly organised with the SRC to thank voluntary blood donors for their gift of life.

Moving Towards International Accreditation for Quality

Our quality journey entered another phase when we achieved the AABB accreditation in May 2006, following the successful completion of an intensive 2-day onsite assessment.

AABB accreditation for blood banking, transfusion medicine and blood management demonstrates a blood bank's commitment to advanced learning, continuous improvement and innovation by striving to sustain the highest possible levels of patient and donor care.

Investing in Our People

In December 2005, we were awarded "Certified On-The-Job Training Centre" [COJTC] status by the Institute of Technical Education. With this certification, our On-The-Job Training programme for our laboratory aides and donor aides is now nationally recognised for skills training.

We emphasise the importance of having highly skilled, knowledgeable and competent people in our blood service. During the year, we continued to build on our staff training and competency assessment programmes to ensure that all critical processes and procedures are undertaken by fully trained and competent staff. Training programmes were also conducted for emergency blood collection and laboratory teams as part of contingency plans for disaster situations where large volumes of blood are needed.

Quarterly staff education and update meetings were started to enable staff to get together to participate in information sharing and knowledge updating on current issues and new developments. Experts in transfusion medicine, haematology and other related areas were invited to give talks. Staff were also updated on our blood service performance indicators, and progress of key initiatives and projects. The quarterly meetings were well attended, and have been successful in promoting a greater sense of identity and direction with our blood service goals.

Helping Our Neighbours

As a *World Health Organisation [WHO] Collaborating Centre for Transfusion Medicine*, we aim to contribute towards improving the standards and practice of transfusion medicine and promoting blood safety and quality in the region, as well as globally.

A key area of contribution has been in our assistance to WHO in providing expert consultations and training to other blood services in the region.

Our specialists participated as consultants in WHO regional training programmes on clinical use of blood in Macau and on quality management in Mongolia. As a member of the WHO-convened Global Collaboration for Blood Safety, we are also actively involved in an international platform of discussion and collaboration to improve blood safety and quality worldwide.

We also assisted other agencies in their efforts to help developing blood services. An advisory team visited the National Blood Centre and Hospital Blood Banks in Yangon with the Singapore International Foundation to help evaluate a new assistance programme. A team from the CTM and SRC shared our Singapore partnership experience with blood bank and health officials in Indonesia under the auspices of the International Federation of Red Cross and Red Crescent Societies.

Training programmes were organised at the Bloodbank@HSA for staff from blood services in Vietnam and Indonesia. We also hosted delegations from China, India, Philippines and Thailand on study trips to learn from our experiences. An external proficency testing programme in pre-transfusion testing was initiated for selected blood banks in our Region as a pilot study under the auspices of the WHO Regional Office in the Western Pacific.

Participating in The International Arena

CTM staff continued to participate actively in the international transfusion medicine arena, either as invited speakers or through poster and oral presentations at key international conferences. These included conferences organised by the International Society of Blood Transfusion, International Association of Biologicals, European Haemovigilance Network, Network for Advancement of Transfusion Alternatives, and AABB.

Our staff were also invited to give talks at regional meetings by the Malaysian National Blood Centre, the South Asian Association of Transfusion Medicine, and the Vietnam Haemophilia and Haematology Conference. Our presence and participation at these meetings has contributed towards our expanding reputation as a centre of excellence in transfusion medicine.

Celebrating Our 60 Good Years

2006 marks the 60th Anniversary of our National Blood Programme in Singapore and the 5th year of our strategic partnership with the Singapore Red Cross. Anniversary highlights included a very special World Blood Donor Day celebration on 14 June 2006 and a 2-day Scientific Symposium in July 2006. Regional and international experts in the field of transfusion medicine were invited to speak at the symposium, which was a key regional event for blood services.

Looking Towards A Bright New Tomorrow

The celebrations for the 60th Anniversary of the National Blood Programme in Singapore this year is an important occasion for our blood service. From a fledgling blood bank in 1946 collecting less than 300 units of whole blood a year, we have grown to a comprehensive national blood service providing more than 150,000 units of blood products a year to meet our nation's needs.

We look forward to a future that beckons excitingly with the promise of new challenges and opportunities. New discoveries will expand the boundaries of our knowledge and technology, changing our environment and our practices. Paradigm shifts in transfusion medicine will test our ability to adapt and meet change. We will continue to harness these new developments to advance the highest standards of quality and safety for our blood supply and our professional and technical excellence in transfusion medicine.

Moving forward

With our successful achievement of the AABB accreditation in May 2006, we will be focusing our efforts towards accreditation of our Transplant Support Unit with the American Society of Histocompatibility and Immunogenetics [ASHI], which will give the work of our tissue typing laboratory greater international standing and recognition by transplant networks.

The upgrading of our blood bank computer system, expected to complete by mid-2006, will facilitate the increasing application of IT to increase the efficiency of our operations and improve management of information. The concurrent conversion of our blood labelling format to the ISBT128 format will enable us to harmonise with the increasing number of blood services in other countries who are similarly adopting this as the international standard.

We will continue to work with the SRC in expanding our blood donor population, and to encourage more donors to donate blood regularly. With the support of the BDC and the YDC, we expect to organise more activities for blood donors and their families and friends to enjoy. Blood donors donating at the Bloodbank@HSA will see the introduction of an electronic queue management system and the availability of red cell apheresis donations. Through our Donorcare@HSA portal, more information will be provided to promote greater knowledge regarding blood donation, blood safety, and our national blood supply.

The application of full automation to laboratory processes, such as Nucleic Acid Amplification Testing, blood component preparation, and pre-transfusion testing will improve the efficiency and speed of these processes and allow more samples to be tested. Application of improved techniques for testing for Syphilis will enable more precise detection of infection compared to current methods.

New technologies for pathogen reduction in platelets and plasma components will be evaluated to determine the feasibility of applying them to the blood supply. The use of molecular methods in determination of blood groups and identifying rare blood types will also be introduced to maintain the use of cutting edge technology to provide high quality services.

The new GMP-compliant Cell Processing Laboratory will be an exciting new direction for the blood service, as it aims to serve as a facility for development of new cell components used in cellular therapy of diverse conditions such as cancer, haematological disorders, and autoimmune diseases. This will be a great boost for research into the new expanding area of cellular immunotherapy.

We will continue to advance the standards of transfusion medicine practice, with the forthcoming publication of the "National Clinical Guidelines for Use of Blood Components". The National Haemovigilance Programme will be strengthened by developing links with regional haemovigilance networks in Europe.

Research and development will play a major role in maintaining our blood service at the forefront of transfusion medicine. Research projects in the pipeline include the evaluation of new apheresis techniques, studies on special blood group antigens in our population, and investigation of pathogens such as West Nile Virus and dengue virus.

breaking
new grounds

Do not go where the path may lead, go instead where there is no path and leave a trail.

- Ralph Waldo Emerson

APPLIED SCIENCES GROUP

- Centre for Forensic Medicine
- Centre for Forensic Science
- Centre for Analytical Science

We apply forensic medical, scientific, investigative and analytical expertise to serve the administration of justice and to safeguard public health.

Providing Forensic Medical Services

Coroner's cases	3,547
Coroner's autopsies	1,947
Forensic death investigator's cases	42

Achieving NAME Accreditation and Quality Framework

As the sole provider of forensic medical consultancy services in Singapore, we benchmarked our professional services internationally following the successful review and streamlining of our scope of core activities in previous years.

The National Association of Medical Examiners [NAME] accreditation standard is the only known international standard that accredits offices of forensic/medical examiners in an integrated and holistic manner. Areas covered include professional practice operational processes, staffing adequacy, manpower procedures as well as ancillary support services.

Our Centre for Forensic Medicine [CFM] became the first agency outside North America to be successfully accredited following a site-inspection in May 2005.

The successful accreditation forms one of the key planks of our quality assurance framework which integrates professional quality with service and process quality efforts in a comprehensive manner.

Other parts of the framework include staff recruitment, training and professional capability development, continuing medical education, administrative process monitoring, customer service quality monitoring as well as internal confidential case reviews. This framework assures our stakeholders that CFM's professional services continue to be of high standard and quality.

External Collaborations

Two visiting consultants in histopathology and forensic odontology were appointed to further strengthen CFM's professional capability.

Exchanges with the Victorian Institute of Forensic Medicine [VIFM] of Australia were held in the course of the year under the ongoing Memorandum of Understanding. We provided assistance to the VIFM in medical coverage for the Commonwealth Games held in March 2006.

An ongoing collaboration with NUS Department of Pharmacology is in progress to study sudden cardiac deaths in young persons in an attempt to elucidate the genetic basis in such deaths.

Innovation Applied

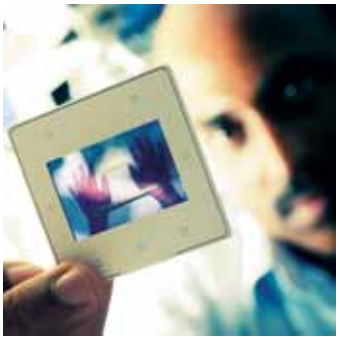
The application for a patent for an innovative design for the world's first mobile containerised BSL [Biosafety Leve] 4 Autopsy facility was successful. This is a joint patent held by HSA and Acre Engineering Pte Ltd. The construction of the actual physical facility was completed in December 2005 and this was followed by a series of successful engineering tests. In the course of its development, overseas experts were consulted to ensure that the design would meet the necessary stringent standards. Operational processes are being developed and staff are being trained to operate the facility.

Keeping Pace with Technology

In the course of the year, a number of technologies were acquired to further enhance professional capabilities. These included a real-time digital X-ray machine with fluoroscopy, an auto-injector, dental X-ray set-up and a portable high power digital video microscope.

Reaching Out to Overseas Clients

We continued to provide our forensic services to clients outside of Singapore with good outcomes.




Post Mortem


Registration

Providing Forensic Science Services

Forensic exhibits/cases	93,613

ASCLD/LAB Accreditation

The DNA Database Laboratory, the latest addition to our Centre for Forensic Science [CFS], was accredited in April 2005 by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board [ASCLD/LAB], and it was one of the few laboratories to be successfully accredited on the first attempt. CFS has six other highly specialised laboratories to serve national forensic science investigation needs and since 1996, CFS has been among the few forensic science centres in the region to be accredited by ASCLD/LAB. ASCLD/LAB is an international benchmark accreditation scheme for excellence in forensic science service.

Abuse of "Subutex®" Sublingual Tablets

There was a sharp increase of 714 buprenorphine exhibits in 2005, up from 230 cases in 2004. Over 90% of the buprenorphine exhibits came in the form of tablets, fragments of tablets, and powders in straws, paper wrappings and even syringes. Many of these powders and utensils analysed were also found to contain midazolam, a benzodiazepine. In June 2005, we started to test for the presence of buprenorphine in urine at the request of Central Narcotics Bureau to monitor the trend of Subutex abuse among suspected drug abusers.

Emergence of New Drugs of Abuse

In March 2006, we received over 10 cases of 4-bromo-2,5-dimethoxyphenethylamine ["2C-B"] involving about 440 colourful "Ecstasy" look-alike tablets. "2C-B" is an amphetamine analogue which is a Class A Controlled Drug under the Misuse of Drugs Act. It is also the first time where an amphetamine analogue other than MDEA and MDA has surfaced in Singapore drug scene in such a big quantity.

New Services and Developments

A murder case provided the impetus to develop a protocol for examining, documenting and interpreting bloodstains at crime scenes, and in establishing a format for Reconstruction Reports based on expert findings. The Reconstruction Report significantly enhances the value of forensic findings.

Arising from another murder investigation, we initiated and completed a research project on the detection of flavour compounds in stone fruits such as mangoes, plums, apricots, loquats and peaches.

Multimedia techniques with animation were successfully used for the first time in a murder case for the presentation of scientific evidence in Singapore.

Continued Collaborations with the Central Narcotics Bureau [CNB]

Several collaborative projects were undertaken with the CNB, including two surveys to determine the consumption patterns of "ice" [methamphetamine], "Yaba" [methamphetamine] and "Ecstasy" [MDMA] respectively.

We also collaborated with the CNB in a project to test for other potential drugs of abuse in urine among drug supervisees and suspected drug abusers from November to December 2005. This enabled the enforcement agency to assess if there was any new drug trend. In another on going collaborative project with CNB, we have been tasked to evaluate a saliva test kit with the potential to screen drug abusers.

Adding Value to our Clients

In April 2005, we worked closely with the Singapore Police Force [SPF] and successfully identified a serial rapist based on DNA samples submitted.

Since April 2005, our turnaround time for Drug Rehabilitation Centres' cases have been shortened from 6 to 4 days so as to provide the enforcement agencies timely service.

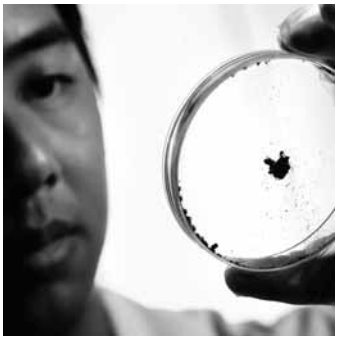
Joint Exercises & Training

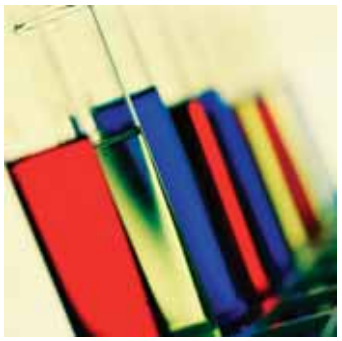
Our forensic scientists participated in Exercise Triton on 29 November 2005 conducted by the SPF. As a member of the Explosive Executive Group [EEG], we were also involved in the monitoring and evaluation of the exercise which centred on examination of car bomb scenes.

We also participated in Exercise Diamond Shield spearheaded by Ministry of Defence's Chemical, Biological, Radiological and Explosives Defence Group on 20 January 2006. This showcased our capabilities in examining post-blast bomb scenes.

In October 2005, we provided forensic DNA training to four forensic scientists from the Vietnam Institute of Forensic Science. The training was well received and led to a collaboration study of 13 CODIS STR for the Vietnamese population.

In August 2005, two laboratory staff completed a Clandestine Laboratory Investigation/Safety Certification programme organised by the US Drug Enforcement Agency [DEA] under the Health Manpower Development Programme. They were later attached to a DEA laboratory to gain hands-on experience on clandestine laboratory investigation.





Providing Analytical Science Services

Analytical Tests for Laboratory Samples 12,679

During the year, we invested in about $2 million worth of specialised equipment to enhance our analytical and scientific capabilities in the areas of pharmaceutical, cosmetic, cigarette, food and water testing analysis. We were able to generate a 30% increase in revenue in FY 2005/06.

Singapore Quality Class [SQC] Renewal Certification

Our Centre for Analytical Science [CAS] successfully attained its SQC renewal certification for another 3 years following a 2-day on-site assessment on 31 August and 1 September 2005.

New Analytical Science Capabilities

During the year, we expanded our analytical repertoire to include five additional adulterants found in Chinese Proprietary Medicines and introduced five new tests for food testing to widen the scope of Singapore Accreditation Council – Singapore Laboratory Accreditation Scheme [SAC-SINGLAS]. Five new tests for water testing were also developed in FY 2005/06.

Collaborations with the World Health Organisation [WHO]

Our Pharmaceutical Laboratory and Food Laboratory continued to work with WHO under their terms of respective reference as WHO Collaboration Centre for Drug Quality Assurance and Food Contamination Monitoring during the year.

In April 2005, we were further engaged by WHO to develop draft monographs for antiretroviral drugs, namely Lamivudine tablets, Lamivudine oral solution and Lamivudine & Zidovudine tablets.

In addition to our hosting of three WHO Fellows from Nepal and Vietnam for attachment during the year, we also served as a WHO temporary advisor to the meeting for Consultation on Specifications for Medicines and Quality Control Laboratory Issues held in Geneva, Switzerland in July 2005.

EC-ASEAN Economic Co-operation Programme on Standards, Quality and Conformity Assessment

Under the EC-ASEAN Economic Co-operation Programme, we organised a 6-month proficiency testing from April to September 2005 in food testing and a 5-day training programme on mycotoxin detection from 29 August to 2 September 2005 attended by 14 ASEAN delegates. Delegates were given hands-on training on the analysis of Aflatoxin B1, B2, G1 and G2 and Fumonisin in B1 and B2.

In November and December 2005, we also attended a training and meeting on the training and organisation of regional proficiency testing schemes held in France and Thailand respectively as part of the Implementation of the Sectoral Action Plan for the Pharmaceutical Sector under the EC-ASEAN Co-operation Programme.

The EC-ASEAN Harmonised Protocol was successfully implemented for cosmetic testing in December 2005.

CAS was also actively involved in the establishment of ASEAN reference standards, validating the quality of reference substances submitted by the World Health Organisation and participation in Asia-Pacific Laboratory Accreditation Co-operation proficiency testing program.

Asia Collaborative Study on ISO Tar and Nicotine

In May 2005, we participated in the 12th Asia Collaborative Study Meeting on ISO Tar and Nicotine in Cigarettes in Korea. Our analytical performance on tar and nicotine analysis compared favourably to the top laboratories in Europe and the United States.

We continued to participate in the 13th Asia Collaborative Study on ISO Tar and Nicotine in Cigarettes with 49 laboratories from 20 countries in the Asia-Pacific region and Europe, which included government, tobacco industry and scientific institutions.

Each participant tested five different brands of cigarettes with tar levels ranging from 1 to 15 mg per cigarette. We were assigned to collate the analytical data, perform statistical analysis and prepare a final report for this study. The report was presented and discussed at the 13th Collaborative Study Meeting held in Taiwan in May 2006.

Collaboration on Research Projects

We continued to collaborate on the ongoing 5-year project with the National University Hospital's Gastroenterology Division on "Clinical Course of Patients with Drug Induced Liver Injury in a Tertiary Liver Centre" which started in May 2004.

Collaborations with the National University of Singapore's Department of Pharmacy continued during the year. This included the manuscript paper submission on the research topic "Migration of Toxic Contaminants from Food Packaging Materials" to the Journal of Chromatography A for review. Other research topics included the detection of sildenafil and taladifil analogues found in herbal preparations.

Several internal research projects were undertaken and included determination of toxic alkaloids and pesticide residues in Chinese herbs and Chinese Proprietary Medicines, as well as the rapid quantification of mercury in cosmetic products.

Caring for the Community and Environment

Taking a special interest in contributing to our community and environment, a committee was formed within CAS in February 2006 to organise charity events and community work. Fund-raising activities through the SHARE programme and charity jumbo sales were held for the less fortunate. Other highlights included hosting a visit to CAS for a group of 40 senior citizens in December 2005 to a morning of fun and enjoyment.

We continued to participate in activities to keep the environment friendly, such as putting in place a waste management system and initiating recycling projects for old newspaper, clothing and papers.

Moving forward

With the re-organisation of HSA into three Operational Groups, CFM, CFS and CAS come under the Applied Sciences Group.

The Group will seek to achieve greater synergy of its various capabilities, efficiency gains and continue on the path of professional excellence.

The year ahead will see CFM redefining its work and future development in terms of five programmes, namely, the Professional Consultancy Services Programme, Professional Capability Development Programme, Technical & Administrative Capability Development Programme, Crisis Response Programme and the International Strategic Development Programme.

CFS will develop new capabilities in traffic accident reconstruction to meet the emerging needs of the Traffic Police and the local motor insurance industry. Forensic DNA databases for Bangladesh and Thailand have been completed and will be validated for casework. Y-STR databases for the Chinese, Malays and Indians have also been completed and will be validated soon for casework.

CFS has started research into applying liquid chromatograph time-of-flight mass spectrometer (LC-TOF-MS) and LC-MS-MS techniques to toxicology analysis for low molecular weight compounds and drugs of abuse. The Centre is further collaborating with the National Institute of Science and Technology in USA to explore the mini-STRs for non-CODIS loci, and with the Ministry of Defence on explosive residuals analysis.

CAS will work towards maintaining SQC, SAC-SINGLAS accreditation status, and will embark on the Singapore Class and eventually the Singapore Quality Award. New initiatives in the pipeline include a $1.9 million investment plan to expand and refurbish resources and procure high precision and throughput equipment such as Inductively Coupled Mass Spectrometry, Liquid Chromatography – Time-of-Flight capabilities and Thermal Luminescence Detector [TLD].

To keep pace with new and emerging demands, we aim to increase the scope of laboratory accreditation by developing more new tests in the areas of food, drug, water analysis, cosmetics and cigarettes. Plans include the expansion of analytical scope on naturally occurring toxic alkaloids and pesticide residues in Chinese Proprietary Medicines and the further development of our testing capability on irradiated food and plastics, particularly in the area of migration studies of plastic additives into food.

creating
new synergies

Coming together
is a beginning;
keeping together
is progress;
working together
is success.

- Henry Ford

INTERNATIONAL VISITORS AT HSA

Date	Visits By:
1 April 2005	• 5-member delegation from National Blood Centre, Thai Red Cross Society
4 - 5 April 2005	• Dr Tajuddin Akasah, Head of Centre for GMP and Dr Sulaikah Moideen, Head of Pharmaceutical Chemistry Testing Section, National Pharmaceutical Control Bureau, Malaysia
6 April 2005	• 6-member delegation from Malaysia, led by Dr Mohd Khairi Bin Yakub, Director, Medical Practice Division
13 - 14 April 2005	• 19-member delegation from the Faculty of Social Sciences and Humanities, Mahidol University, Thailand
26 – 28 April 2005	• 3-member delegation from IAEA International Team of Experts
28 April 2005	• 15-member delegation from Thailand's Ministry of Justice led by its Deputy Permanent Secretary, Mr Manit Suthaporn
9 – 10 May 2005	• Professor Sam Kacew, Chief Editor, Journal of Toxicology and Environmental Health, University of Ottawa, Canada
10 - 13 May 2005	• Mr Md. Nurul Islam, Superintendent of Drugs, Directorate of Drug Administration, Ministry of Health & Family Welfare, Dhaka, Bangladesh • Mr Md. Jalaluddin, Superintendent of Drugs, Drugs Administration, Chittagong, Bangladesh
16 - 25 May 2005	• Dr Mitra B Kalelkar, Deputy Chief Medical Examiner Office of Medical Examiner Cook County External Auditor, National Association of Medical Examiners, Chicago, USA
31 May – 1 June 2005	• 15-member delegation from Urumuqi Blood Centre, China
6 - 8 June 2005	• 4-member delegation from Malaysia's Ministry of Health led by its Director of Engineering Services, Datuk Ir. Dr. M.S. Pillay
28 June 2005	• Ms Yogeswary Markandoo, Deputy Director, Centre for Quality Control of National Pharmaceutical Control Bureau, Ministry of Health, Malaysia
5 July 2005	• Delegation from China's Jinan Public Health Bureau led by its Vice Director, Ms Guo Meiping
18 July 2005	• Mr Ajuna Pathmaperuma, Regulatory Pharmacist, Sri Lanka
29 August 2005	• 14 ASEAN representatives from Brunei, Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand and Vietnam for the EC-ASEAN Economic Cooperation on Standards, Quality & Conformity Assessment Food Sub-programme


HSA


HSA

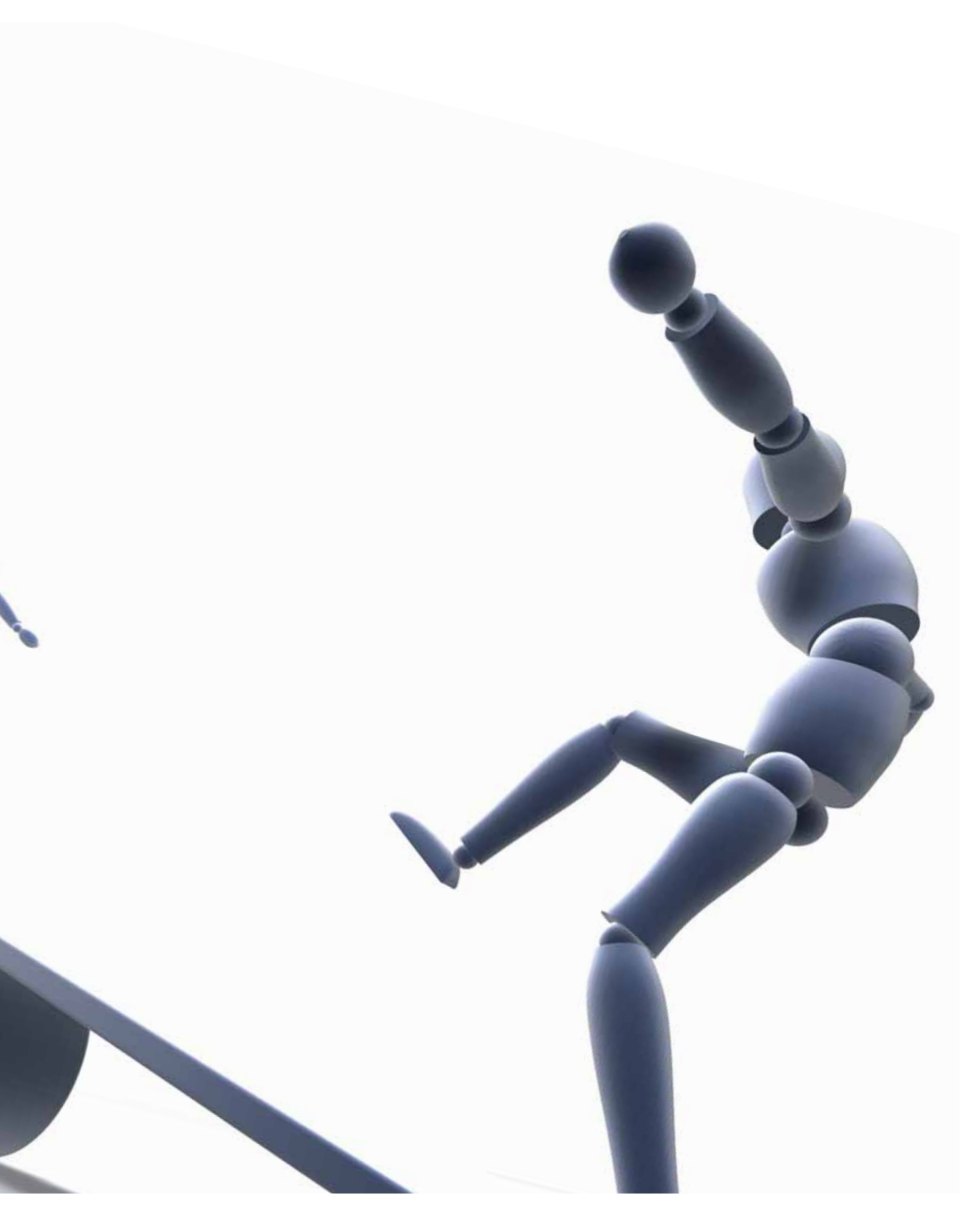

HSA

Date	Visits By:
5 - 9 September 2005	• Dr Mark Chu, Toxicologist, Victorian Institute of Forensic Medicine, Australia
19 – 21 September 2005	• Ms Geetha Sadagopan and Dr Russell Anderson, IAEA Educational and Training Appraisal
20 September 2005	• 9-member delegation from Beijing Red Cross Blood Centre and Beijing 306 Hospital
23 September 2005	• Dr Raquel B Del Rosario-Fortun, Forensic Pathologist, University of Philippines College of Medicine • Dr Cesar B Bisquera, MLD, Forensic Pathologist, National Bureau of Investigations, Philippines
26 - 30 September 2005	• Mr Suteep Busayamanont and Mr Aphichai Hoonchamlong, Senior GMP Inspectors, Food And Drug Administration, Thailand
6 October 2005	• Godfrey Lee Kai-Fai, Senior Inspector of Police and Firearms Examiner, Forensic Firearms Examination Branch, Hong Kong Police Force
18 October 2005	• 4 WHO fellows from China
24 - 25 October 2005	• Dr Jurgen Beckmann, Director and Professor, German Federal Institute for Drugs and Medical Devices (BfArM), Germany
9 November 2005	• Dr Jenny Lee, Principal Research Officer, Department of Agriculture Sabah, Malaysia
15 November 2005	• 3-member delegation from the Institute of Drug Quality Control, Ho Chi Minh City, Vietnam
18 November 2005	• Medical delegates from the Department of Transfusion Medicine, The Tamil Nadu Medical University, Chennai, India
22 November 2005	• 5-member delegation from Regional Blood Transfusion Centres, Vietnam
5 January 2006	• Ms Wang Limin, Deputy Director, Hainan Provincial Food and Drug Administration, China • Ms Adelina Tan, Adverse Drug Reaction Unit, Therapeutic Goods Administration, Australia
28 January – 3 February 2006	• Delegation from the National Blood Service Sri Lanka and Sri Lanka Red Cross led by Dr Bindusara, Director, National Blood Service Sri Lanka
13 – 17 February 2006	• 5-member delegation from Australia's Victorian Institute of Forensic Medicine led by its Director, Professor Stephen Cordner for the Disaster Victim Identification Course
17 February 2006	• Kevan Walsh, Firearms and Trace Evidence Examiner, Institute of Environmental Science and Research, Auckland, New Zealand
20 - 24 February 2006	• Medical delegates from the Indonesian Red Cross
2 March 2006	• Dr David Graham, National Manager, Therapeutic Goods Administration, Australia
6 – 7 March 2006	• Dr Sujit Dey, IAEA Program Manager for Radiation Protection Model Project
27 – 30 March 2006	• Two Laboratory Technologists from the Indonesian Red Cross
30 March 2006	• Associate Professor Hoang Manh Hung, Institute of Forensic Sciences, Hanoi, Vietnam • Two Technicians from Dharmais National Cancer Centre, Hospital Blood Bank Unit, Jarkarta, Indonesia

scaling
new heights

It is not the mountain we conquer but ourselves.

- Sir Edmund Hillary



ACHIEVING ORGANISATIONAL EXCELLENCE

To succeed and thrive in a constantly changing environment, HSA strives for excellence and aims to move beyond managing resources to inspiring and leading our people to scale new heights. Since its inception in 2001, HSA has adopted several of SPRING Singapore's Organisational Excellence frameworks for our systems and processes, and has been developing advocates and managers to implement them.

Our relentless pursuit of organisational and innovation excellence initially led us to achieve the People Developer Standard [PDS] in December 2002 with successful PDS re-accreditation in January 2006. We also became the first public healthcare agency to be endorsed by SPRING Singapore [Standards, Productivity and Innovation Board] for the Singapore Innovation Class [I-Class] in July 2003.

Public Service Innovation Consortium Study

As the pioneer batch of Public Sector I-Class organisations, HSA was invited by the Public Service Centre for Organisational Excellence [PSCOE], to be a part of the Public Service Innovation Consortium Study along with four other agencies. HSA collaborated with Jurong Town Corporation, PRISONS, Ministry of Finance and Public Utilities Board in April 2005 in a study to compile good innovation-related practices. This was done with a view to share them with the wider public service sector.

2nd Organisational Capability Survey [OCS]

The 2nd OCS for HSA was conducted in November 2005. A total of 518 staff, or 92.67%, of HSA staff participated in the survey carried out by an independent external consultant. It provided a good channel for gathering frank staff feedback in an open and safe environment to gauge the organisation's strengths and weaknesses, and the areas of strength and improvements to work on to enhance the organisation's capabilities.

Living Core Values, the HSA Way

Since the launch of the HSA Living Core Values Programme in 2004, various awards, initiatives and programmes have been spearheaded to further instil our five core values in HSAians.

The Core Values Recognition Programme serves to honour HSAians who have been exemplary examples of the "HSA way". In April 2006, 20 HSA officers were presented the HSA Living Core Values Awards, with the Distinction Award conferred on Ms Lim Chin Chin from our Centre for Forensic Science for being an outstanding role model of the "HSA way".

The Living Core Values Newsletter continues to serve as a platform to further reinforce the core value messages. To date, 3 issues have been published with more issues being planned.

Inspiring Innovation

Innovation is one of our the key drivers in our pursuit of organisational excellence at HSA. We aim to be a leading innovative authority, robustly and capable of continuously reinventing our systems, processes and core competencies.

The theme of innovation was featured prominently in our celebrations of HSA's fifth anniversary in April 2006. A myriad of creative workshops and fun-filled activities were organised from 31 March to 15 April 2006 as part of the HSA Innovation Month to encourage and inspire HSAians to be more creative.

We collaborated with the National University of Singapore [NUS] to host the 3rd Annual HSA-NUS Joint Scientific Seminar in May 2005. Based on the theme "Health Through Scientific Research", 14 papers and 11 posters were presented at the Seminar, aimed at encouraging cross-fertilisation of ideas and expertise between the two agencies.


PASS IT ON 2 HSA


HSA


HSA

To further inspire all HSAians, the OE Forums was another initiative launched in September 2005 to promote a learning culture in HSA through the sharing of concepts, ideas, case studies and organisational best practices. Local entrepreneurs, business leaders and speakers from leading innovative organisations were invited to share their success stories at these forums. These included Mr Alvin Lee [Beautiful Minds], Mr Kenny Yap [Qian Hu Corporation Limited], Mr Gene Tan [National Library Board] and Ms Olivia Lum [Hyflux Group].

At the 30th International Convention on Quality Control Circles [ICQCC] held in November 2005 in Korea, HSA presented its Work Innovation Team [WIN] project 'Autopsy Trolley with Weighing Function' that won the HSA Innovation Distinction Award in 2005.

The Annual IDEAS Forum that was held in November 2005 showcased top WIN projects and provided the occasion for awards to be presented for the Best Staff Suggestion and Top Evaluator.

In addition to HSA-wide innovation initiatives, tailor-made events were designed and organised for individual Centres during the year to meet their varying creative needs and promote organisational learning and teambuilding. A "Thinkathon" session further contributed to our growing culture of creativity and entrepreneurship.

Developing And Nurturing Our People

In our pursuit of organisational excellence, we recognise and value our people as our greatest asset. Our priority is to develop our staff across all levels to their fullest potential so as to equip them to more than meet the expectations of our stakeholders and take on future challenges with confidence. Having successfully attained the PDS re-certification in January 2006, our next target is to achieve the People Excellence Award.

Training Programmes

Under the Ministry of Health's Health Manpower Development Plan [HMDP], HSA sent 13 staff members for overseas training in countries such as USA and UK. We also sponsored 10 staff under the HSA's Professional Development Programme [PDP] to upgrade their academic qualifications.

In addition to sponsoring our nurses to diploma courses at the Nanyang Polytechnic, we further sponsored two donor aides who were enrolled for the full-time nursing course at the Institute of Technical Education.

Special Awards

Eight HSA officers received the National Day Awards 2005, including four special awards as follows:

- The Public Service Medal [PBM] – Tsunami Relief Operations
  Associate Professor Gilbert Lau
  Centre for Forensic Medicine
- The Public Administration Medal [Silver]
  Dr Chow Shui Tse
  Centre for Forensic Science
- The Commendation Medal
  Mdm Leou Kwee Kim
  Centre for Transfusion Medicine
- The Efficiency Medal
  Mr Chan Chee Mun
  Centre for Forensic Science

In August 2005, Ms Daisy Ang from Corporate Communications Department was awarded the Singapore Labour Foundation Educational Tours Award for Model Workers 2005.

During the year, 74 officers were promoted in recognition of their excellence performance. Long Service Awards were also bestowed upon 75 officers.

Integrating Fun And Fitness At Work

As part of our commitment to encourage our staff to lead balanced and healthy lifestyles, activities such as Active Day, Fruits Day, health screenings and enrichment talks were held regularly to strengthen staff bonding and promote healthy living.

In August 2005, we were awarded the Singapore H.E.A.L.T.H.* Gold Award 2005, given to organisations for commendable Workplace Health Promotion [WHP] programmes that strive to help their employees lead healthy and vibrant lives.

** Helping Employees Achieve Life-Time Health*

We were also awarded the Ministry of Home Affairs Award for NS Men's Employers in September 2005 for supporting the National Service activities of our employees.

Delivering Quality Customer Service

Quality service is another key focus in our drive for excellence that epitomises one of our core values – *We Create Value For Our Clients.* We seek to promote an organisational culture that nurtures and delivers quality service that exceeds the expectations of our stakeholders.

In July 2005, the results of the second HSA Customer Satisfaction Survey held in March 2005 showed that 90% of our customers were satisfied with the speed of our response to general inquiries. The overall level of satisfaction on service provision was also high at over 80%.

We continued to participate in the quarterly PS21 Mystery Customer Audit programme. In 2005, we again paired up with the Agri-Food and Veterinary Authority [AVA] to cross-audit each other's service standards. HSA attained a 96% of compliance rate for its service indicators.

During the year, quarterly internal audits of our front-line customer services were conducted with satisfactory results.

We received 1,619 and 394 feedback responses through feedback forms and emails respectively. Under the "No Wrong Door Policy" rolled out by the Public Service, we managed 112 cases that required further inter-agency co-ordination.

In March 2006, we completed the revamp of all our existing service forms, including e-forms to make them more user-friendly for our customers and members of the public.

For demonstrating high customer service level, we awarded 10 individuals with the Outstanding Service to Customer Awards in April 2006. Three teams were awarded the Outstanding Quality Improvement Awards for their contributions towards improving the quality of work and operations.

Moving forward

With the reorganisation of HSA into three key professional groupings in July 2006, HSA is moving into its next phase of advancement with newly defined vision and mission statements that clarify our aspirational goals, and better align us with our parent Ministry of Health's goals and objectives for the healthcare sector, as well as the wider Singapore's life-sciences environment.

As we aspire to be the leading innovative authority protecting and advancing national health and safety, the pursuit of OE-related certifications in HSA continues to be recognised as a strategic imperative for the organisation to continue and expand upon its organisational development and excellence achievements so far. In the coming year, we will work towards achieving the People Excellence Award and the re-certification for the Singapore Innovation Class.

In the face of new challenges and changes faced, we remain committed to building HSA as a growing and innovative organisation, with a culture and a people who are always ready to be at the cutting edge of regulatory and scientific innovation so as to wisely regulate health products, serve the administration of justice, secure the nation's blood supply, and safeguard public health.

reaching
for the stars

Set your course by the stars, not by the lights of every passing ship.

- Omar Bradley

OUR ACCOLADES

Organisational Excellence

People Developer Standard
since December 2002

Singapore Innovation Class
first public healthcare agency to be endorsed - July 2003

Singapore H.E.A.L.T.H. Gold Award 2005

Ministry of Home Affairs Award for NS Men's Employers 2005

Singapore Family Friendly Employer Award 2004

Professional Excellence

Centre for Transfusion Medicine

AABB Accreditation • *first national blood service in Asia to be accredited - May 2006*

Certified On-the-Job Training Centre • *December 2005*

Regional Quality Management Project Training Centre of the Western Pacific for Transfusion Medicine • *since 2002*

World Health Organisation Collaborating Centre for Transfusion Medicine • *since 1992*

Centre for Forensic Medicine

National Association of Medical Examiners [NAME] • *first agency outside North America to be accredited - October 2005*

Centre for Forensic Science

American Society of Crime Laboratory Directors/Laboratory Accreditation Board [ASCLD/LAB] • *since July 1996*

United Nations International Drug Control Programme Reference Laboratory for Biological Specimens • *since 2002*

United Nations International Drug Control Programme Reference Laboratory for Seized Materials • *since 2001*

Centre for Analytical Science

ASEAN Leading Country for Colorants and Tretinoin Analysis in Cosmetic Products • *since 2004*

ASEAN Reference Laboratory for Mycotoxins Analysis • *since June 2004*

2003 Public Service Award for Organisational Excellence • *July 2003*

Singapore Quality Class • *since July 2002*

ISO/IEC 17025 Accreditation under Singapore Accreditation Council – Singapore Laboratory Accreditation Scheme [SAC-SINGLAS] • *upgraded from ISO/IEC Guide 25 in July 2002*

ISO/IEC Guide 25 Accreditation under SAC-SINGLAS • *1997 to 2002*

World Health Organisation Collaborating Centre for Drug Quality Assurance • *since 1994*

World Health Organisation Collaborating Centre for Food Contamination Monitoring • *since 1993*

research papers & projects

Regulating Pharmaceuticals And Health-related Products

Title Of Research Paper	Author(s)	Professional Publication
The Use of Toxicogenomic Data In Risk Assessment: A Regulatory Perspective	Dr Vivian Chan & Dr Mette Due Theilade	Journal of Toxicology - Clinical Toxicology, 43(2), 121 - 126, 2005
Analysis Of Adverse Drug Reaction Reports For Year 2004	Ang Pei San, Dr Ting Kang Nee, Tan Bee Him & Chan Cheng Leng	Drug Safety; 28(10), 930, 2005
The Effectiveness Of Targeted Risk Communication In Promoting Spontaneous Adverse Drug Reaction Reports	Dr Ting Kang Nee, Ang Pei San, Tan Bee Him & Chan Cheng Leng	Drug Safety; 28(10), 930, 2005
Retrospective Analysis Of Drug-Induced Stevens Johnson Syndrome Or Toxic Epidermal Necrolysis	Dr Ting Kang Nee, Ang Pei San, Tan Bee Him & Chan Cheng Leng	Drug Safety; 28(10), 931, 2005

Title Of Research Presentation	Author(s)	Professional Event
The Use of Genetically Modified Viruses and Genetically Engineered Virus-vector Vaccines: Environmental Effects	Dr Vivian Chan	3rd Annual HSA-NUS Joint Scientific Seminar, Singapore, 11 May 2005
Analysis Of Adverse Drug Reaction Reports For Year 2004	Dr Ting Kang Nee, Ang Pei San, Tan Bee Him & Chan Cheng Leng	3rd Annual HSA-NUS Joint Scientific Seminar, Singapore, 11 May 2005
Survey On The Use Of Package Inset As A Source Of Drug Information By Healthcare Professionals In Singapore	Dr Ting Kang Nee, Ang Pei San, Tan Bee Him & Chan Cheng Leng	3rd Annual HSA-NUS Joint Scientific Seminar, Singapore, 11 May 2005
Survey Of Aristolochia Herbs In Singapore	Yee Shen Kuan, Chu Swee Seng, Tee See Yee, Li Chunwei & Choo Peck Lin	3rd Annual HSA-NUS Joint Scientific Seminar, Singapore, 11 May 2005

Providing Essential Bloodbanking Services

Title Of Research Presentation	Author(s)	Professional Event
A Study On Blood Donors With Bruises And Haematomas Following Blood Donation In Singapore	Rohaidah Ramli, Amajit Kaur, Noorhayati Rahamat, Chong Jye Ling, Ong Chye Leng & Dr Diana Teo	XVth International Society Of Blood Transfusion (ISBT) Regional Congress, Europe, 2 - 6 July 2005
Study On The Frequency Of Red Cell Phenotypes (E.G. Duffy, Kidd And MNS Blood Group System) In Our Local Population	Leou Kwee Kim, Wong Yan Fen, Dr Diana Teo & Dr Mickey Koh	XVth International Society Of Blood Transfusion (ISBT) Regional Congress, Europe, 2 - 6 July 2005
The First Advanced Quality Management Training Course For Blood Transfusion Services In The Western Pacific Region	Tan Meng Kee, Dr Yu Jun Ping & Dr Diana Teo	XVth International Society Of Blood Transfusion (ISBT) Regional Congress, Europe, 2 - 6 July 2005

Providing Essential Bloodbanking Services (cond't)

Title Of Research Presentation	Author(s)	Professional Event
RBC Alloantibodies Frequency And Their Prevalence In The Chinese, Malay And Indian Communities In Singapore	Dr Emilia Widjaja, Dr Diana Teo & Dr Mickey Koh	XVth International Society Of Blood Transfusion (ISBT) Regional Congress, Europe, 2 - 6 July 2005
Three Years Of Transfusion Reaction Reports – A Summary Of The Haemovigilance Programme In Singapore	Dr Syed Shu'aib, Dr Mickey Koh & Dr Diana Teo	XVth International Society Of Blood Transfusion (ISBT) Regional Congress, Europe, 2 - 6 July 2005
1. Haemophilia And Factor Concentrates 2. Massive Blood Transfusion	Dr Mickey Koh	Vietnam Haemophilia And Haematology Conference, 30 - 31 August 2005
Supply And Safety Through One Agency – The Singapore Experience	Dr Diana Teo	International Association For Biological Standardisation (IABS) IVth International Symposium On The Advances In Transfusion Safety, Sydney, Australia, 11 - 13 October 2005
Platelet Antibody Tests : Singapore Experience	Dr Seema Lale, Neo Theng Hee, Leou Kwee Kim, Dr Diana Teo & Dr Mickey Koh	American Association of Blood Banks (AABB) Annual Meeting, Seattle, USA, 15 - 19 October 2005
Current Technique For NAT Testing	Dr Diana Teo	Thai Red Cross Society National Blood Centre Scientific Meeting, Bangkok, Thailand, 11 November 2005
Overview Of Nucleic Acid Test (NAT) On Blood Donations In Singapore	Lynn Wong, Sally Lam & Dr Diana Teo	XVIth International Society Of Blood Transfusion (ISBT) Regional Congress, Asia, 12 - 15 November 2005
Retrospective Study On Donation-Related Adverse Reactions Among Blood Donors In Singapore Between December 2002 To May 2003	Rohaidah Ramli, Noorhayati Rahamat & Chua Cheng Wah	XVIth International Society Of Blood Transfusion (ISBT) Regional Congress, Asia, 12 - 15 November 2005
A Predictive Model Formula For The Determination Of PLC Production In The Centre For Transfusion Medicine	Dr Lee Khai Yann, Dr Diana Teo, Dr Mickey Koh, Dr Tan Hwee Huang & Ng Kok Quan	XVIth International Society Of Blood Transfusion (ISBT) Regional Congress, Asia, 12 - 15 November 2005
High Prevalence Of Anti-MIA In Singapore	Kang Kok Sheng	XVIth International Society Of Blood Transfusion (ISBT) Regional Congress, Asia, 12 - 15 November 2005
Evaluation Of Haemonetics ACP215 With The Intent Of Demonstrating That Haematocrit Of The Thawed Deglycerolised RBC Is Lower Than Other Methods	Liong Chong Wah	XVIth International Society Of Blood Transfusion (ISBT) Regional Congress, Asia, 12 - 15 November 2005
Blood Supply In Singapore	Dr Tan Hwee Huang	4th South Asian Association Of Transfusion Medicine, Kathmandu, Nepal, 1 - 4 December 2005

Providing Essential Bloodbanking Services (cond't)

Title Of Research Presentation	Author(s)	Professional Event
Haemovigilance Programme In Singapore	Dr Mickey Koh	European Haemovigilance Network Meeting, Portugal, 8 - 10 February 2006
What Does The Clinical User Expect From Haemovigilance?	Dr Mickey Koh	European Haemovigilance Network Meeting, Portugal, 8 - 10 February 2006
Pathogen Reduction Systems	Dr Diana Teo	Transfusion Medicine Course 2006, Kuala Lumpur, Malaysia, 27 - 31 March 2006
1. Freezing Cells 2. Massive Transfusion 3. Recombinant FVIIa & Its Use In Transfusion Medicine	Dr Mickey Koh	Transfusion Medicine Course 2006, Kuala Lumpur, Malaysia, 27 - 31 March 2006

Providing Forensic Medical Services

Title Of Research Paper	Author(s)	Professional Publication
After The Indian Tsunami: An Account Of Singapore's Contribution To The International Disaster Victim Identification Effort In Thailand	Associate Professor Gilbert Lau, Tan-Siew Wai Fun & Dr Tan Peng Hui	Annals Of The Academy Of Medicine, Singapore 2005; 34: 341-51
Pericardial Heat Hematoma - An Unusual Finding In Two Vehicular Crash - Fire Deaths	Dr George Paul	Abstracts - 2005; A0945, P25, P.254; Justice Through Science, 17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, 21 - 26 August 2005
Homicides And Suspicious Deaths In Singapore - A Five Year (1996-2000) Retrospective Study	Dr George Paul, Dr Celin V Chacko, Associate Professor Gilbert Lau & Dr Paul Chui	Abstracts - 2005; A0946, P16, P.176; Justice Through Science, 17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, 21 - 26 August 2005
Comparison Of Clinical Radiological 2nd And 3rd Molar Ossification And Wrist Region Epiphyseal Changes Between Cosmopolitan Indians And Three Malaysian Races	Dr George Paul	Abstracts - 2005; A0947, P10, P.112; Justice Through Science, 17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, 21 - 26 August 2005

Providing Forensic Medical Services

Title Of Research Presentation	Author(s)	Professional Event
Role Of Healthcare Workers In Mass Disasters	Dr George Paul	A Primer In Disaster Victim Identification (DVI), Singapore, 13 - 17 February 2006
Professional Quality In A Forensic Medical Setting: The Singapore Experience	Dr Paul Chui	58th Annual Meeting Of The American Academy Of Forensic Sciences, Seattle, USA, 20 - 25 February 2006
An Usual Post Mortem Change In A Child Homicide - Leaching	Dr Paul Chui	58th Annual Meeting Of The American Academy Of Forensic Sciences, Seattle, USA, 20 - 25 February 2006
Homicidal And Dyadic Falls From A Height: Rarities In Singapore	Associate Professor Gilbert Lau	7th International Conference Of The World Police Medical Officers, Dublane, UK, 10 May 2005
Death May Have Its Benefits: The Role Of Forensic Pathology In Medical Audit	Associate Professor Gilbert Lau	7th International Conference Of The World Police Medical Officers, Dublane, UK, 10 May 2005
Difficulties In Child Abuse Deaths – Two Case Reports	Dr George Paul	HSA Journal Club Presentation, 21 July 2005
Biosafety Level Four Autopsy Facility: An Innovative Solution	Dr Paul Chui	17th Meeting Of The International Association Of Forensic Sciences 2005, Hong Kong, 21 - 26 August 2005
Dealing With Infectious Disease Outbreak: Lessons For A Forensic Pathology Facility	Dr Paul Chui	17th Meeting Of The International Association Of Forensic Sciences 2005, Hong Kong, 21 - 26 August 2005
Pericardial Heat Hematoma - An Unusual Finding In Two Vehicular Crash - Fire Deaths	Dr George Paul	17th Meeting Of The International Association Of Forensic Sciences 2005, Hong Kong, 21 - 26 August 2005
Homicides And Suspicious Deaths In Singapore - A Five Year (1996-2000) Retrospective Study	Dr George Paul, Dr Celin V Chacko, Associate Professor Gilbert Lau & Dr Paul Chui	17th Meeting Of The International Association Of Forensic Sciences 2005, Hong Kong, 21 - 26 August 2005
Comparison Of Clinical Radiological 2nd And 3rd Molar Ossification And Wrist Region Epiphyseal Changes Between Cosmopolitan Indians And Three Malaysian Races	Dr George Paul	17th Meeting Of The International Association Of Forensic Sciences 2005, Hong Kong, 21 - 26 August 2005
Buprenorphine Related Deaths In Singapore	Dr Lai Siang Hui, Dr Yao Yi Ju, & Dr Danny Lo Siaw Teck	17th Meeting Of The International Association Of Forensic Sciences 2005, Hong Kong, 21 - 26 August 2005

Title Of Research Paper	Author(s)	Professional Publication
Phenol-Related Death	Leong Hsiao Tung, Eugene Goh Wee Sing, Dr Yao Yi Ju & Dr Danny Lo Siaw Teck	Bulletin of The International Association of Forensic Toxicologists, Volume XXXV (No. 3), Pg 70 - 72, 2005
Evaluation Of Ketamine Abuse Using Hair Analysis: Concentration Trends In A Singapore Population	Leong Huey Sze, Tan Ngak Lee, Dr Lui Chi Pang & Dr Lee Tong Kooi	Journal of Analytical Toxicology, Volume 29, Pg 314 - 318, 2005
Genetic Data For 13 CODIS STR Loci In Singapore Indians	Simon Lim Eng Seng, Tan-Siew Wai Fun, Dr Christopher Syn Kiu-Choong, Ang Hwee Chen, Dr Chow Shui Tse & Dr Bruce Budowle	Forensic Science International, Volume 148, Pg 65 - 67, 2005
Genetic Data For 13 CODIS STR Loci In Singapore Malays	Ang Hwee Chen, Dr Renuka Sonarajah, Simon Lim Eng Seng, Dr Christopher Syn Kiu-Choong, Tan-Siew Wai Fun, Dr Chow Shui Tse & Dr Bruce Budowle	Forensic Science International, Volume 148, Pg 243 - 245, 2005
Genetic Data For 13 CODIS STR Loci In Singapore Chinese	Dr Christopher Syn Kiu-Choong, Dr Chuah Siew Yeam, Ang Hwee Chen, Simon Lim Eng Seng, Tan-Siew Wai Fun, Dr Chow Shui Tse & Dr Bruce Budowle	Forensic Science International, Volume 152, Pg 285 - 288, 2005
Population Study Of 11 Y-Chromosomal STR Loci In Singapore Chinese	June Tang Sheau Wei, Wong Hang Yee, Dr Christopher Syn Kiu-Choong, Tan-Siew Wai Fun, Dr Chow Shui Tse & Dr Bruce Budowle	Forensic Science International, Volume 158, Issue 1, Pg 65 - 71, 2006

Title Of Research Presentation	Author(s)	Professional Event
Forensic Examination Of Flesh And Flavour Compounds In Stone Fruits	Lim Chin Chin, Chia Poh Ling, Irene Tan, Su Wanjing & Dr Michael Tay Ming Kiong	3rd Annual HSA-NUS Joint Scientific Seminar, Singapore, 11 May 2005
Simultaneous Determination Of Newer Anti-Epileptic Drugs (AEDs) In Serum By Liquid Chromatography/ Mass Spectrometry	Eugene Goh Wee Sing, Leong Hsiao Tung, Koh Tian Hwee, Lee Hong Kheng, Dr Yao Yi Ju & Dr Danny Lo Siaw Teck	3rd Annual HSA-NUS Joint Scientific Seminar, Singapore, 11 May 2005
A Study Into The Levels Of Difficulty In The Simulation Of Individual Characteristics In A Signature	Lee Gek Kwee, Yap Bei Sing, Yang Chiew Yung, Wong-Lee Lee Tiang, Tan Sock Kim & Tan Koon Puay	63rd Annual Meeting Of American Society Of Questioned Document Examiners, Montreal, Quebec, Canada, 11 - 16 August 2005
Examination Of Counterfeit Euro Banknotes	Yang Chiew Yung & Tan Koon Puay	17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, China, 21 - 26 August 2005

Title Of Research Presentation	Author(s)	Professional Event
Damages To Ropes	Kee Koh Kheng, Lim Chin Chin & Dr Michael Tay Ming Kiong	17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, China, 21 - 26 August 2005
Comparison Of Manufacturing Marks On Moulded Plastic Medicine Bottles	Vicky Chow Yuen San & Dr Michael Tay Ming Kiong	17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, China, 21 - 26 August 2005
The Abuse Of Ketamine In Singapore And Its Analysis	Dr Angeline Yap, Tan Siok Gim, Jaime Tan Lin Li, Pang Shih Yun, Sharon Kwa & Dr Lee Tong Kooi	17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, China, 21 - 26 August 2005
Trend Of Drug Abuse In Singapore	Pang Shih Yun, Jamie Tan Lin Li, Dr Angeline Yap & Dr Lee Tong Kooi	17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, China, 21 - 26 August 2005
Buprenorphine Abuse In Singapore	Sharon Kwa, Nancy Phua, Tan Siok Gim, Wong Yen Ling & Dr Lee Tong Kooi	17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, China, 21 - 26 August 2005
"Erimin 5" – Real Or Fake?	Wong Yen Ling, Tan Ying Ying, Wendy Lim, Nancy Phua, Mary Lim & Dr Lee Tong Kooi	17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, China, 21 - 26 August 2005
Unusual Seizures In Singapore	Mary Lim, Tan Ying Ying, Dr Angeline Yap & Dr Lee Tong Kooi	17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, China, 21 - 26 August 2005
Sequence Polymorphism Of The Mitochondrial DNA Control Region In 206 Singapore Malays, A0562	Wong Hang Yee, Ho Lee Lee, June Tang Sheau Wei, Dr Christopher Syn Kiu-Choong, Dr Chow Shui Tse & Tan-Siew Wai Fun	17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, China, 21 - 26 August 2005
Study Of Y-Chromosomal Str Loci In Singapore Chinese	June Tang Sheau Wei, Dr Christopher Syn Kiu-Choong, Wong Hang Yee, Dr Chow Shui Tse & Tan-Siew Wai Fun	17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, China, 21 - 26 August 2005
Characteristics Of Tampered Joints In Plastic Strapping	Su Wanjing & Dr Michael Tay Ming Kiong	17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, China, 21 - 26 August 2005
Damages On Flexible Compressed Air Tubings In A Pharmaceutical Plant	Wong Soon Meng, Lim Chin Chin, & Dr Michael Tay Ming Kiong	17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, China, 21 - 26 August 2005
Background Interference From Plastic Bottles In Arson Analysis	Zubaidah Ahmad, Chia Poh Ling, Lim Chin Chin & Dr Michael Tay Ming Kiong	17th Meeting Of The International Association Of Forensic Sciences, Hong Kong, China, 21 - 26 August 2005

Title Of Research Presentation	Author(S)	Professional Event
The Development Of Forensic Toxicology In Singapore (1819 - Present)	Dr Danny Lo Siaw Teck	43rd International Meeting Of The International Association Of Forensic Toxicologists (TIAFT), Seoul, Korea, 29 August - 2 September 2005
Analysis Of Buprenorphine And Norbuprenorphine In Blood And Urine By Liquid Chromatography-Electrospray-Mass Spectrometry (LC-ES-MS)	Dr Yao Yi Ju, Sim Jieh-yi, Koh Tian Hwee & Dr Danny Lo Siaw Teck	43rd International Meeting Of The International Association Of Forensic Toxicologists (TIAFT), Seoul, Korea, 29 August - 2 September 2005
A Rapid And Sensitive Method For The Detection And Quantification Of Nimetazepam In Urine By LC/MS/MS	Koh Saw Leng, Moy Hooi Yan, Dr Lui Chi Pang & Dr Lee Tong Kooi	43rd International Meeting Of The International Association Of Forensic Toxicologists (TIAFT), Seoul, Korea, 29 August - 2 September 2005
Hollow Fibre Micro-Extraction Of Pesticides From Aqueous Matrices	Lim Thiam Bon, Dr Basheer Chanbasha, Professor Lee Hian Kee & Dr Michael Tay Ming Kiong	Southeast Asia Environmental Forensics Symposium, Taipei, Taiwan, 19 - 21 September 2005
An Isothermal Method For Whole Genome Amplification Of Fresh And Degraded DNA For Comparative Genomic Hybridisation And Genotyping	Cheryl Lee, Leong Siew Hong, Adrian Png, Choo Keng Wah, Dr Christopher Syn Kiu-Choong, Mark Tan, Dr Alvin Eng, Dr Dennis Lim Teck Hock & Dr Kon Oi Lian	Combined Scientific Meeting 2005: Shaping A New Era In Healthcare, Singapore, 4 - 6 November 2005
Managing A Self-Funding Forensic Laboratory	Dr Chow Shui Tse	2nd International Forensic Science Symposium 2005, Taipei, Taiwan, 7 - 10 November 2005
One Disputed Signatures, Three Different Opinions – A Case Study	Yap Bei Sing, Wong-Lee Lee Tiang & Tan Sock Kim	2nd International Forensic Science Symposium 2005, Taipei, Taiwan, 7 - 10 November 2005
Fragrance Analysis In Cleaning Products By GC/MS	Irene Tan Sok Hwee, Chia Poh Ling, Lim Chin Chin & Dr Michael Tay Ming Kiong	2nd International Forensic Science Symposium 2005, Taipei, Taiwan, 7 - 10 November 2005
Damages To The Clothings And Shoes Of A Lightning Strike Victim	Kuah Kim Lian & Dr Michael Tay Ming Kiong	2nd International Forensic Science Symposium 2005, Taipei, Taiwan, 7 - 10 November 2005

Title Of Research Presentation	Author(s)	Professional Event
Developments And Trends In The Detection Of Explosives, IEDs And Bomb-Related Evidence	Dr Michael Tay Ming Kiong & Lim Chin Chin	CID Forensic Conference 2005, Singapore, 10 November 2005
Automated Analysis Of Gunshot Residues By SEM/EDX	Dr Michael Tay Ming Kiong & Vicky Chow Yuen San	Oxford Instruments Seminar On Particle Analysis At Singapore Institute Of Manufacturing Technology, NTU, Singapore, 25 November 2005
Bloodstain Pattern Analysis – The Singapore Experience	Dr Michael Tay Ming Kiong & Lim Chin Chin	Critical Issues In Bloodstain Pattern Analysis Workshop, Sydney, Australia, 22 - 23 February 2006

Title Of Research Project	Principal Investigator(s)
Screening Of Active/Toxic Ingredients In Herbal Medicines	Leong Hsiao Tung, Dr Yao Yi Ju, Eugene Goh Wee Sing & Dr Danny Lo Siaw Teck
A Study Into The Analysis Of Inkjet Printer Inks By High Performance Thin Layer Chromatography	Lee Gek Kwee, Yang Chiew Yung, Wong-Lee Lee Tiang, Tan Sock Kim & Tan Koon Puay
Simulation Of Chinese Signatures Written In Regular Form	Lee Gek Kwee, Yang Chiew Yung, Wong-Lee Lee Tiang & Tan Sock Kim
Detection Of Drugs In Hair	Dr Lui Chi Pang, Dr Lee Tong Kooi, Lim Cheng Min & Kuan Soo Yan
FY05/09 Application Of Computational Fluid Dynamics To Fire Investigation	Chia Poh Ling & Dr Michael Tay Ming Kiong
FY05/11 Fragrance Analysis Of Common Household Detergents	Irene Tan Sok Hwee, Chia Poh Ling, Lim Chin Chin & Dr Michael Tay Ming Kiong
Forensic Examination Of Flesh And Flavour Compounds In Stone Fruits	Lim Chin Chin, Chia Poh Ling, Irene Tan, Su Wanjing & Dr Michael Tay Ming Kiong
Application Of Hollow Fibre-Based Liquid-Phase Microextraction In Forensic Samples	Lim Thiam Bon, Dr Basheer Chanbasha, Professor Lee Hian Kee & Dr Michael Tay Ming Kiong
Synthesis And Analysis Of Triacetone Triperoxide (TATP)	Lim Chin Chin, Chia Poh Ling, Lim Thiam Bon, Vicky Chow Yuen San, Kuah Kim Lian, Kee Koh Kheng & Dr Michael Tay Ming Kiong
A Survey Of The Abuse Of "Ecstasy" In Singapore	Dr Angeline Yap, Wendy Lim, Merula Mangudi, Dr Ng Khim Hui, Tan Ying Ying, Tan Siok Gim, Wong Yen Ling, Thiru Selvi Selvarajah & Dr Lee Tong Kooi
A Survey Of The Abuse Of Methamphetamine In Singapore	Dr Angeline Yap, Wendy Lim, Merula Mangudi, Dr Ng Khim Hui, Tan Ying Ying, Tan Siok Gim, Wong Yen Ling, Thiru Selvi Selvarajah & Dr Lee Tong Kooi

Providing Forensic Science Services

Title Of Research Project	Principal Investigator(s)
Discrimination Of Drug Isomers By GC-IRD	Dr Ng Khim Hui, Tan Ying Ying, Tan Siok Gim, Ho Kian Lin, Mary Lim & Dr Lee Tong Kooi
An Assessment Report On Poppy Seeds Consumption	Wong Yen Ling, Dr Angeline Yap, Wendy Lim & Dr Lee Tong Kooi
Follow Up Study On The Quantitative Analysis Of Nimetazepam By HPLC	Wendy Lim, Dr Lee Tong Kooi, Dr Angeline Yap, Nancy Phua & Mary Lim

Providing Analytical Science Services

Title Of Research Paper	Author(s)	Professional Publication
Detection of Sildenafil Analogues In Herbal Products For Erectile Dysfunction	Dr Koh Hui Ling, Low Min Yong & Oh Sze Yin	Journal Of Toxicology And Environmental Health Special Issues Publication 2005
Simultaneous Determination Of Synthetic Phosphodiesterase-5 Inhibitors Found In Dietary Supplement And Pre-Mixed Bulk Powder For Dietary Supplements Using HPLC-DAD And LC-ESI Tandem MS	Zou Peng, Oh Sze Yin, Hou Peiling, Low Min Yong & Koh Hwee Leng	Journal Of Chromatography A, 1104 (1-2): 113-22, 3 February 2006 E publication: 20 December 2005

Title Of Research Presentation	Author(s)	Professional Event
Detection Of Sildenafil Analogues In Herbal Products For Erectile Dysfunction	Dr Koh Hui Ling, Low Min Yong & Oh Sze Yin	3rd Annual HSA-NUS Joint Scientific Seminar, Singapore, 11 May 2005
Analysis Of Urinary t, t-Muconic Acid By HPLC	Dr Patrick Chow Yue Thong, Tan Buay Ting, Yeo Siew Lan, Poh Wee Koh & Audrey Ng	3rd Annual HSA-NUS Joint Scientific Seminar, Singapore, 11 May 2005
Migration Of Toxic Contaminants From Canned Lacquers	Joanne Chan Sheot Harn & Sun Cuilian	3rd Annual HSA-NUS Joint Scientific Seminar, Singapore, 11 May 2005
HPLC-MS/MS Determination Of Low-Level Of Perchlorate In Our Water Supply	Joanne Chan Sheot Harnn & Lee Lin Min	3rd Annual HSA-NUS Joint Scientific Seminar, Singapore, 11 May 2005
Rapid Quantitation On Mercury In Cosmetics Products By Flow Injection Analysis - Atomic Absorption Spectrometry	Cheah Nuan Ping, Wong-Neo Geok Eng, See Phek Hah, Tang Kwai Fong & Jolander Lim Si-Hui	Analytical Research Forum At University Of Plymouth, UK, 18 - 20 July 2005
HPLC-MS/MS Determinaton Of Low Level Perchlorate In Our Water Supply	Joanne Chan Sheot Harn & Lee Lin Min	40th IUPAC Congress, Beijing, China, 14 - 18 August 2005
Determination And Identification Of Stevioside And Rebaudioside A In Beverages And Preserved Fruits Using Solid Phase Extraction Followed By HPLC And LC/MS/MS	Associate Professor Bosco Chen Bloodworth, Dr Loke Swee Leng, Yap Wee Kim & Lee Lin Min	119th AOAC Annual Meeting And Exposition, Orlando, Florida, USA, 11 - 15 September 2005

Title Of Research Project	Principal Investigator(s)
Development Of Turbo Ionspray Ionisation Q-Trap-LC Tandem MS To Determine Bisphenol A, Bisphenol F And Related Substances In Canned Foods	Joanne Chan Sheot Harn, Dr Loke Swee Leng, Lee Lin Min & Sun Cuilian
Determination Of Organochlorine And Organophosporus Pesticides Residues In Chinese Proprietary Medicine	Low Min Yong, Kiang Kin Har, Oh Sze Yin, Len Shea Mei & Tan-Yio Oon Boon
Determination Of Pyrrolizidine Alkaloids In Chinese Herbs And Chinese Proprietary Medicine	Kiang Kin Har, Low Min Yong, Oh Sze Yin, Tiong Chai Ling & Tan-Yio Oon Boon
Analysis Of Heavy Metals And Organic Compounds In Water Samples	Dr Patrick Chow Yue Thong, See Phek Hah, Tan Buay Ting & Lucilla Teo Su Min
Determination Of Cadmium In Herbal Products By Microwave Digestion With Inductively Coupled Plasma - Mass Spectroscopy	Oh Sze Yin, Ng Wai Har, Len Shea Mei, Tan-Yio Oon Boon & Heeiah Gek Keow
Comparison Of Nicotine Content In Tobacco Products	Cheah Nuan Ping & Faridatul Akmam Morsed
Simultaneous Quantitation Of Lead, Copper, Arsenic, Cadmium And Thallium Using Microwave Digestion Coupled With Flow Injection Analysis System - Inductively Coupled Plasma Mass Spectrometry In Cosmetic Products	Cheah Nuan Ping & Faridatul Akmam Morsed
Tar And Nicotine Survey Of Cigars On Sale In Singapore	Cheah Nuan Ping & Faridatul Akmam Morsed

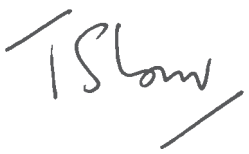
REPORT AND FINANCIAL STATEMENTS

FINANCIAL YEAR ENDED 31 MARCH 2006

STATEMENT BY THE HEALTH SCIENCES AUTHORITY

In our opinion, the accompanying financial statements of the Health Sciences Authority (the "Authority") as set out on pages 95 to 113 are drawn up so as to give a true and fair view of the state of affairs of the Authority as at 31 March 2006 and of the results, changes in capital and reserves, and cash flows of the Authority for the financial year then ended.

On Behalf of the Authority



Prof Low Teck Seng
Acting Chairman

Dr John Lim
Acting Chief Executive Officer

Singapore
23 June 2006

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS OF THE HEALTH SCIENCES AUTHORITY FOR THE YEAR ENDED 31 MARCH 2006

The financial statements of the Health Sciences Authority (the "Authority"), set out on pages 95 to 113, have been audited under my direction and in accordance with the provisions of the Health Sciences Authority Act (Cap. 122C, 2002 Revised Edition). These financial statements are the responsibility of the Authority's management. My responsibility is to express an opinion on these financial statements based on the audit.

The audit was conducted in accordance with the Health Sciences Authority Act (Cap. 122C, 2002 Revised Edition) and Singapore Standards on Auditing. Those Standards require that the audit be planned and performed in order to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the Authority's management, as well as evaluating the overall financial statements presentation. I believe that the audit provides a reasonable basis for my opinion.

In my opinion,

a) the accompanying financial statements are properly drawn up in accordance with the provisions of the Health Sciences Authority Act (Cap. 122C, 2002 Revised Edition) and Singapore Financial Reporting Standards so as to give a true and fair view of the state of affairs of the Authority as at 31 March 2006, and of the results, changes in capital and reserves, and cash flows of the Authority for the year ended on that date;

b) proper accounting and other records have been kept, including records of all assets of the Authority whether purchased, donated or otherwise; and

c) receipts, expenditure and investment of moneys and the acquisition and disposal of assets by the Authority during the financial year have been in accordance with the provisions of the Health Sciences Authority Act (Cap. 122C, 2002 Revised Edition).

CHUANG KWONG YONG
AUDITOR-GENERAL
SINGAPORE

23 June 2006

BALANCE SHEET
As at 31 March 2006

	Note	FY05/06 $'000	FY04/05 $'000 (Restated)
CAPITAL ACCOUNT	5	51,115	48,124
ACCUMULATED DEFICIT	4	(1,814)	(2,103)
		49,301	46,021
REPRESENTED BY:			
CURRENT ASSETS			
Cash and cash equivalents	6	25,316	14,700
Trade receivables		7,310	5,802
Grants receivables	7	395	3,286
Other receivables, deposits and prepayments	8	1,005	947
Inventories	9	1,625	1,461
		35,651	26,196
NON-CURRENT ASSET			
Property, plant and equipment	10	107,184	109,130
CURRENT LIABILITIES			
Trade payables		(3,861)	(3,760)
Other payables and accruals	11	(12,197)	(9,678)
Finance lease payable	12	(53)	-
Provision for pension benefits	13	(848)	-
Current portion of long-term loans	14	(2,513)	(2,512)
Grants received in advance:			
Government	4, 15	(8,628)	(2,696)
Non-government	16	(164)	-
		(28,264)	(18,646)
NON-CURRENT LIABILITIES			
Deferred capital grants	18	(30,418)	(33,427)
Other payables and accruals	11	(243)	(329)
Finance lease payable	12	(144)	-
Provision for pension benefits	13	(4,177)	(4,102)
Long-term loans	14	(30,288)	(32,801)
		(65,270)	(70,659)
NET ASSETS		49,301	46,021

The accompanying notes form an integral part of these financial statements.

INCOME AND EXPENDITURE STATEMENT

Financial year ended 31 March 2006

	Note	FY05/06 $'000	FY04/05 $'000 (Restated)
INCOME			
Laboratory analysis fees		20,717	18,573
Blood processing fees		17,203	14,293
Patient laboratory testing fees		2,356	1,841
Forensic investigation fees		6,468	6,151
Licensing fees		6,375	6,127
Professional service fees		1,549	1,345
Other income	19	1,110	605
		55,778	48,935
EXPENDITURE			
Staff costs	20	38,447	37,000
Supplies and services		14,862	13,380
Rental of premises and equipment		2,468	5,396
Blood donor expenses		3,234	2,741
Repairs and maintenance		5,533	3,443
Depreciation of plant and equipment	10	9,257	7,210
Staff welfare and development		2,240	2,206
Professional services		2,760	2,671
Utilities		1,054	1,090
Transport, postages and communications		1,048	1,392
Publicity and public relations		104	142
Other expenses	21	3,035	1,074
		84,042	77,745
DEFICIT BEFORE GRANTS		(28,264)	(28,810)
GRANTS			
Government grants	4, 15	20,465	21,154
Non-government grants	16	1,524	1,798
Pre-restructuring funds	17	-	233
Deferred capital grants amortised	18	6,564	4,676
		28,553	27,861
SURPLUS/(DEFICIT) BEFORE CONTRIBUTION TO CONSOLIDATED FUND		289	(949)
CONTRIBUTION TO CONSOLIDATED FUND	22	-	-
SURPLUS/(DEFICIT) FOR THE YEAR		289	(949)

The accompanying notes form an integral part of these financial statements.

STATEMENT OF CHANGES IN CAPITAL AND RESERVES

Financial year ended 31 March 2006

	Capital account $'000	Accumulated deficit $'000	Pre-restructuring funds $'000	Total $'000
Balance as at 31 March 2004	-	(1,154)	233	(921)
Issue of shares to Minister for Finance (Note 5)	48,124	-	-	48,124
Deficit for the year				
- Previously reported	-	(1,022)	-	(1,022)
- Prior year adjustments (Note 4)	-	73	-	73
Deficit for the year - restated	-	(949)	-	(949)
Transfer to income and expenditure Statement (Note 17)	-	-	(233)	(233)
Balance as at 31 March 2005 - restated	48,124	(2,103)	-	46,021
Issue of shares to Minister for Finance (Note 5)	2,991	-	-	2,991
Surplus for the year	-	289	-	289
Balance as at 31 March 2006	51,115	(1,814)	-	49,301

The accompanying notes form an integral part of these financial statements.

CASH FLOW STATEMENT

Financial year ended 31 March 2006

	Note	FY05/06 $'000	FY04/05 $'000
CASH FLOWS FROM OPERATING ACTIVITIES:			
Deficit before grants		(28,264)	(28,810)
Adjustments for:			
Depreciation of property, plant and equipment	10	9,257	7,210
Interest income	19	(337)	(60)
Interest expense	21	1,299	-
Loss/(Gain) on disposal of property, plant and equipment	19	1	(6)
(Reversal)/Allowance for doubtful trade receivables		-	(152)
Amount owing to MOH written off		-	139
Deficit before working capital changes		(18,044)	(21,679)
Changes in working capital excluding cash and cash equivalents:			
Trade receivables		(1,507)	413
Other receivables and prepayments		(40)	107
Inventories		(164)	121
Trade payables		102	(859)
Other payables and accruals		2,998	(17,092)
Net cash used in operating activities		(16,655)	(38,989)
CASH FLOWS FROM INVESTING ACTIVITIES:			
Proceeds from disposal of property, plant and equipment		-	18
Purchase of property, plant and equipment		(6,744)	(83,612)
Interest received		318	60
Net cash used in investing activities		(6,426)	(83,534)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from issue of shares to Minister for Finance	5	2,991	48,124
Proceeds from government loan		-	35,313
Loan repayment		(2,513)	-
Interest on loan paid	21	(1,297)	-
Finance lease repayment		(15)	-
Government grants received	15	30,992	39,831
Non-government grants received	16	3,539	981
Net cash from financing activities		33,697	124,249
Net increase in cash and cash equivalents		10,616	1,726
Cash and cash equivalents at beginning of the year		14,700	12,974
Cash and cash equivalents at end of the year	6	25,316	14,700

The accompanying notes form an integral part of these financial statements.

NOTES TO THE FINANCIAL STATEMENTS

Financial year ended 31 March 2006

1 GENERAL

The Health Sciences Authority (the "Authority") is a statutory board established in Singapore under the Health Sciences Authority Act 2001 on 1 April 2001 under the purview of the Ministry of Health ("MOH"). As a statutory board, the Authority is subject to the directions of MOH and is required to follow policies and instructions issued from time to time by its supervising ministry and other government ministries and departments such as the Ministry of Finance ("MOF").

The address of the Authority is 11 Outram Road, Singapore 169078 and its principal place of business is in Singapore.

The principal activities of the Authority are:

a) to regulate the import, manufacture, sale, disposal, transport, storage, possession and use of cosmetics, medicines, medical devices and other health-related products, tobacco products, radioactive materials and irradiating apparatuses;

b) to conduct technological assessments of medicines, cosmetics, medical devices and other health-related products for the purpose of determining their efficacy, safety and suitability for consumption and use in Singapore and to advise the Government thereon;

c) to collect and co-ordinate the collection of blood from donors and to test, process and distribute such blood and the related products for the purpose of building and maintaining a safe and adequate national blood supply;

d) to provide professional, investigative and analytical services in health sciences to the Government and to any other person or body (whether in Singapore or elsewhere);

e) to conduct or engage any other person to conduct research in health sciences, and generally to promote the development of health sciences; and

f) to act internationally as the national authority or representative of Singapore in respect of matters related to health sciences.

The financial statements of the Authority for the year ended 31 March 2006 were authorised for issue by the members of its Board on 23 June 2006.

2 SIGNIFICANT ACCOUNTING POLICIES

a) Basis of accounting

The financial statements of the Authority, presented in Singapore dollars, are prepared in accordance with the historical cost convention and are drawn up in accordance with the provisions of the Health Sciences Authority Act (Chapter 122C, 2002 Revised Edition) and the Singapore Financial Reporting Standards ("FRS").

In FY2005/06, the Authority adopted the new or revised FRSs that are applicable in the current financial year. The current financial statements have been prepared as required, in accordance with the relevant transitional provisions in the respective FRS. The adoption of the new or revised FRS did not result in substantial changes to the Authority's accounting policies.

The preparation of financial statements in conformity with the FRSs requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgements about the carrying amounts of assets and liabilities that are not readily apparent from other sources.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised, if the revision affects only that period, or in the period of the revision and future periods, if the revision affects both current and future periods.

There are no critical accounting estimates or assumptions used that are significant to the financial statements and areas that involve a high degree of judgement.

b) Income recognition

Income from the rendering of services that are of a short duration, such as laboratory analysis fees, patient laboratory testing fees, forensic investigating fees and professional services fees are recognised when the services are completed.

Income from blood processing fees are recognised when the processed blood products are used by the hospitals.

Licence fees income are recognised on an accrual basis over the licence period.

Fines and forfeitures are recognised on an accrual basis.

Interest income is accrued on a time proportionate basis, by reference to principal outstanding and at the interest rates applicable, on an effective yield basis.

c) Property, plant and equipment

Property, plant and equipment are carried at cost less accumulated depreciation and any impairment loss where the recoverable amount of the asset is estimated to be lower than its carrying amount.

Depreciation is calculated using the straight line method to allocate the depreciable amounts of property, plant and equipment over their estimated useful lives. The estimated useful lives are as follows:

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

c) Property, plant and equipment (cont'd)

Leasehold land and building	60 years (based on lease period)
Building improvements	20 years (based on useful life of asset)
Computers	3 to 5 years
Motor vehicles	10 years
Scientific and medical equipment	5 years
Other equipment, furniture and fittings	5 to 10 years

Depreciation is not provided on work-in-progress.

Plant and equipment costing less than $2,000 each, are charged to the income and expenditure statement in the year of purchase.

Subsequent expenditure relating to property, plant and equipment that has already been recognized is added to the carrying amount of the asset when it is probable that future economic benefits, in excess of the standard of performance of the asset before the expenditure was made, will flow to the Authority and the cost can be reliably measured. Other subsequent expenditure is recognized as an expense during the financial year in which it is incurred.

Fully depreciated assets still in use are retained in the financial statements.

On disposal of an item of property, plant and equipment, the difference between the net disposal proceeds and its carrying amount is taken to the income and expenditure statement.

d) Impairment of assets

At each balance sheet date, the Authority reviews the carrying amounts of its assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Recoverable amount is the greater of net selling price and value in use. If the recoverable amount of an asset is estimated to be less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount. Impairment losses are recognised as an expense immediately.

When an impairment loss subsequently reverses, the carrying amount of the asset is increased to the revised estimate of its recoverable amount, but only to the extent that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior years. A reversal of an impairment loss is recognised as income immediately.

e) Inventories

Inventories are measured at the lower of cost (first-in first-out method) and net realisable value. Cost includes all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

f) Leases

Finance leases, which effectively transfer to the Authority substantially all the risks and benefits incidental to ownership of the leased items, are capitalised at the present value of the minimum lease payments at the inception of the lease term. The corresponding lease commitments are included under liabilities. The excess of the lease payments over the recorded lease obligations are treated as finance charges which are amortised over each lease term to give a constant rate of charge on the remaining balance of the obligation. Finance charges are charged directly to the income and expenditure statement.

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

f) Leases (cont'd)

All other leases are classified as operating leases. Operating lease payments are recognised as an expense in the income and expenditure statement on a straight-line basis over the lease term.

g) Grants

Government grants for the purchase of depreciable assets are taken to the Deferred Capital Grants Account. The deferred grants are recognised in the income and expenditure statement over the periods necessary to match the depreciation of the assets purchased. Upon the disposal of these assets, the balance of the related deferred capital grants is recognised in the income and expenditure statement to match the net book value of the assets disposed off.

Government grants and contributions from other organisations to meet current year's operating expenses are recognised as income in the same year.

The grant receivable from the Government is determined based on the funding framework agreed between the Authority, the Ministry of Health and the Ministry of Finance and the framework may be revised from time to time as agreed between the parties.

Both capital and operating grants are accounted for on an accrual basis.

h) Financial assets and liabilities

Trade and other receivables

Trade and other receivables are recognized initially at fair value and subsequently measured at amortised cost using effective interest rate method.

Trade and other payables

Trade and other payables are initially measured at fair value, and subsequently measured at amortised cost, using the effective interest rate method. They are included in current liabilities, except for those due more than 12 months after the balance sheet date which are classified as non-current liabilities.

Cash and cash equivalents

Cash and cash equivalents comprise banks deposits, cash and bank balances. They are subject to insignificant risk of change in value.

Fair value estimation

The carrying amounts of the financial assets and liabilities approximate their fair values. The carrying amounts recorded at the balance sheet date are not expected to be significantly different from the values that would eventually be received or settled.

i) Employee benefits

Defined contribution plans

Payments to defined contribution benefit plans (including state-managed retirement benefit schemes, such as the Singapore Central Provident Fund) are charged as an expense when incurred.

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

i) Employee benefits (cont'd)

Defined benefit plans

Defined retirement benefit obligations due to pensionable officers are recognised in the balance sheet in accordance with the Pensions Act (Chapter 225, 2004 Revised Edition). The pension liability is determined based on the last drawn salaries of the respective officers and the officers' cumulative service period served with the Authority at the time of retirement, assuming that all pensionable officers work till official retirement age of 62 years and opt for fully commuted gratuity on retirement. The Authority does not need to bear any medical liabilities for pensionable officers upon their retirement.

Employee leave entitlement

Employee entitlements to annual leave are recognised when they accrue to employees. A provision is made for the estimated liability for annual leave as a result of services rendered by employees up to the balance sheet date.

j) Contribution to consolidated fund

The Authority is required to make contribution to the Consolidated Fund based on the net surplus of the Authority (before donations) for the financial year adjusted for any accumulated deficits carried forward from the years that the Authority was under the contribution framework. The contribution rate is pegged to the prevailing corporate tax rate.

k) Foreign currency transactions

Transactions in foreign currencies are recorded using the rates ruling on the dates of the transactions. At each balance sheet date, recorded monetary balances and balances carried at fair value that are denominated in foreign currencies are reported at the rates ruling at the balance sheet date. All exchange differences are dealt with in the income and expenditure statement.

3 FINANCIAL RISKS AND MANAGEMENT

a) Foreign exchange risk

The Authority has limited exposure to foreign exchange risk as its operations are substantially transacted in Singapore dollars.

b) Interest rate risk

The Authority's exposure to change in interest rates relates primarily to loans and fixed deposits. Funding requirements are regularly reviewed so that cash in excess of short term operating requirements are placed in fixed deposits to maximize returns. Information on interest rates exposure is disclosed in Notes 6 and 14.

3 FINANCIAL RISKS AND MANAGEMENT (cont'd)

c) Credit risk

The Authority's credit risk is primarily attributable to its cash and cash equivalents, trade receivables and other receivables. The Authority places its cash and cash equivalents with credit-worthy financial institutions. The credit risk with respect to receivables is low as the Authority mainly deals with credit-worthy organisations such as government bodies and hospitals.

The Authority has no significant concentration of credit risk. Trade receivables are spread over a large base of organisations.

The maximum credit risk that the Authority is exposed to is represented by the carrying amounts of its financial assets as stated in the balance sheet.

d) Liquidity and funding risk

The Authority funds its operations through a mix of internally-generated funds, government and non-government grants. The Authority regularly reviews its liquidity reserves, comprising of cash flows from its operations and government grants, to ensure sufficient liquidity is maintained at all times. The Authority relies on the Government to fund a significant part of its operations. The framework for the funding of the Authority's operations is reviewed with the Ministry of Health on a regular basis. For the funding of capital projects under the debt-equity financing framework, the Authority has established an adequate amount of committed credit facilities to meet future funding needs. Under Finance Circular Minute No M53/2003, the Ministry of Finance undertakes to act as the lender of last resort to the Authority for its funding requirements.

e) Market risk

The Authority is not exposed to significant market risk.

4 PRIOR YEAR ADJUSTMENT

Adjustment for realisation of grant amounting to $72,963.45 was made to the prior year financial statements to rectify the under-realisation of grant in the FY04/05 accounts.

Balance sheet as at 31 March 2005	Balance as previously reported $'000	Prior year adjustments $'000	Balance as restated $'000
Accumulated Deficit	(2,176)	73	(2,103)
Grants received in advance: Government (Note 15)	(2,769)	73	(2,696)

Income and expenditure statement for the financial year ended 31 March 2005

	Balance as previously reported $'000	Prior year adjustments $'000	Balance as restated $'000
Government grants	21,081	73	21,154

5 CAPITAL ACCOUNT

	Number of shares of $1 each FY05/06	Number of shares of $1 each FY04/05	FY05/06 $'000	FY04/05 $'000
Issued and paid up:				
At beginning of the year	48,124,270	-	48,124	-
Issued during the year	2,990,809	48,124,270	2,991	48,124
At end of the year	51,115,079	48,124,270	51,115	48,124

This consists of shares of $1 each issued to the Minister for Finance as part of the debt-equity financing framework under Finance Circular Minute No M53/2003.

6 CASH AND CASH EQUIVALENTS

Cash and cash equivalents included in the cash flow statement comprise the following:

	FY05/06 $'000	FY04/05 $'000
Bank and cash balances	4,225	4,689
Fixed deposits	21,091	10,011
	25,316	14,700

The fixed deposits bear interest ranging from 1.3125% to 3.5000% (FY04/05: 1.3125% - 1.6875%). The fixed deposits will be maturing in April to June 2006 and can be readily converted to cash at the discretion of management.

7 GRANTS RECEIVABLES

	FY05/06 $'000	FY04/05 $'000
Grants receivable - Government (Note 15)	197	1,993
Grants receivable - Non-government (Note 16)	198	1,293
	395	3,286

8 OTHER RECEIVABLES, DEPOSITS AND PREPAYMENTS

	FY05/06 $'000	FY04/05 $'000
Other receivables	117	62
Deposits	-	309
Advances to staff	-	35
Prepayments	888	541
	1,005	947

Advances to staff are in the nature of festive advances which are interest-free and unsecured. The amounts are repayable over 2 months via deductions from the staff salaries.

9 INVENTORIES

	FY05/06 $'000	FY04/05 $'000
Gases, laboratory and medical supplies, at cost	1,625	1,461

10 PROPERTY, PLANT AND EQUIPMENT

	Leasehold land and buildings $'000	Building improvements $'000	Computers $'000	Motor vehicles $'000	Scientific and medical equipment $'000	Other equipment, furniture and fittings $'000	Work-in-progress $'000	Total $'000
Cost:								
At 1 April 2005	70,195	9,865	22,397	62	17,828	5,827	4,254	130,428
Additions	-	13	268	-	1,279	143	5,609	7,312
Adjustments	-	-	-	54	5	(5)	-	54
Disposals	-	-	(412)	-	(61)	(44)	-	(517)
Transfer from work-in-progress	-	1,684	1,037	-	2,635	1,722	(7,078)	-
At 31 March 2006	70,195	11,562	23,290	116	21,686	7,643	2,785	137,277
Accumulated depreciation:								
At 1 April 2005	117	715	8,170	25	10,848	1,423	-	21,298
Depreciation for the year	1,150	533	4,221	6	2,487	860	-	9,257
Adjustments	-	-	-	54	1	(1)	-	54
Disposals	-	-	(413)	-	(60)	(43)	-	(516)
At 31 March 2006	1,267	1,248	11,978	85	13,276	2,239	-	30,093
Carrying amount:								
At 31 March 2006	68,928	10,314	11,312	31	8,410	5,404	2,785	107,184
At 1 April 2005	70,078	9,150	14,227	37	6,980	4,404	4,254	109,130
Cost:								
At 1 April 2004	-	6,523	10,515	75	16,149	4,343	10,271	47,876
Additions	70,195	34	506	-	1,203	56	11,618	83,612
Disposals	-	(844)	(5)	(13)	(81)	(117)	-	(1,060)
Transfer from work-in-progress	-	4,152	11,381	-	557	1,545	(17,635)	-
At 31 March 2005	70,195	9,865	22,397	62	17,828	5,827	4,254	130,428
Accumulated depreciation:								
At 1 April 2004	-	374	4,655	32	8,307	907	-	14,275
Depreciation for the year	117	406	3,520	6	2,613	548	-	7,210
Disposals	-	(65)	(5)	(13)	(72)	(32)	-	(187)
At 31 March 2005	117	715	8,170	25	10,848	1,423	-	21,298
Impairment loss:								
At 1 April 2004	-	779	-	-	-	82	-	861
Disposals	-	(779)	-	-	-	(82)	-	(861)
At 31 March 2005	-	-	-	-	-	-	-	-
Carrying amount:								
At 31 March 2005	70,078	9,150	14,227	37	6,980	4,404	4,254	109,130
At 1 April 2004	-	5,370	5,860	43	7,842	3,354	10,271	32,740

11 OTHER PAYABLES AND ACCRUALS

	FY05/06 $'000	FY04/05 $'000
Licence fees collected in advance	3,711	3,485
Accrual for staff costs	4,173	4,089
GST payable	270	222
Refundable security deposits	66	83
Other payables and accruals	4,220	2,128
	12,440	10,007
Non-current portion:		
Licence fees collected in advance	(243)	(329)
Current portion	12,197	9,678

12 FINANCE LEASE PAYABLE

Future minimum lease payments under finance lease together with the present value of the net minimum lease payments are as follows:

	FY05/06 $'000	FY04/05 $'000
Within one year	60	-
After one year but not more than five years	164	-
Total minimum lease payments	224	-
Less: Amounts representing finance charges	27	-
Present value of minimum lease payments	197	-

The present value of the finance lease liabilities is as follows:

	FY05/06 $'000	FY04/05 $'000
Within one year	53	-
After one year but not more than five years	144	-
	197	-

The Authority has a finance lease for a science and medical equipment which expires in 2009. The effective interest rate implicit in the lease is 6.52% per annum.

13 PROVISION FOR PENSION BENEFITS

	FY05/06 $'000	FY04/05 $'000
Balance at beginning of the year	4,102	3,076
Provision for the year	1,286	1,287
Payments during the year	(363)	(261)
Balance at end of the year	5,025	4,102

The provision for pension benefits is payable as follows:

	FY05/06 $'000	FY04/05 $'000
Current:		
Within one year	848	-
Non-current:		
After one year but within five years	1,945	2,098
After five years	2,232	2,004
	4,177	4,102
Total	5,025	4,102

14 LONG-TERM LOANS

	FY05/06 $'000	FY04/05 $'000
Loans from Ministry of Finance		
- 15 years loan at 3.86% p.a. maturing on 31 March 2020	26,390	27,300
- 5 years loan at 3.46% p.a. maturing on 31 March 2010	6,411	8,013
	32,801	35,313

The interest rates per annum were fixed at the commencement of the loan at a premium determined by the Ministry of Finance above the Daily Average 10-year Singapore Government Securities Yield.

Represented by amounts payable as follows:

	FY05/06 $'000	FY04/05 $'000
Current		
Within one year	2,513	2,512
Non-current		
After one year but not more than five years	8,448	10,051
More than five years	21,840	22,750
	30,288	32,801
Total	32,801	35,313

15 GRANTS RECEIVED IN ADVANCE – GOVERNMENT

	FY05/06 $'000	FY04/05 $'000 Restated
Balance at beginning of year	703	(6,103)
Net receipts during the year	30,992	39,831
Transfer to deferred capital grants (Note 18)	(2,799)	(11,871)
Transfer to income and expenditure statement (Note 4)	(20,465)	(21,154)
Balance at the end of the year	8,431	703
Presented as:		
- Grants receivable (Note 7)	197	1,993
Presented as:		
- Grants received in advance (Note 4)	8,628	2,696

Grants are received from the Government to finance the Authority's capital and operating expenditure. The grants receivable and grants received in advance are for different purposes.

16 GRANTS RECEIVED IN ADVANCE – NON-GOVERNMENT

	FY05/06 $'000	FY04/05 $'000
Balance at beginning of the year	(1,293)	(222)
Net receipts during the year	3,539	981
Fund transfer to deferred capital grants (Note 18)	(756)	(254)
Transfer to income and expenditure statement	(1,524)	(1,798)
Balance at the end of the year	(34)	(1,293)
Presented as:		
- Grants receivable (Note 7)	198	1,293
Presented as:		
- Grants received in advance	164	-

Grants are received mainly from Statutory Boards to finance specific programmes of the Authority. The grants receivable and grants received in advance are for different purposes.

17 PRE-RESTRUCTURING FUNDS

	FY05/06 $'000	FY04/05 $'000
Balance at beginning of the year	-	233
Transfer to income and expenditure statement	-	(233)
Balance at end of the year	-	-

The pre-restructuring funds were granted by the Ministry of Health for the expenditure incurred during the establishment of the Authority. Upon completion of the mode of transfer in FY04/05, the remaining unused funds were transferred to income and expenditure statement.

18 DEFERRED CAPITAL GRANTS

	FY05/06 $'000	FY04/05 $'000
Balance at beginning of the year	33,427	25,978
Transfer from grants received in advance		
- Government (Note 15)	2,799	11,871
- Non-government (Note 16)	756	254
Transfer to income and expenditure statement to match depreciation of related assets	(6,564)	(4,676)
Balance at end of the year	30,418	33,427

19 OTHER INCOME

Other income includes the following:

	FY05/06 $'000	FY04/05 $'000
Interest income	337	60
Fines and forfeitures	371	380
Foreign currency exchange gain/(loss)	14	(54)
(Loss)/Gain on disposal of property, plant and equipment	(1)	6

20 STAFF COSTS

	FY05/06 $'000	FY04/05 $'000
Staff costs	38,447	37,000
Cost of defined contribution plans included in staff costs	3,037	3,076
Cost of obligations in respect of defined retirement benefit plan included in staff costs	1,285	1,287
Key management's remuneration:		
Salaries and Allowances	2,170	2,332
Post-Employment Benefits	197	272
Total	2,367	2,604

Key management refers to employees designated as Directors and above who have the authority and responsibility for planning, directing and controlling the activities of the Authority.

21 OTHER EXPENSES

Other expenses include the following:

	FY05/06 $'000	FY04/05 $'000
Board members' allowance	68	68
Write-off of inventories	11	23
Finance costs		
- Interest charges on loans	1,297	-
- Interest charges on finance lease	2	-

22 CONTRIBUTION TO CONSOLIDATED FUND

The Authority is required to make a contribution to the Consolidated Fund in accordance with the Statutory Corporations (Contributions to Consolidated Fund) Act (Chapter 319A) and in accordance with the Finance Circular Minute No M5/2005.

There is no contribution to the Consolidated Fund for the current financial year as the accounting surplus has been fully offset against the accounting deficit carried forward. For the financial year ended 31 March 2006, the Authority did not recognize an asset in respect of the remaining unutilized accounting deficits as management is uncertain of the future surpluses of the Authority.

23 CONTINGENT LIABILITIES

Details of guarantees given to third parties are as follows:

	FY05/06 $'000	FY04/05 $'000
Guarantees	788	307

24 CAPITAL EXPENDITURE COMMITMENTS

	FY05/06 $'000	FY04/05 $'000
Estimated amounts committed for future capital expenditure but not provided for in the financial statements	284	951

25 OPERATING LEASE COMMITMENTS

	FY05/06 $'000	FY04/05 $'000
Minimum lease payments under operating leases for rental of premises and equipment	2,468	5,396

At the balance sheet date, the commitments in respect of operating leases for rental of premises and equipment with a term of more than one year were as follows:

	FY05/06 $'000	FY04/05 $'000
Within one year	2,043	1,878
In the second to fifth years inclusive	4,665	5,811

26 SIGNIFICANT RELATED PARTY TRANSACTIONS

The more significant transactions with related parties are:

	FY05/06 $'000	FY04/05 $'000
Amount due from:		
Ministry of Home Affairs	2,006	1,603
Restructured Hospitals	3,280	2,966
Sales to:		
Ministry of Home Affairs	19,933	19,106
Restructured Hospitals	16,517	15,694
Agri-food & Veterinary Authority	5,107	3,134

27 COMPARATIVE FIGURES

For better presentation, some items in the financial statements, including comparative figures, have been re-grouped.

28 NEW ACCOUNTING STANDARDS

The new financial reporting standards issued but effective from 1 January 2006 have no significant impact on the Authority's accounting policies.

hsa annual report 2005/06

editorial team

Advisors: Dr John Lim, Dr Paul Chui & Dr Diana Teo
Editor: Lily Lim

Members:
Goh Choon Wee
Marianne Yap
Annie Tan
Dr George Paul
Dr Angeline Yap
Dr Jason Chay
Cheah Nuan Ping
Michelle Soh
Teo Lean Whee
Shem Leong
Yap Tien Siang
Ng Soon

Editorial Co-ordinator: Vivien Tan

11 Outram Road Singapore 169078 Tel: 1800 213 0800 Fax: 6213 0839 Website: www.hsa.gov.sg Email: hsa_info@hsa.gov.sg