

My Journey as a Clinician-Scientist

H. Phillip Koeffler, M.D

Senior Principal Investigator, CSI Singapore

Professor of Medicine, National University of Singapore

Deputy Director (Research), National University Cancer Institute Singapore

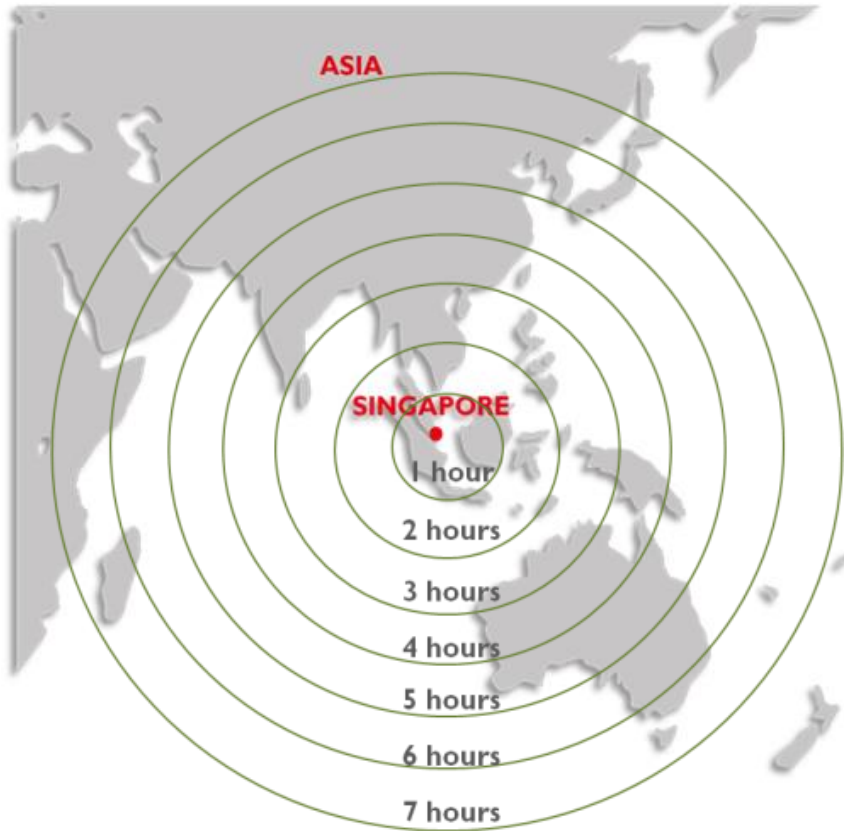
Professor of Medicine, Cedars-Sinai Medical Center/UCLA

Who I Am?

- Raised in Wisconsin
- Attended Baylor College of Medicine, Houston, Texas
- Fellowship under Martin J. Cline and David W. Golde; UCLA
- Professor of Medicine at University California, Los Angeles (UCLA) since 1986
- Director at the Division of Hematology/Oncology, Cedars-Sinai Medical Center for 20 years



Why Singapore?



Literacy Rate: **97%** (Aged 15 & above)
75% of those aged 25-34 years have college education

Language: **English**

2014 GDP **US\$308bn**

Real Growth : **2.9%**

Per Capita GDP: **US\$56,284**

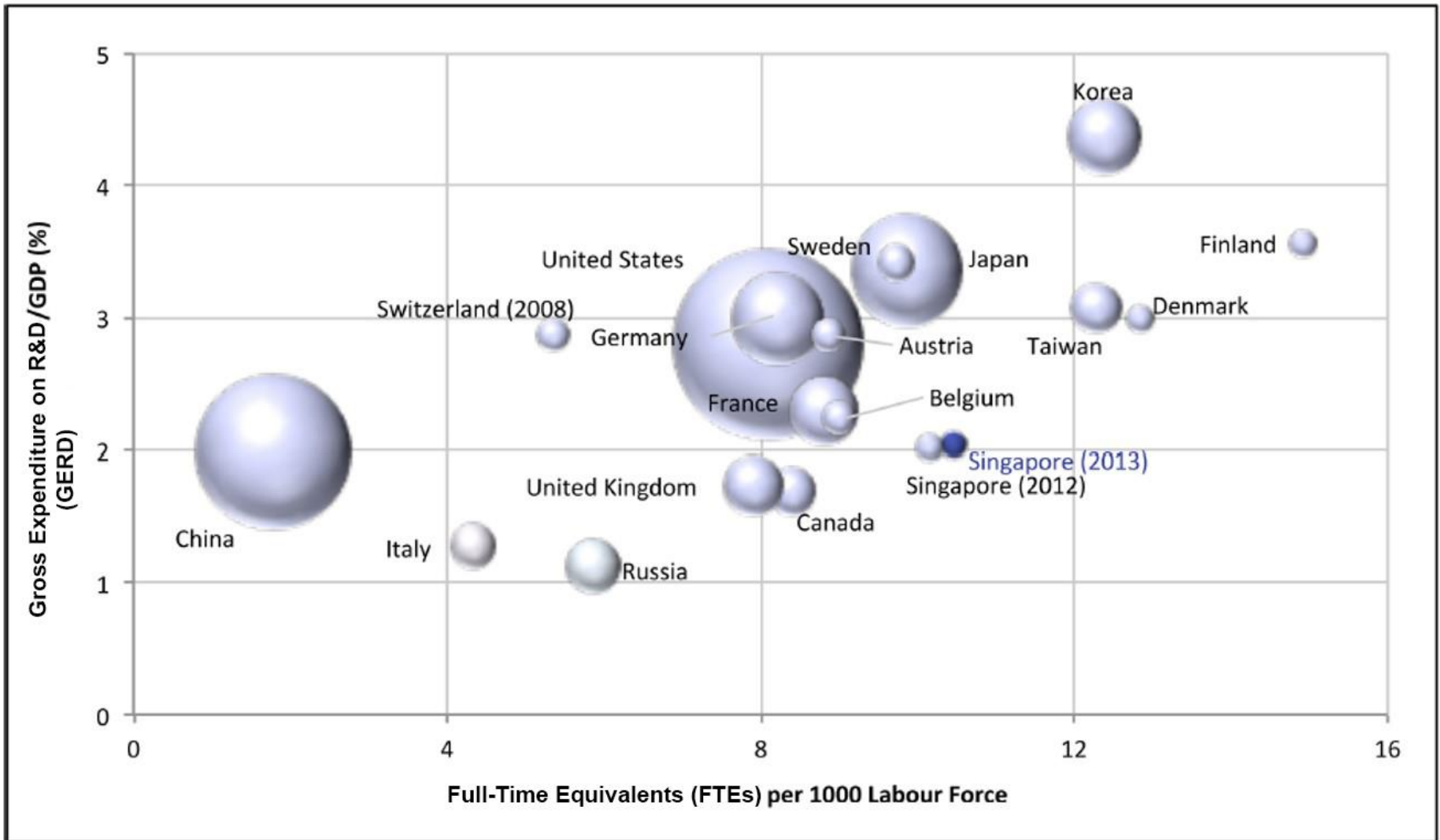
Independent since **9 August 1965**

A Regional Hub:

- For half the world's population
- (3.4 billion people)
- For markets worth US\$21.2 trillion

Most Liveable City in Asia

Comparison of Selected Countries



Why Do Research In Singapore?

- Major tilt towards Asia
- Large repository of scientific talent – especially young talent in IT, engineering, math: future of biology
- Nearly half of the world's chronic disease burden and rising
- English is the language of communication
- World class science with access to Chinese, Indian, Malay populations from birth to death
- International standards of medicine, bioethics, IP protection, patient safety
- Unique convergence of scientists-healthcare professionals-industry-Government

Disease Differences: Asians Versus Caucasians

Asians:

High Incidence

NK/T Cell Lymphomas

EGFR mutant Lung Cancer

Nasopharyngeal Cancer

Hepatocellular Carcinoma

Gastric Cancer

Squamous Esophageal and Head and Neck Cancers

Low Incidence

Chronic Lymphocytic Leukemia

Prostate Cancer

Breast Cancer

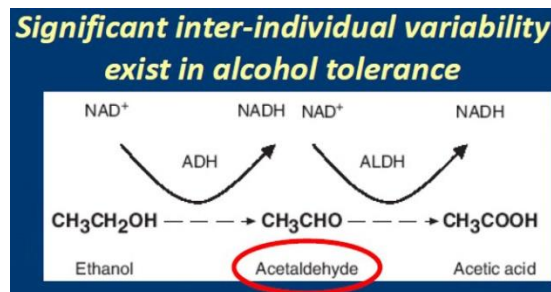
Alcohol flush syndrome due to accumulation of acetaldehyde



Also called

Asian flush syndrome

Ethanol and ALDH

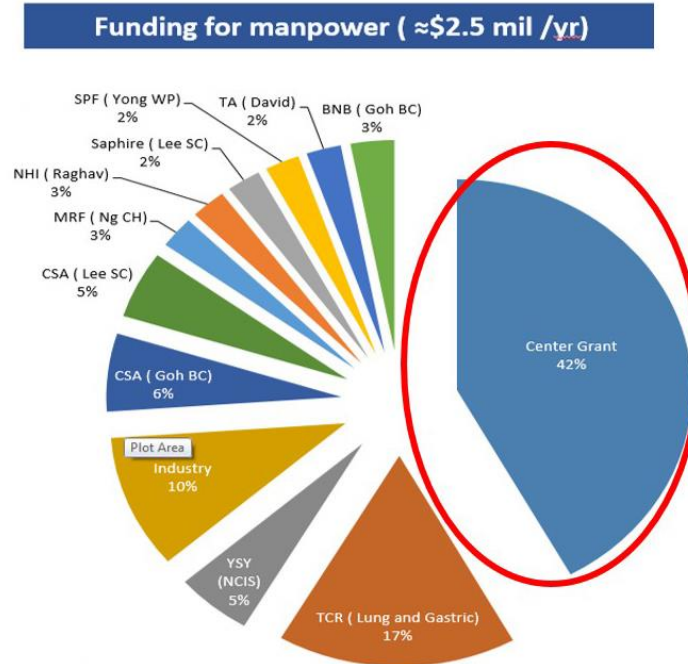


Deputy Director (Research), NCIS

National University Cancer Institute, Singapore (NCIS) is a national specialist centre under NUHS.

NCIS Center Grant

- Provide immense support to enhance the cancer research infrastructure at NCIS

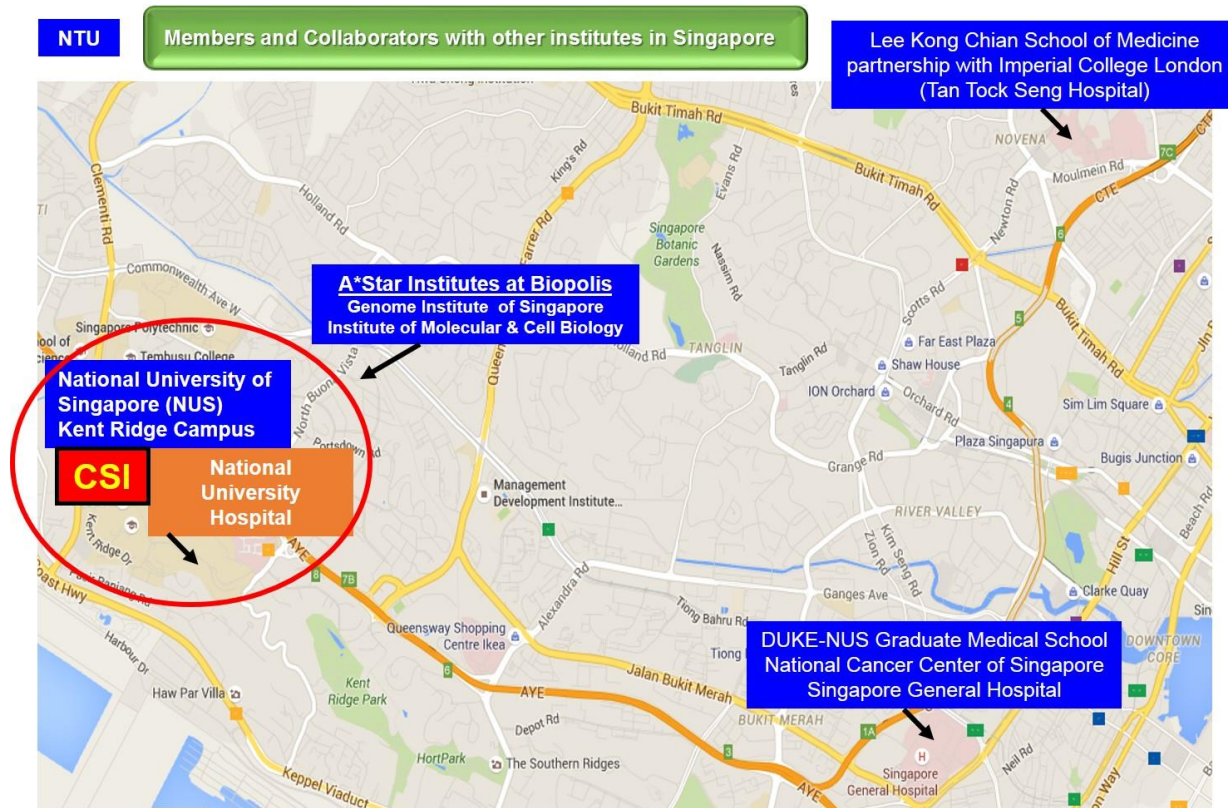


- NCIS Centre Grant Seed Funding Program (2 grant calls/year). We have given out a total of 67 Seed Funding Awards over 3 years
- Centre Grant Meeting (every 2 weeks) to highlight research achievements
 - Provide strong research culture
 - Good mentorship program
- 220 M.Ds and Ph.Ds are members of NCIS

Senior Principal Investigator, CSI

Cancer Science Institute of Singapore (CSI) conducts basic and translational cancer studies.

CSI works closely with basic scientists and clinicians across Singapore in various institutes, including NUS, NUH, NCIS, Duke-NUS Graduate Medical School and Institute of Molecular and Cell Biology (IMCB).



We have 23
Principle
Investigators and
93 post-doctoral
fellows at CSI



Principal Investigators at CSI



CHEN Laili Polly



CHNG Wei-Jon
Mechanism-based therapy
in blood cancers



Edward Kai-Hua CHOW



Peter EICHHORN
JAK/STAT regulated
signaling in cancer



Lorenz POELLINGER



Yokoichi SANDA
Core regulatory circuits in
leukemia



Ross SOO



Ritchie SOONG



Xin-Yuan FU
JAK-STAT Pathway to Fcγ-
Genetics



Melissa J. FULLWOOD
Chromatin interactions and
transcription in cancer



GOH Boon Char



Yoshiaki ITO
Role of RUNX genes in
carcinogenesis



Toshio SUDA
Normal hematopoietic and
leukemic stem cells



TAM Wai Leong



Patrick TAM
Molecular Targets in
Stomach Cancer



Yvonne TAY
Non-coding regulatory
networks in cancer



Sudhakar JHA



H. Philipp KOEFFLER



LEE Soo Chien



Peter LOBIE
Secreted oncogenic
proteins in female cancer



TEH Bin Yean
Structural biology of Cancer-
related Chromatin



Daniel G. TENEN
Gene regulation: normal and
cancer cells



Jean-Paul THIERY

My Laboratory at CSI

Post-doctoral Fellows

CHIEN Wen-Wen



Vikas MADAN



DING Ling Wen



Manoj GARG



Deepika KANOJIA



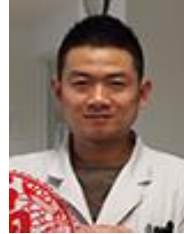
SUN Qiaoyang



LIN Dechen
(NUS/Cedars)



JIANG Yanyi



Pavithra
SHYAMSUNDER



XU Liang



Graduate Students



CHEN Ye



XIAO Jinfen



LOH Xin Yi



HAN Lin



Productivity for the past 5 years


Cancers	# of Peer-Reviewed Papers
LEUKEMIA	60
LUNG	7
PANCREAS	6
GLIOBLASTOMA	7
BREAST	8
ESOPHAGUS	4
PROSTATE	3
OVARY	2
ENDOCRINE	1
LIVER	5
NASOPHARYNGEAL CARCINOMA	1
COLON	2
SARCOMA	6
PITUITARY	2
THYROID	5

Cancers	# of Peer-Reviewed Papers
C/EBP ϵ	8
CIRCADIAN RHYTHM	3
BIOENGINEERING	2
SPLICEOSOME	1
FERRITIN	1
HERB	1
VITAMIN D3	3



Academic Excitement

Annual Cancer Conference –Frontiers in Cancer Science (FCS)



2 – 4 November

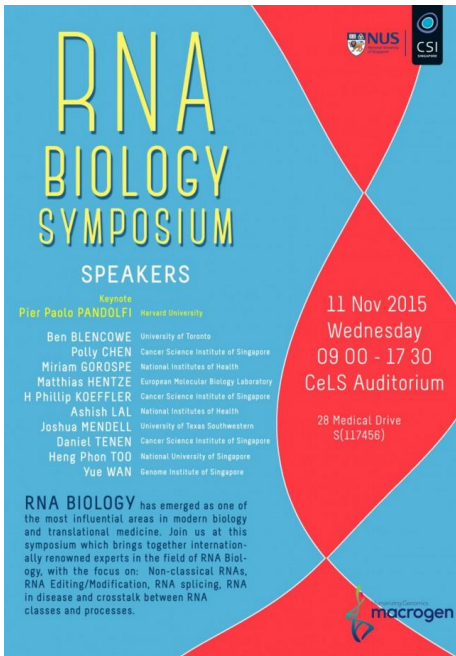
Frontiers in Cancer Science
University Cultural Centre, National University of Singapore
50 Kent Ridge Crescent, Singapore 119279

2015

The Frontiers in Cancer Science (FCS) 2015, our 7th annual conference, is jointly organized by the Cancer Science Institute of Singapore (CSI Singapore), Duke-NUS Graduate Medical School, Institute of Molecular and Cell Biology (IMCB), Lee Kong Chian School of Medicine (LKCMedicine), National Cancer Centre Singapore (NCCS) and National University Cancer Institute, Singapore (NCIS).

Converging the latest cancer discoveries around the world, the meeting promises groundbreaking and innovative insights into cancer research.

Join us and learn from the foremost cancer experts as they share their newest findings.
www.csi.nus.edu.sg/FCS2015

RNA BIOLOGY SYMPOSIUM

SPEAKERS

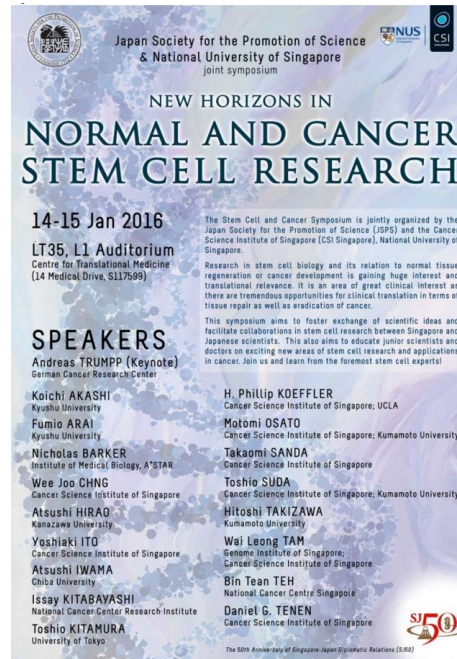
Keynote
Pier Paolo PANDOLFI Harvard University

11 Nov 2015
Wednesday
09 00 - 17 30
CeLS Auditorium

28 Medical Drive
S(117456)

RNA BIOLOGY has emerged as one of the most influential areas in modern biology and translational medicine. Join us at this symposium which brings together internationally renowned experts in the field of RNA Biology, with the focus on: Non-classical RNAs, RNA Editing/Modification, RNA splicing, RNA in disease and crosstalk between RNA classes and processes.

macrogen



Japan Society for the Promotion of Science & National University of Singapore joint symposium

NEW HORIZONS IN NORMAL AND CANCER STEM CELL RESEARCH

14-15 Jan 2016
LT35, LI Auditorium
Centre for Translational Medicine
(14 Medical Drive, S117599)

SPEAKERS

Andreas TRUMPP (Keynote)
German Cancer Research Center

Kaichi AKASHI
Kyushu University

Fumio ARAI
Kyushu University

Nicholas BARKER
Institute of Medical Biology, A*STAR

Wee Joo CHNG
Cancer Science Institute of Singapore

Atsushi HIRAO
Kanazawa University

Yoshiaki ITO
Cancer Science Institute of Singapore

Atsushi IWAMA
Chiba University

Issay KITABAYASHI
National Cancer Center Research Institute

Toehio KITAMURA
University of Tokyo

H. Phillip KOEFFLER
Cancer Science Institute of Singapore; UCLA

Matomi OSATO
Cancer Science Institute of Singapore; Kumamoto University

Takaomi SANDA
Cancer Science Institute of Singapore

Toshio SUDA
Cancer Science Institute of Singapore; Kumamoto University

Hitooshi TAKIZAWA
Kumamoto University

Wai Leong TAM
Genome Institute of Singapore; Cancer Science Institute of Singapore

Bin Tean TEH
National Cancer Centre Singapore

Daniel G. TENEN
Cancer Science Institute of Singapore

SJ50
The 50th Anniversary of Singapore-Japan Diplomatic Relations (1965)

Mix of scientists and physicians

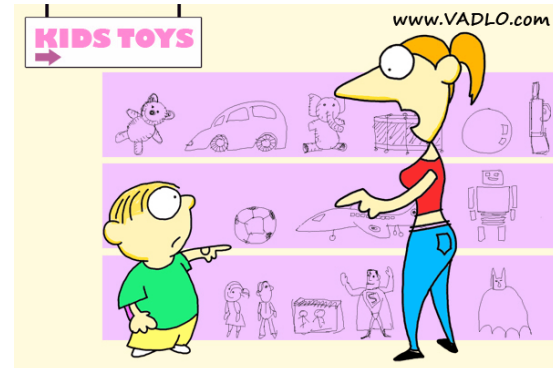
Opportunity to be part of the Graduate Students' academic growth (e.g. Thesis Advisory Committee, Oral Defense Committee, etc.)

CSI Research Meetings – 2x/month

Grant Opportunities

Improvement

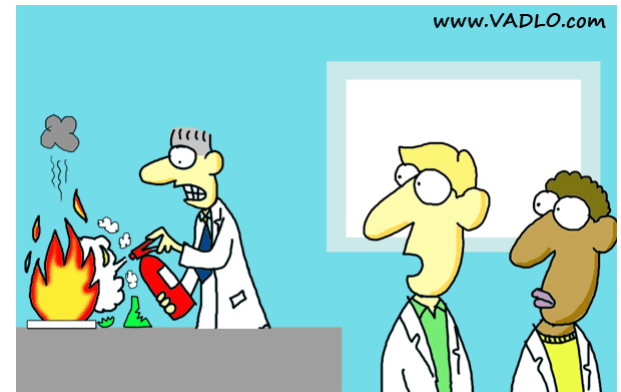
- Pay schedule of post-doctoral fellows
 - In the USA, more autonomy
 - Bonus System
 - Job Switching



"We can't buy that, your daddy and I get Postdoc salaries."

Area most rapidly improving:

- Realizing institutions/physicians/scientists are one big Singaporean family and they need to be harmonious.



"Must be a clinical fellow."