26es JNI 2025 TOURS
et la région Centre - Val de Loire VINCI

Journées Nationales d'infectiologie
du mercredi 11 juin 2025 au vendredi 13 juin 2025
Journée Nationale de Formation
des Paramédicaux en Infectiologie
Jeudi 12 juin 2025

Histoplasmose et Talaromycose : un problème en Asie ? (Projet FungiCam)

Ugo FRANÇOISE

CCU-AH — Sorbonne université — Hôpital Saint-Antoine — APHP — Paris

Doctorant — Université de Guyane — CIC1424 INSERM

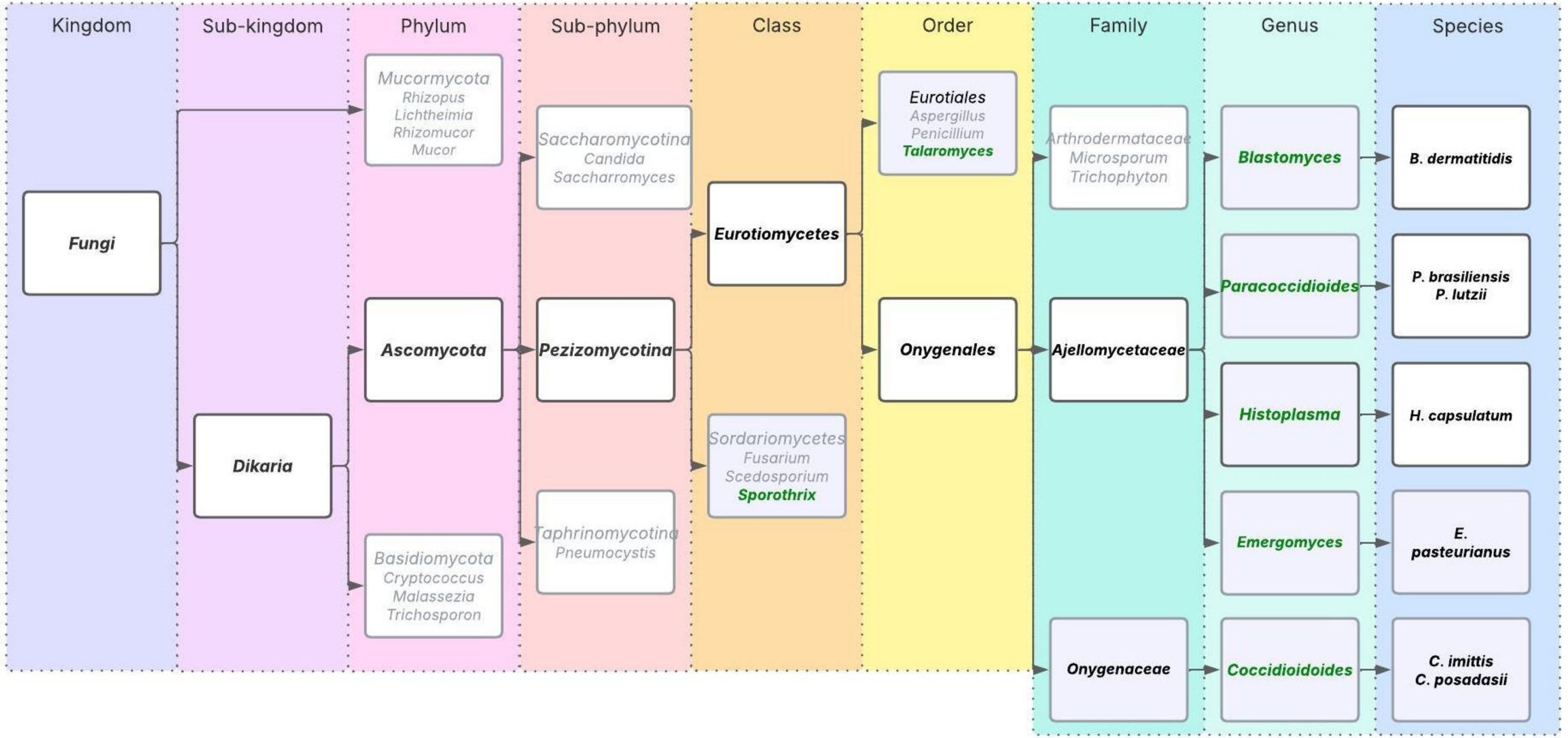
Déclaration de liens d'intérêt avec les industriels de santé en rapport avec le thème de la présentation (loi du 04/03/2002) :

L'orateur ne souhaite pas répondre ☐

- **Intervenant** : Ugo FRANÇOISE
- **Titre** : Histoplasmose et Talaromycose : un problème en Asie ? (Projet FUNgiCam)

• Consultant ou membre d'un conseil scientifique	☐ OUI	☑ NON
• Conférencier ou auteur/rédacteur rémunéré d'articles ou documents	☐ OUI	☑ NON
• Prise en charge de frais de voyage, d'hébergement ou d'inscription à des congrès ou autres manifestations	☐ OUI	☑ NON
• Investigateur principal d'une recherche ou d'une étude clinique	☐ OUI	☑ NON

Une diapo de phylogénie



Histoplasma et *Talaromyces* : enjeux de santé publique ?

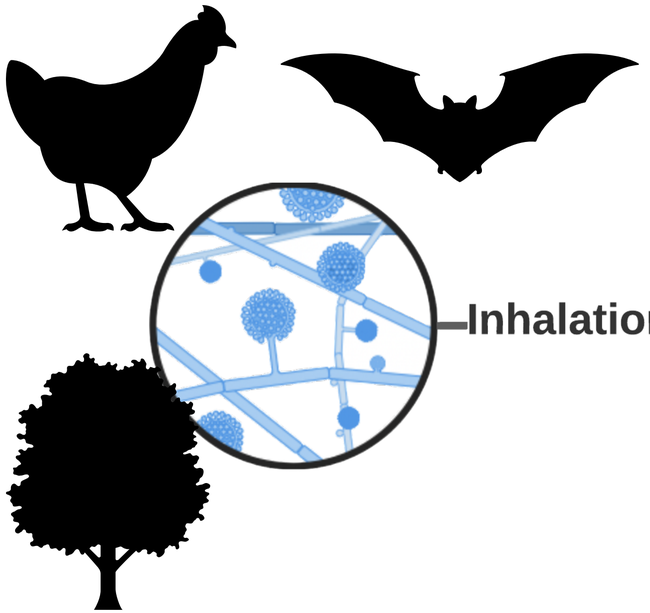
Critical group	High group	Medium group
Cryptococcus neoformans	*Nakaseomyces glabrata (Candida glabrata)*	*Scedosporium* spp.
Candida auris	*Histoplasma* spp.	*Lomentospora prolificans*
Aspergillus fumigatus	Eumycetoma causative agents	*Coccidioides* spp.
Candida albicans	Mucorales	*Pichia kudriavzeveii (Candida krusei)*
	Fusarium spp.	*Cryptococcus gattii*
	Candida tropicalis	*Talaromyces marneffei*
	Candida parapsilosis	*Pneumocystis jirovecii*
		Paracoccidioides spp.

« Some pathogen are confined to certain geographical areas

These pathogens must be considered in the local context »

WHO fungal priority pathogens list 2022

Histoplasma capsulatum var. capsulatum



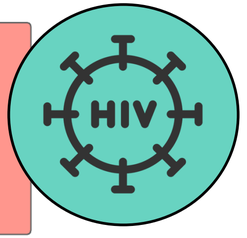
Inhalation

Pneumopathie préexistante
=
Histoplasmose pulmonaire chronique

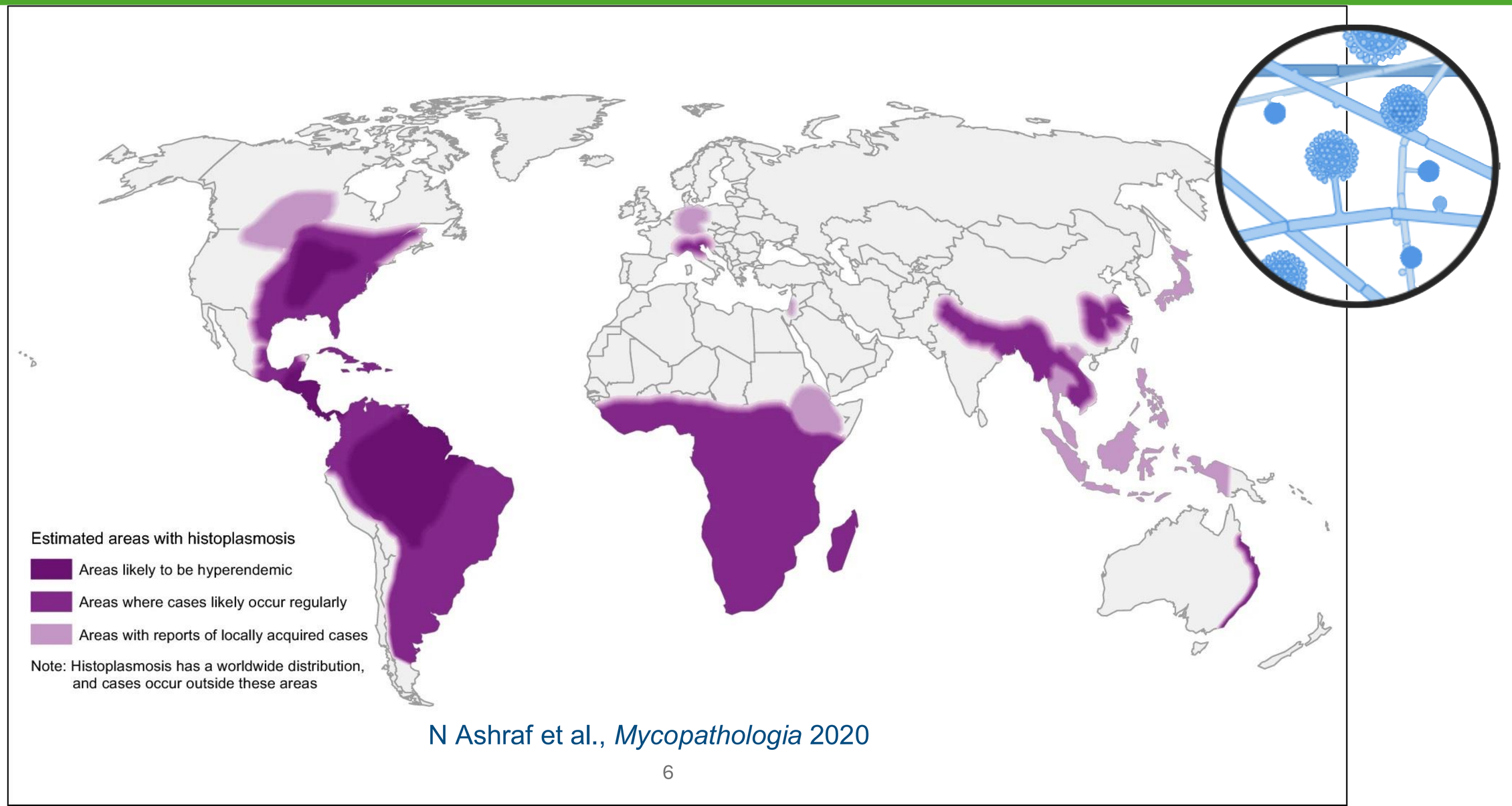
Immunité
=
Asymptomatique
Pneumonie aiguë

Déficit acquis secondairement

Déficit immunitaire
=
Histoplasmose disséminée



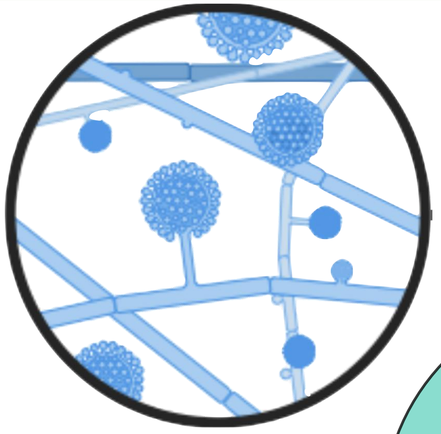
Histoplasma capsulatum var. capsulatum

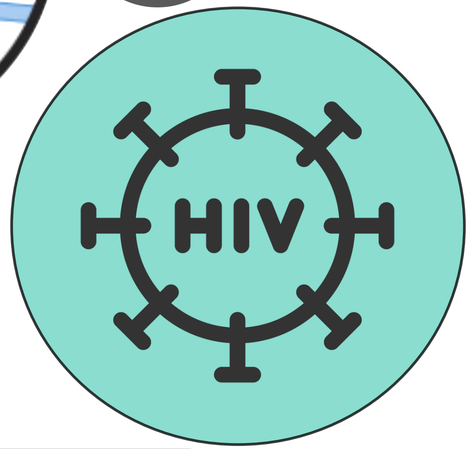


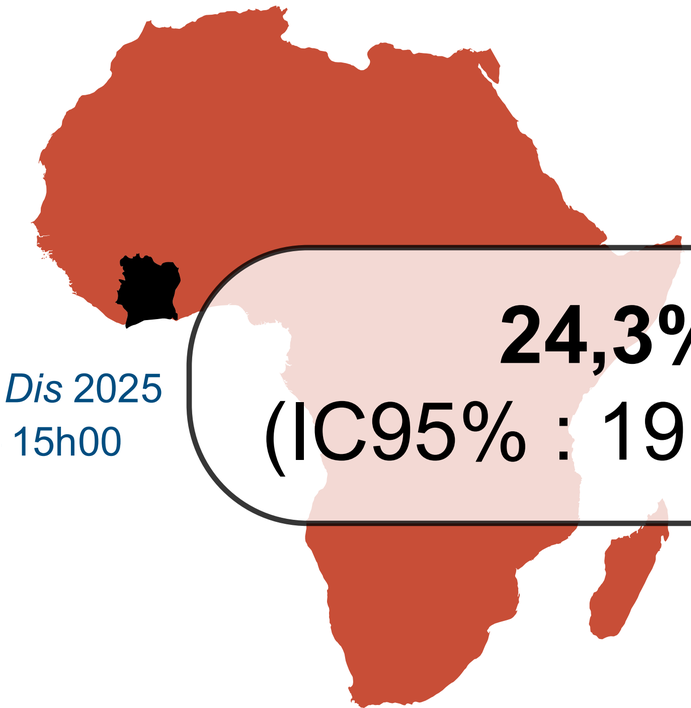
N Ashraf et al., *Mycopathologia* 2020

Histoplasma capsulatum var. capsulatum

Preethiya Sekar et al., *Emerg Inf Dis* 2024





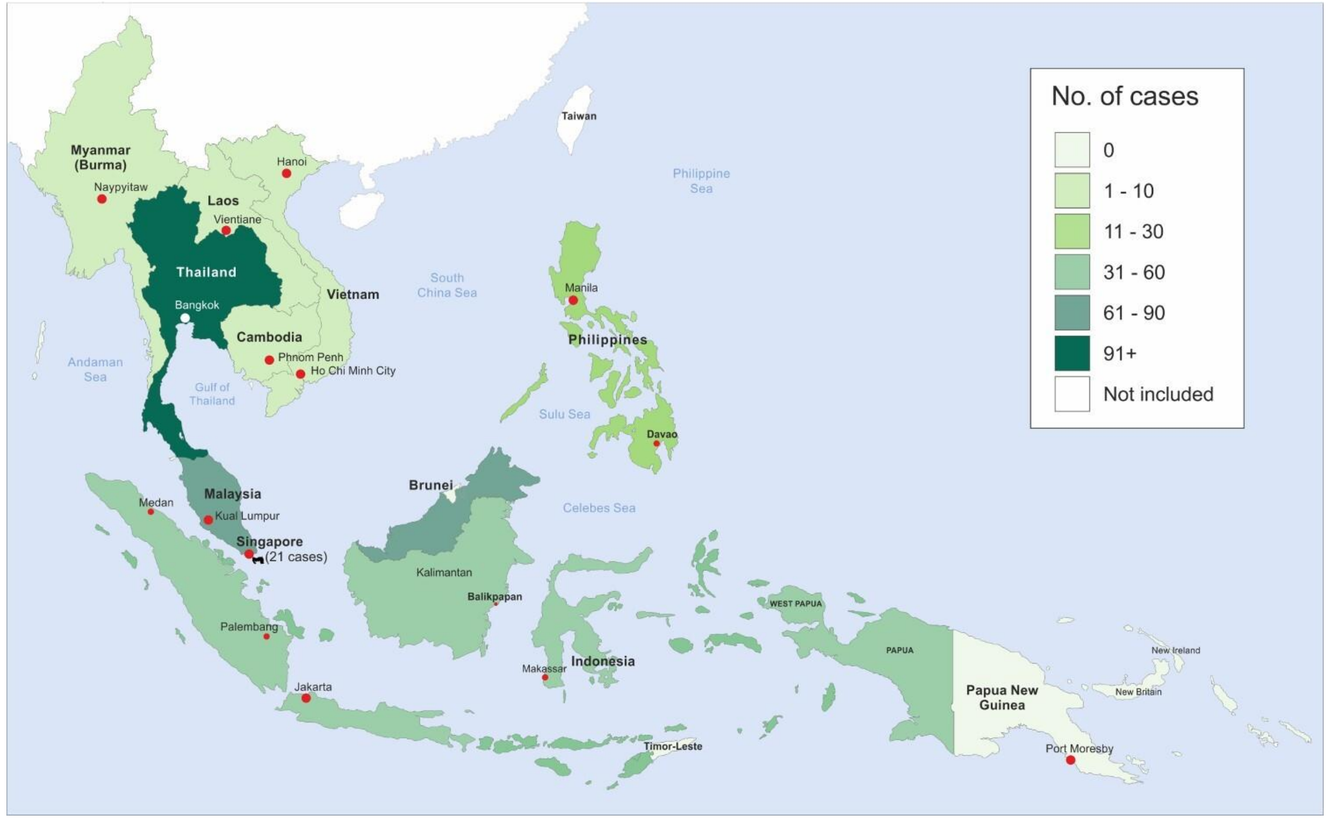


24,3%
(IC95% : 19,5-29,8)

Sturny-Leclère et al, *Clin Infect Dis* 2025
JNI 2025 — Jeudi — Salle 7 — 15h00

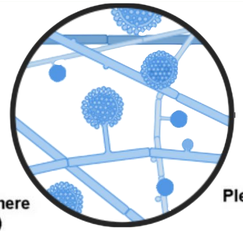
Histoplasma capsulatum var. capsulatum

Bo Pan et al., *Mycosis* 2013

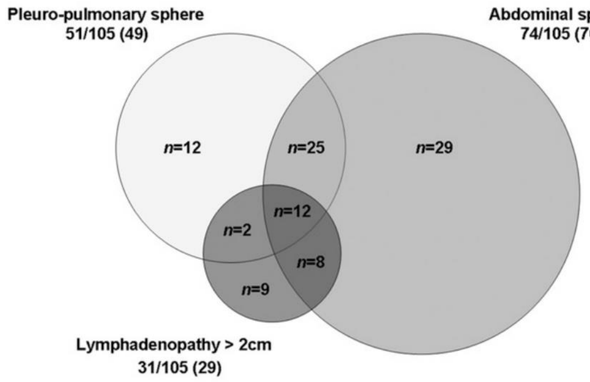


J Baker et al. *Emerg Microbes Inf* 2019

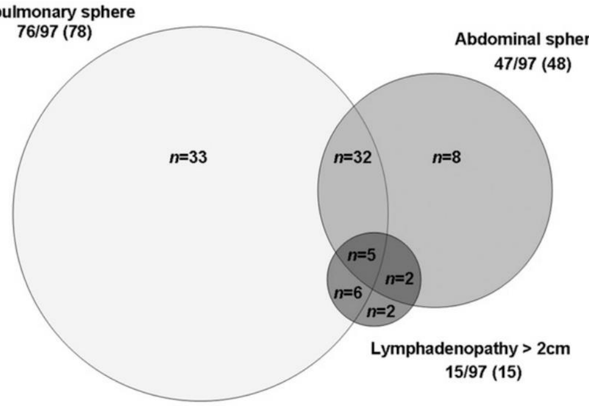
Histoplasma capsulatum var. capsulatum



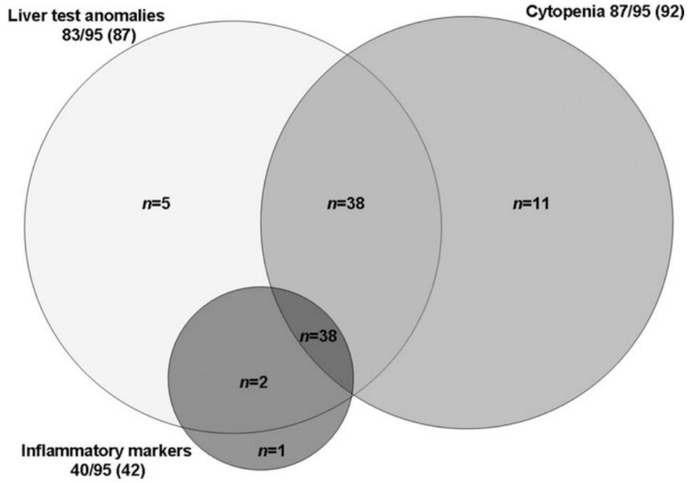
Histoplasmosis : clinical aspects



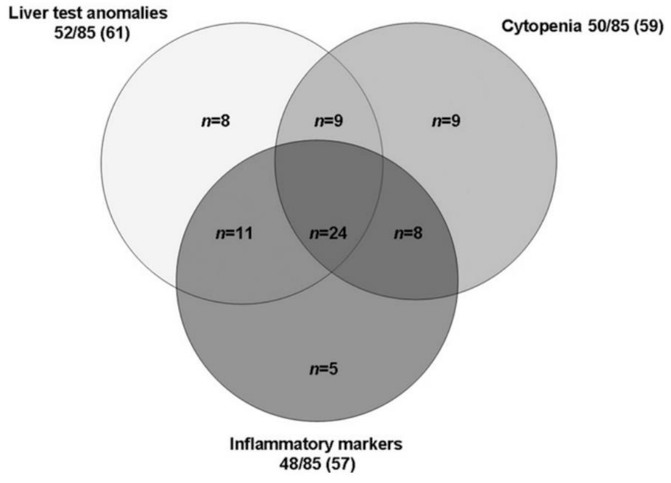
Tuberculosis : clinical aspects



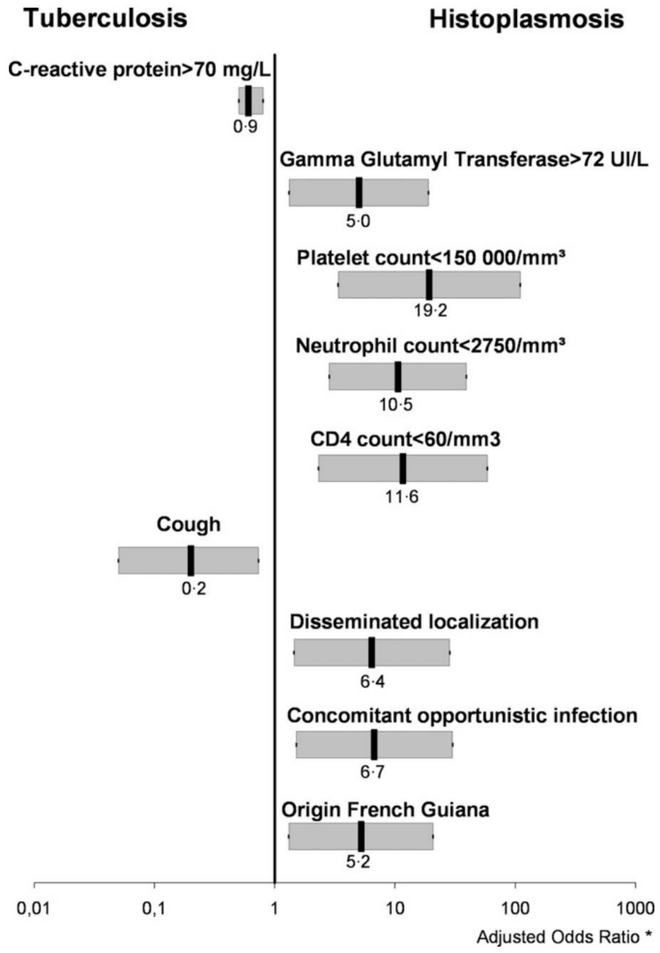
Histoplasmosis : biological aspects



Tuberculosis : biological aspects

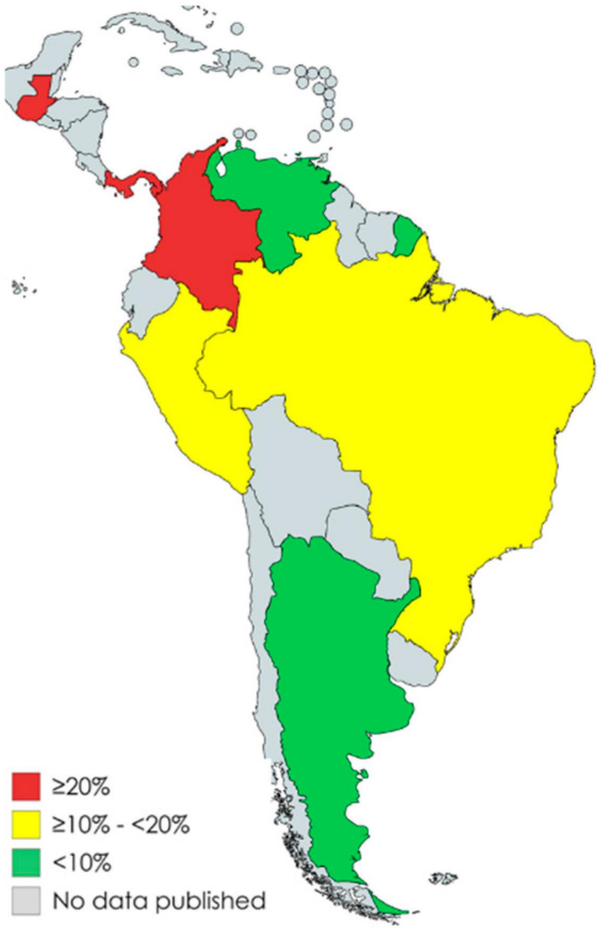


TB

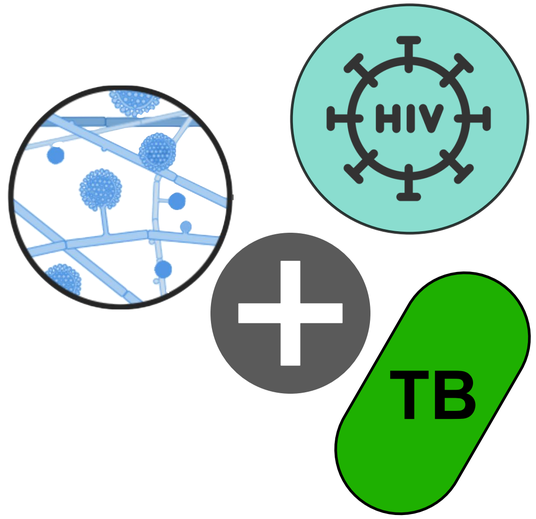


Adenis A et al, *Am. J. Trop. Med. Hyg* 2014

Histoplasma capsulatum var. capsulatum

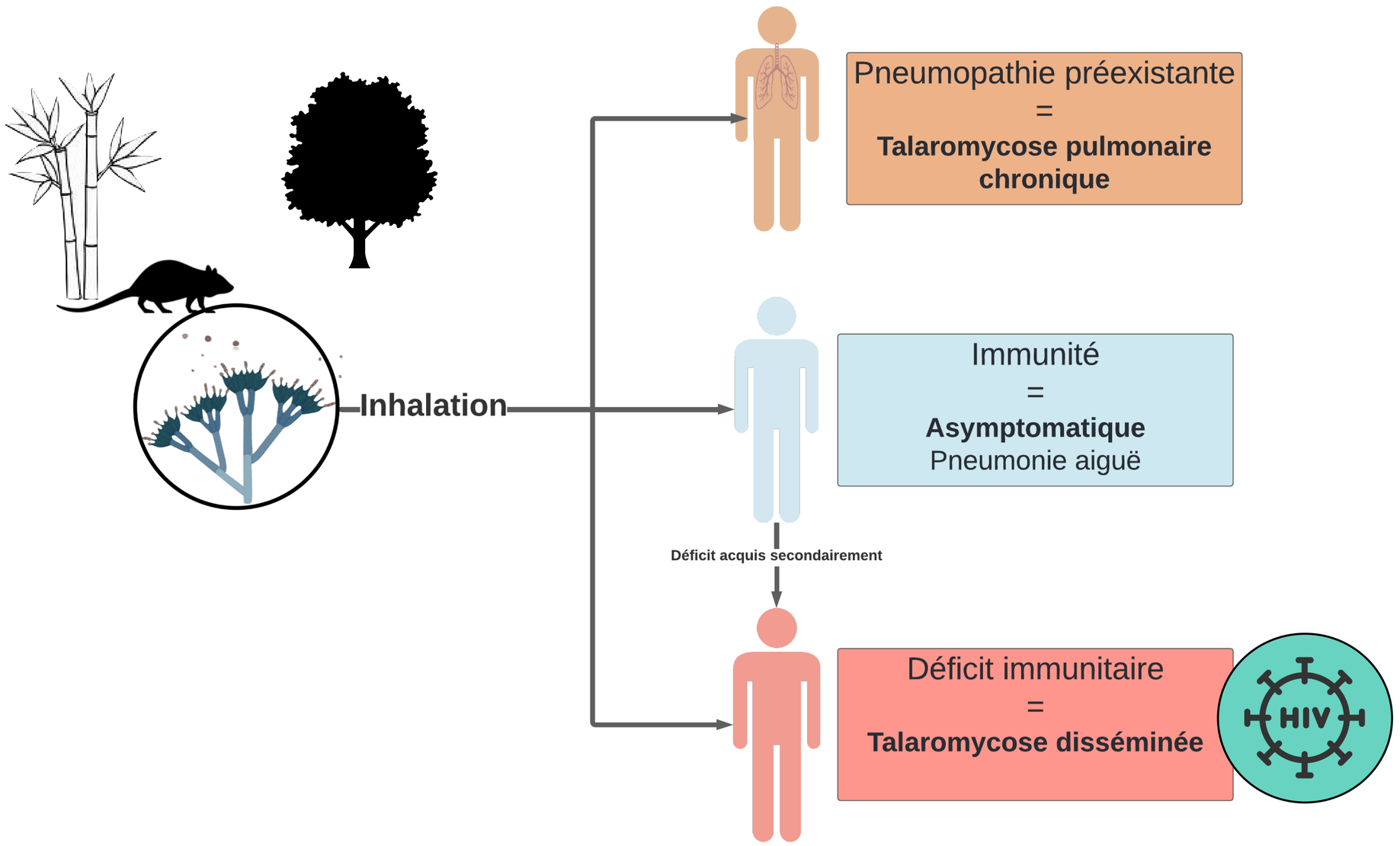


Reference	Study period	Country	% (# TB and # histoplasmosis)	Comments
López AG, et al [17]	2009–2014	Argentina	9% (16/171)	Histoplasmosis patients median CD4 T cell: 29 cells/mm^3
Boigues B, et al [18]	2011–2016	Brazil	26% (6/23)	Histoplasmosis patients median CD4 T cell: 19 cells/mm^3
Falci DR, et al [19]	2016–2018	Brazil	15% (19/123)	Multicenter study, 11 Brazilian cities.CD4 T cell: 39 cells/mm^3
Caceres DH, et al [20]	2008–2011	Colombia	35% (16/45)	Histoplasmosis patients median CD4 T cell: 30 cells/mm^3
Velásquez G, et al [25]	1998–2004	Colombia	16% (7/44)	Histoplasmosis patients median CD4 T cell: 30 cells/mm^3
Huber FN, et al [21]	1982–2007	French Guiana	8% (16/200)	Histoplasmosis patients median CD4 T cell: 63 cells/mm^3
Samayoa B, et al [22]	2005–2009	Guatemala	26% (26/101)	Histoplasmosis patients median CD4 T cell: 25 cells/mm^3
Caceres DH, et al [26]	2017	Panama	38% (18/48)	Diagnosed by *Histoplasma* antigen and lateral flow lipoarabinomannan assays
Pérez G, et al [23]	1996–2014	Peru	11% (3/23)	Histoplasmosis patients median CD4 T cell: 30 cells/mm^3
Mata SC, et al [24]	2000–2005	Venezuela	2% (1/53)	Histoplasmosis/TB co-occurrence including non-HIV patients was 5%



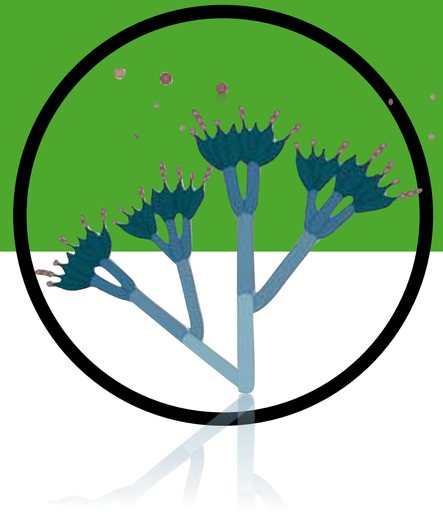
Caceres D & Valdes A, *J Fungi* 2019

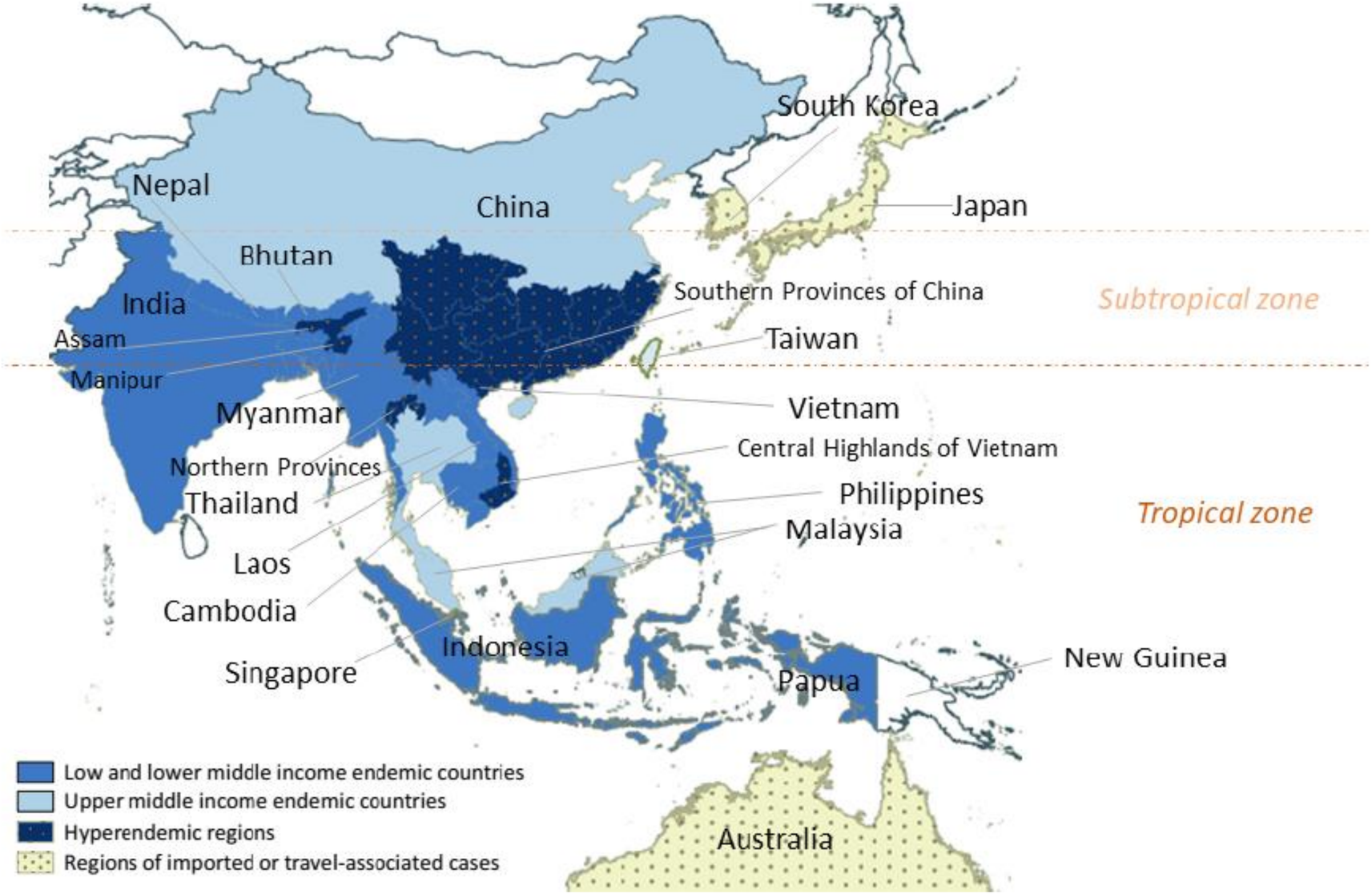
Talaromyces marnerffei Ex *Penicillium marnerffei*



Talaromyces marnerffei

Ex *Penicillium marnerffei*

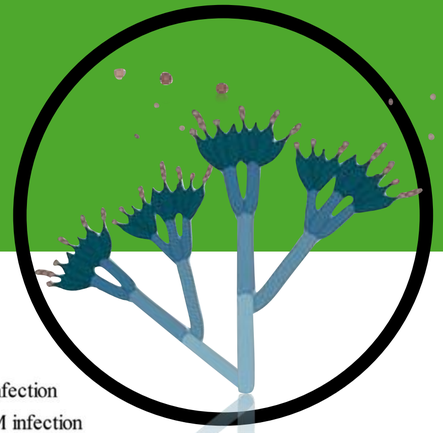




Narayanasamy, S. et al., *Lancet Glob Health* 2021

Talaromyces marnerffei

Ex *Penicillium marnerffei*



Ho Chi Minh ville

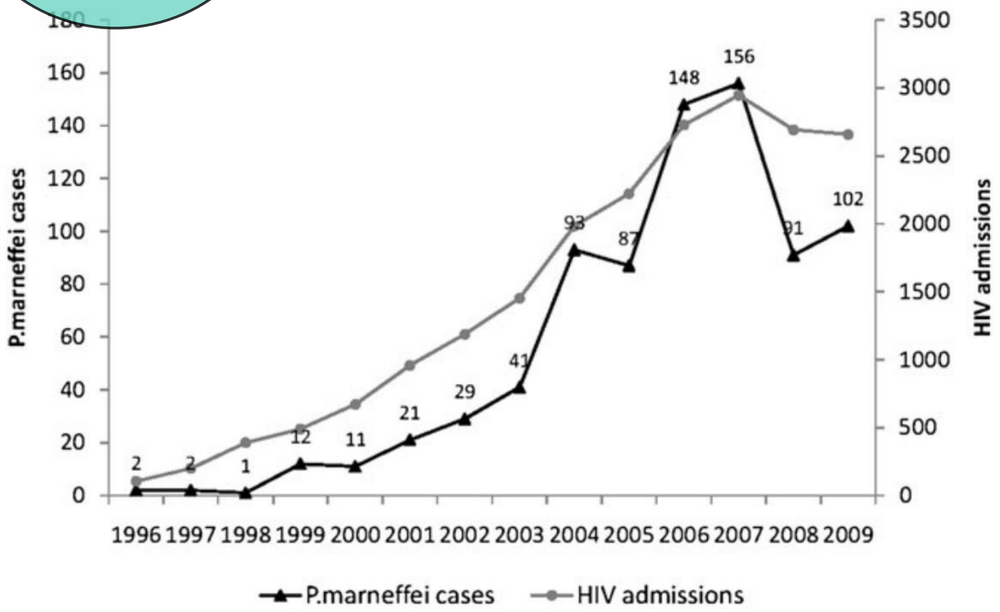
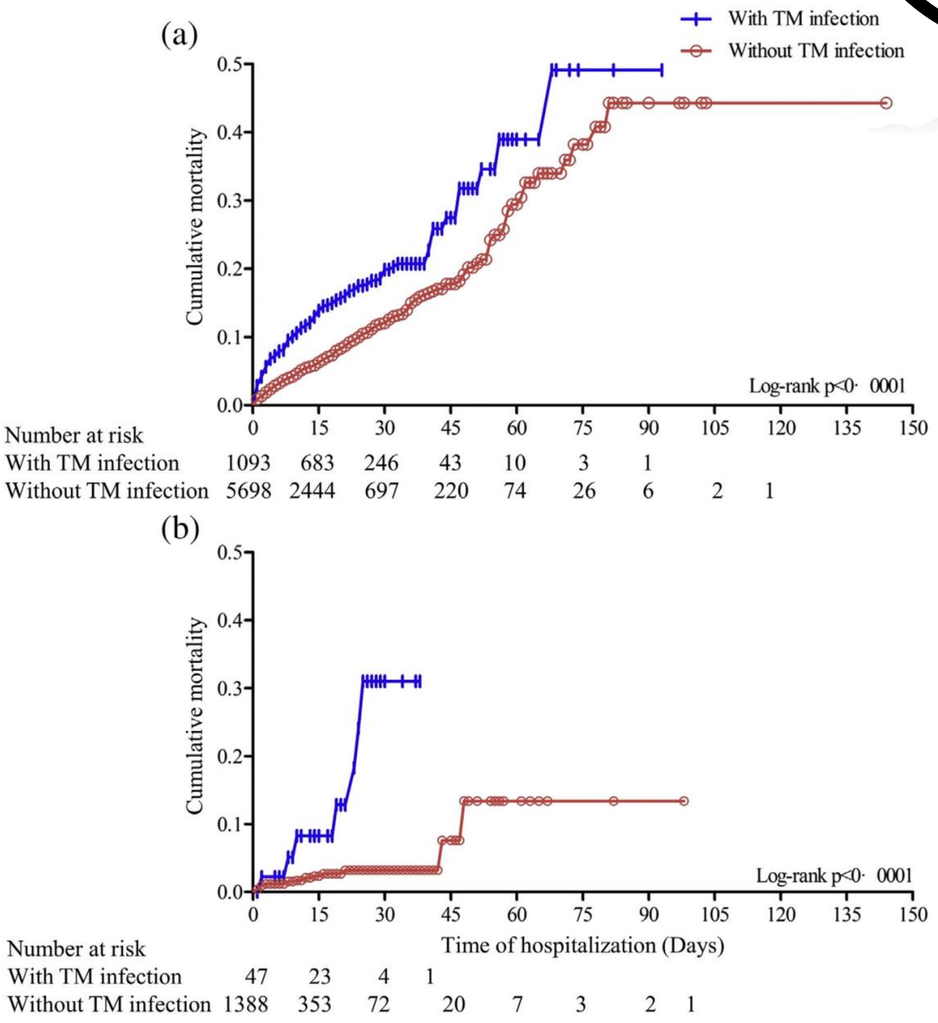


Figure 1. *P. marneffei* cases *(black line)* and AIDS admissions *(gray line)* at HTD during 1996–2009.

Tuy Le et al., *Clin Infect Dis* 2011

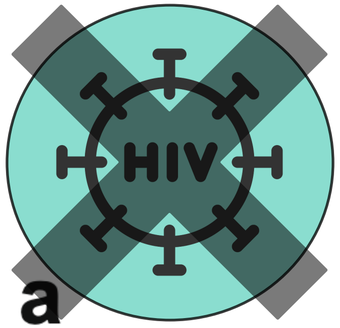
Nanning, Guangxi, Chine



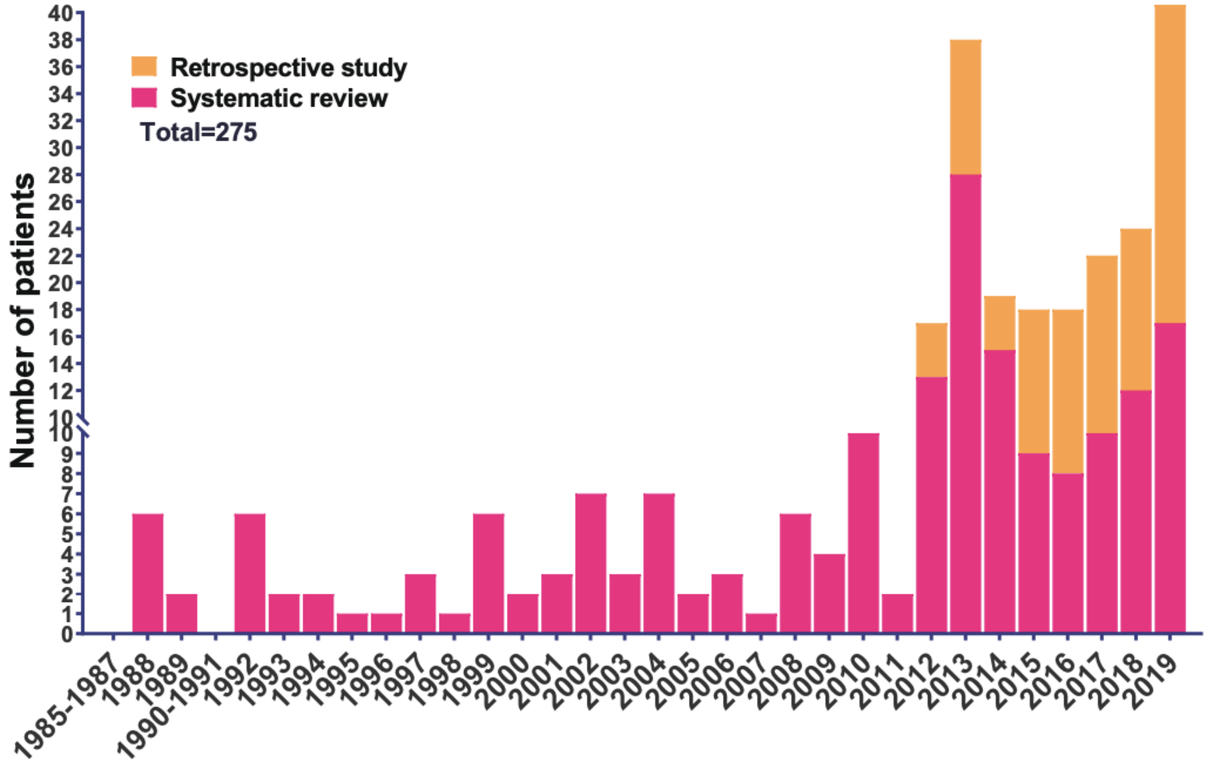
J Jiang et al. *Clin Microbiol Infect* 2019

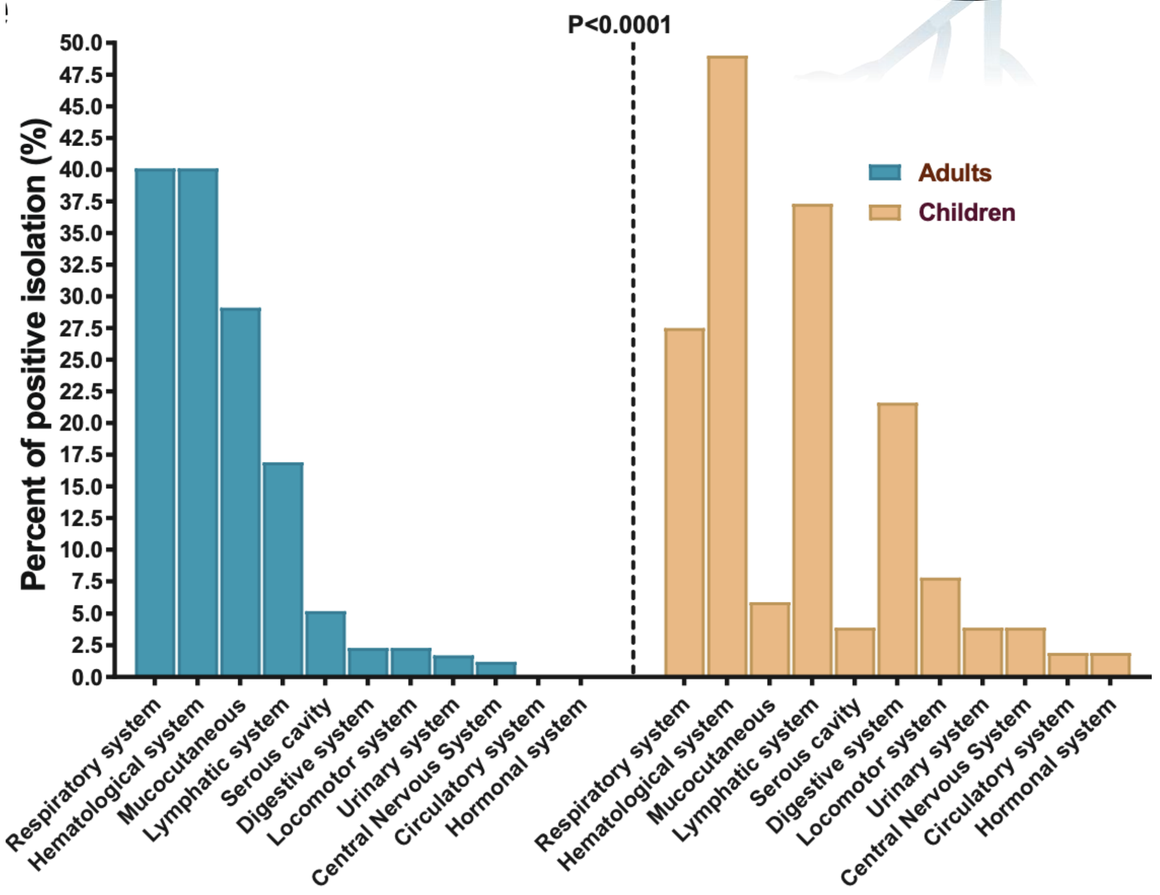
Talaromyces marnerffei

Ex *Penicillium marnerffei*



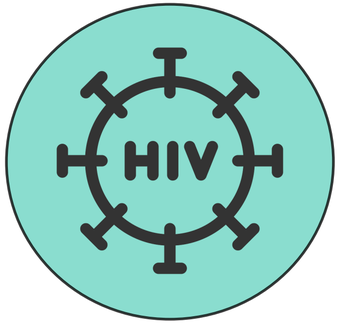
a





Ye Qiu et al., *J Clin Immunol* 2020

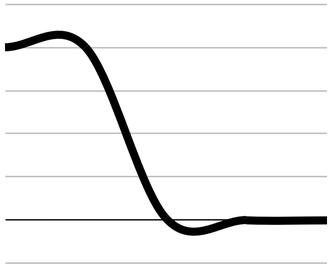
Le VIH et la Tuberculose au Cambodge



Prévalence : 76 000 [65 000 - 87 000] soit 0,5% [0.4 - 0.6]

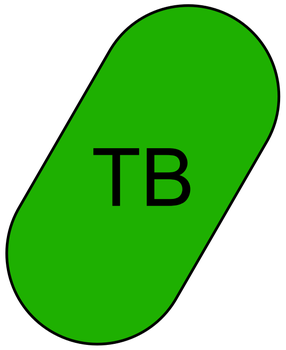
89
[76 - >98]

89
[76 - >98]



87
[75 - >98]

UNAIDS 2024



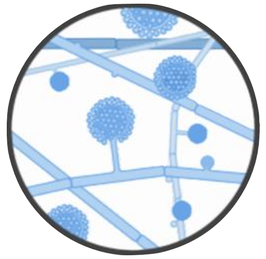
Incidence TB maladie : 302/100 000 hab

Global tuberculosis report 2018

Récemment sortie des « 30 high TB burden countries »

Global tuberculosis report 2024

L’histoplasmose et la Talaromycose au Cambodge



Données de prévalence : 0

2 premiers cas rapportés en 2005

Exposition guano

southeastasiaglobe 2018

Données de prévalence : 0

29 cas cas rapportés 2002-2004

Exposition rats du bambou

Cambodian farmer says raising rats for food has boosted his family’s income

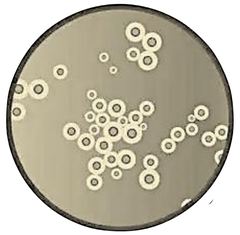
RFA Khmer 2023.09.17

Muy Chameroun has elevated his family’s standard of living – and wants to export rats.

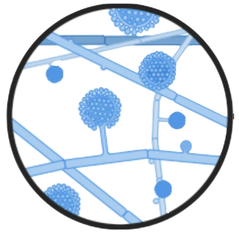
By RFA Khmer
2023.09.17

Diagnostic de l’histoplasmose et de la Talaromycose

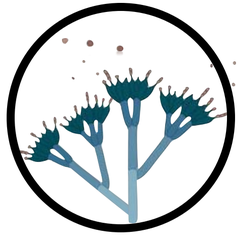
Dinato, Sandra Lopes Mattos et al. *Revista do Instituto de Medicina Tropical de Sao Paulo* 2006



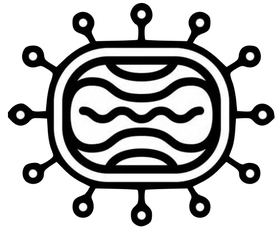
Patricia Chang et al. *Clinics in Dermatology* 2012



Zixiang Si et al., N Eng J Med 2017

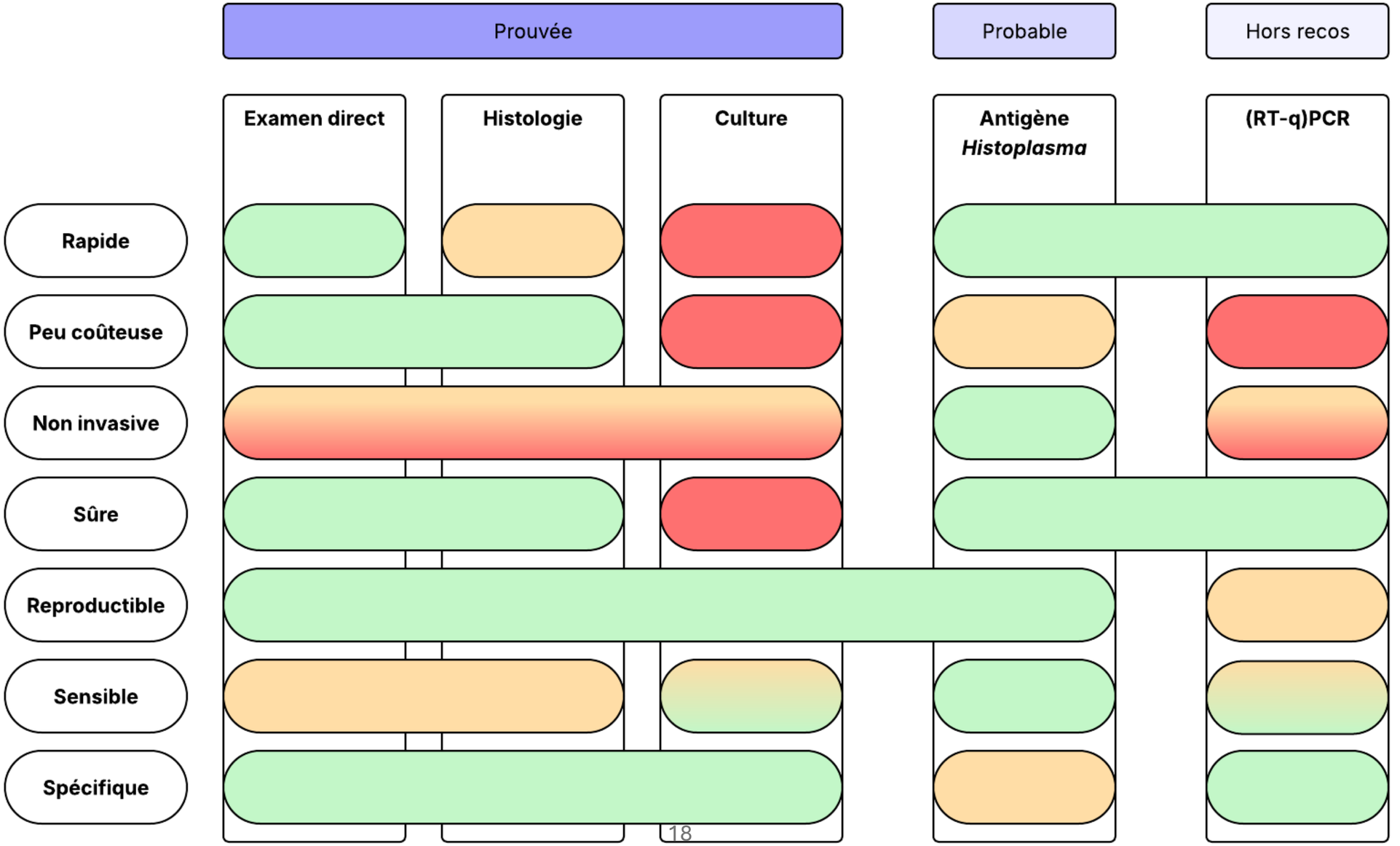


Vora RV et al., *J Clin Diagn Res* 2015

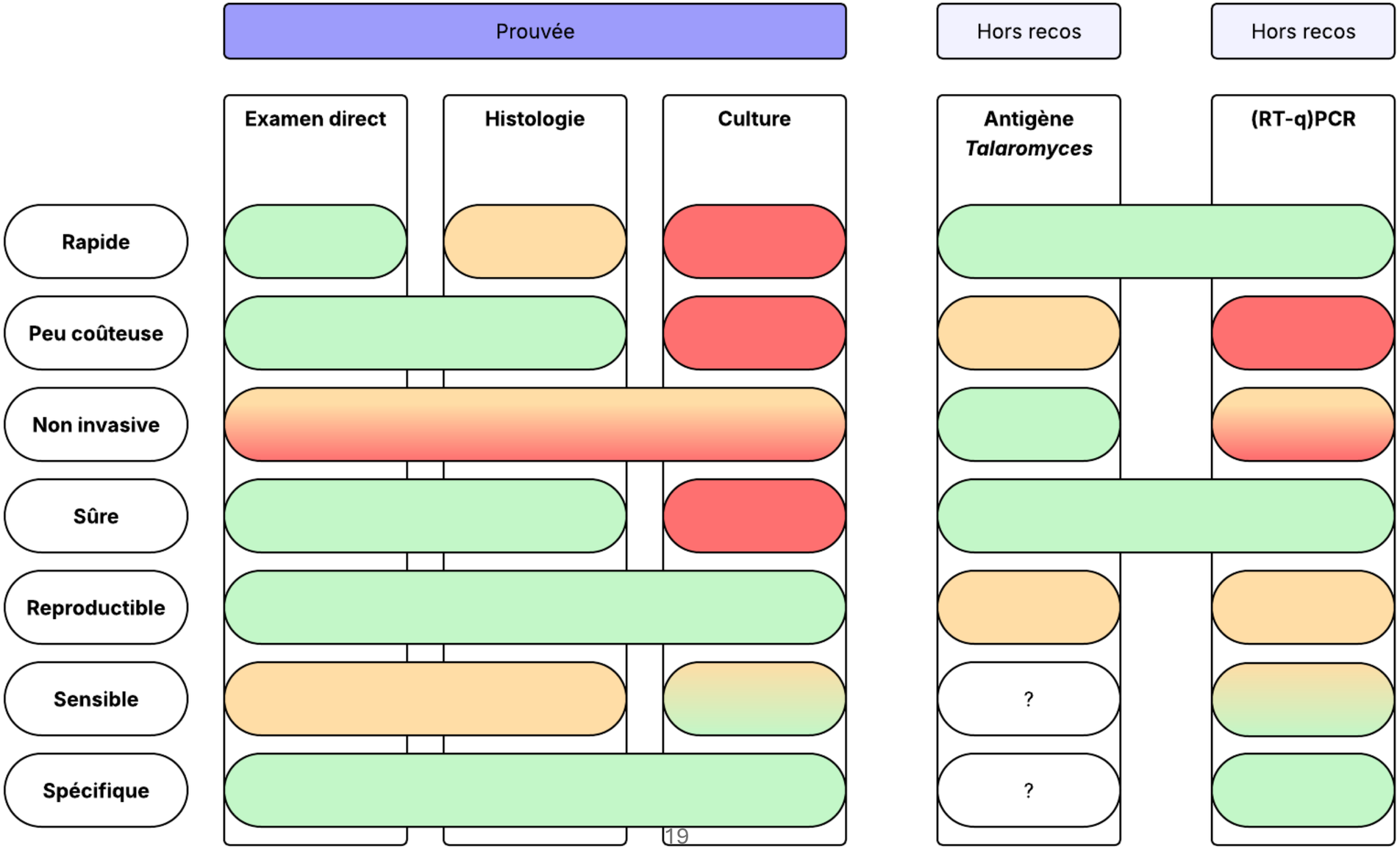


Molluscum Contagiosum

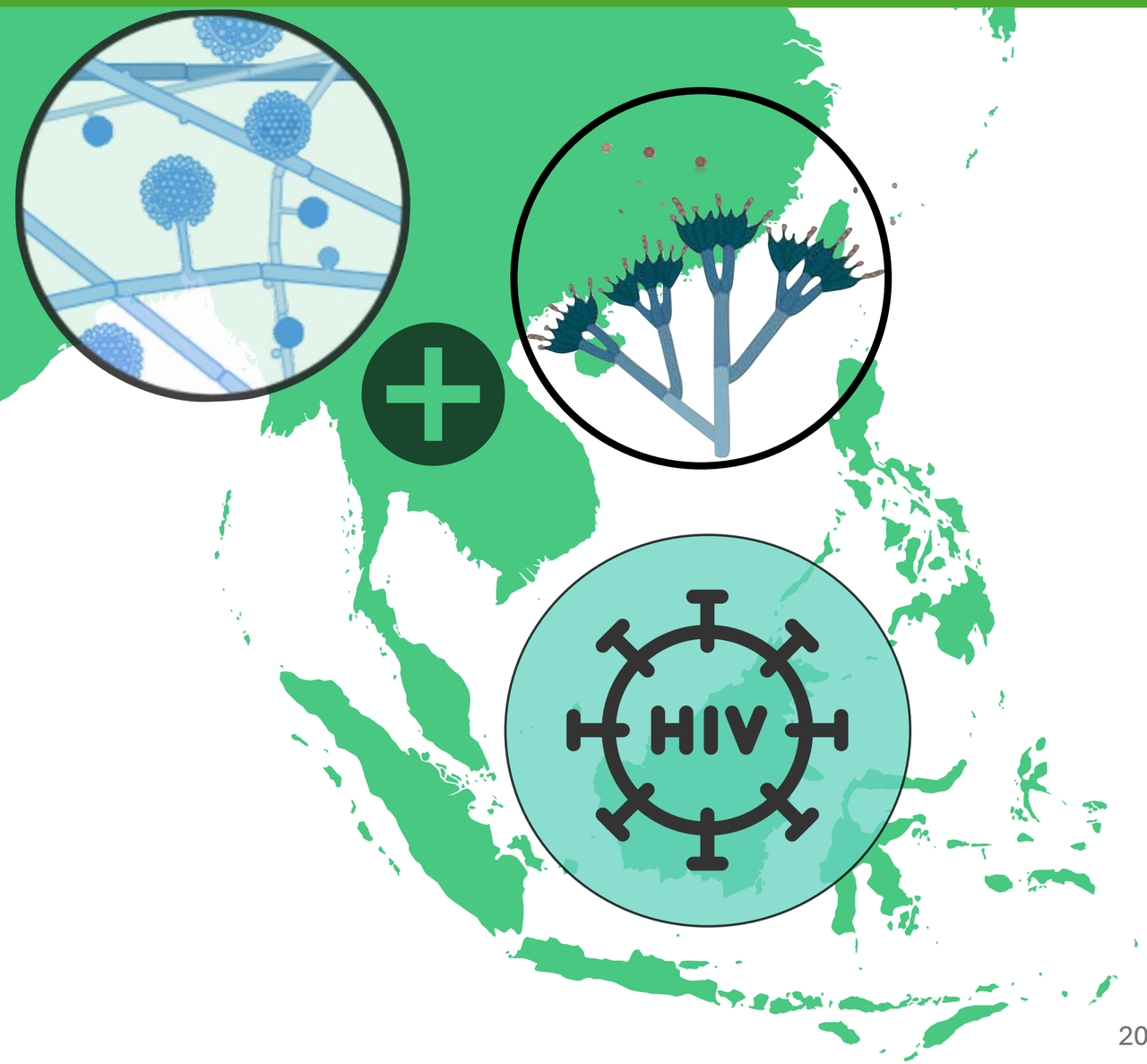
Méthodes diagnostiques *Histoplasma*

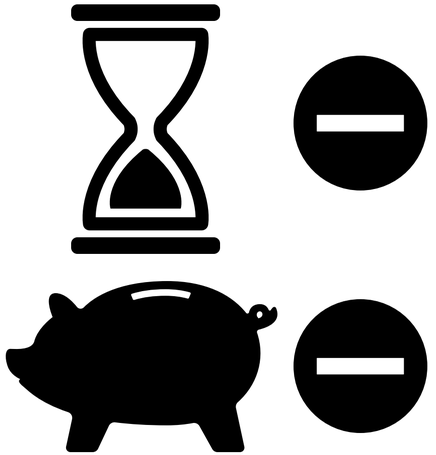


Méthodes diagnostiques *Talaromyces*



Projet FungiCAM





Projet FungiCAM

Ré-exploitation d'échantillons et de données

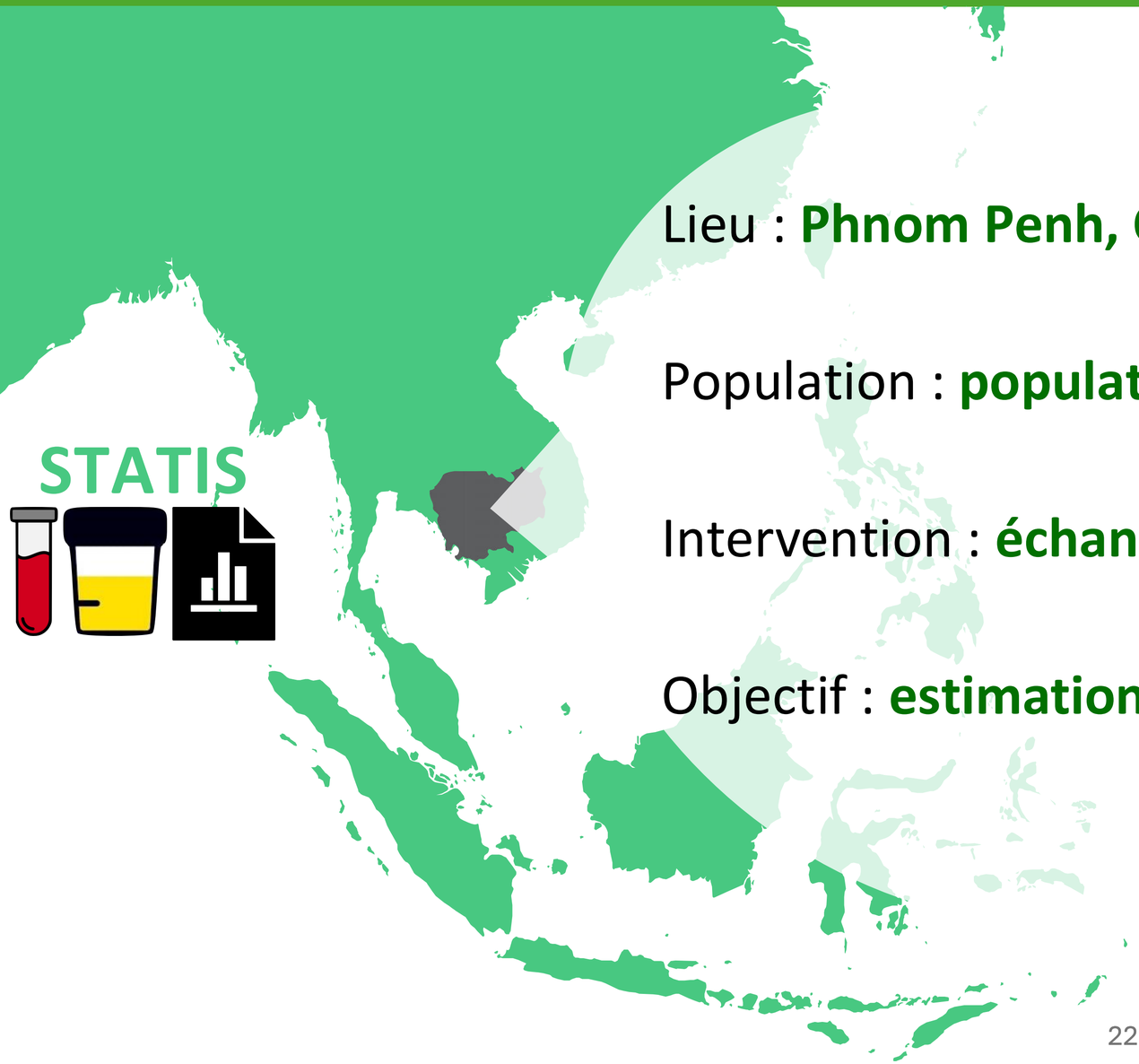
Lieu : **pays prévalence du VIH élevée**

Population : **PVVIH <100 CD4/µl**

Intervention : **tests antigéniques *Histoplasma et Talaromyces***

Objectif: **estimation de la prévalence**

FungiCAM : exploitation d'une biocollection



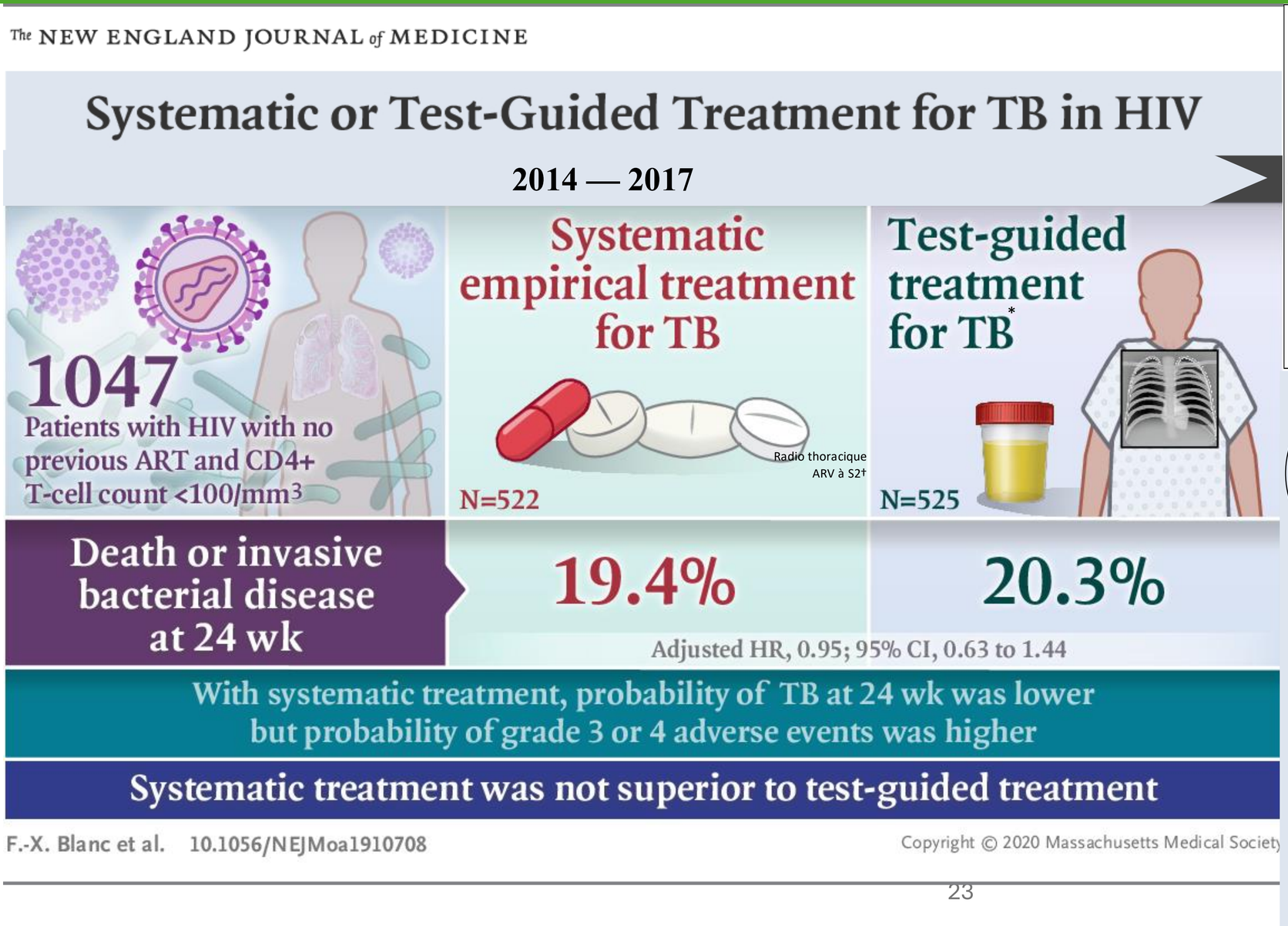
Lieu : **Phnom Penh, Cambodge**

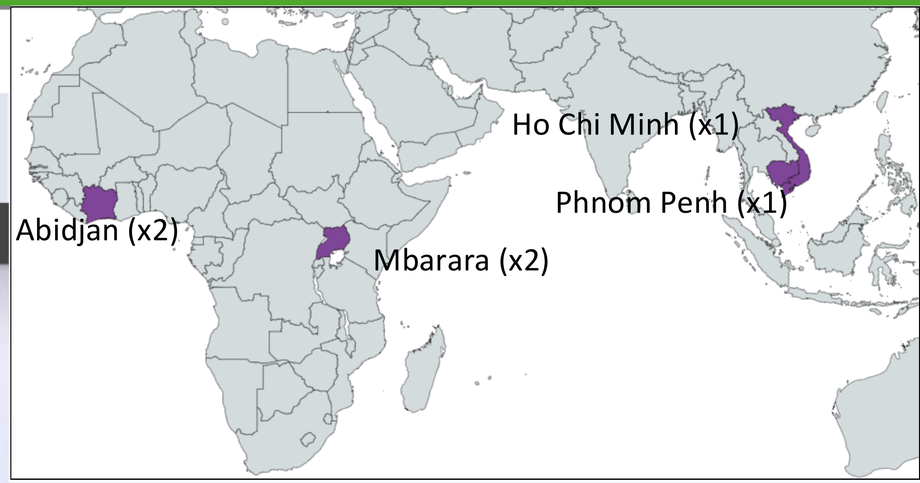
Population : **population de l'essai STATIS**

Intervention : **échantillons plasmatiques et urinaires conservés**

Objectif : **estimation de la prévalence**

FungiCAM : exploitation de la biocollection STATIS





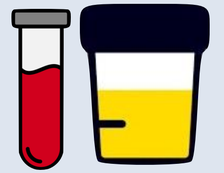
VIH

Nouvellement diagnostiqué

CD4 <100/µL

Ambulatoire

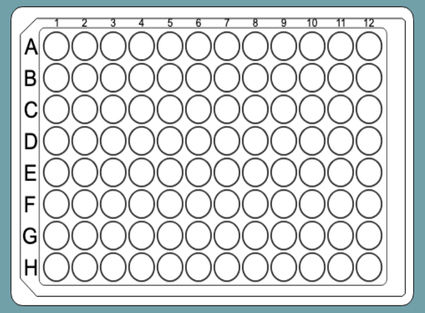
Urines/plasma inclusion conservées



FungiCAM : réalisation par les équipes locales

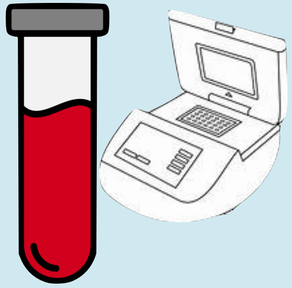
STATIS
Phnom Penh
Biological collection

Échantillons urinaires
n=193

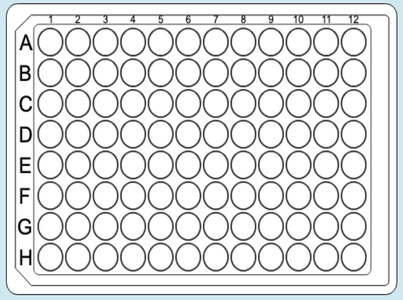


ELISA *Talaromyces*

RT-qPCR
Talaromyces



RT-qPCR
Histoplasma



ELISA *Histoplasma*
(IMMY)

Estimation Prévalence

% EIA +

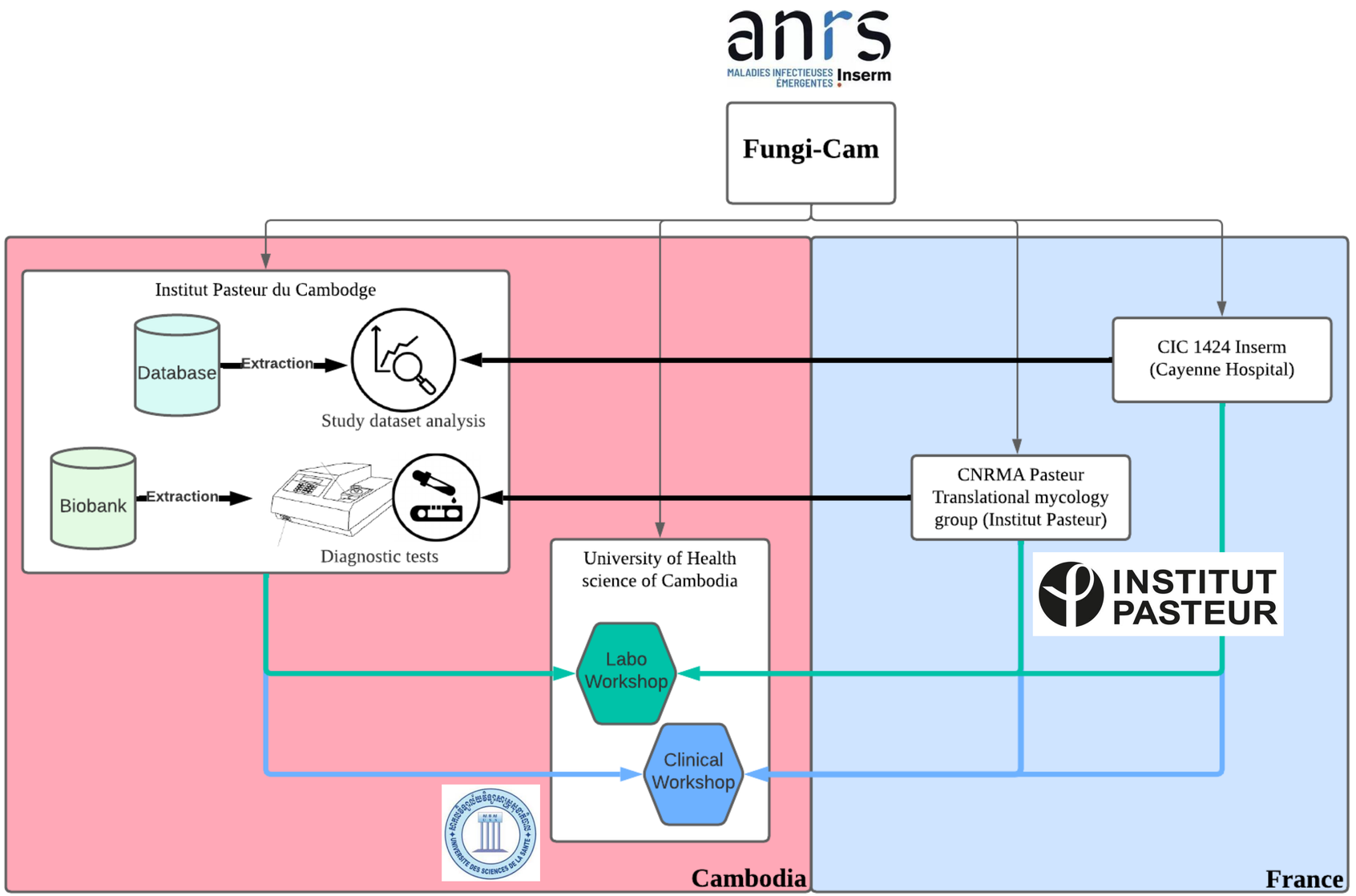
Coinfections

TB+Histo
+Talaro

Survie

S48

FungiCAM : une étude collaborative



FungiCAM : renforcement des capacités locales

-- FUNgi-Cam Lab training (IPC)

14th to 18th of October 2024, IPC

Institut Pasteur du Cambodge
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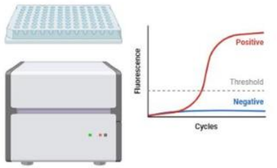
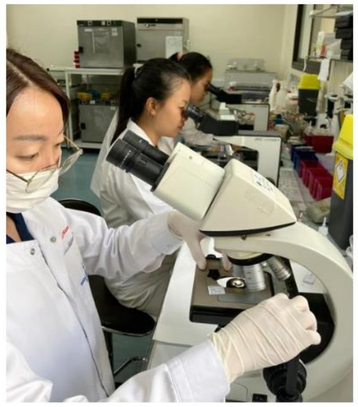
Antigen detection

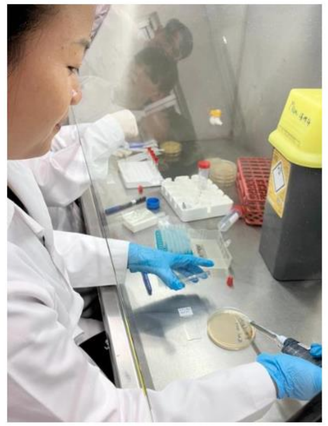
Clinical presentation Cn, Hcc, Tm

Molecular biology assays

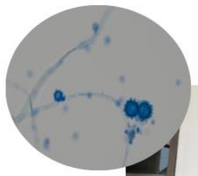




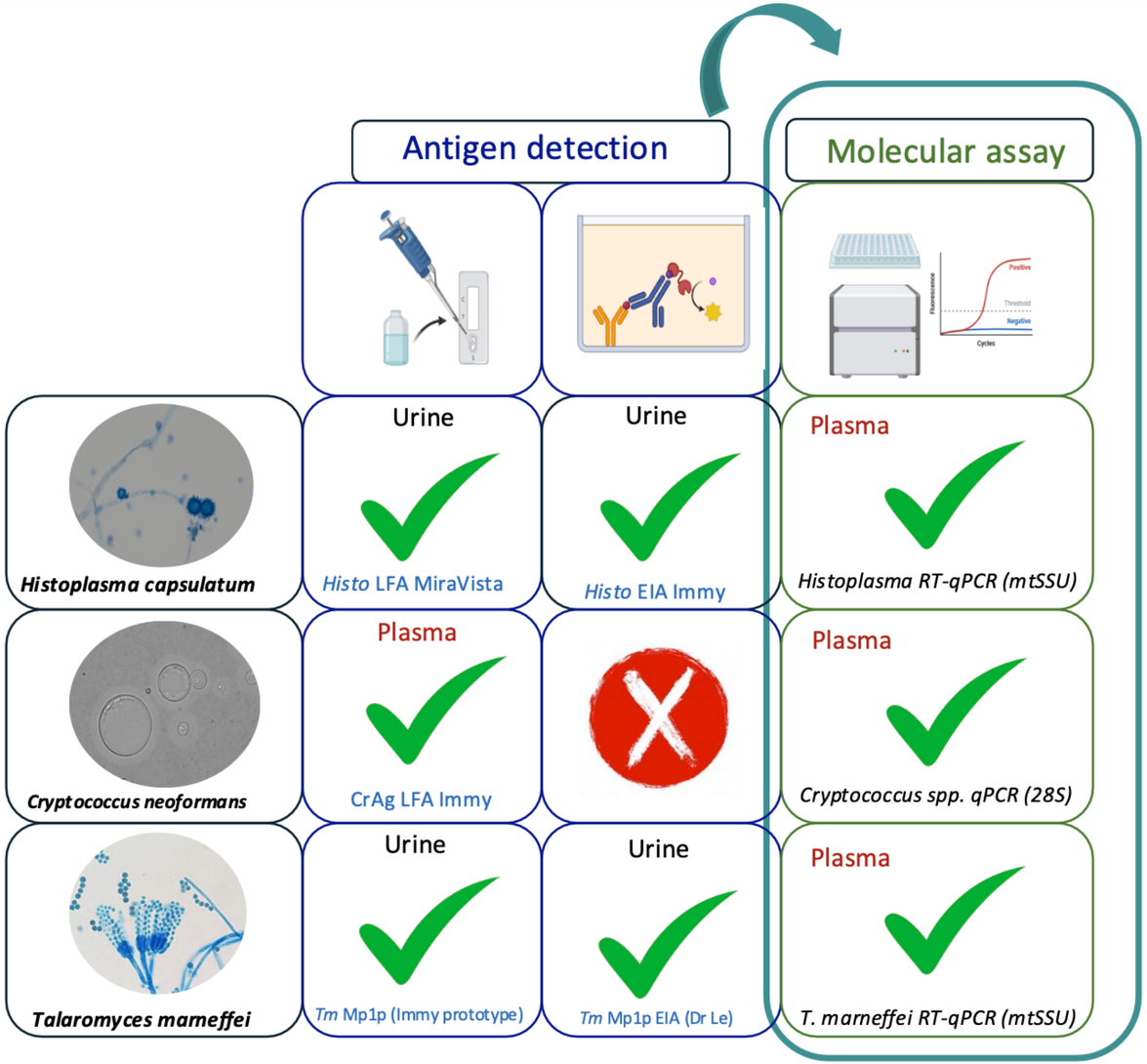
Direct examination



Fungal culture



FungiCAM : renforcement des capacités locales



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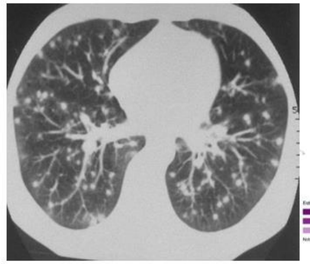
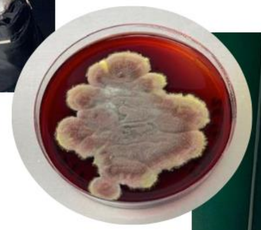
Raksmey Ung

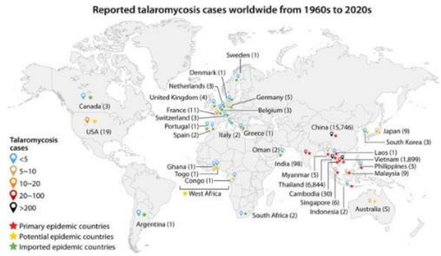
FungiCAM : renforcement des capacités locales

-- FUNgi-Cam clinical training (IPC)

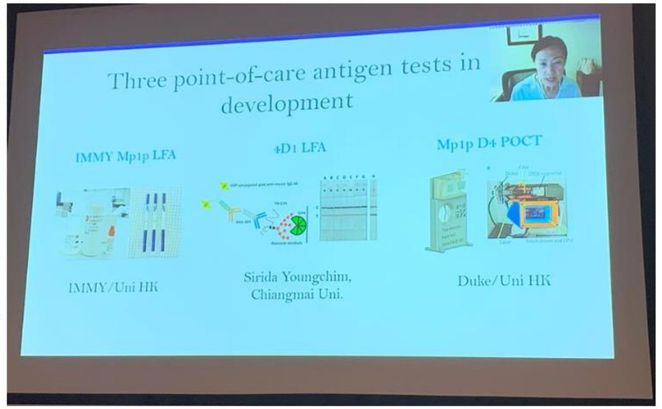
Phnom Penh:
NCHADS (National Center for HIV/AIDS Dermatology and STD
Institut Pasteur Cambodge (Centre médical)
Hôpital Calmette
Hôpital d'Amitié Khmero-Sovietique





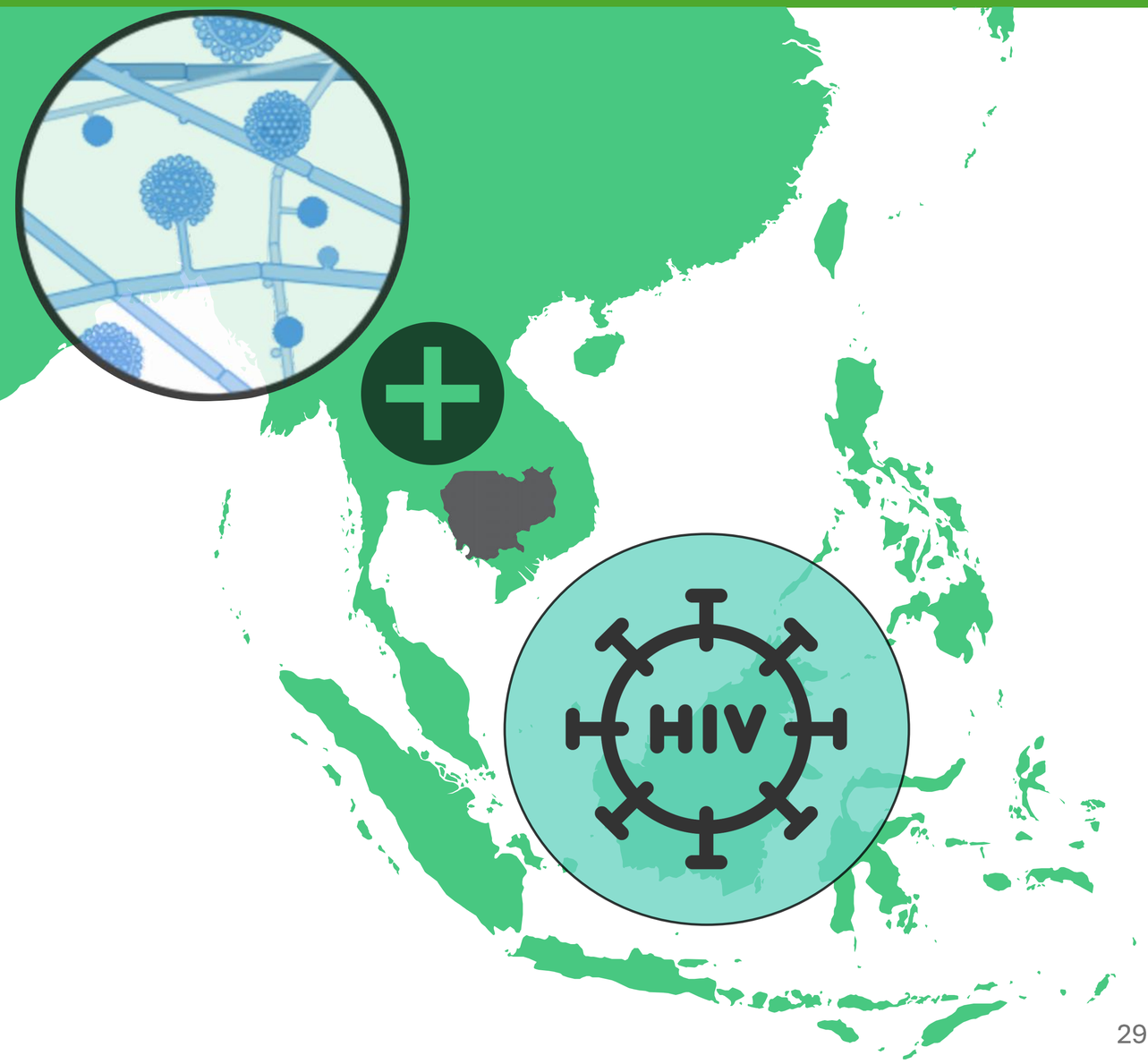


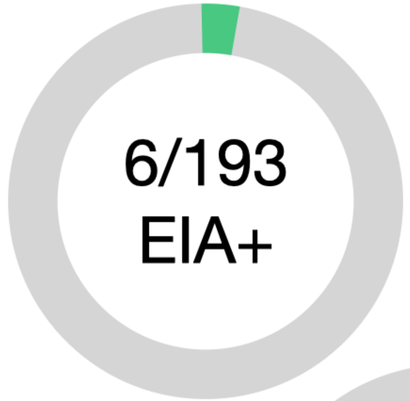
3 and 4 April 2025 Phnom Penh

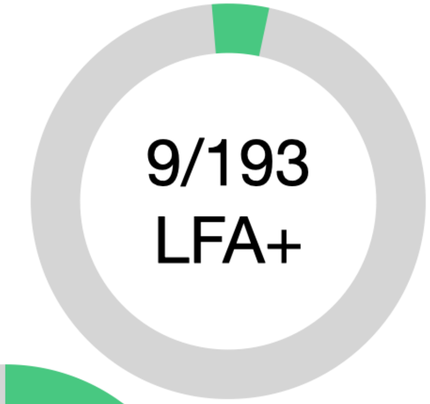


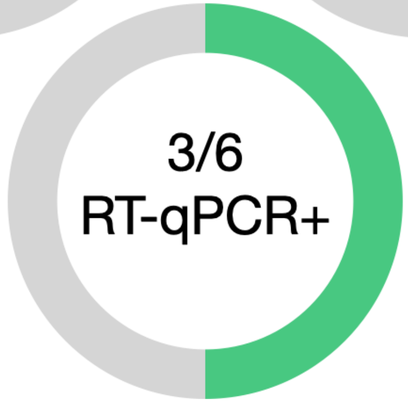
Dr Le in video

FungiCAM : 1° estimations des prévalences



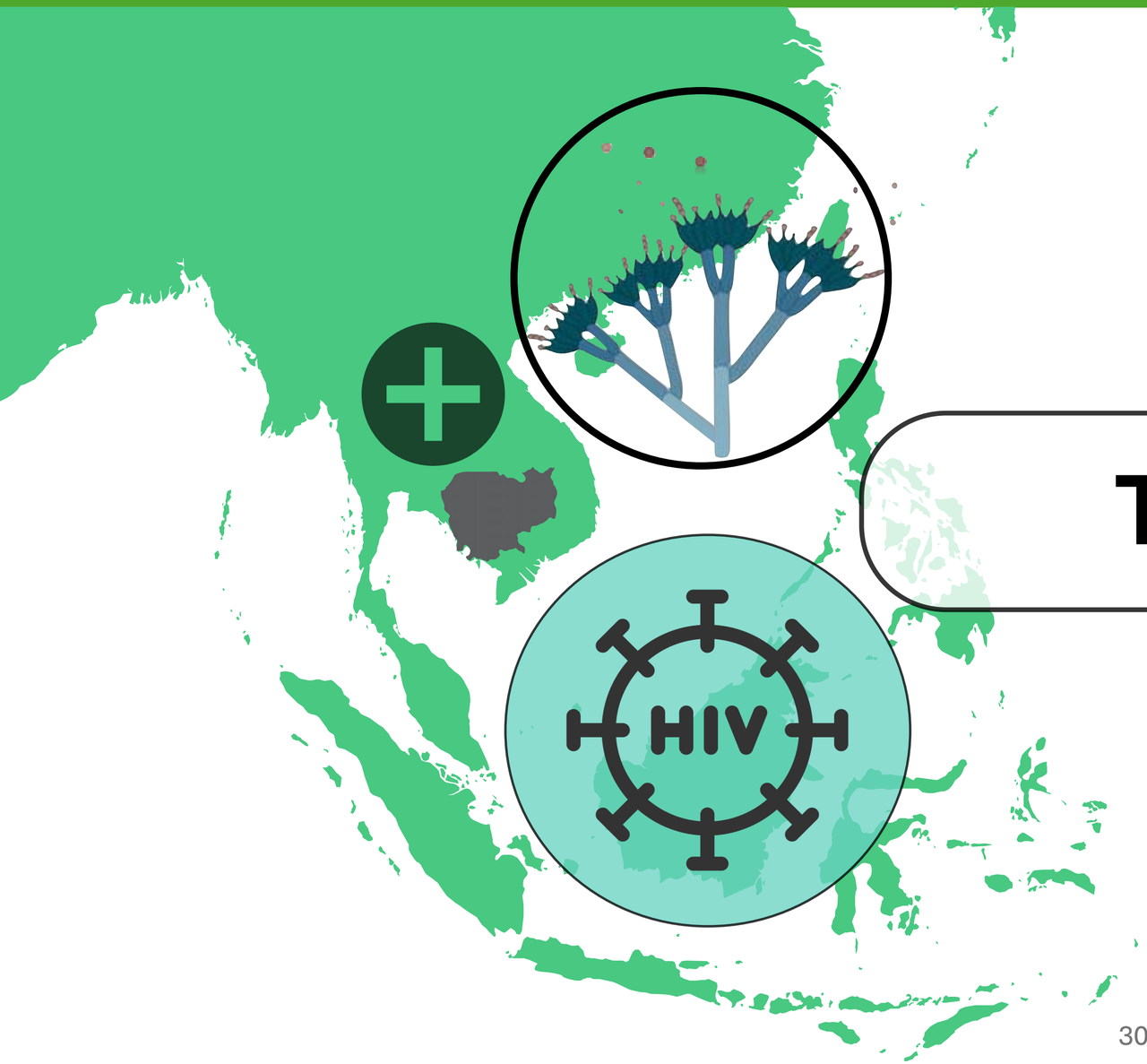






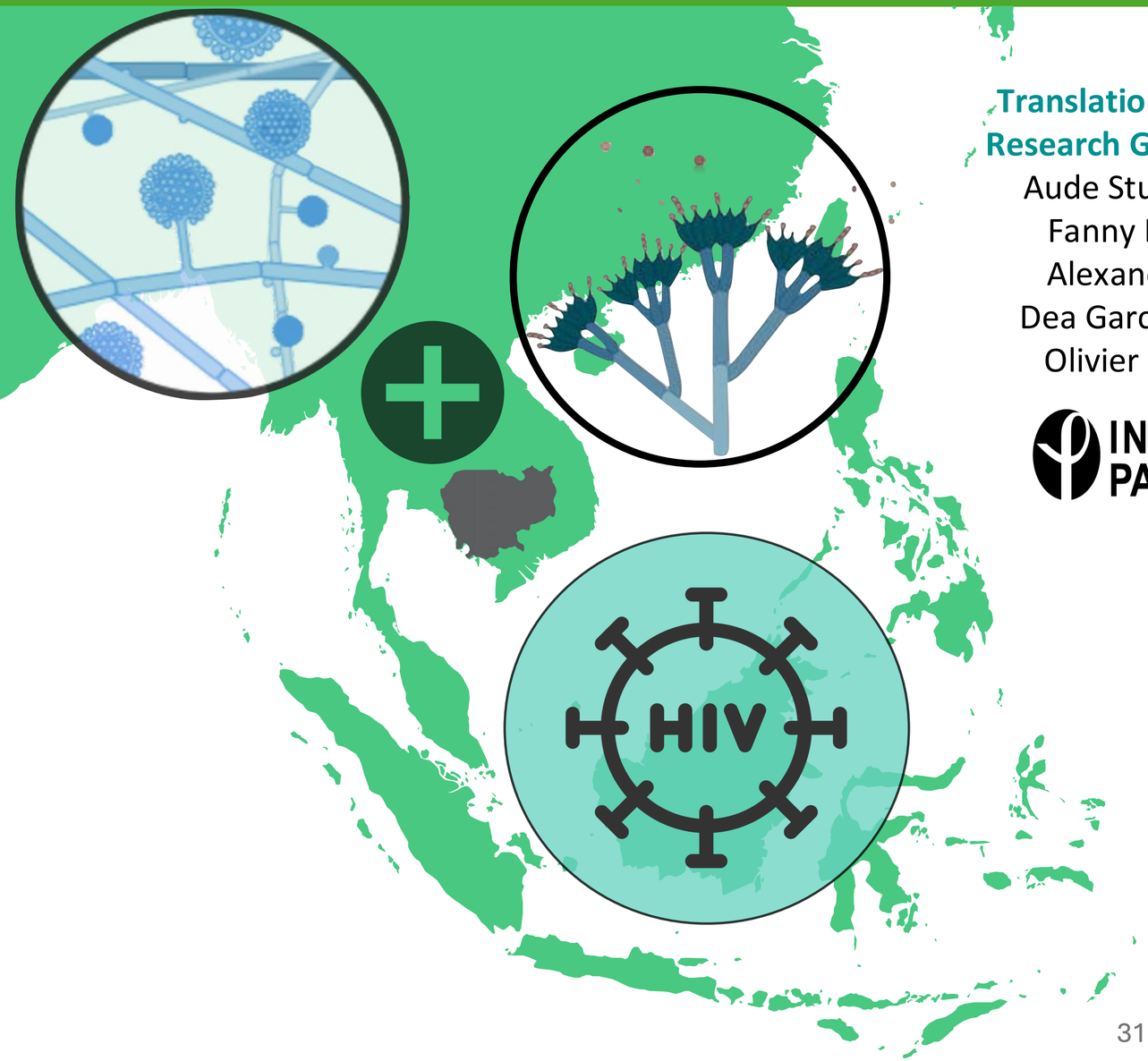
Il y en a !

FungiCAM : 1° estimations des prévalences



Tests prévus cet été

FungiCAM : remerciements



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