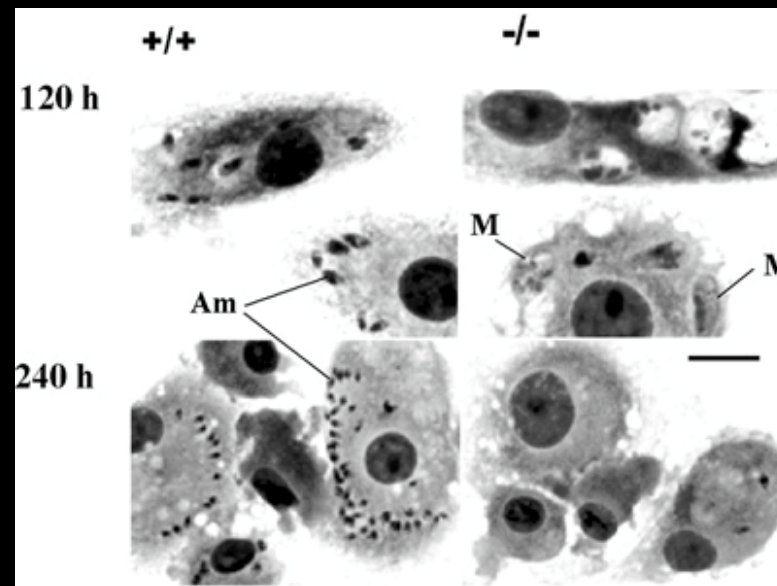




リーシュマニアワクチンの前臨床開発

リーシュマニア症の予防のための弱毒生ワクチン開発



- 長崎大学・熱帯医学研究所 寄生虫学分野 濱野真二郎
- 米国オハイオ州立大学(オハイオ州・コロンバス)
- カナダ・マギル大学 (ケベック州・モントリオール)

オンコセルカ症

熱帯医学研究所・寄生虫学分野

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出典: <http://www.rstmh.elsevier.com>

River Blindness, Onchocerciasis



写真提供：
吉田定信医師

River Blindness, Onchocerciasis

Neglected Tropical Diseases (NTDs)

顧みられない病気、見捨てられた病気
= 顧みられない人々が罹患している病気

写真提供:
多田功九州大学名誉教授

NTDs が生む悪循環

不十分な衛生設備
不衛生な居住環境
— 不衛生な水
— 様々な疾患の媒介動物に囲まれた環境

後遺症
機能的障害
働き手の不足

NTD

貧困

生産性の低下

顧みられない病気とは？

Neglected Tropical Diseases

NTDs disproportionately affect poor and marginalized populations

	Diseases	Tool against diseases	Vector Borne Disease
1	デング熱		○
2	狂犬病	○	
3	ハンセン氏病	○	
4	ブルーリ潰瘍 (Mycobacterium Ulcerans による皮膚潰瘍)		
5	シャーガス病		○
6	アフリカトリパノソーマ症		○
7	リーシュマニア症		○
8	メジナ虫症	○	○
9	リンパ系フィラリア症	○	○
10	オンコセルカ症	○	○
11	土壌媒介性蠕虫症	○	
12	肝蛭症	○	○
13	住血吸虫症	○	○
14	有鉤囊虫症		○
15	エキノコッカス(包虫症)		○
16	トラコーマ (クラミジアによる急性および慢性角結膜炎)	○	
17	イチゴ腫 (Yaws、熱帯性非性病性スピロヘータ症)	○	

NTDs として 17 疾患が挙げられている。多くの NTDs にはベクターや中間宿主が存在する。



疾病の理解

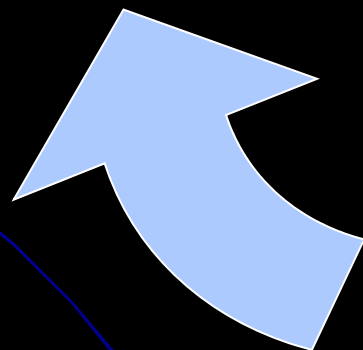
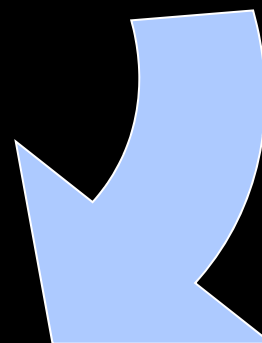
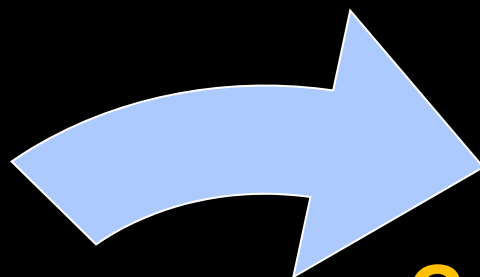
病原体
媒介動物を含む環境
診断・治療
ワクチン

**Science
(Evidence Based)**

**Government
(Policy Making)**

**Community
(Operation)**

地域活動・健康教育
疾病コントロールの実際





Trademark

MECTIZAN*
(IVERMECTIN MSD)

IS FREE, SAFE
AND EFFECTIVE,
TAKE AS DIRECTED,
TREATMENT A YEAR
ONLY ONCE



The 2015 Nobel Prize in Physiology or Medicine

Avermectin and Ivermectin



RIVER BLINDNESS: A BATTLE FOUGHT AND WON

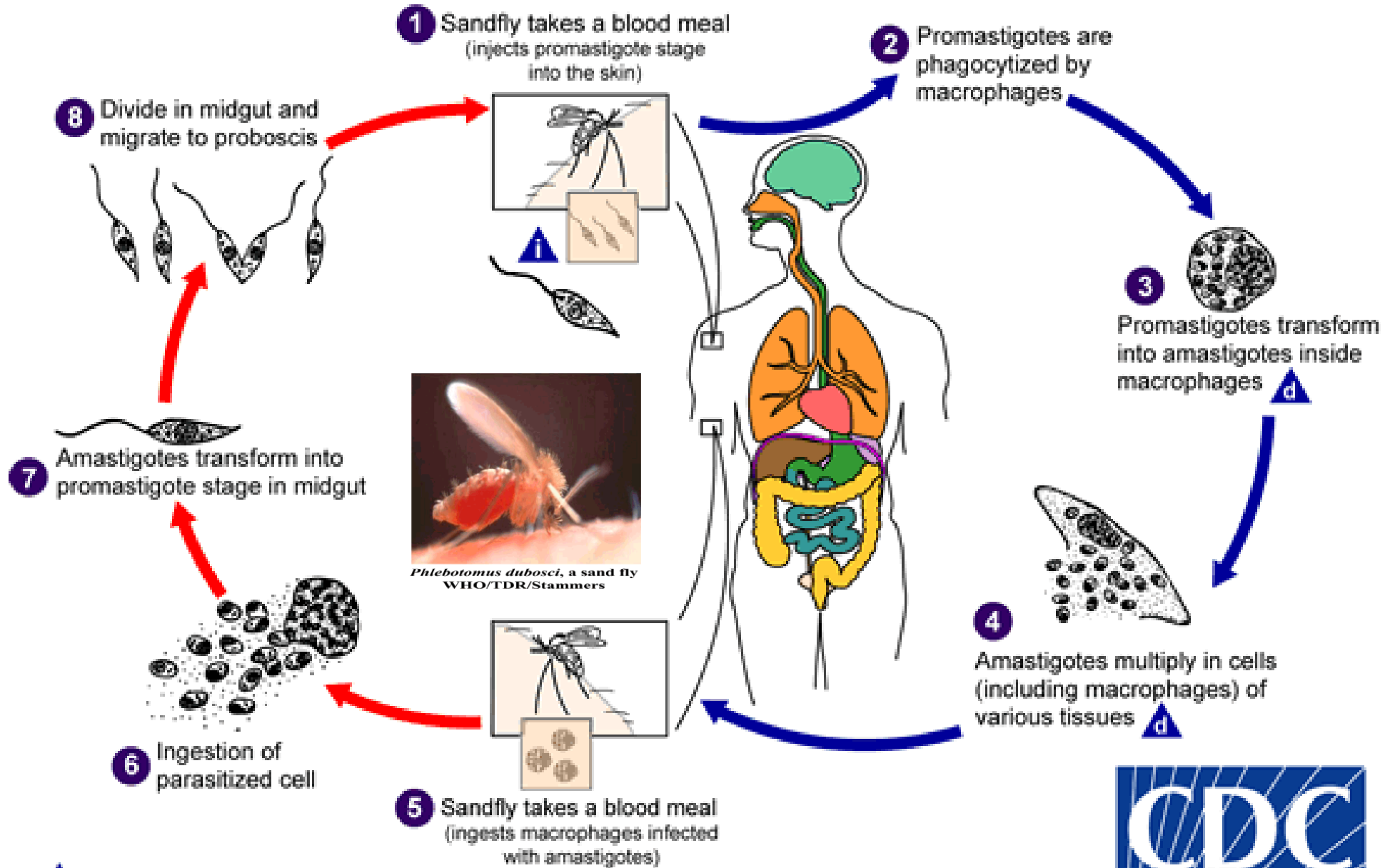


On this page—before onchocerciasis was controlled—the blackfly pest drove villagers away from the fertile and well-watered lands bordering the West African rivers. A high proportion of them were blind. Scratching a living on the edge of the desert, far from the life-giving water, people were despondent and without faith in the future. Then the OCP helicopters, spraying larvicide to kill the blackfly, and the distinctive trucks of the back-up teams moved in. Facing page—after ten years of the control programme—people are able to resettle on the river banks. New crops and market gardens have sprung up, and the villagers are vibrant with hope. Over three million children born in the area are no longer threatened by blindness, and almost everywhere transmission of the disease has been stopped.

写真提供: 新华社

Sandfly Stages

Human Stages



i = Infective Stage

d = Diagnostic Stage

sand fly サシチョウバエ



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<http://www.dpd.cdc.gov/dpdx>

Leishmaniasis

リーシュマニア症

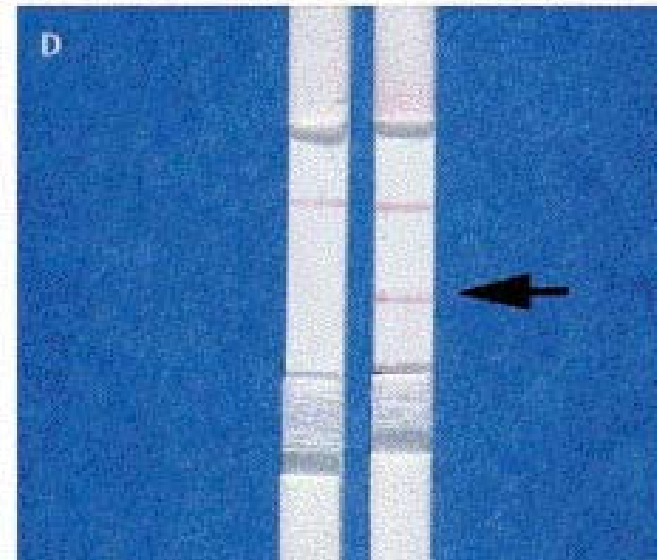
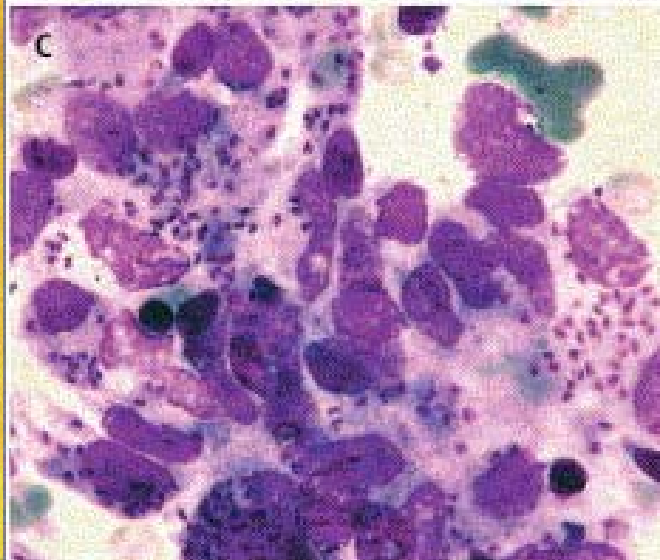
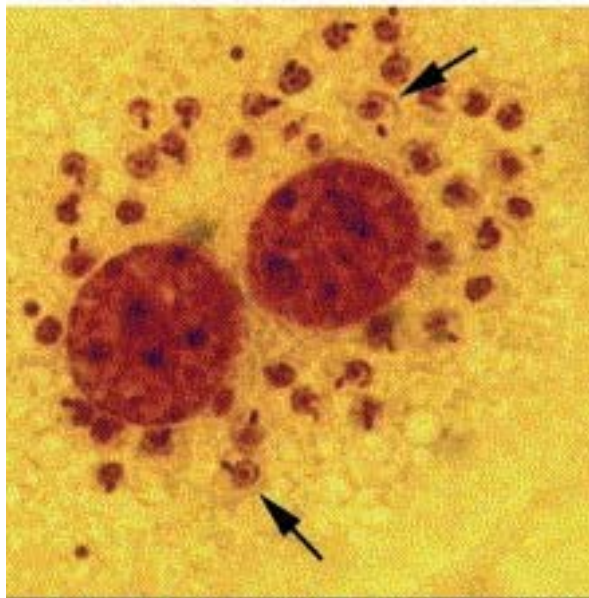
visceral leishmaniasis
内臓リーシュマニア症

Leishmania donovan

(muco) cutaneous
leishmaniasis

L. braziliensis, L. mexicana

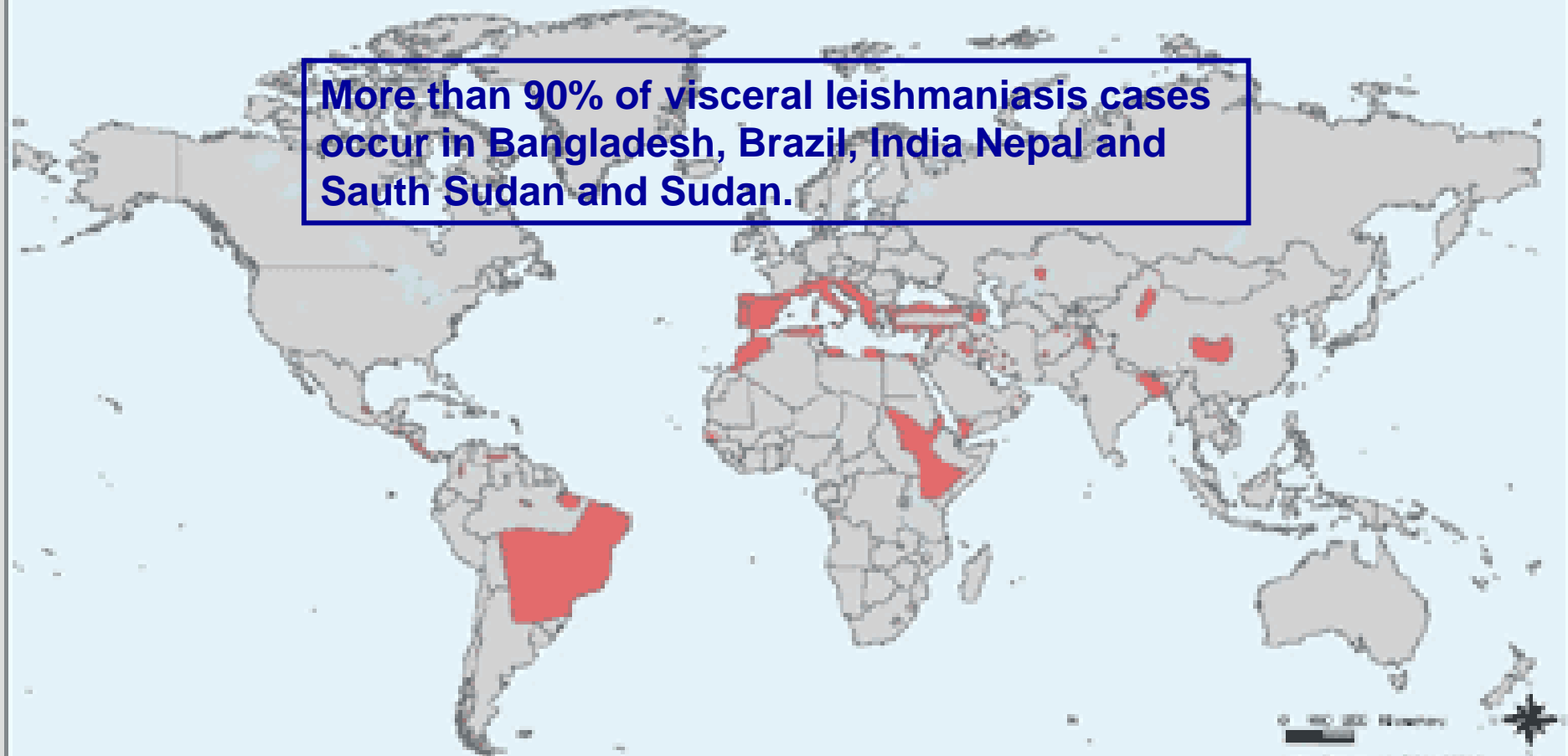
Visceral Leishmaniasis



Visceral Leishmaniasis

Distribution of Old World and New World Visceral Leishmaniasis

More than 90% of visceral leishmaniasis cases occur in Bangladesh, Brazil, India Nepal and South Sudan and Sudan.



Endemic areas



The presentation of national borders, maps, and other geographical information is not intended to imply the endorsement of any specific jurisdiction as the part of the World Health Organization concerning the legal status of any country, territory, city or other area or its authorities, or concerning the delimitation of its frontiers or boundaries.

© WHO 2004
Scale: 1:100,000,000
Map Production:
Baker Hughes Mapping Group
Cartographic Division (2004)
World Map in English from
© World Health Organization, page 1, 2004

(Muco) cutaneous Leishmaniasis

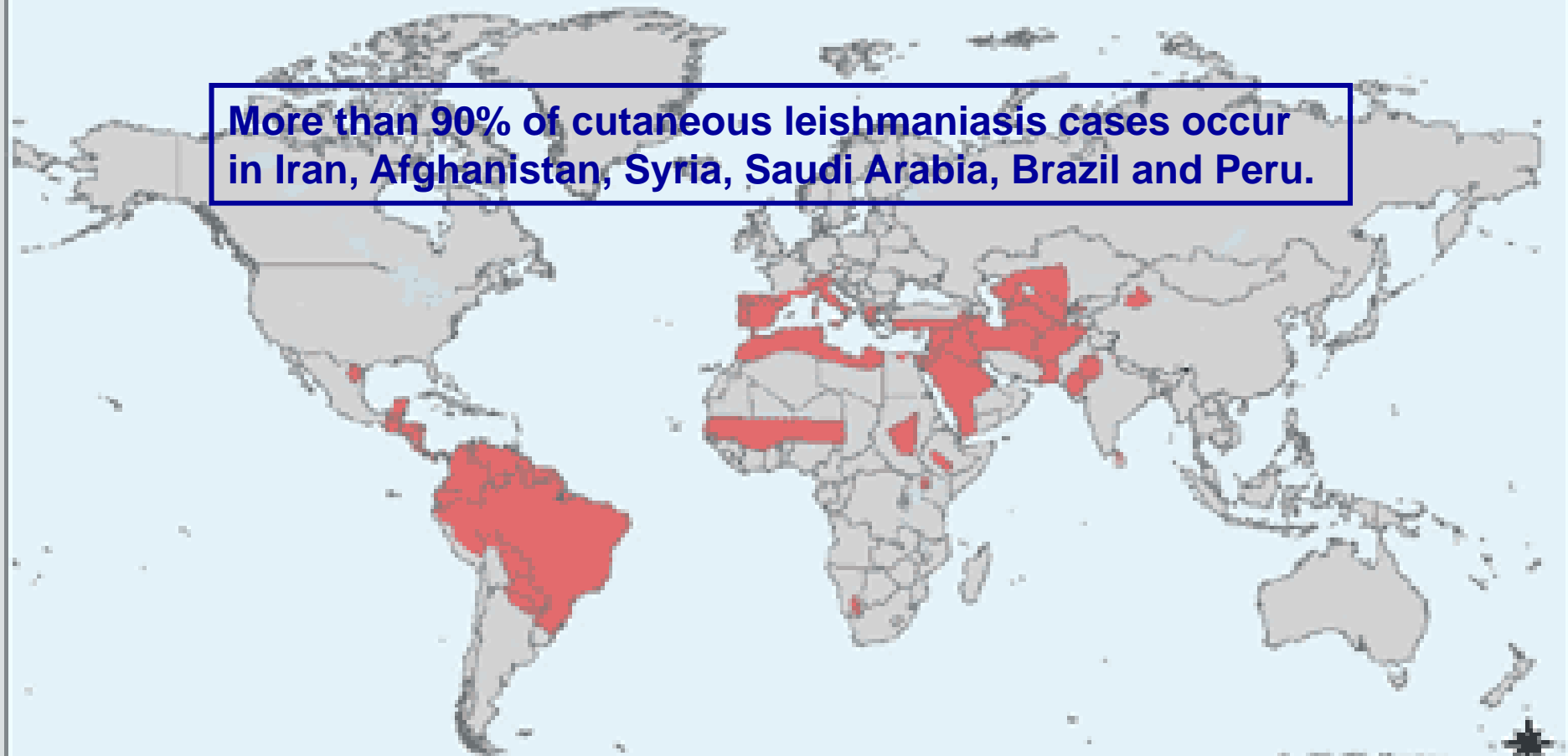


写真:
図説 人体寄生虫学 より

Cutaneous Leishmaniasis

Distribution of Old World and New World Cutaneous Leishmaniasis

More than 90% of cutaneous leishmaniasis cases occur in Iran, Afghanistan, Syria, Saudi Arabia, Brazil and Peru.



Endemic areas



The presentation of national borders does not imply the recognition of any specific jurisdiction as the part of the World Health Organization concerning the legal status of any country, territory, city or state or its authorities, or concerning the delimitation of its frontiers or boundaries.

0 100 200 Kilometers
Scale: 1:100,000,000
Map Production:
Baker Hughes Mapping Group
Contract with WHO: 2005
World Health Organization
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The Life Cycle of *Leishmania* spp., the Causal Agents of Leishmaniasis

