

The East & West of NMRC Singapore



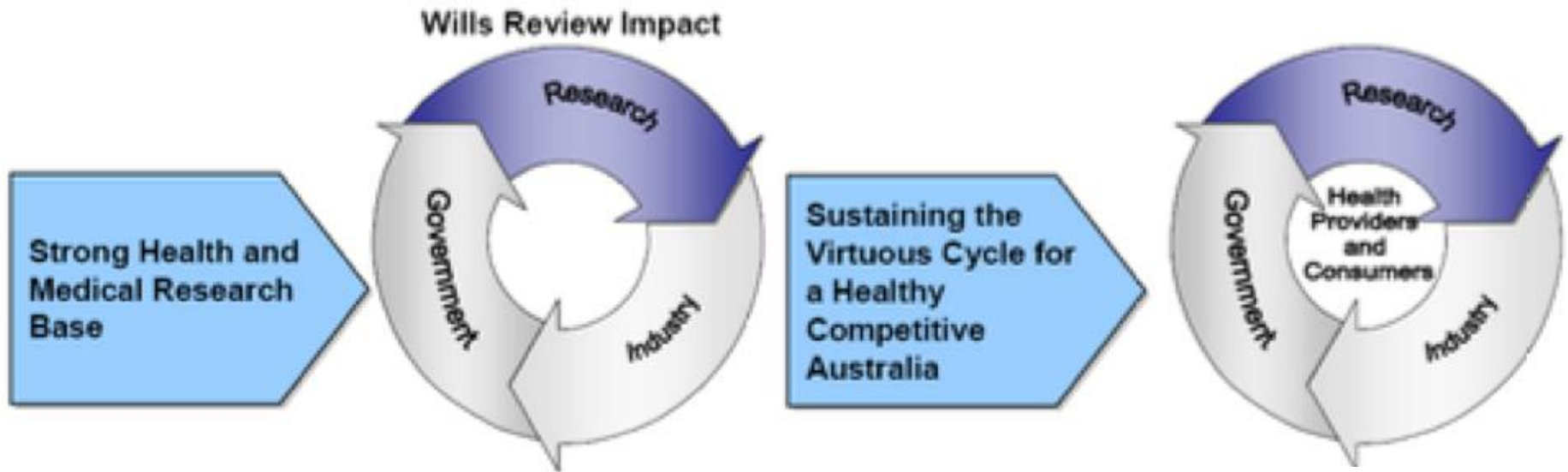
*“Red, Green & Gold
Construction”*
by
Cheong Soo Pieng 1976

Professor Yean L. Lim AM
NMRC Singapore 25th Anniversary Celebration 3rd April 2019

The East and West of NMRC Singapore

- Restructuring NMRC 2000-2
- Complete Healthcare : Western and Traditional Chinese Medicine
- Uniqueness of NMRC Singapore, combining Western & Eastern Medical research

Restructuring NMRC & Wills' Virtuous Cycle



Government:

- Research policies to produce greater value from health spend
- Capitalizing on current research strengths
- Encourage public invest

Research:

- High impact, quality research at low cost
- International collaborative research

Industry:

- Improving competitive Investment
- Building centres of excellence
- Commercialization of research (JVs)
- Attract international research teams

Restructuring of NMRC Singapore 2000-2

- New Board & Review Committee of NMRC with Full- and Part-time staff and Office (NHC initially)
- Establishment of NMRC Data-base for funding & outcome tracking of funded researches
- Pooling of financial resources for Health & Biomedical Research of Singapore : BMRC and A'STAR
- Building of Biopolis, inclusive of Basic, Applied, Western & TCM Research

Convergence of Chinese & Western Medicine

- ***J. Needham*** : “For a given realm of knowledge or practice, there comes a point when the differences vanished, so-called ***Fusion Point*** e.g.” when Eastern & Western knowledge coalesced” or
- When one knowledge overtakes the other, so-called ***Trans-current Point***

“Trans-current’ and “Fusion” Points of Eastern & Western Knowledge

- **Mathematics, Astronomy & Physics**

Trans-current Point 1610 AD

Fusion Point: 1640 AD

- **Botany**

Trans-current Point 1710 AD

Fusion Point 1780 AD

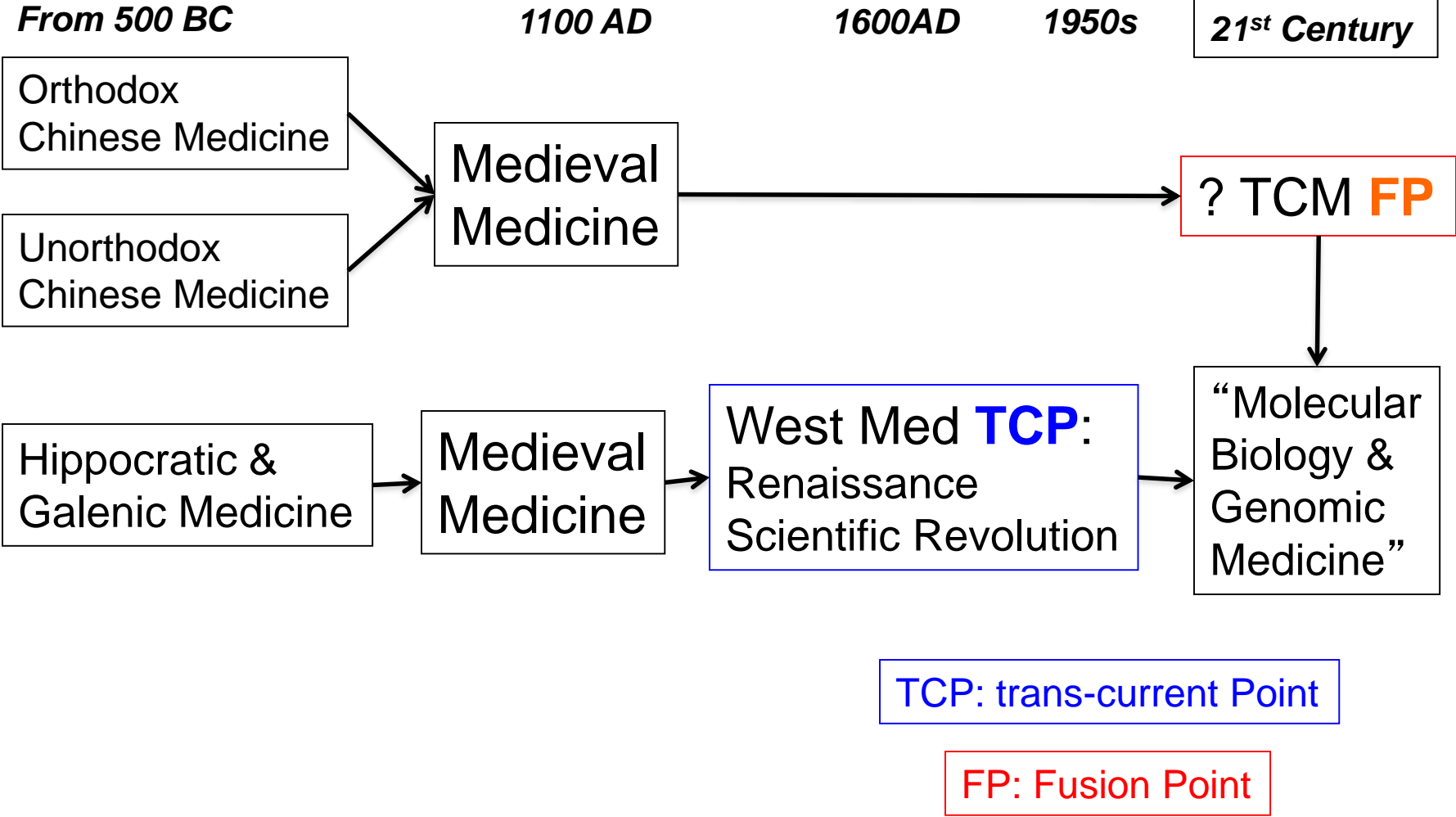
- **Medicine**

Trans-current Point 1800-1900 AD

Fusion Point : ? 21st century

J Needham 1970

Evolution of Western & Chinese Medicine



Comparison of Chinese & Western Medicine

Western

Non-cultural

(Mathematical)

Scientific

(Cause-Effect)

Reductionist

Structure

Chinese

Cultural

(Philosophical)

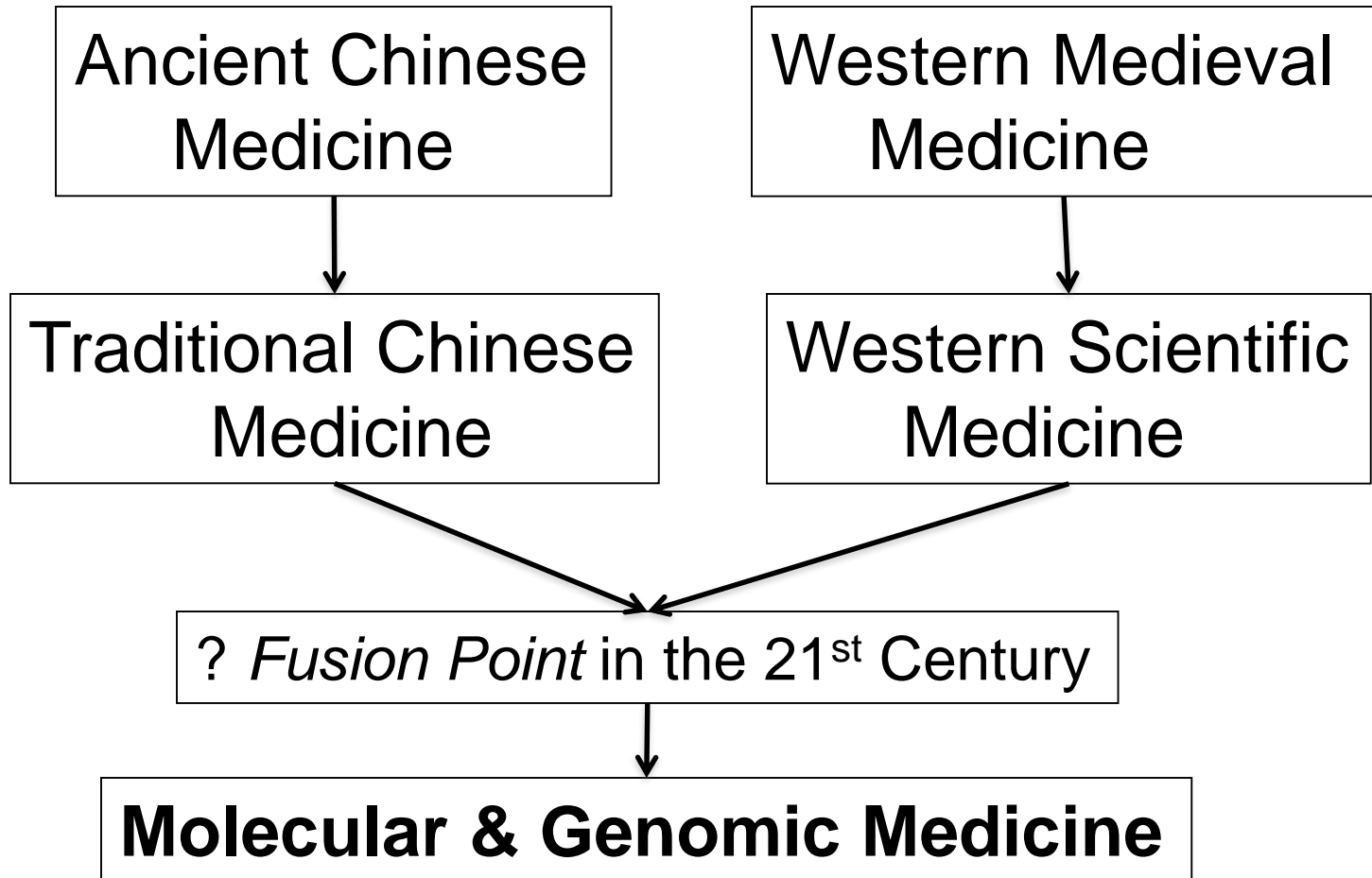
Empirical

(Effect only)

Holistic

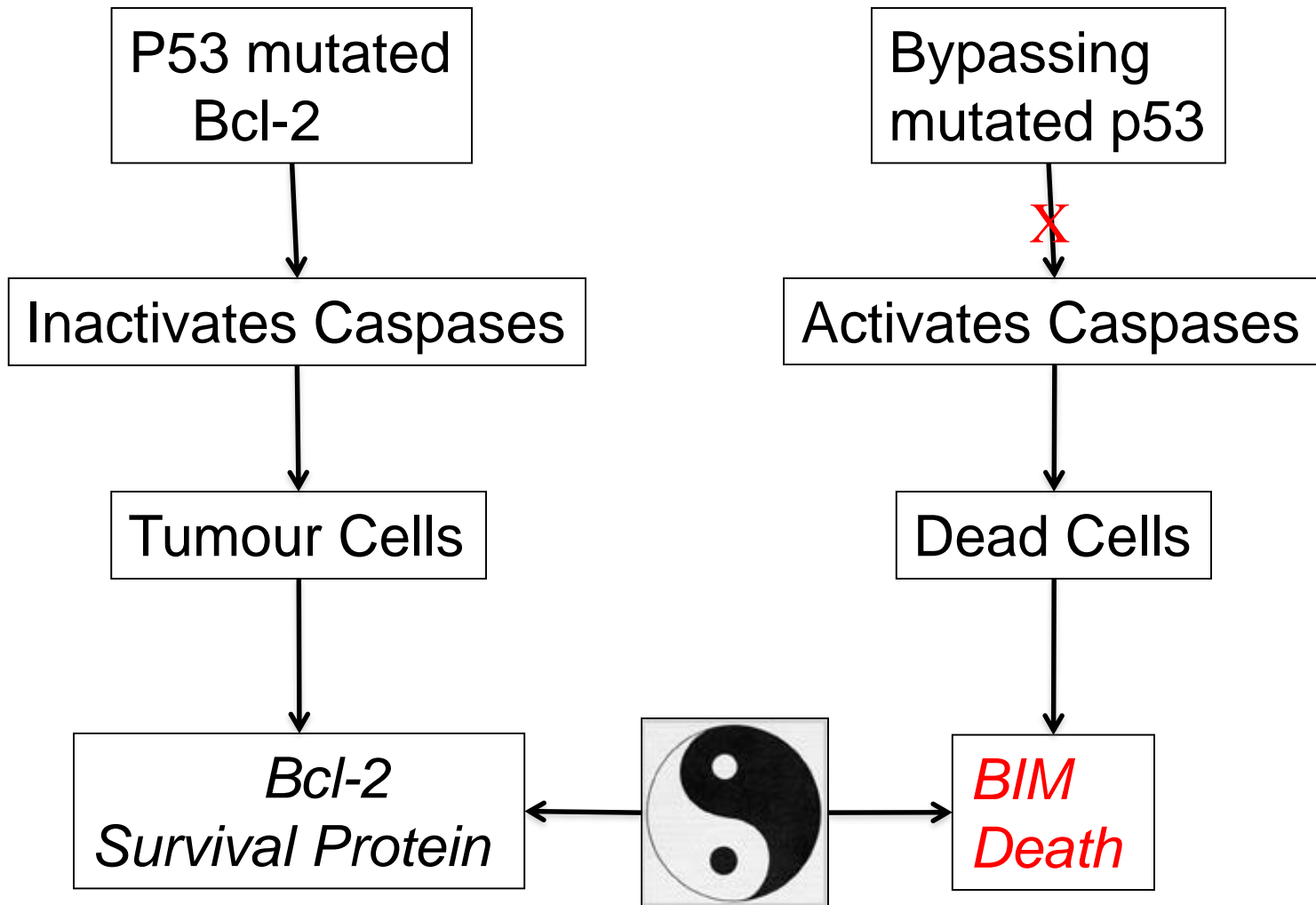
Process

Confluence of Scientific or Non-Cultural Medicine



“Yin-Yang” Regulators of Cell Survival

Courtesy S. Cory UMMS Lecture 2004



Total Healthcare Inclusion of East & West



Chinese Medicine

- 1 Empirical
- 2 Holistic
(Organ to Universe)
- 3 Effect

Western Medicine

- 1 Inductive
- 2 Reductionist
(Organ to Gene)
- 3 Cause-Effect

Outpatient Clinic at Kuang-Anmen Hospital Beijing



Pharmacotherapy in East & West

Western Prescription

Primary & Secondary Drugs
e.g. Combined therapy
for Heart Failure

Digoxin

Frusemide

Potassium

Aspirin

Omerpazole

Chinese Prescription



君臣佐使

e.g. Du Huo & Ji Sheng
Tang

For arthritis, stiffness &
lethargy

Du Huo

Sang Ji Sheng

Xi Xin

Fang Fang

Qin Jiao

Du Zhong

Nui Xi

Rou Gui

Chuan Xiong

Sheng Di Huang

Bai Shao

Dang Shan

Fu Ling

Zhi Gan Cao

Western Criticism of TCM Research

*“TCM Research is still not
main-stream Science”*

David Baltimore,

Advisor to Executive Committee for Life Sciences
of Singapore Inter-Ministerial Life Science, 2001

Red Yeast Rice & Heart Disease

- Used by the Chinese for 1000 years ago as food additives and supplement for the maintenance of healthy blood circulation
- Records dates back to the Tang (600AD) & Ming Dynasty (1386-1664)
- Uses and benefits published in the famous Chinese Pharmacopoeia “Ben Cao Gang Mu”



MULTICENTER CLINICAL TRIAL RED YEAST RICE

Lip-lowering effects of a *Monascus Purpureus* (Red Yeast Rice) preparation from Traditional Chinese Medicine

Junxian Wang et al; Current Therapeutic Research 58, No 12, Dec 1997

446 pts (324 treatment vs 122 positive controls, receiving Jiaogulan)

Results:

	<u>Red Yeast</u>	<u>Jiaogulan</u>
TC	- 22.7 %	- 7.0%
LDL	- 30.9%	- 8.3%
HDL	+ 19.9%	+ 8.4%
Total Efficacy Rate	93.2%	50.8%

“Co-evolution” between East & West



“Mr. Kissinger insists that the common interests the two (east & west) share should make possible a “**co-evolution**”creating a Pacific Community, comparable to the Atlantic Community.

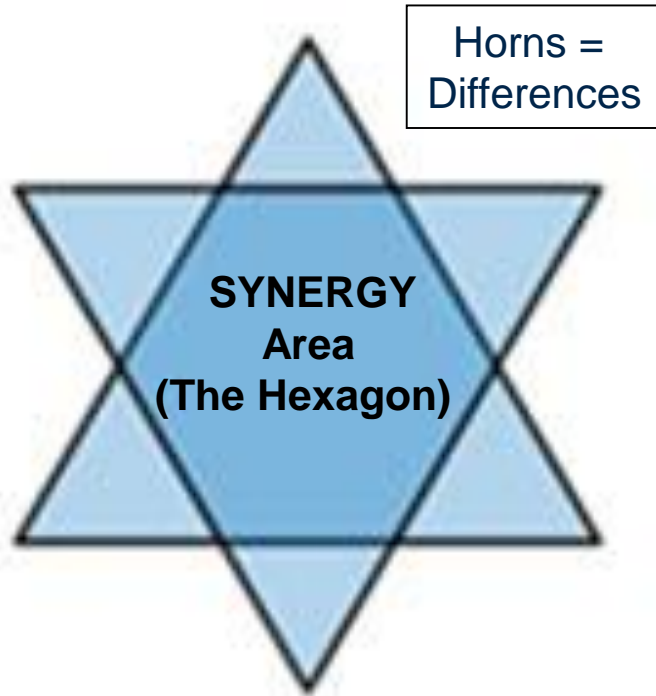
.....All Asian nations would then participate in a system perceived as a joint endeavor rather than a contest of rival (east & west) blocs.

Maxwell Frankel, Herald Tribune 14-15 May 2001

except from Book review “*On China by Henry Kissinger*”

Differences and Synergies between East & West

Eastern Pyramid : “Top-down”



- 1 There will be insolvable differences (cultural, philosophical) between the East & the West
- 2 Avoid weaknesses & differences (horns) but focus on common areas & synergize strengths
- 3 Work by ‘co-evolution’ innovations that will benefit patients ultimately within the ‘hexagon’

Western Pyramid : “Top-up”



Inclusion of Eastern & Western Medicine

“Applying Western scientific principles to Traditional Chinese Medicine”



Yo-Yo Ma playing Bach Cello Suites to Kalahari bushmen



Ma teaching the bushman to play 'cello'

Eastern Ink brush



Xu Beihing introducing Western light into traditional Chinese brush painting

Western Watercolor



Cezanne using the Chinese ink brush technique to paint his watercolor

Conclusion

- Through joint efforts of the Government, Industry and medical scientists, NMRC has made significant progress over 25 years
- Combined research tapping Western and Chinese traditional medicine will lead to complete healthcare of patients
- NMRC Singapore is in a unique position to realize the goal of total healthcare improvement



Singaporean Art - "Malay girls" Cheong Soo Pieng 1981



Thank you for your attention