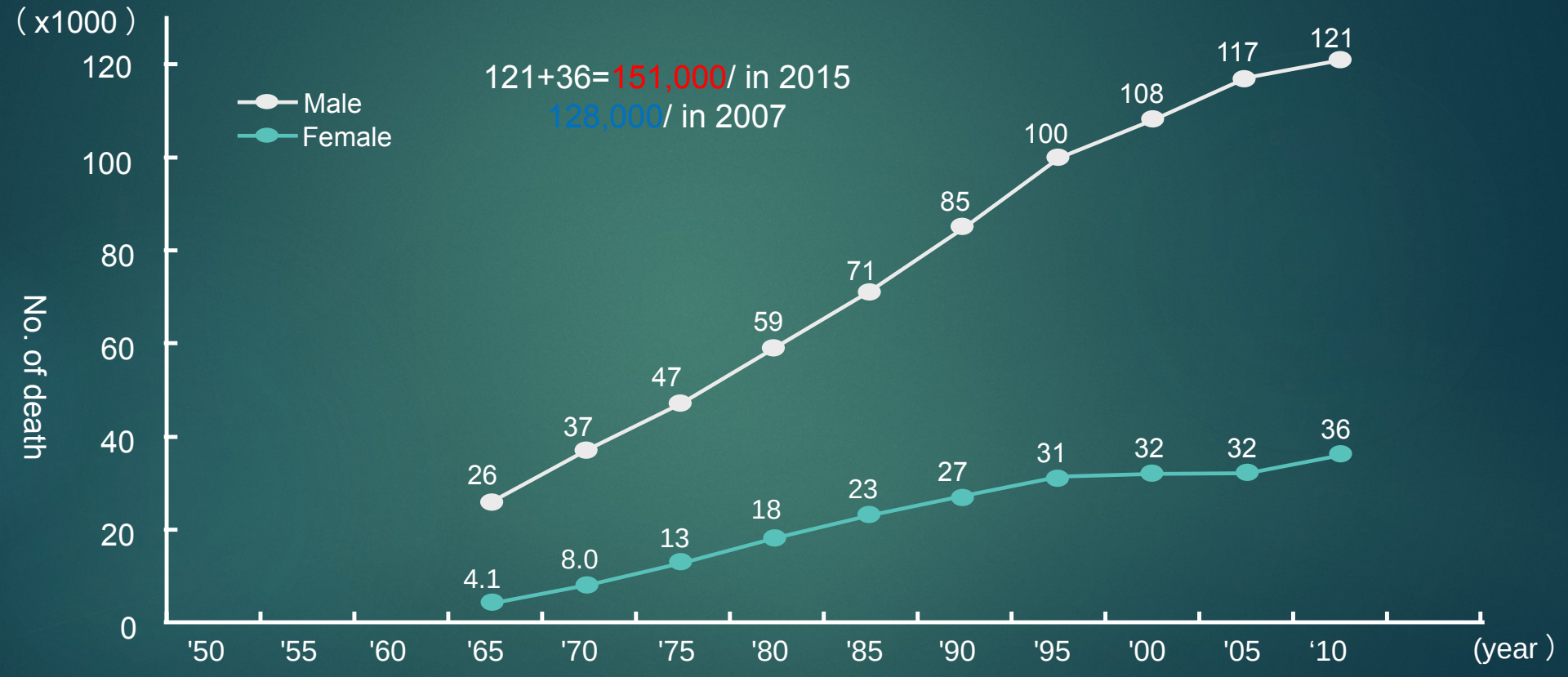
Update of Current Status in Japan on Tobacco Harm Reduction GNF 2019

HIROYA KUMAMARU, MD, PHD
AOI UNIVERSAL HOSPITAL
GLOBAL NICOTINE FORUM 2019

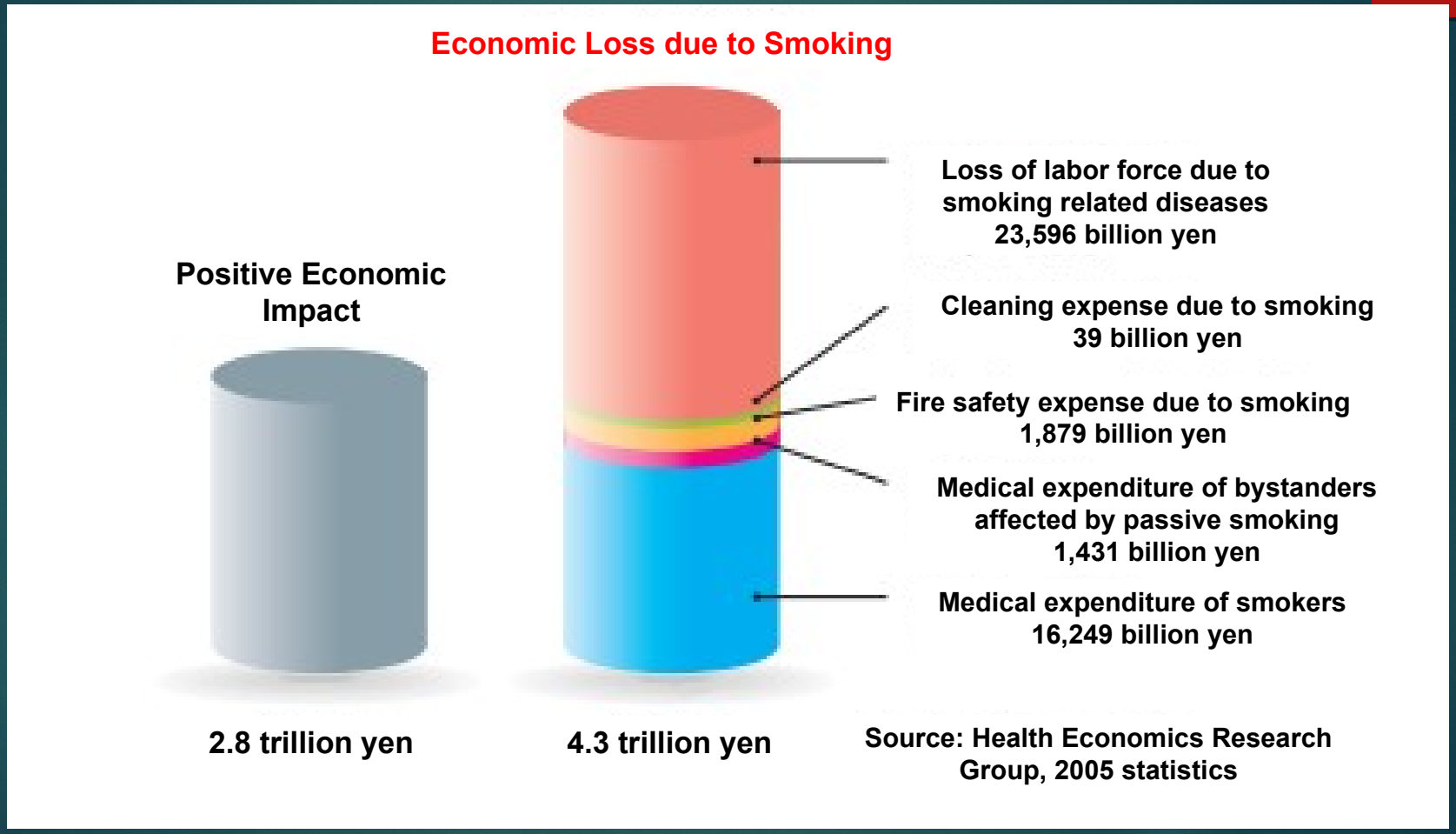
Number of deaths due to smoking in JAPAN

2



Peto, R. et al.： MORTALITY FROM SMOKING IN DEVELOPED COUNTRIES 1950−2020 JAPAN CTSU： 265, 2015 より作図
http://gas.ctsu.ox.ac.uk/tobacco/C3160.pdf

Economical loss : ￥4.3 trillion due to smoking in Japan



Heat-not-burn products

- IQOS：Phillip Morris International
- Glo : British American Tobacco
- Ploom-Tech : Japan Tobacco

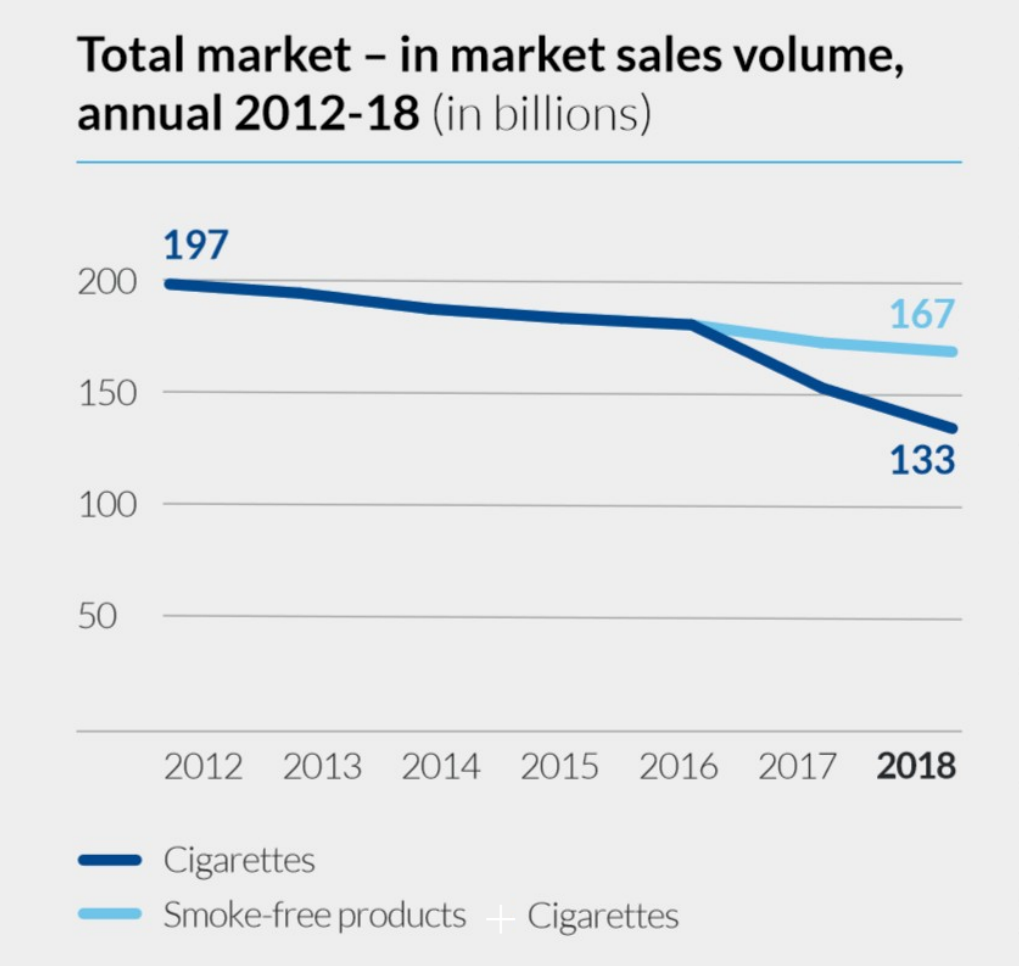
were launched since 2014 in Japan







Overall tobacco consumptions keeps decreasing, while cigarettes are replaced quickly by smoke-free products (Japan)



21% reduction (15% year before)

Source: Tobacco Institute of Japan IMS and PMJ Estimate/smokefree products includes competitive smoke-free products IMS

Youth Initiation of HNB - MOH Grant Research

- **Prof. Y Osaki of Tottori Unversity, Medical School**
- A study of drinking behavior, smoking behavior, sleep disruption, and excessive internet use
- Among approximately 64,000 Japanese middle and high school students
- Surveys were conducted in schools between December 2017 and February 2018.

Within smoking behavior, the authors looked at patterns of cigarette smoking, heated tobacco product use, and e-cigarette use. Specifically, they asked participants to report ever, monthly, and daily use of these products.
Results are summarized in the table below:

	Cigarettes			**HnB – "IQOS, Glo, PloomTECH"**			**E-Cigarettes – e.g "FLEVO, EMILI, VITAFUL, VITACIG"**		
Use	Ever	Monthly	Daily	Ever	Monthly	Daily	Ever	Monthly	Daily
Middle School	2.6%	0.6%	0.1%	1.1%	0.5%	0.1%	2.1%	0.7%	0.1%
High School	5.1%	1.5%	0.5%	2.2%	0.9%	0.1%	3.5%	1.0%	0.1%

Note: Monthly refers to use in the preceding month.

New versions of IQOS



IQOS 3 \10,980(4,980)



IQOS 3 Multi \8,980

New versions of glo



glo series 2
\2,980







glo series 2 mini
\3,980

New Color Variation & Version of Ploom-TECH



Ploom-TECH \2,980



Ploom-TECH+ \4,980

Latest version & color variation of Ploom S

Ploom S　\7,980

JT has changed strategy to use tobacco leaves not like former versions



Smoking Restrictions in Japan (2017-18)

National Level

Outdoor

No national restrictions

Indoor

Health Promotion Law
Facility manager efforts to prevent passive smoking in public places

Industrial Safety and Health Law
Employers efforts to prevent passive smoking in the workplace

Local Level

Outdoor

Outdoor smoking restrictions in around 220/800 municipalities
Of these, approx. half have exempted HNB from restrictions

Indoor

Two Prefectures (Hyogo / Kanagawa) have indoor smoking restrictions
Tokyo Metropolitan Government passed an ordinance to prevent passive smoking to be implemented by 2020.

Global Nicotine Forum 2018

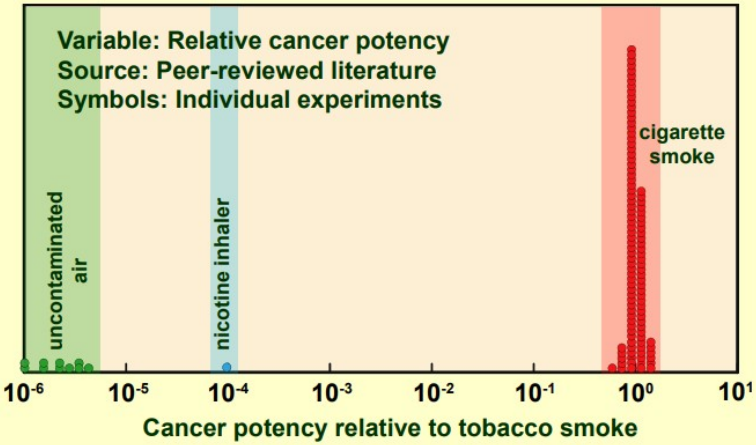
Modelling the effects of user exposure to harmful emissions across the spectrum of nicotine delivery

Ed Stephens

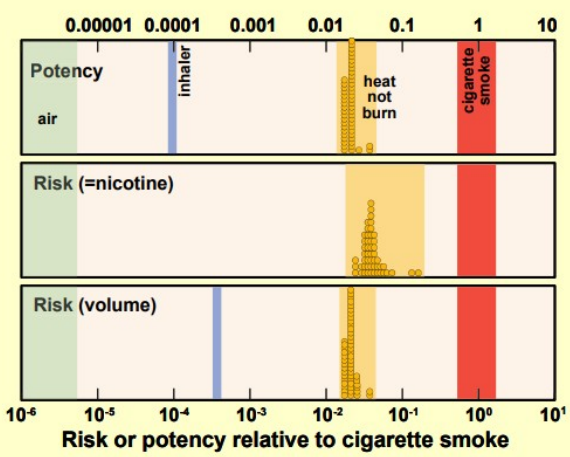
University of St Andrews

Declaration: No conflicts of interest

Cancer potency: Context

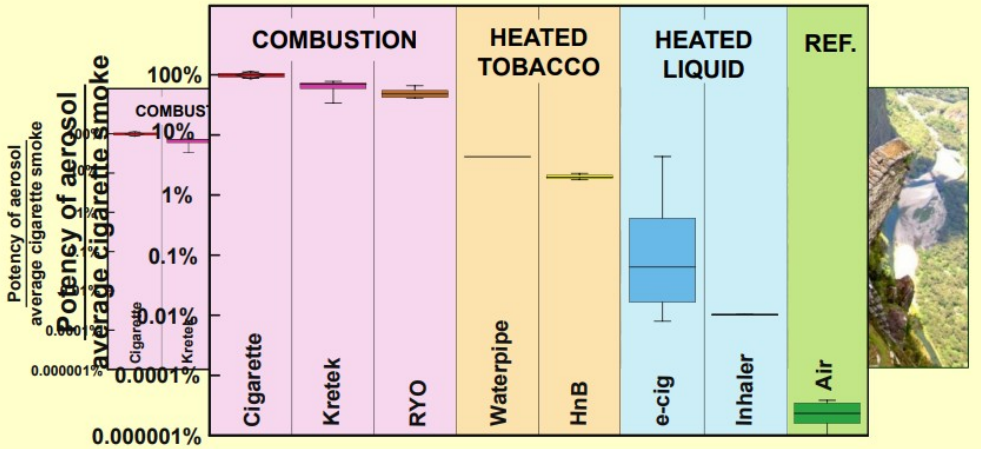


Heated Tobacco: Resistance Heating Devices





Continuum of Risk for Nicotine Delivery by Aerosol



e-cigarettes expectation and launch

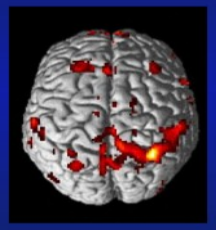
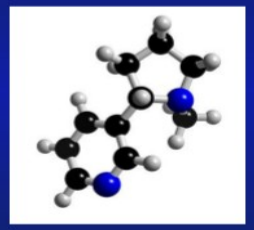
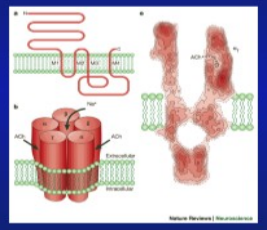








Nicotine Therapeutics: Treatment of Disorders of the Aging Brain with Nicotinic Stimulation

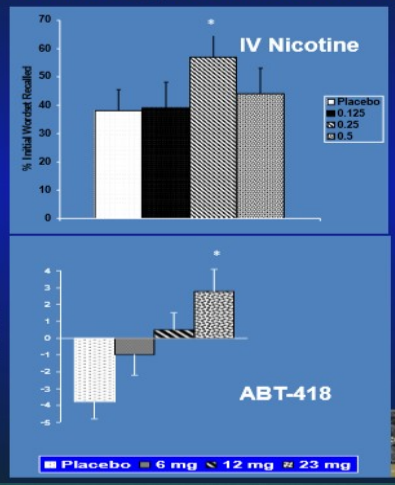




Paul Newhouse, M.D.
Jim Turner Chair in Cognitive Disorders
Professor of Psychiatry, Pharmacology, and Medicine
Director, Vanderbilt Center for Cognitive Medicine,
Vanderbilt University

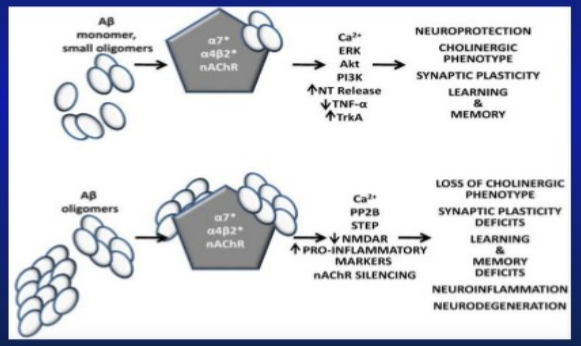
Evidence that Acute Nicotinic Stimulation Improves Cognitive Performance in Late-Life Cognitive Disorders

Acute nicotinic stimulation **improves Long-Term Verbal Recall in patients with early Alzheimer's Disease**

- Newhouse et al, Psychopharm 95: 171-175, 1988
- Potter, Newhouse et al, Psychopharm, 142: 334-342, 1999



Alzheimer's Disease Progression May Lead to Nicotinic Receptor Dysfunction

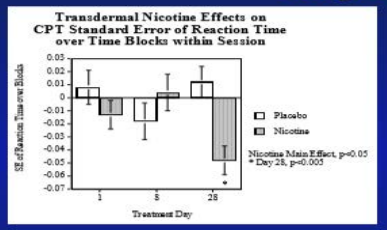


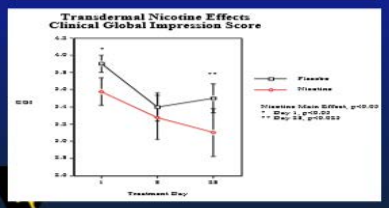
Prodromal AD or MCI: nACHR transient activation via Aβ monomers

AD: nACHR block or dysfunction via Aβ oligomers

Dinely et al, 2015

Evidence that *Chronic* Nicotinic Stimulation Improves Cognitive Performance in Late-Life Cognitive Disorders





Subchronic nicotine improves performance and clinical ratings in AD/AAMI patients

- Wilson et al,: Pharmacol Biochem Behav 51: 509-514, 1995
- White and Levin, Psychopharm 143: 158-165, 1999 *and* 171: 465-471, 2004

The MIND Trial

- **Long-Term Nicotine-MCI Trial**
  - Nicotine vs Placebo for 2 Years
  - Cognition and Function as primary endpoints.
  - Examine nicotine treatment effects on biomarker change over time (MRI, CSF).
  - Explore genetic and metabolic correlates.
- **National Principal Investigator:** *Paul Newhouse, M.D., Vanderbilt University*
- **32+ US sites**



- **Coordinating Center:** *Alzheimer's Therapeutic Research Institute- University of Southern California*

MIND | MEMORY IMPROVEMENT THROUGH NICOTINE DOSING



- **Web Site:** MINDStudy.org

Medicine

Summary

- 3 HnB products have been still successful to reduce cigarette smoking in Japan so far.
- HnBs are not causing “Gateway phenomenon” in younger generation in Japan.
- Movement of smoke-free environment is on-going by the Japanese government towards Tokyo Olympic in 2020.
- From the viewpoint of physician, Vapor products are even more favorable than HnBs for nicotine-dependent people and are expected to be launched shortly (I hope ASAP).
- Pharmacological efficacy of nicotine for dementia/MCI, other neuro-psychological impairment is very interesting.

Thank you for your attention !!

