NiDiPac: How novel Nano-biosurfacing constructs can Improve the Diagnosis of Infectious diseases in the PACific region?

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PaceNet plus, June 29, 2016
Nadi, Fiji

- Pacific region:

NiDiPac, the context

- Pacific region:

Epidemic and emerging disease alerts in the Pacific region as of 25 April 2016
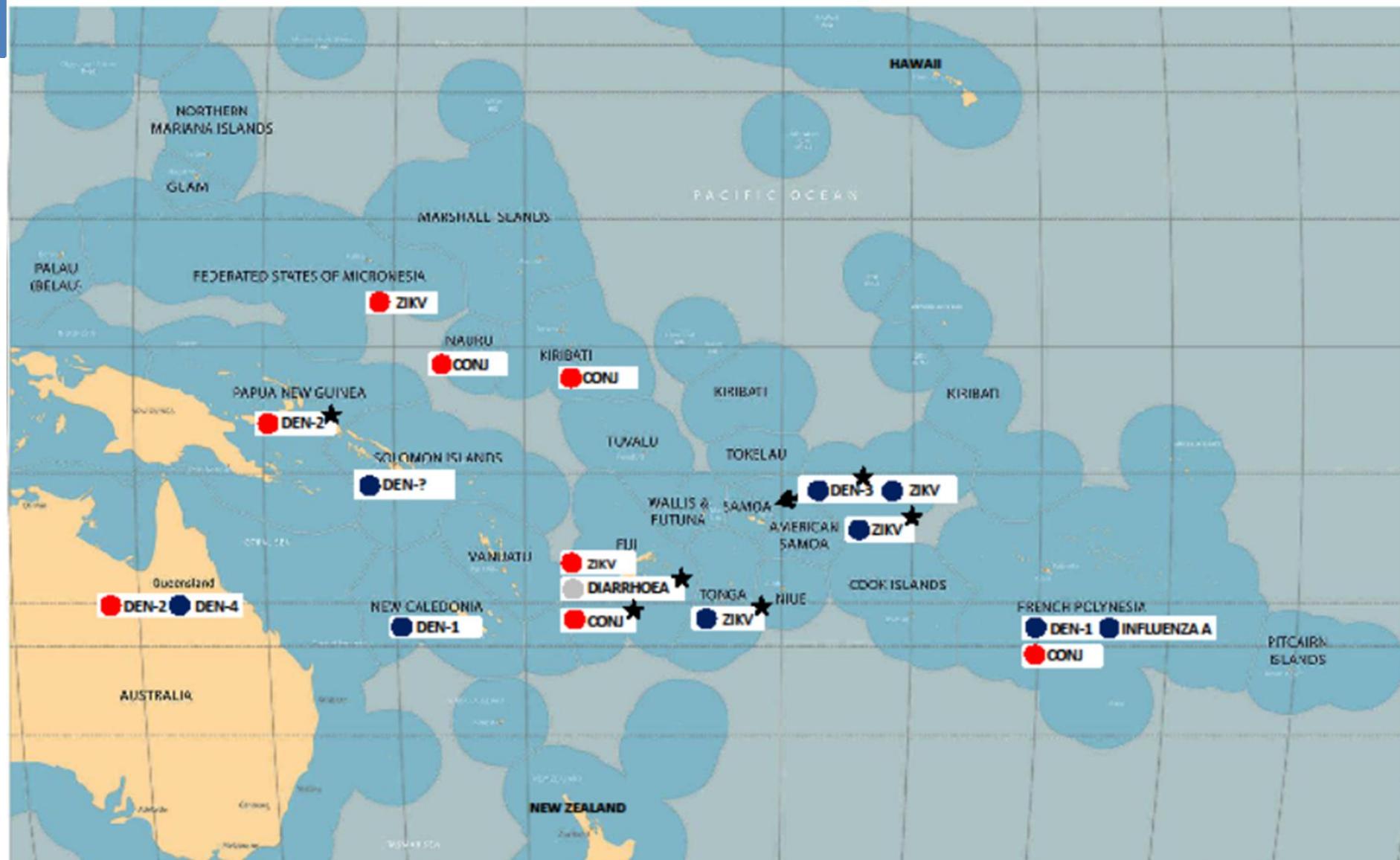
NiDiPac: the project

- ## Partners:

- ## Objectives:

Improve the early diagnosis of infectious disease by implementing new easy-to-use and rapid bedside diagnostic tests using either serum or other samples using the kodecyte technology
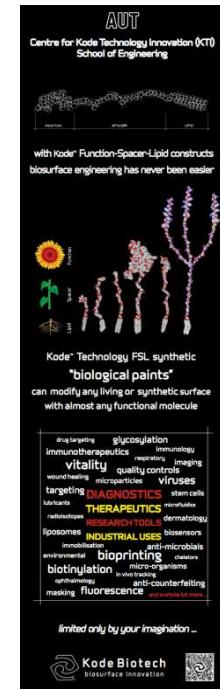
NiDiPac: the innovative technology
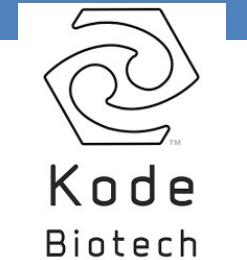
- KODE technology for enzymatic immunoassay:
  - Classic:
  - Kode:

bioactive

random

limited control

easy to paint

controllable
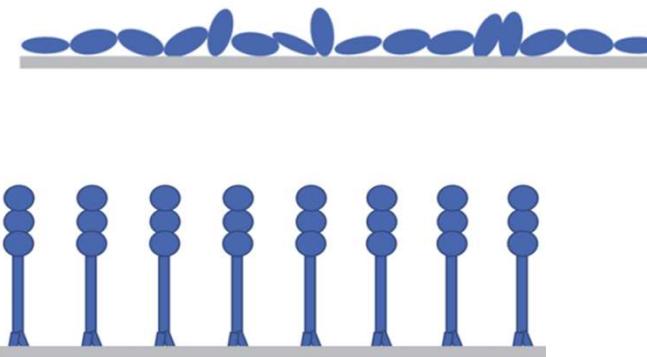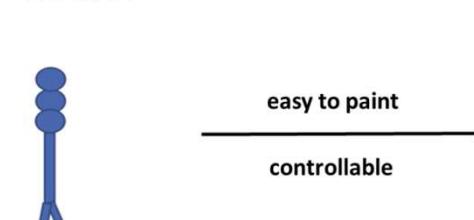
The architecture of an FSL has three components just like a flower

Function

Spacer

Lipid
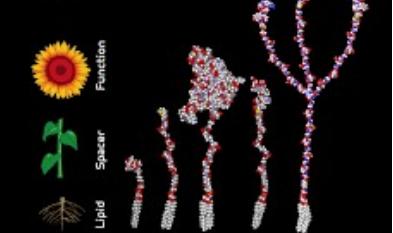
- The applications:
  - For NiDiPac (Inkjet printing)

acrylic well template

doubled-sided adhesive tape

laminating film

paper

printed FSLs (invisible)

MG paper

PA66 (nylon)
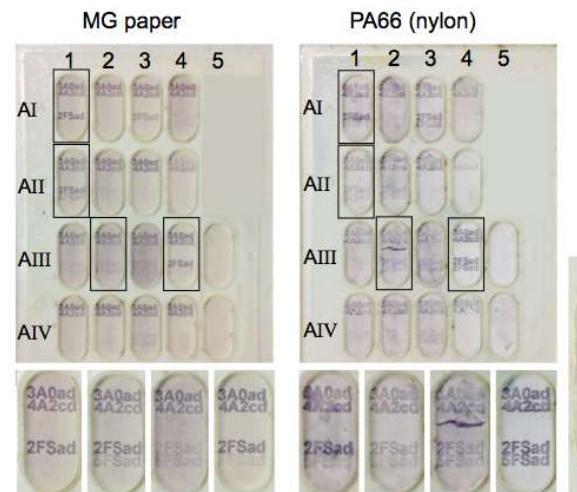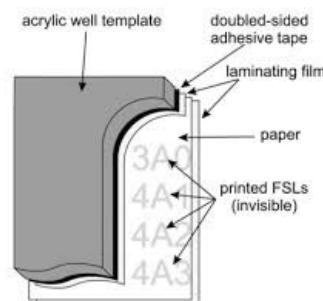
NiDiPac: the test

- **Design for leptospirosis diagnostic:**
  - Ethics clearance: OK
  - Biobank selection (PNG-IMR and IPNC): OK
  - Lepto peptides selection and production: OK
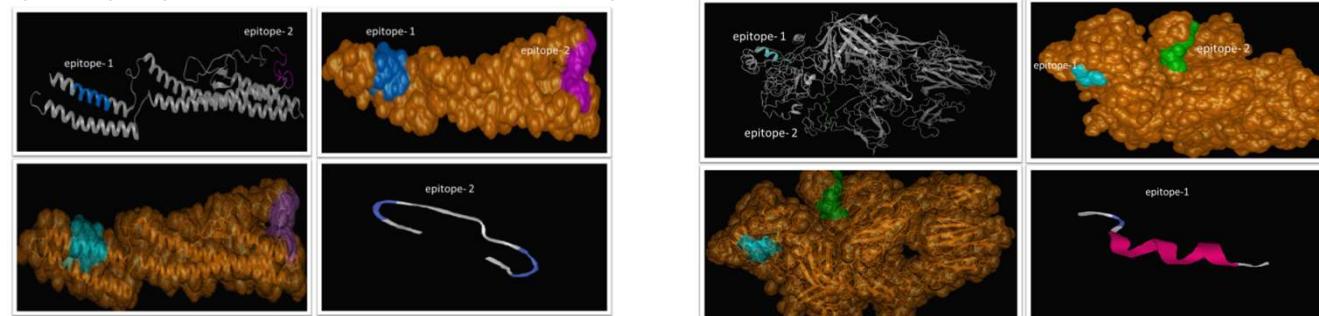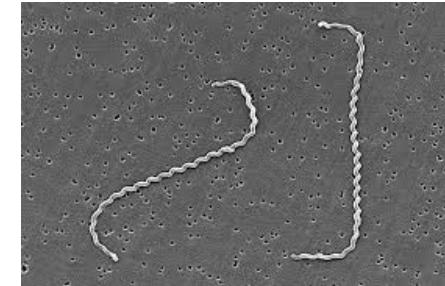
  - Biobank screening for lepto by ELISA kits: in progress (end: mid-july 2016): PNG-IMR
  - KODE-Lepto construct: in progress (end: september 2016): AUT/KODE
  - Validation of KODE-Lepto regarding the reference method: scheduled in october 2016 (IPNC)

NiDiPac: the workshop

Welcome to the
NIDI-PAC Working Group
Meeting

WO1609 (level 16)

Thursday 16 June 2016
9 am to 3 pm

Discussions about:
- Diseases diagnostic in the Pacific with a special focus on Zika and Leptospirosis (PNG-IMR, IPNC, SPC, LabPlus)
- Test Validation and Commercialisation (QUT)
- Ethics procedures (AUT)
- Advancement of the project (PNG-IMR, AUT, IPNC)

NiDiPac: the outcome

- ## NiDiPac:
  - Validation of the Proof of concept
  - Go/Not Go decision

- ## Next steps:
  - Develop the test for other diseases in order to propose a panel for febrile-illness (dengue, zika, chikungunya, leptospirosis, malaria), encephalitis-illness…
  - Validation at a wider scale: Fiji, PNG, Vanuatu where several diseases are circulating in the same time

international network
Institut Pasteur

UREDA

Institut Pasteur
de Nouvelle-Calédonie

Thank you!