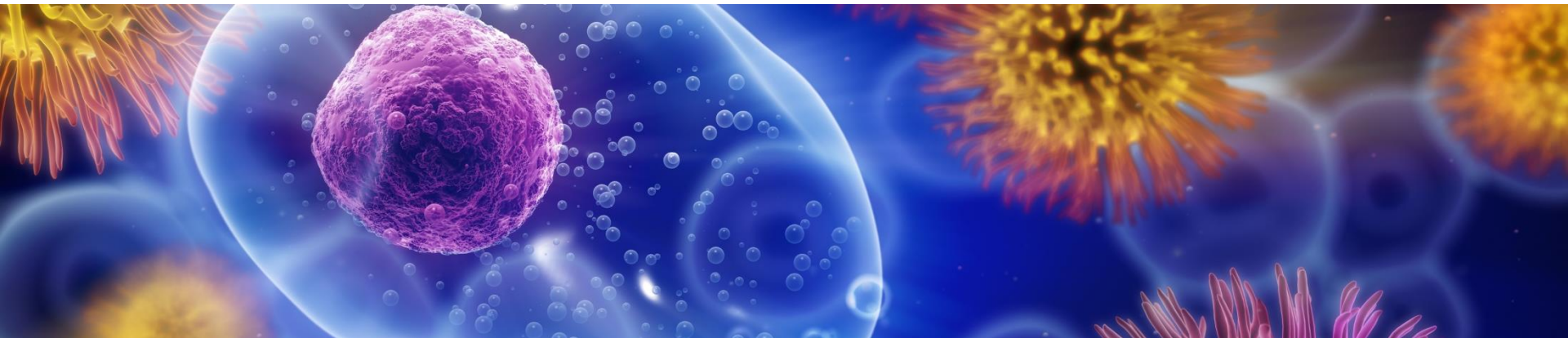


Corporate Presentation



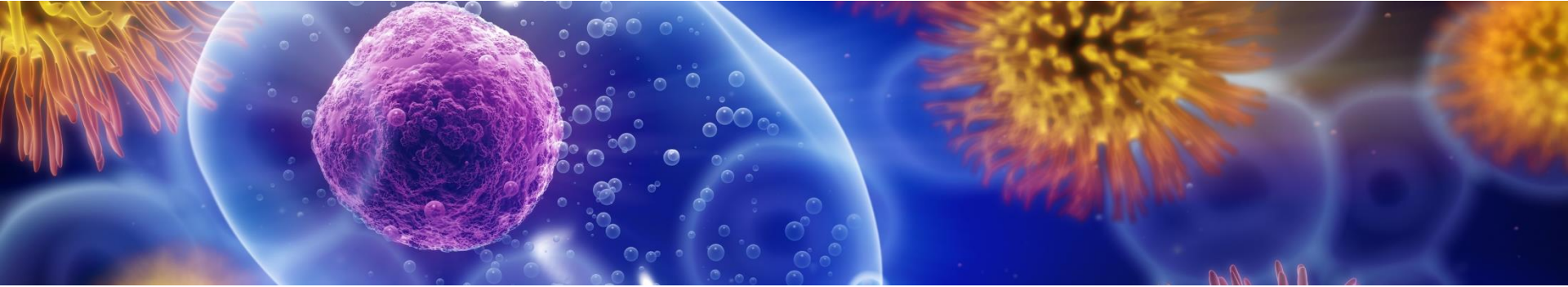
EMERGEX
VACCINES



“Smart” Vaccines for Infectious Diseases

February 2019

Mission



Disrupt the vaccine market by commercialising our **industry-altering technology**.

Prevent the economic & health challenges posed by outbreaks from **existing & emerging viral diseases**.

Game-changing Approach

To disrupt the vaccine market through the commercialisation of our game-changing vaccine technology, to prevent the economic & health challenges posed by outbreaks from existing & emerging viral diseases



Disruptive platform

Fully synthetic off-the-shelf vaccines



Deep pipeline potential

Application across whole virus families



Global partnerships

Government and NGO contracts



Strategy for value creation

Near-term and mid-term value inflection with exit 3-5 years

Achievements to Date

Began operations in Oxford in January 2016

Technology Development to Date

Proven and validated technology developed over the last 30 years

Private funding as well as US and European government grants

Disruptive Revenue Model

Establish international vaccine repository business model for early revenue generation

Strong Network

Partners

Licensing and servicing /manufacturing agreements

- Midatech
- Immunotope
- ImmProNano

Established Collaborators

- Fiocruz Brazil (Rio) (Brazilian NHS)
- Tropical Medicine Institute (Porto Velho) (Rondonia State, Brazil)
- Singapore National Health
- Singapore National University and Duke Medical
- University Lausanne Hospital and Dept of Immunology
- US Army Medical Research Institute for Infectious Diseases
- Uganda Tropical Medicine Institute
- A*Star (Singapore)
- CHUV Centre hospitalier universitaire Vaudois
- Swiss Medic

Validated Technology

- Library of validated peptide targets
- Nanoparticle carrier system – proven safety
- Micro-needle delivery system

Preclinical Pipeline

- Fully synthetic vaccines
- Lead candidates for Flavivirus, Influenza and Filovirus
 - Validation studies
 - Vaccine synthesis
 - GMP manufacture established

IP Portfolio



Cost-effective Operations

Streamlined management supplemented with industry experts

Experienced Team

Board and Leadership



David Jackson – Chairman

Investment banking & Investment Management | Experienced NED
Standard Chartered Bank (London & HK) | Scandinavian Bank



Thomas Rademacher, Emeritus Professor Molecular Medicine. co-founder & CEO

Entrepreneur | Medical & Nanomedicines expert
Oxford Glycosciences | Midatech



Storme Moore-Thornicroft - co-founder & COO

Entrepreneur | Business Executive Expert
Midatech | University College London (UCL) Business



Sir David King FRS - Non Executive Director

International Scientist | Governmental Senior Scientific Advisor,
Government Chief Scientific Adviser | Head Dept Chemistry Cambridge
University

Non Executive Directors

Mohan Philip | Biotech, Clinical trials
YiXiang Dong | Accountant, finance, Scientist
Sergio Pagani | Banking, Biotech investor

Team (International)

Jan Mous PhD (Switzerland)

Pre-clinical/regulatory

Ramila Philip PhD (USA)

Immunology of vaccines

John Dye (USA)

Infectious diseases field testing

Senior Team (UK)

Thomas Rademacher

FOUNDER, Chief Executive Officer

Storme Moore-Thornicroft

FOUNDER: Chief Operating Officer

Laurens Rademacher

Chief Technology Officer

Phillip Williams

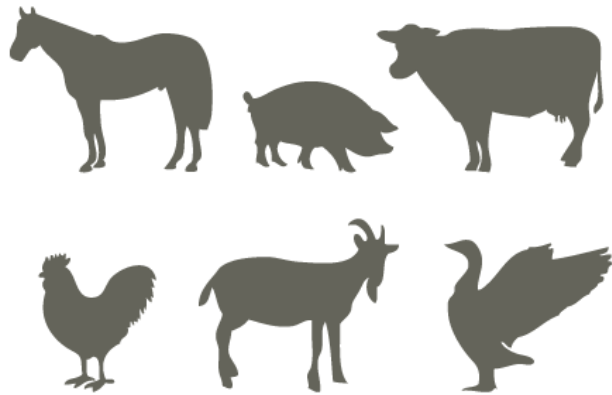
Chief Science Officer

Athan Papadopolous

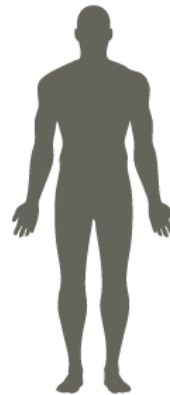
Chief Medical Officer

The Vaccine Problem

Vaccines need to be prepared prior to an epidemic and available “on-demand”



Infectious Agents in Vertebrate Animals



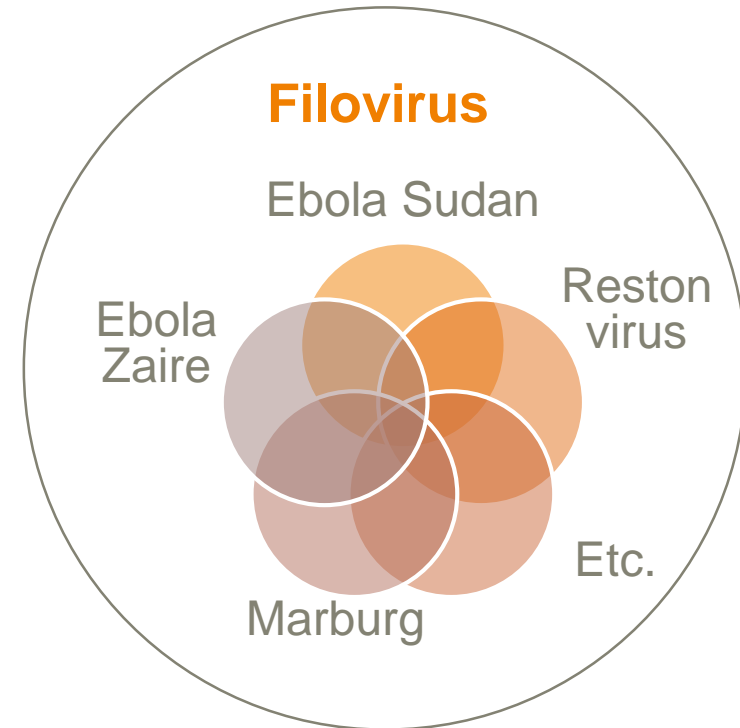
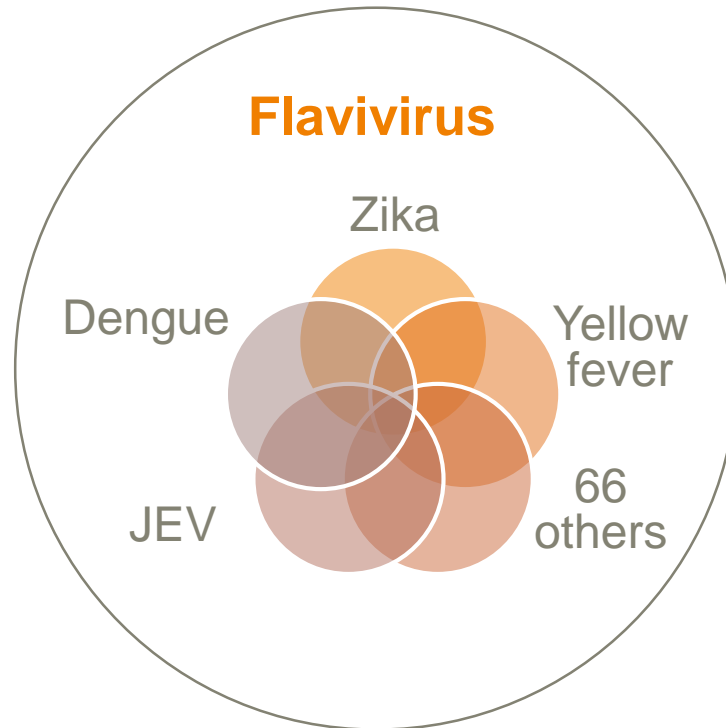
Endogenous Human Infectious Diseases (person-to-person)

**Increasing risk of transmission
of existing/new viruses**

**Current vaccine technologies
do not viably address global need
too costly, slow to
develop, unsafe etc.**

The Emergex Solution

Universal Smart Vaccines Strategy



“One bug, one drug” vaccine
no longer effective

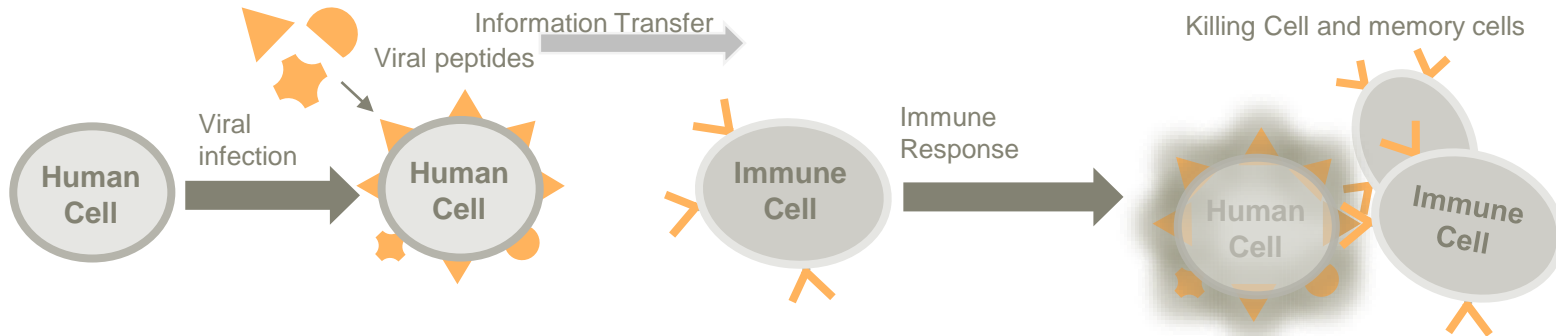
Emergex is
driving the
change towards

“One vaccine for entire family
of virus” producing
broad spectrum targeted
treatments/protection.

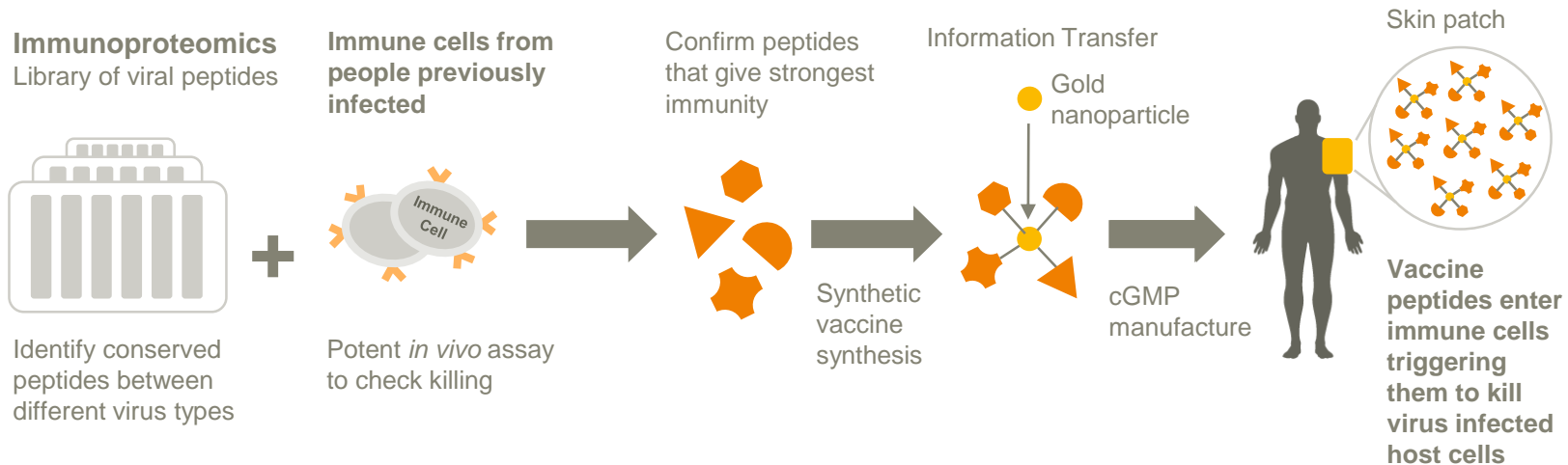
The Emergex Solution

Universal Vaccines Design & Delivery

Natural Infection



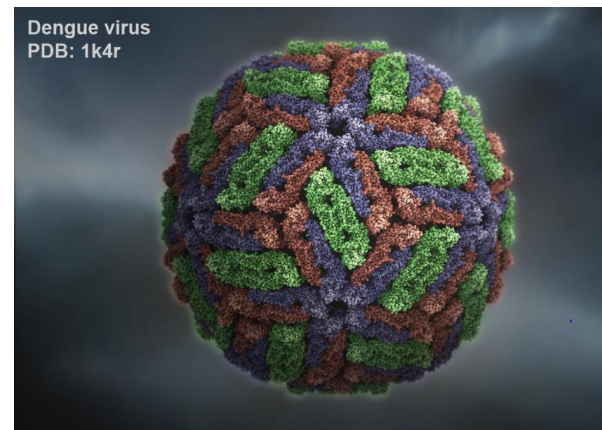
Emergex vaccines approach – mimics natural infection



Strong long lasting immune response against multiple virus types

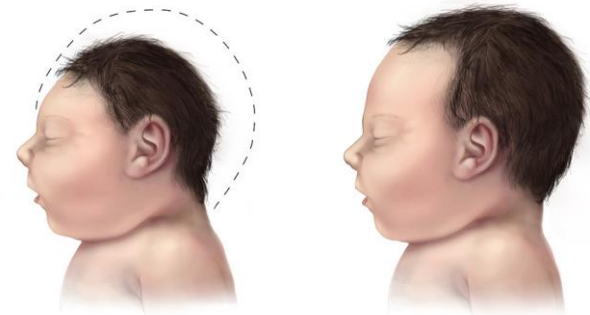
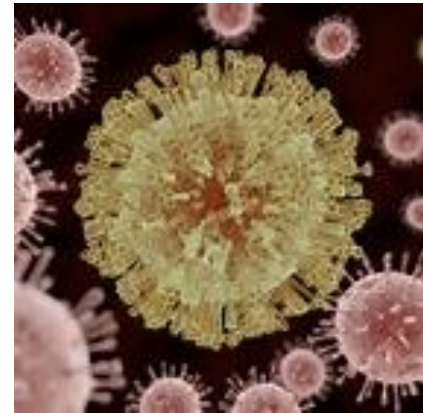
Dengue

- Mosquito-borne viral infection causing severe flu-like illness and potentially lethal dengue haemorrhagic fever.
- 100 to 500 million infections estimated to occur annually in over 100 endemic countries (half the world's population - WHO).
- Difficult to test for Dengue
- No effective vaccine available, only approved Dengue vaccine (Dengvaxia[®] from Sanofi) is for patients with a documented prior case of Dengue infection and who are living in endemic areas.
- Dengvaxia[®] has been removed from the market in the Philippines for safety reasons.



Zika

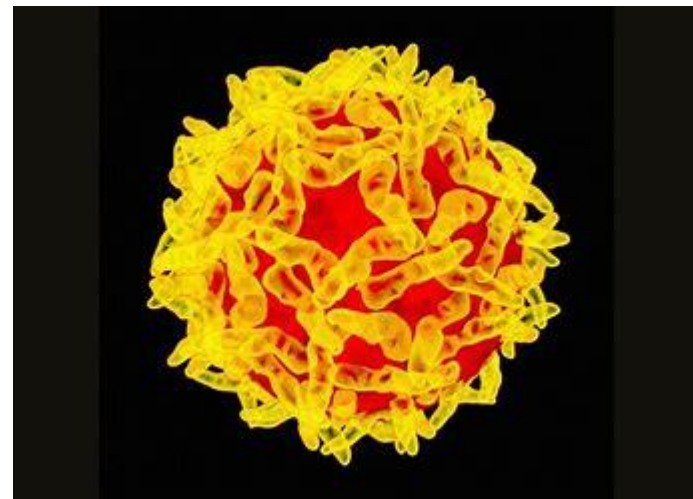
- Mosquito-borne viral infection causing mild flu-like illness and skin rashes. Infection during pregnancy linked to microcephaly and other brain malformations in some babies.
- Zika occurs in the same region as Dengue covering half the world's population.
- No effective vaccine available.
- A vaccine that crosses the placenta during the first 6 months of pregnancy to provide immunization for the child whilst being safe to use (not a live or attenuated virus) is needed.





Yellow Fever Booster Vaccine

- Mosquito-borne viral infection causing fever, chills, muscle pain and yellow skin that occurs in South America and Africa.
- Occurs in 32 countries and more than 600m people are at risk. In 2013 127,000 severe cases resulting in 45,000 deaths.
- Vaccine is available (17D) but in short supply. As an emergency measure, experts have suggested using a fractional dose (WHO 2017) which started in June. The vaccine takes a long time to manufacture and Unicef reported in 2013 that the 4 manufacturers are making 35m of the needed 64m per year ⁵



The Emergex Solution

Multiple Advantages



Disrupting the vaccine market to address outbreaks by existing & emerging viral diseases

For the patient

Universal vaccines - able to immunize against an entire genus of virus

Vaccines target “signatures” of internal viral components that are less prone to mutation.

Lifelong immunity

For the provider

Skin patch administration - no syringes or highly trained personnel required

Long shelf life - no cold chain required

Comparatively very high volumes widely available at low purchase price

For the manufacturer

Fast and inexpensive to produce

100% synthetic (no biological components)

Higher safety profile and lower regulatory hurdles

Inexpensive high volume manufacture



Current Vaccines in Development

Lead Projects

Flavivirus (Dengue)



Influenza



Filovirus

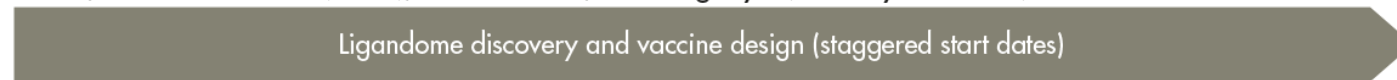


Discovery Projects

Yellow fever booster



Hand, Foot and Mouth (HFV), Coronavirus, Chikungunya (Primary/Chronic)



Jan 2019

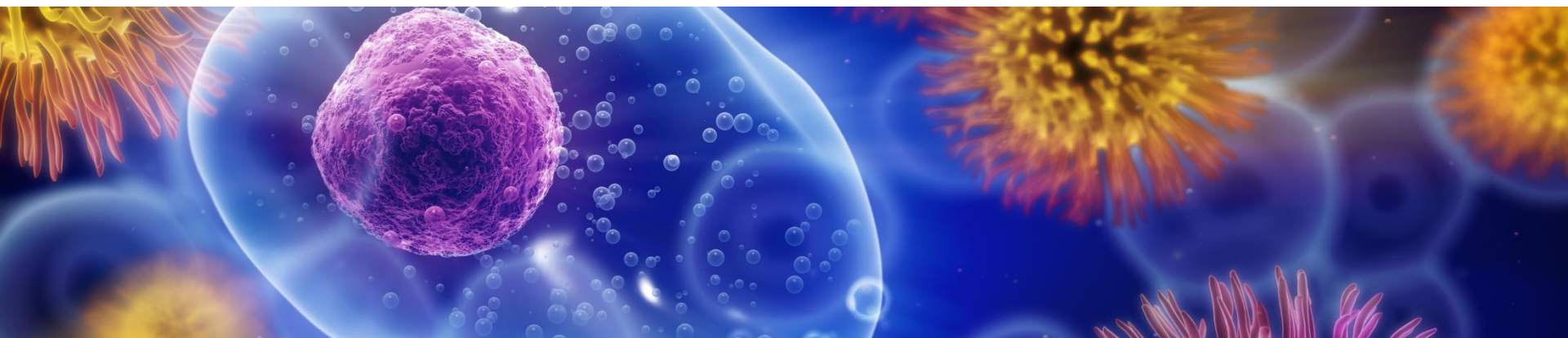
Jan 2020

Jan 2021

Jan 2022



EMERGEX
VACCINES



STORME MOORE-THORNICROFT (Founder, COO)

4/5 Dunmore Court, Wootton Road, Abington, Oxfordshire, OX13 6BH

T: +44 (0)1235 527 589, E: smt@emergexvaccines.com