

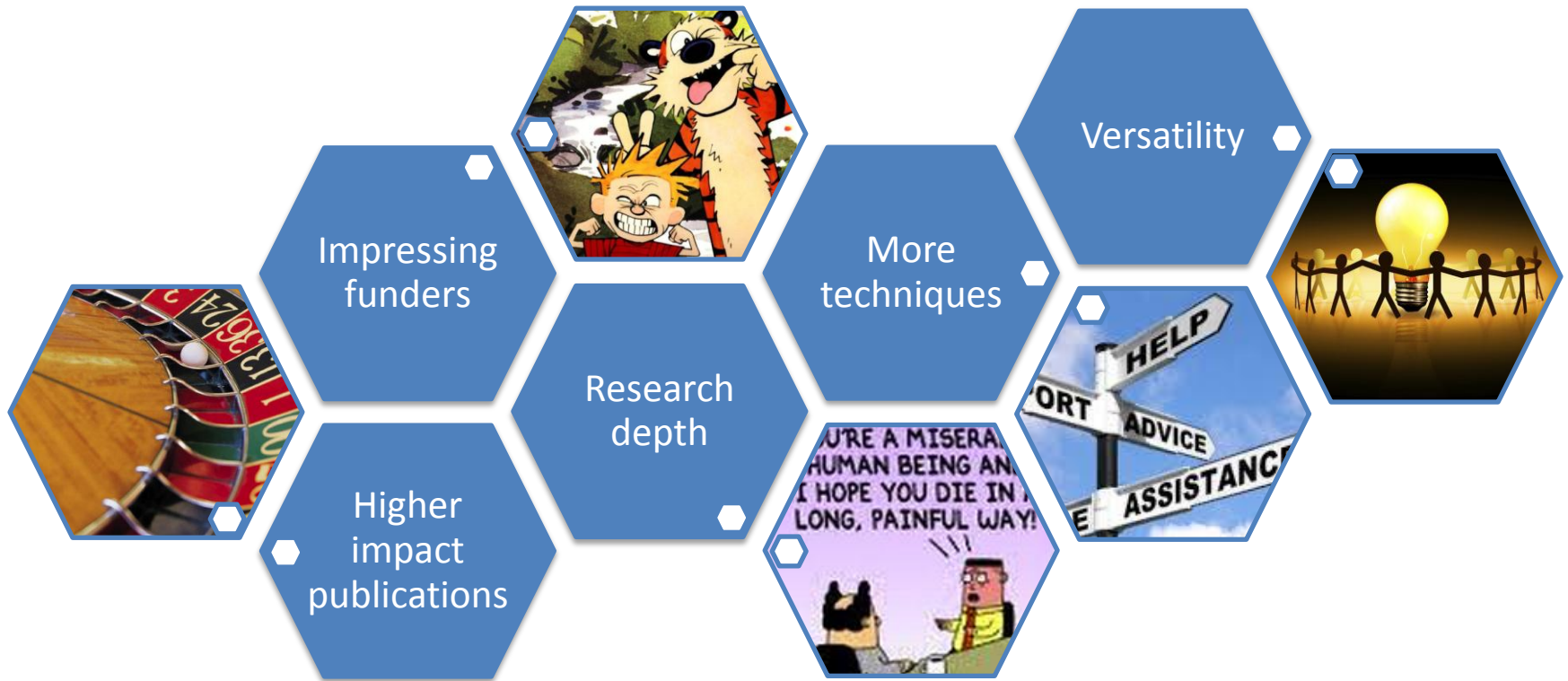
Collaborative ID Research in Singapore

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Director, SIDI

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Why should we collaborate (research)?



Clinical ID in Singapore

- Small country – ID cases relatively fragmented.
 - No central institute like NCC, NSC, SNEC where clinical cases are “concentrated”.
 - Difficult to achieve adequate sample size in any one hospital, especially for late-phase clinical trials.
 - Lack of clinical research expertise, especially for clinical trials.

Costs of Collaboration



Singapore ID Initiative (2012-?)



Prof Jeremy Farrar



Prof Peter Horby

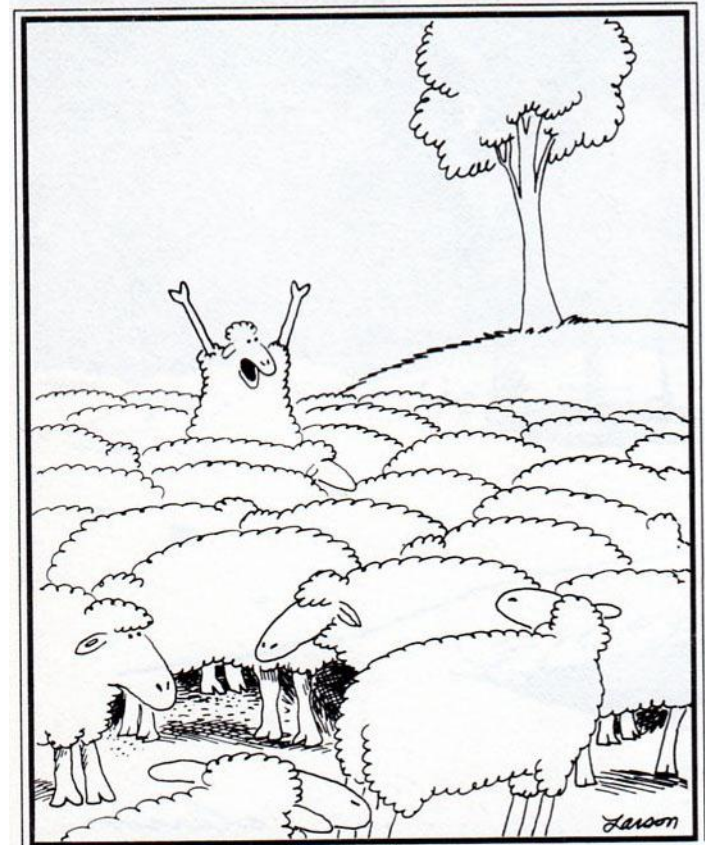
SIDI: Aims

- Non-aligned forum and catalyst to stimulate broad ID community in Singapore.
- Promote interdisciplinary and inter-institutional alliances to facilitate clinical and public health ID research.
- Develop country-wide operational readiness to conduct essential research in response to epidemics/pandemics.
- Enhance ID clinical research community.
- Develop regional linkages and greater international relevance for ID research in Singapore.

SIDI: Culture Change



“What if we don’t change at all ...
and something magical just happens?”



“Wait! Wait! Listen to me! . . . We don’t HAVE to be
just sheep!”

Cartoons from:

<http://www.hrneurope.com/2010/07/apple-pixar-culture-and-decision-science/>
<http://blog.vanillaforums.com/community/dos-donts-making-changes-community/>

Phase I Research Projects

	Title	PI	Sites	Funding	Recruitment
1	SARIs Study	Ng Oon Tek	TTSH, NUH, SGH	\$200K	46 subjects
2	SHIFT (hep B)	Lee Le Ye	NUH, KKH	\$65K	103 subjects
3	SNIP	Limin Wijaya	SGH, TTSH, NUH, Duke-NUS, CGH, KTPH, KKH	\$2,723K +	61 subjects
4	HFMD & Seizures	Chong Chia Yin	KKH, NUH	\$5K	N.A.
5	A-KLASS	Sophia Archuleta	NUH, TTSH, SGH	\$167K Manpower/ SCRN	56 subjects
6	MRSA	Shirin Kalimuddin	SGH, NUH, TTSH, SCRI	\$564K + Manpower/SC RN	11 subjects
7	CaPES	Kalisvar Marimuthu	TTSH, NUH, SGH, CGH, KTPH, JGH, KKH, NTU, SCRI	\$202K + Manpower/SC RN	192 subjects

Phase II Research Projects (Catalyst)

	Title	PI	Sites	Funding	Recruitment
1	<i>Aedes malayensis</i>	Ian Mendenhall	Duke-NUS, Temasek LS, Hawaii, Rutgers- NJ	\$56K	N.A.
2	EV71	October Sessions	Duke-NUS, NUS	\$60K	N.A.
3	Doxycycline-TB	Catherine Ong	NUH, NUS, Imperial, Southampton	\$60K	0 subjects

Phase II Research Projects (Cross-Institution)

	Title	PI	Sites	Funding	Recruitment
1	Candidemia Study	Ling Li Min	TTSH, SGH, CGH, NUH	\$200K	0 subjects
2	Gonorrhoeae	Martin Chio	NSC, SGH, GIS, WTSI	\$200K	264 subjects
3	TB Resistance	Rick Ong	NUS, TTSH, SGH, GIS	\$166K	0 subjects

Phase I Infrastructural Grant

- Singapore ID Clinical Research Network (SCRN)
 - PI: Prof Leo Yee Sin -> Dr David Lye
 - Budget: \$1,545K +
 - Based at CDC/IIDE



IIDE
Institute of Infectious Diseases
and Epidemiology

Singapore ID Clinical Research Network (SCRN)

SCRN established to enable multicentre randomised clinical trials and prospective observational studies in infectious diseases in Singapore.

Objectives/Aims

- Establish long-term research collaboration between clinical infectious diseases and microbiology departments
- Facilitate the pooling of patients with infections of interests, with numbers that may suffice for rigorous clinical studies that cannot otherwise be attained on an individual institutional level
- Provide support to clinician-investigators, permit these investigators to perform clinically relevant and practice-oriented research that addresses local controversies in treatment
- As a supporting infrastructural network to free busy clinician from having to deal with the minutiae and bureaucracy of research
- Function as an immediately available capacity for clinical research in the event of an outbreak

Singapore ID Clinical Research Network (SCRN)

Slide courtesy of Dr. David Lye and the SCRN team

PI: Dr David Lye



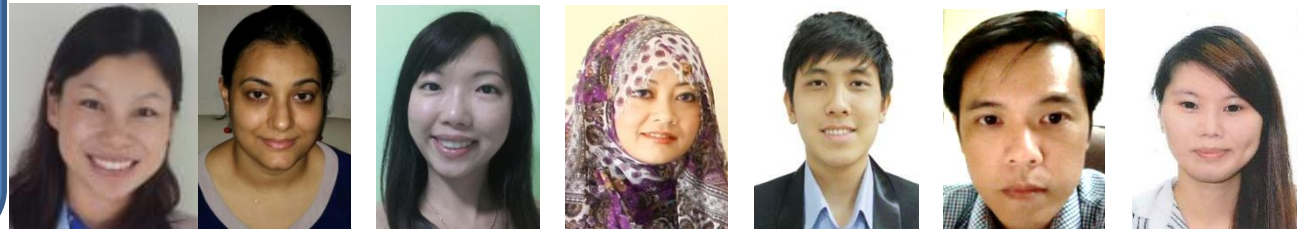
Co-investigators



Senior RF / Network Coordinator: Dr Ding Ying
Senior RF:
Admin Mgr: Soh Siew Hwa



Institutional RAs:
NUH: Shilpa Mukherjee
SGH: Christina Titin
TTSH: Norhudah Othman
Floater RAs: Wong Wei Jie, Calvin Lui, Priscilla Yeo



Framework

- Central core of investigators from each site → executive committee
- Up to 3 clinical projects (1 from each site)
- Central administrative core (based at IIDE) for
 - Hiring and payment of research staff
 - Processing of research reports
 - Ethics approval and update
 - Establishment of DSMB
 - Liaison with SCRI
 - Storage of microbiological and clinical samples
- Publications involve all active investigators
 - All data jointly shared and accessible to each participating institution

Type of projects

- Clinical condition/problem:
 - Common to all sites
 - Recruitment and follow-up within clinical workflow (i.e. registrars and consultants)
 - Culture-based (microbiological laboratories able to identify pathogen of interest)
 - Simple binary trial design
 - Potential for further studies

Projects facilitated by SCRN

- **8 clinical studies**
 - **6 RCT** (including 1 pharma-sponsored trial)
 - **1 Prospective observational study** (active recruitment)
 - **1 PK PD Study** (planning for study initiation)
- **Local participating sites & academic institutions**
 - TTSH, NUH, SGH, JGH, KTPH, CGH & Private Hospitals
 - NUS and NTU
- **Overseas collaboration**
 - Australasian Society for Infectious Diseases Clinical Research Network (ASID CRN)

SIDI: Training & Development

- Research time funding – Dr Limin Wijaya (40% protected time to 31 May 2015).
- OUCRU Ho Chi Minh City visit
 - SNIP and SCRIN staff.
 - 13th-17th Oct 2014.
- SIDI Overseas Research Training Fellowship.
 - Leong Wei Yee – Sri Lanka.

SIDI Phase 2 Aims

- Foster a culture of collaborative research on clinically relevant ID issues in Singapore and the region.
- Lower the barriers for collaborative clinical ID research in Singapore so as to increase the volume, breadth and depth of such research locally.

Infrastructure Building

- Continued support for SCRNs:
 - Clinical manpower.
 - Administrative expertise.
- Genomic database – Shared access model.
- Microbe Bank – Two-tiered hybrid model (central site + branches).
- Clinical Databases.

Barriers & Hurdles

- Ethics Approval.
- Research Agreements.
- Research staff support.
- Cross-institutional support.

Aborted Study

Multicenter Phase IIB open-label randomized controlled trial on the efficacy of combination antibiotic therapy for serious infections caused by extensively drug-resistant Gram-negative bacteria (XDR-GNB).

PI: Dr David Lye, TTSH

Participating Institutions:

TTSH, SGH, CGH, NUHS, SCRI

This study was terminated because of protracted issues with ethics approval (but largely scientific queries rather than ethical issues).

The Humble Research Assistant

- Central to successful clinical research, especially for clinical trials.
- Lowly paid in the public sector.
- No career progression.
- No real job stability.
- Often no intrinsic motivation after a while.
- Likely overworked...



Conclusion

- Collaborative clinical ID research has come a long way since 2003.
- Costs of collaboration high – but potential gains are greater.
- Failure of collaborative projects can often be the seeds of new and better research.
- Singapore – in the foreseeable future – has an ideal structure and human resources for great ID clinical & research collaboration.
- Real issues in terms of:
 - Costs.
 - Administrative barriers to research.
 - Failure of talent development.