

Eliminate-B



**Eradication of HBV:
Singapore Translational Clinical
Research (TCR) Grant
awarded 2015
for USD 20M over 5 years**

Principal Investigator: Seng Gee Lim

Chronic Hepatitis B: A global health problem

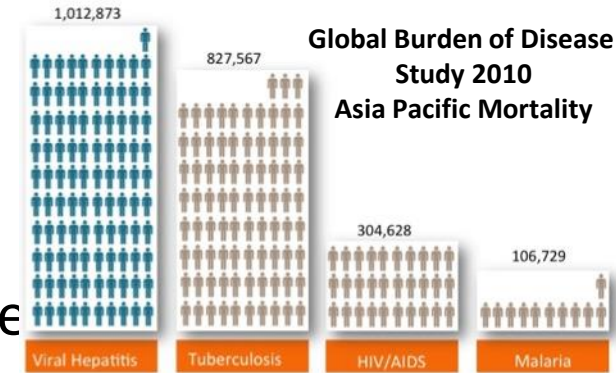
World health assembly 2010

World Health Assembly resolution 63.18

Calls for comprehensive approach to viral hepatitis by all nations

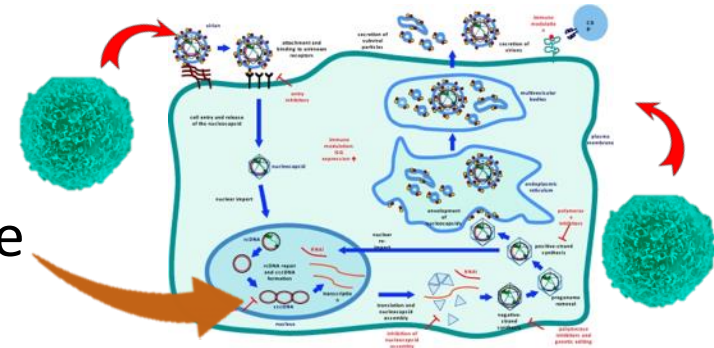
- **Disease burden**

- 350 million chronic patients globally
- Large burden of liver failure, liver cancer
- Leads to >800,000 deaths in Asia Pacific yearly



- **Pathogenesis: complex**

- Virus-immune interaction : not well understood
- Viral persistence via minichromosome



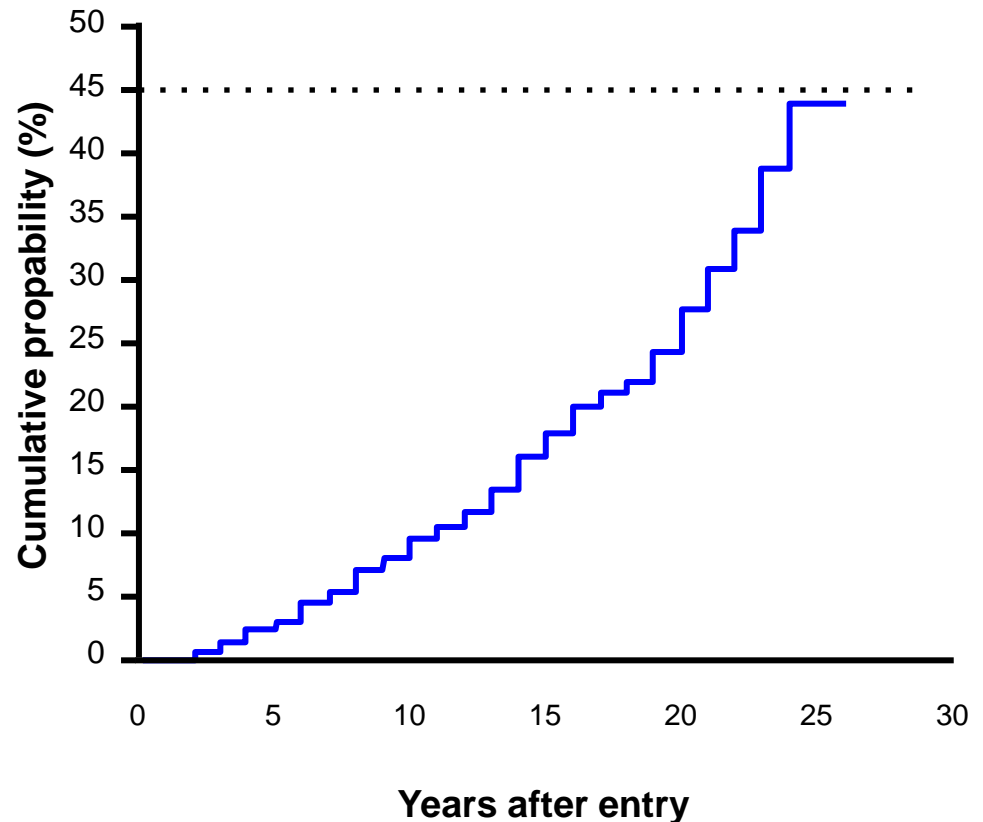
- **Control**

- Good vaccine but will not affect disease burden for another 30-50 years
- Existing therapies can control, not eradicate



Can Chronic Hepatitis B be cured?

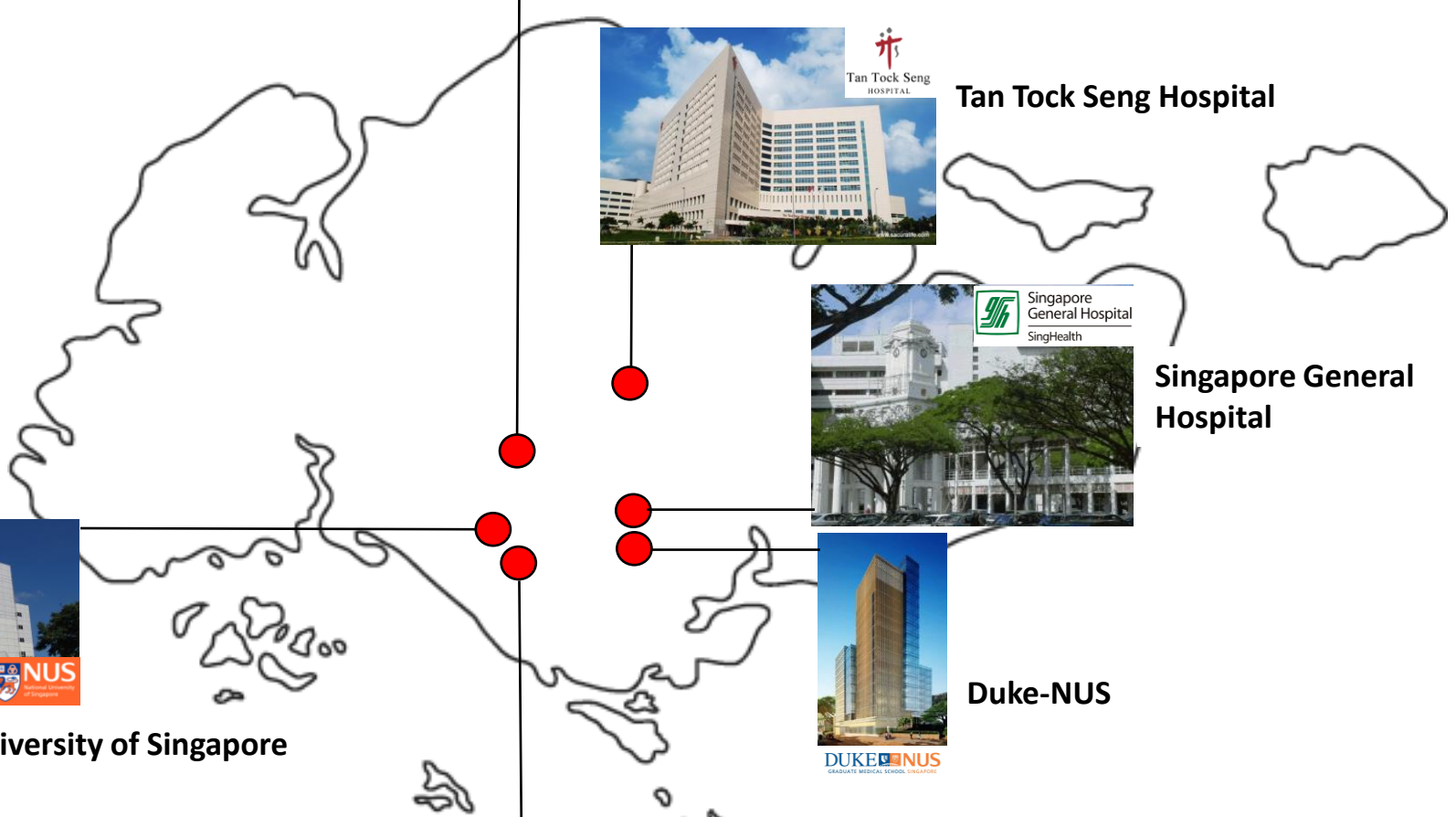
- The accepted definition of functional cure of Chronic hepatitis B is loss of HBsAg
- In a long term study of inactive Chronic Hepatitis B carriers, 45% lost HBsAg.....but it took 25 years!
- Thus, it is proven that Chronic Hepatitis B can be cured, but it takes a long time
- The HBV TCR program aims to find means to compress this time to as little as 1-2 years



Institute of Molecular & Cell Biology
Genome Institute of Singapore
Singapore Immunology Network
Singapore Clinical Research Institute



Nationwide Collaboration



Tan Tock Seng
HOSPITAL

Tan Tock Seng Hospital



Singapore
General Hospital
SingHealth

Singapore General
Hospital



DUKE-NUS
GRADUATE MEDICAL SCHOOL SINGAPORE

Duke-NUS



NUS
National University of Singapore

National University of Singapore



NUH
National University
Hospital

National University Hospital

Strategy for HBV eradication: A TCR application

Theme 1: Define

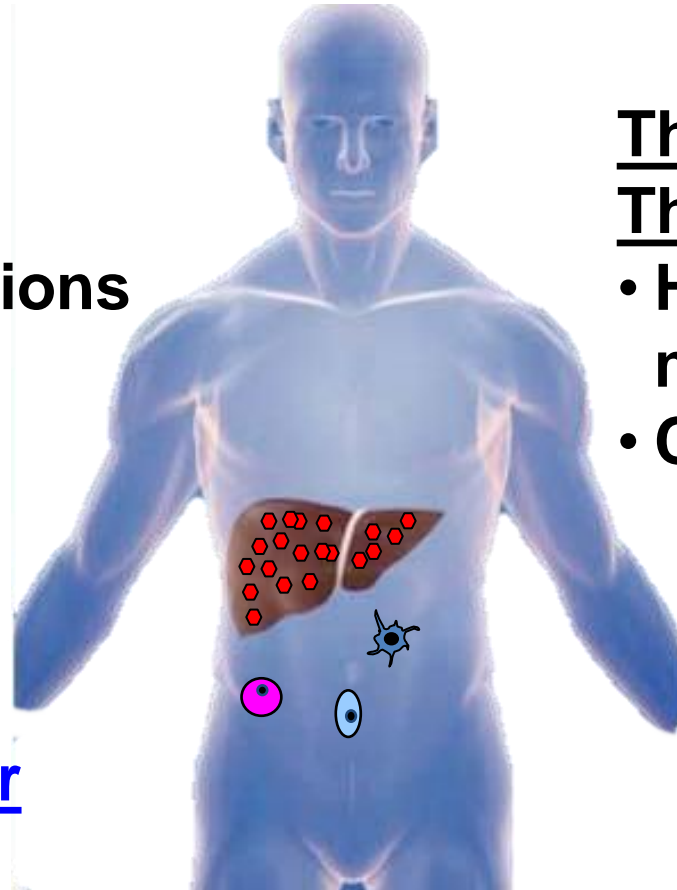
- Gene
 - Immune
 - Virus
- } interactions

Theme 2: Discover

- New Targets

Theme 3: Develop Therapeutics

- Humanised mouse model
- Clinical studies



HBV eradication = HBsAg loss



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Chairman



Seng Gee Lim

In Partnership with:



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THE SCIENCE OF HBV CURE

2-3 JUNE 2017



Organising Committee



Seng Gee Lim



Stephen Locarnini



Peter Revill



Endorsed by:



www.scienceofhbvcure.com

Day 1: June 2

Time	Programme
11:00 - 11:10	Opening address Definitions of cure: do we have consensus?
11:10 - 11:20	International Coalition to Eliminate Hepatitis B Virus (ICE-HBV)
11:20 - 11:30	HBV Forum: Consortium of academia, industry and regulators
11:30 - 12:00	Lessons from a HIV cure program
12:00 - 12:15	Q&A
12:15 - 13:00	Lunch
Viral Host Interaction	
13:00 - 13:20	The role of viral evolution in HBV
13:20 - 13:50	Free paper 1 with Q&A
Virology	
13:50 - 14:10	Viral lifecycle overview and potential therapeutic targets
14:10 - 14:40	Free Paper 2 with Q&A
14:40 - 15:00	Approaches to management of cccDNA
15:00 - 15:30	Free paper 3 with Q&A
15:30 - 15:50	Coffee break
Viral Entry and transcription	
15:50 - 16:10	Early events in establishment of HBV infection
16:10 - 16:25	Free paper 4 with Q&A
16:25 - 16:45	Transcription targets for HBV
16:45 - 17:00	Free paper 5 with Q&A
17:00 - 17:20	microRNA and CHB
17:20 - 17:35	Free paper 6 with Q&A
17:35	End of Day 1

Day 2: June 3

Immunology	
08:30 - 08:50	Role TLR in viral clearance in CHB
08:50 - 09:20	Free paper 7 with Q&A
09:20 - 09:40	NK cells in CHB and HBV clearance
09:40 - 10:10	Free paper 8 with Q&A
10:10 - 10:30	Chemokines and cytokines involved in CHB
10:30 - 10:45	Free paper 9 with Q&A
10:45 - 11:00	Coffee break
11:00 - 11:20	T cells in CHB: missing or exhausted?
11:20 - 11:50	Free paper 10 with Q&A
11:50 - 12:10	B cells in CHB: are they important?
12:10 - 12:25	Free paper 11 with Q&A
12:25 - 13:15	Lunch
Strategies	
13:15 – 13:25	Animal models in CHB
13:25 - 13:45	Therapeutic approaches to immune based therapy for CHB
13:45 - 14:05	Can we eradicate HBV using non-immune antiviral therapy alone?
14:05 - 14:20	Q&A
14:20 – 14:30	Tea Break
New Therapies in CHB	
14:30 - 17:10	Proposed sessions from the industry <i>(each company will give a 20-minute presentation of their preclinical/ clinical trial data. Format: 15mins presentation with 5mins Q&A)</i>
16:50 - 17:10	Q&A
17:10 - 17:45	Combination Therapy Forum: which combinations can lead to a HBV cure: all industry presenters
17:45 – 18:00	Return to main meeting room for closing remarks from Chairman