

# INFECTIOUS DISEASES IN THE PACIFIC

*Persistence, emergence and re-emergence.*

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***Progress can be measured by how far a man can travel in a day***

1872 Measles outbreak in South Africa  
1873-4 Measles outbreak in Mauritius  
1874 Measles outbreak in Australia

30 September 1874 King Cakobau signs Fiji Deed of Cession.  
December 1874 King Cakobau and family are guests of Sir Hercules  
Robinson, Governor of New South Wales, in Sydney.  
21 December 1874 King Cakobau and family leave for Fiji.  
Kings Chaplain and son develop measles on the  
return voyage. Quarantined during the voyage.  
12 January 1875 Royal party met by local dignitaries on arrival in Fiji.  
Crown Prince has a rash when disembarking.  
22 January 1875 King meets 69 Fijian Chiefs and their retinues  
(~600 people) at Navuso on Viti Levu. Chiefs return  
to their home villages and islands.  
>26 January 1875 Ships *Wentworth* and *Western Star* arrive from Sydney  
with cases of measles and several measles deaths  
during their voyages.

***An estimated 50,000 deaths (30 per cent of the population of Fiji)***

# Some disease challenges

Respiratory infections

Acute, chronic (TB)

Sexually transmitted diseases

(N.B. Chlamydia)

Diarrhoeal diseases

(food and water)

Vector-borne diseases

(the arthropod always wins)

Poverty

(Strep., intestinal parasites)

International travel

(constant introduction of exotic pathogens)

*A persistent infection is one that emerged and then didn't go away*

# Some immediate solutions

Expand immunisation cover  
(Number of vaccines and  
vaccinees)

Deworming and soap at Schools

Free condoms (over the counter or  
by post) *Opposition from  
conservative legislators.*

# Some more solutions

Sustain the PPHN and PPHLN  
(surveillance and evaluation)

Systematic monitoring of antibiotic  
resistance.

***Systematic continuing professional  
education.***

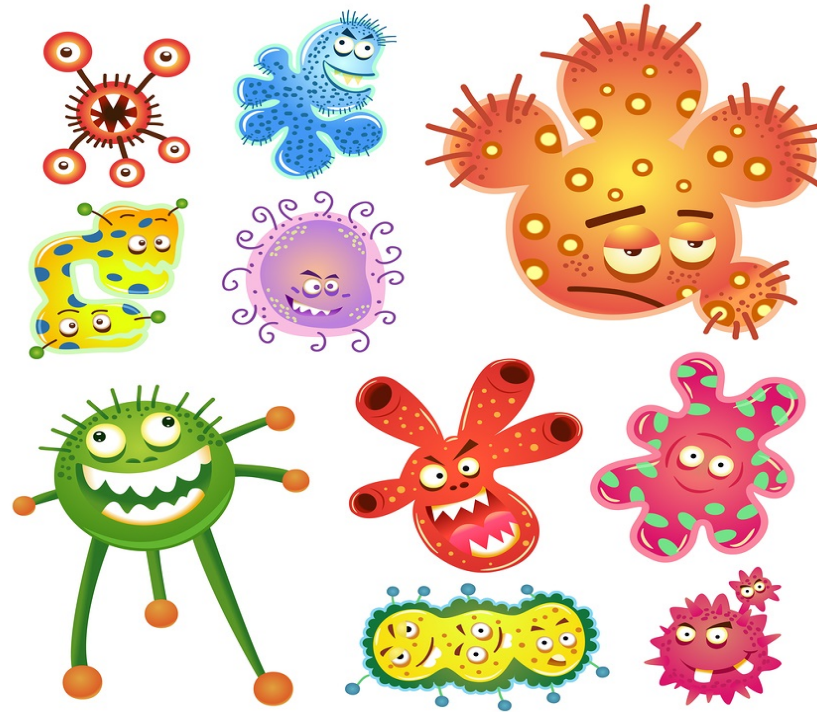
***(strategic planning)***

***Mentoring***

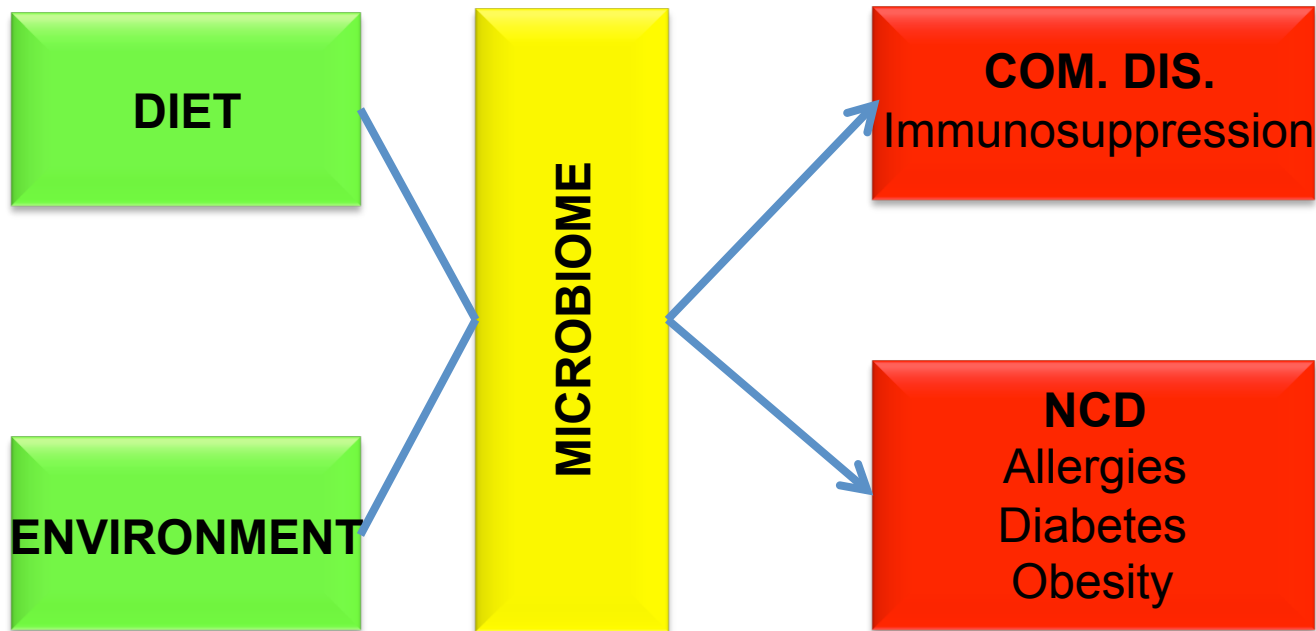
***And now for something really scary.***

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The microbiome – a link between communicable and non-communicable diseases.

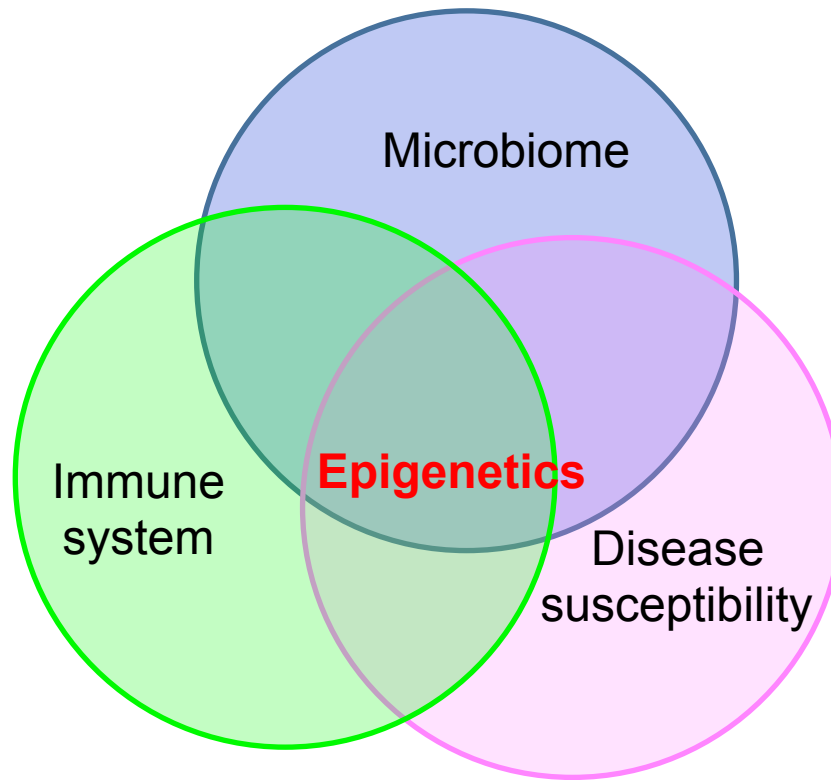


# The gut microbiome as a gatekeeper to health





# *How many generations to turn off an epigenetic switch?*



# Some research priorities

Systematic, ongoing mosquito taxonomy.

The competence of local mosquitoes to transmit regional arboviruses.

The gut microbiome of Pacific Islanders.

The effect of diabetes on the susceptibility to infection, the response to treatment and the reactivation of latent disease (begin with TB).

