

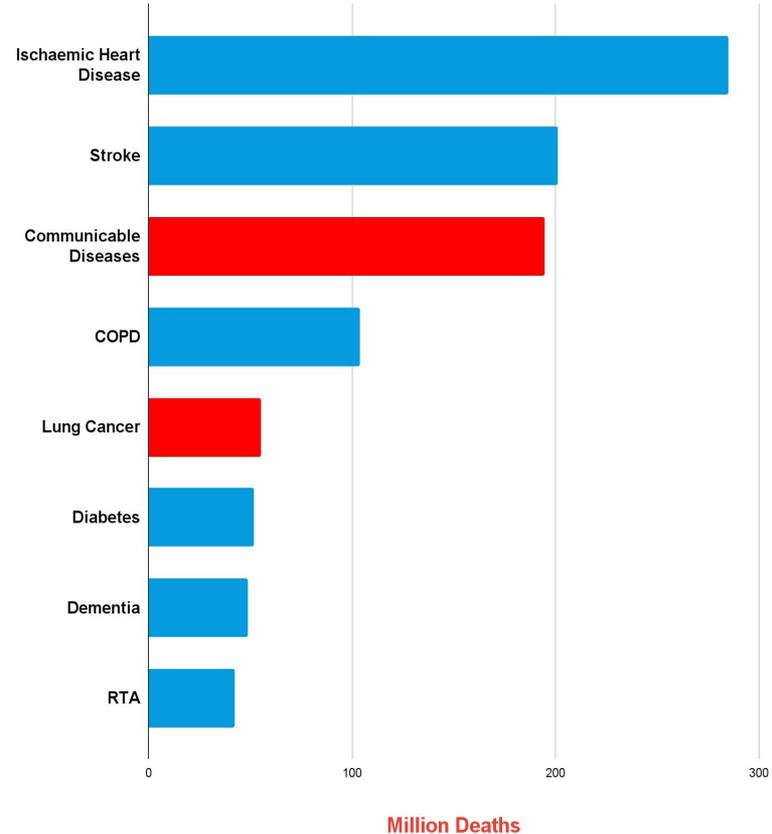
Custommune LLC

PITCH DECK

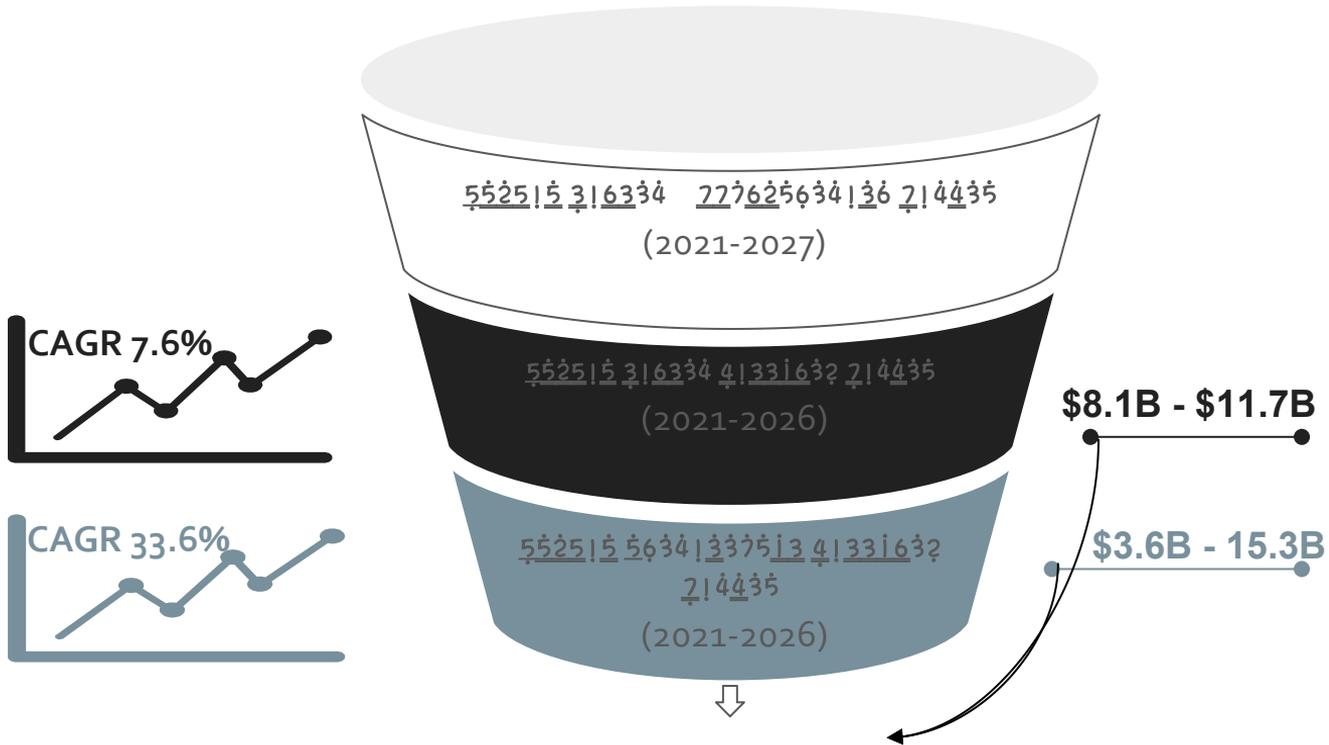
 ChingHub

**Cancers &
Infectious
Diseases kill ~25
millions each
year**

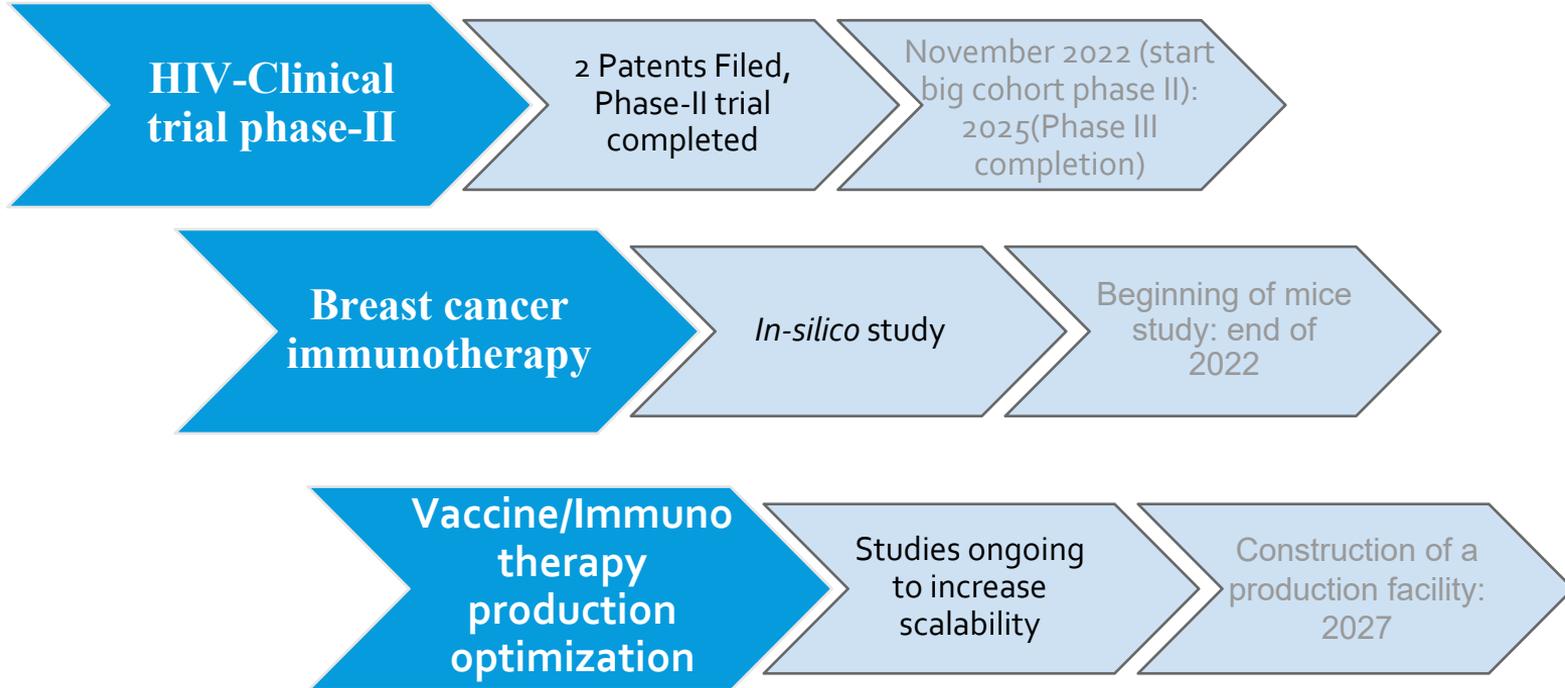
Top 10 Global Death Causes (~54% of Total Global Deaths)



Targeting Cancers & Infectious Diseases through Antigens



Our Pipeline

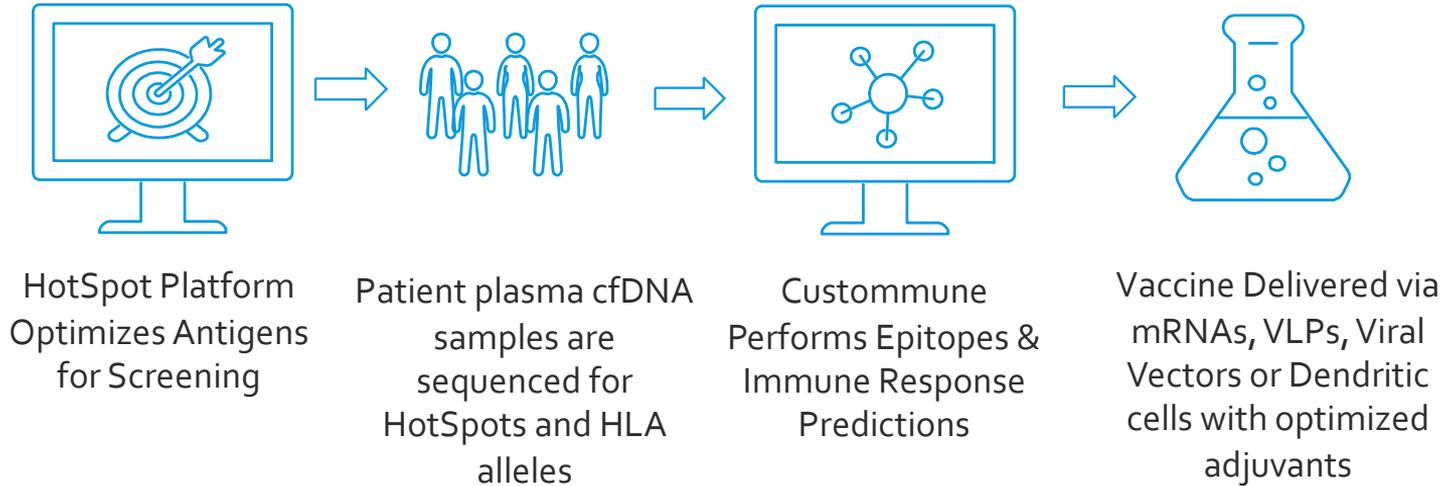


Our patent portfolio

- **Compositions and methods for a personalized vaccine against HIV/AIDS.** Inventors: Ricardo Sobhie Diaz, Iart Luca Shytaj, Andrea Savarino. PCT Application; /BR2020/050204.
National Phases in US, Brazil and India/
- **Custommune: a web tool for designing personalized and population-targeted peptide vaccines.** Mohammad Tarek, Iart Luca Shytaj, Mahmoud ElHefnawi, Andrea Savarino, Ricardo Sobhie Diaz. PCT Application: /IB2021/051732
- **+ 2 patent families on personalized vaccine boosters** granted in the US, EU and Japan and pending in China, Hong Kong, Korea; South Africa, Brazil and Australia.

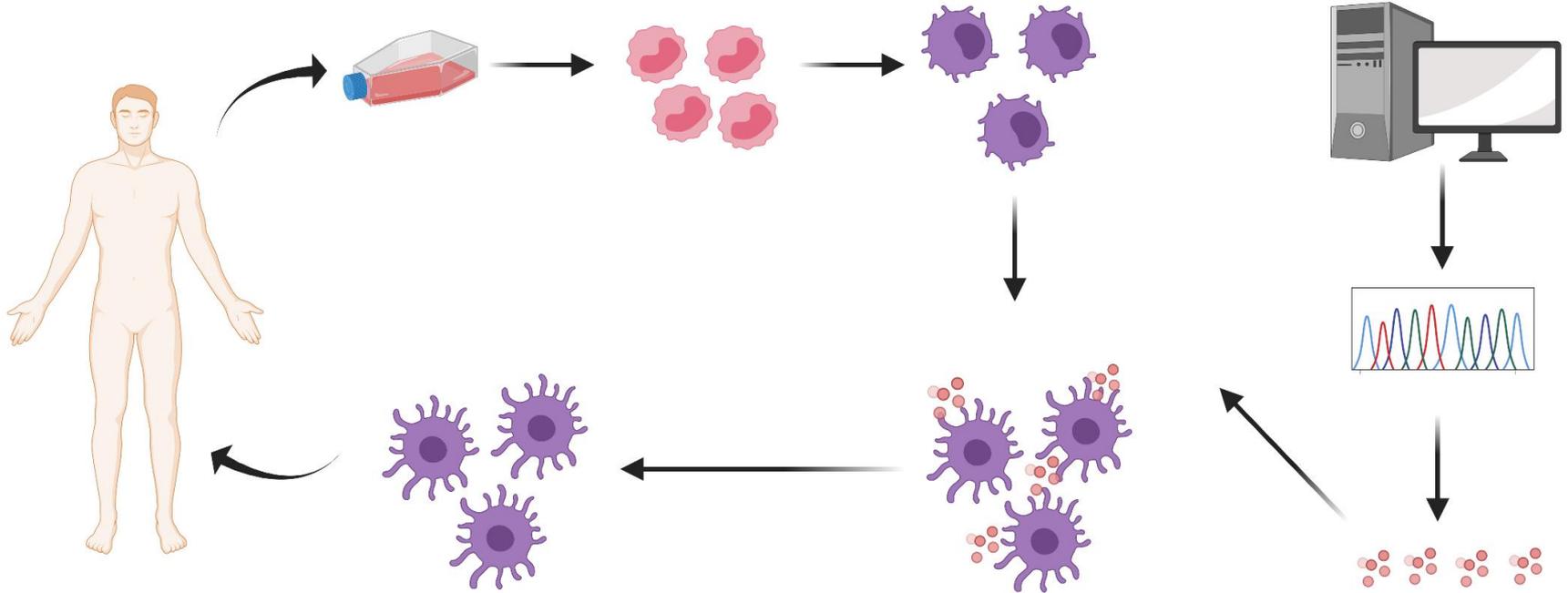
Computationally Designed Personalized Immunotherapies for Cancer and Infectious Diseases

PCT/IB2021/051732
WO/2021/176352



CDMO Partnership for
cGMP scaling

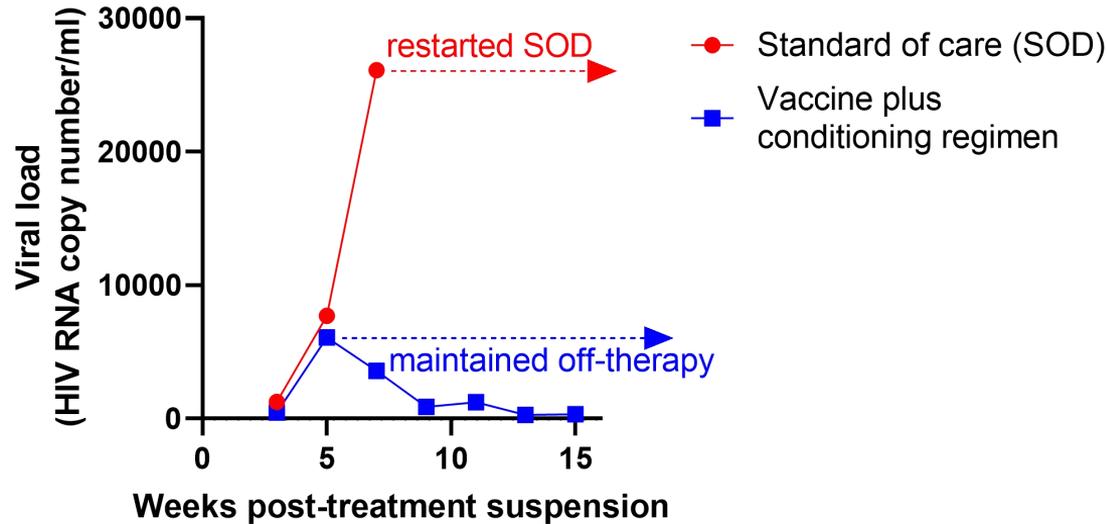
Past HIV application of our platform



Vassao et al AIDS Res and Therapy 2022

PCT Application; /BR2020/050204.

Immunotherapy + conditioning regimen abates viral load after suspension of all treatments



Results from a clinical trial (Phase IIa). Evolution in time of viral loads from study subjects following analytical therapy suspension until at least two different subject remained off ART (i.e. the standard of care). The group that received all interventions including the vaccine had a longer drug holiday and a lower viral load set point. Data are presented as a geometric mean.

Our competitors (I)

(alternative software for HIV and cancer vaccine design)

Custommune eliminates the need for massive sequencing through HotSpot neo-antigen detection



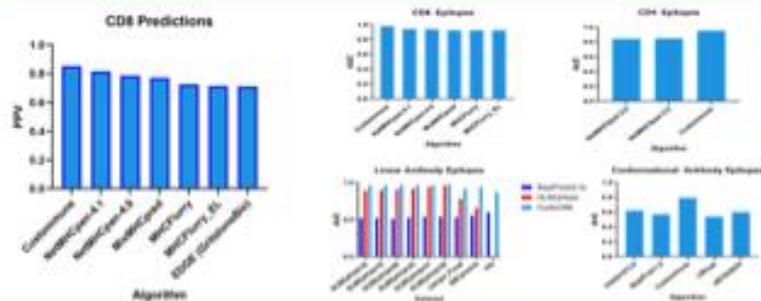
Custommune can accurately predict proviral/pro tumor mutations



Custommune deep learning platform can accurately predict cell-specific immune responses



Custommune deep learning algorithms outperforms other approaches for epitope prediction



Our competitors (II) (HIV vaccine)

Feature comparison							
Autologous virus							
Sequencing of virus Persisting during SOC							
HLA personalization							
Targeting of conserved epitopes							
Dedicated software							

Custommune vs. the HTI therapeutic HIV vaccine

(one of the most promising competitors: <https://www.aidsmap.com/news/mar-2021/therapeutic-vaccine-shows-potential-hiv-control-treatment-early-study>)

	Custommune	HTI Therapeutic Vaccine
Controllers	1/2	1/5
VL set point of controllers	< 1000 HIV RNA copies/ml	< 2000 HIV RNA copies/ml
Conditioning regimen (adjuvant therapy)	Auranofin/nicotinamide (well tolerated)	TLR-7 agonist (several side effects)
Vector	Tested strategy: Dendritic cells (safe) Alternative strategies are possible, including RNA vaccines (safe)	AAV; Astra Zeneca (Potentially unsafe for young women, approx. half of the target population)

Our approach vs. HIV standard of care (SOD): advantages for national health systems: the example of Italy

10 year costs:

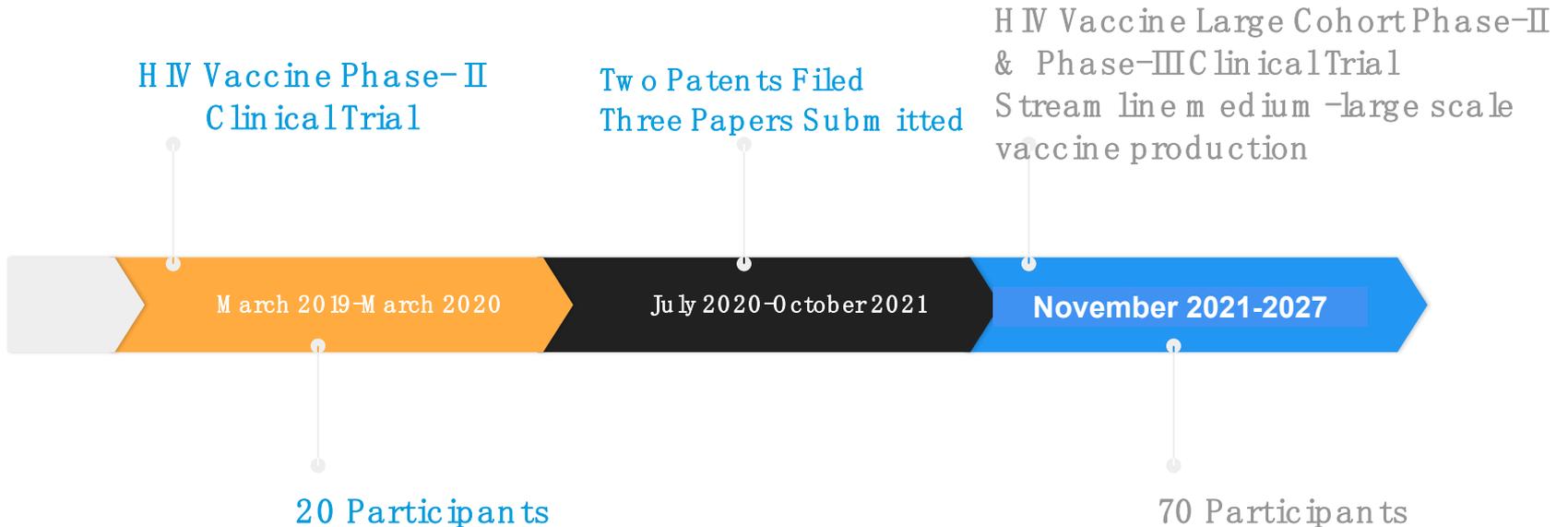
Our approach: approx. 3,500 USD (including 6-month antiretroviral therapy plus the conditioning regimen)

SOD: approx. 60,000 USD

Timeline

Seed Investment Opportunity
\$2-\$3M

To Bring Cutting-Edge Therapeutic
Vaccines to HIV Market



Core Team



Andrea Savarino, MD
President
and
Chief Scientific Officer

27 years experience in HIV
research

50+ patents on HIV and
Cancer, including
Custommune and
personalized vaccine
patents

Brought 3 therapeutic
strategies to clinical trials



Ricardo Sobhie Diaz, MD
Chief Medical Officer

25+ years-clinical experience
and long standing experience
in biotech company
management

Recently described
spontaneous control of
HIV/AIDS without Bone
Marrow Transplantation
Co-inventor in personalized
vaccine patent



Mohammad Tarek,
candidate MD
(in October 2022)
Assistant Scientific Officer

5+ years experience in
bioinformatics

Developer of HotSpot Pipeline
Co-inventor of Custommune



Iart Luca Shytaj, PhD
Scientific Consultant

11 years-experience ¹⁴
in HIV research

Co-inventor in
Custommune and
personalized vaccine
patents