



AUREALIS THERAPEUTICS

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4-IN-1 BACTERIAL CELL AND GENE THERAPY
FOR CHRONIC WOUNDS AND CANCER
INVESTOR PRESENTATION MAY 2023

MULTI-TARGET CELL & GENE THERAPIES FOR UNMET MEDICAL NEEDS

THE NEED: MASSIVE UNMET NEED AND MARKET OPPORTUNITY



4 Mn & 6.5 Mn
Annual Incidence
EU & US



30%
2 year mortality



30%
Total healthcare
costs (>€100Bn)

CHRONIC WOUNDS

\$100Bn cost to the society
\$15Bn global market

Chronic Wounds:
DFU (diabetic foot ulcer)
VLU (venous leg ulcer)
PU (pressure ulcer)



1 amputation
Every 30 seconds



25-50%
Hospital beds
occupied



12%
Rising prevalence
per year



313,959*
Women diagnosed
Each year



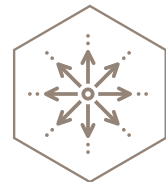
207,252*
Women die each year



45%
Overall 5 year
survival

OVARIAN CANCER

Deadly disease
Over \$5Bn global market



2M
Prevalence



<20%
Stage 3 and 4
5 year survival

Sources: International Diabetes Federation, Global epidemiology of diabetic foot ulceration: a systematic review and meta-analysis (Ann Med. 2017 Mar), *WHO 2020 data



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MULTI-TARGET CELL & GENE THERAPIES
FOR UNMET MEDICAL NEEDS

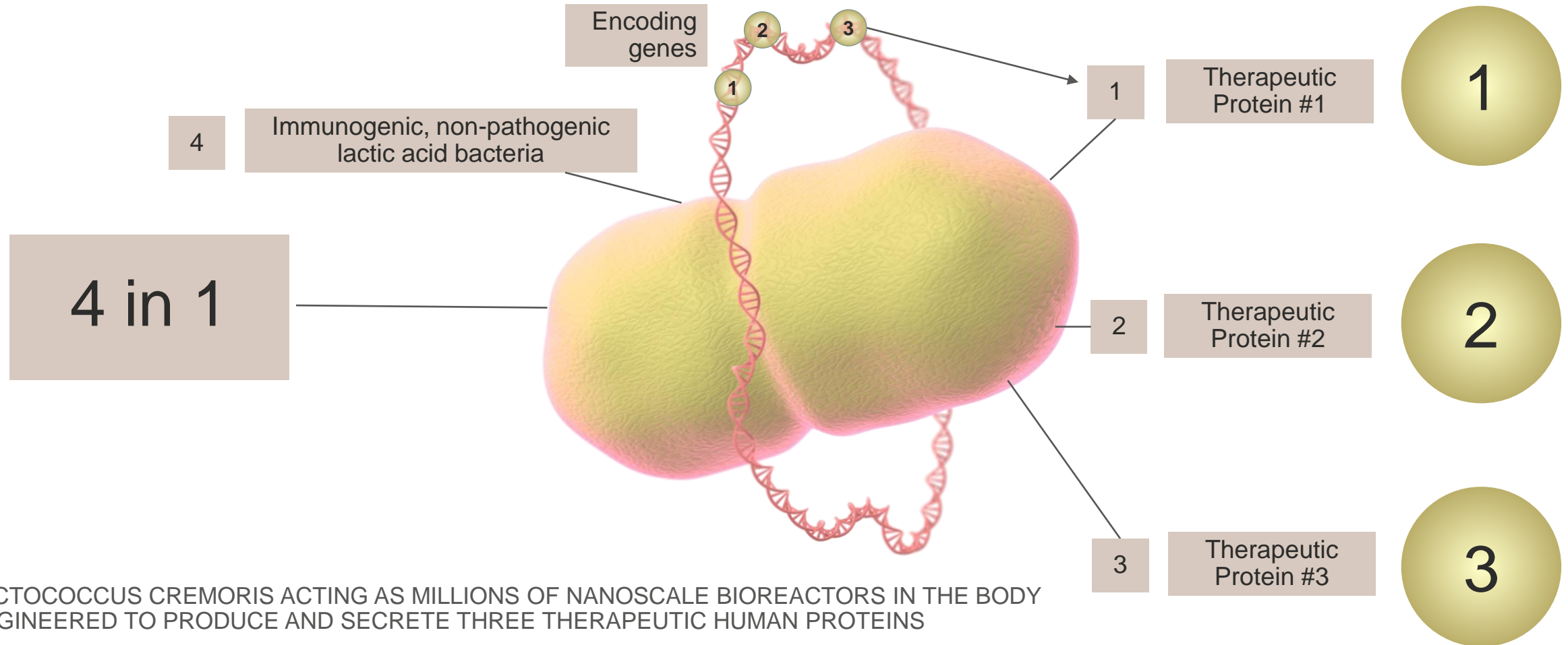
THE PROBLEM:

- CURING COMPLEX, MULTI-FACTORIAL DISEASES REQUIRE MULTITARGETING
- CURRENT TREATMENTS DO NOT ENABLE IT



THE SOLUTION: AUREALIS THERAPEUTICS 4-IN-1 PLATFORM

BACTERIAL CELL AND GENE THERAPY PLATFORM ENABLING MULTITARGET THERAPY AS ONE PRODUCT

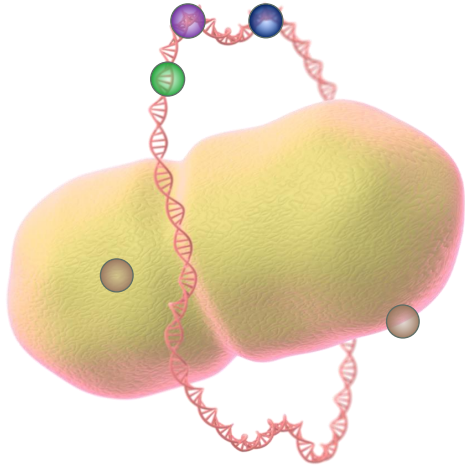


LACTOCOCCUS CREMORIS ACTING AS MILLIONS OF NANOSCALE BIOREACTORS IN THE BODY ENGINEERED TO PRODUCE AND SECRETE THREE THERAPEUTIC HUMAN PROTEINS



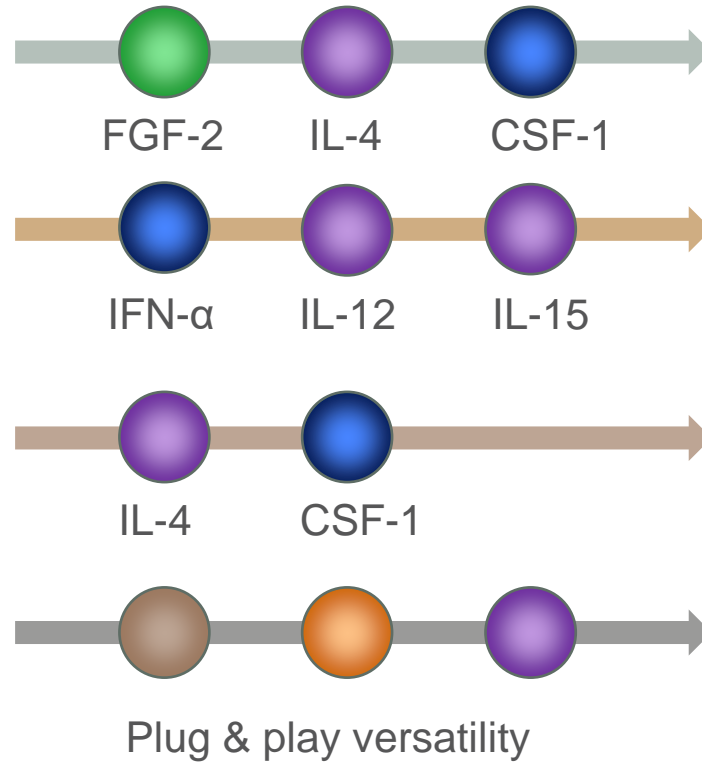
MODULAR MULTI-THERAPY PLATFORM

GENE ENCODING OPTIONS



-  INTERLEUKINS
-  OTHER CYTOKINES
-  GROWTH FACTORS
-  ENZYMES, ScFv...
-  ENDOGENOUS AGONISTS

CONSTRUCTS



Partner customized new construct/product with desired 2-3 human therapeutic proteins can be created in 6 weeks.

THERAPY AREAS

CHRONIC WOUNDS

ONCOLOGY

INFLAMMATION

OTHER



PRODUCT PORTFOLIO

MULTI-TARGET BACTERIAL VECTOR THERAPIES FOR UNMET MEDICAL NEEDS

Modality	Product	Indication	Discovery	In vivo POC	GLP S&T CMC	IND/CTA	Phase 1	Phase 2	Phase 3	NDA/MAA
Chronic Wounds	AUP-16	Diabetic Foot Ulcer								
	AUP-16	Venous Leg Ulcer								
	AUP-16	Pressure Ulcer								
Oncology	AUP-55	Ovarian Cancer								
	AUP-55	Peritoneal Carcinomatosis								
	AUP-55	Bladder Cancer								
Inflammation	AUP-18	Dermatology (undisclosed)								
	AUP-20	Metabolic (undisclosed)								

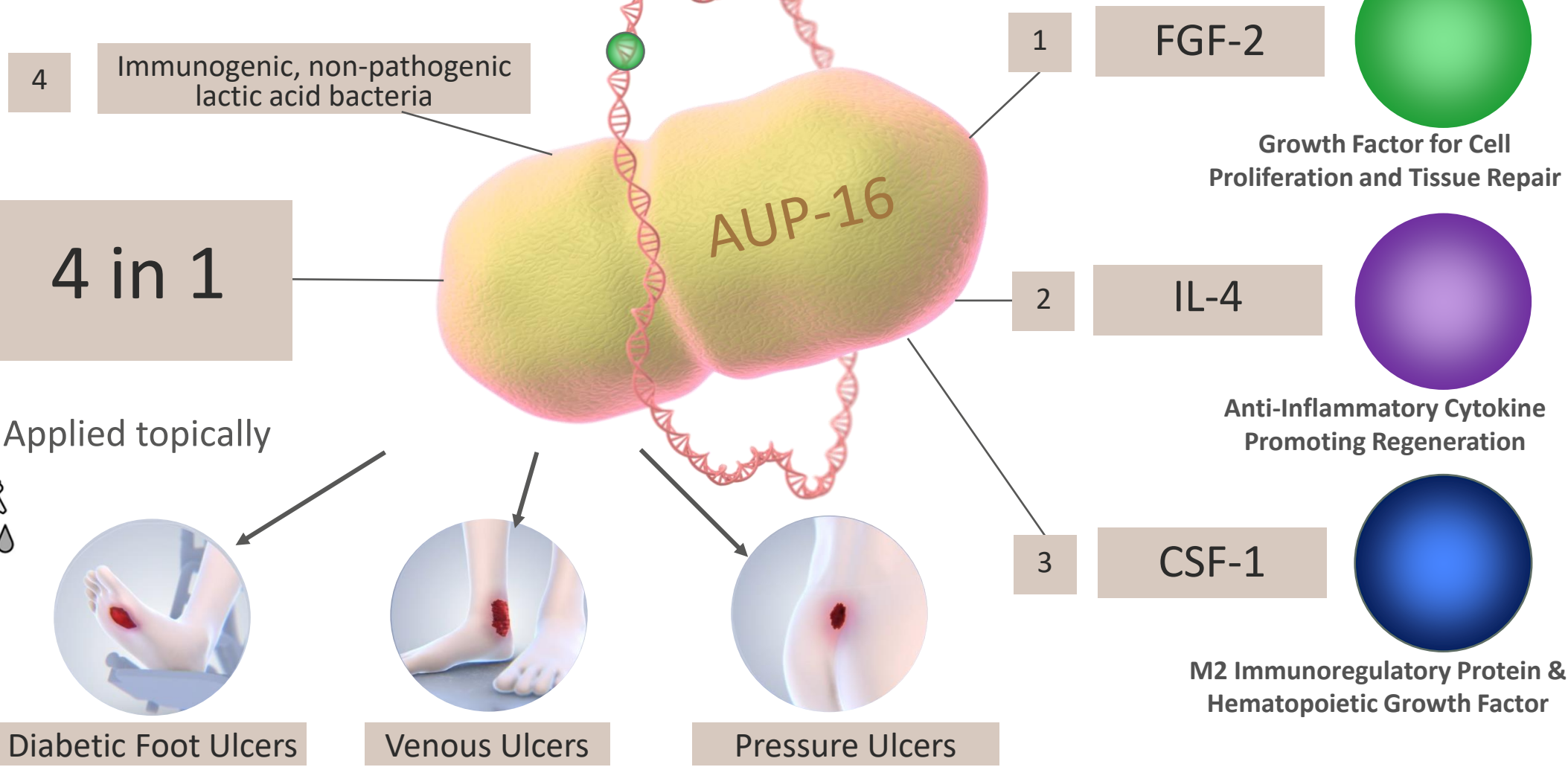


AUP-16

4-IN-1 BACTERIAL CELL AND GENE THERAPY FOR CHRONIC WOUNDS

- INTERLEUKINS
- OTHER CYTOKINES
- GROWTH FACTORS

Human Therapeutic Proteins:



SEVERE, NON-HEALING DIABETIC WOUNDS HEAL WITH AUP-16 TARGETING FOUR KEY MECHANISMS OF WOUND HEALING

AUREALIS 4-IN-1 PRODUCT AUP-16

TARGET 1
INFLAMMATION



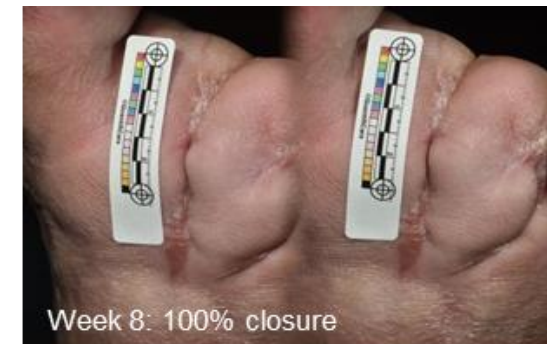
TARGET 2
PROLIFERATION



TARGET 3
ANGIOGENESIS



TARGET 4
EPITHELIALIZATION



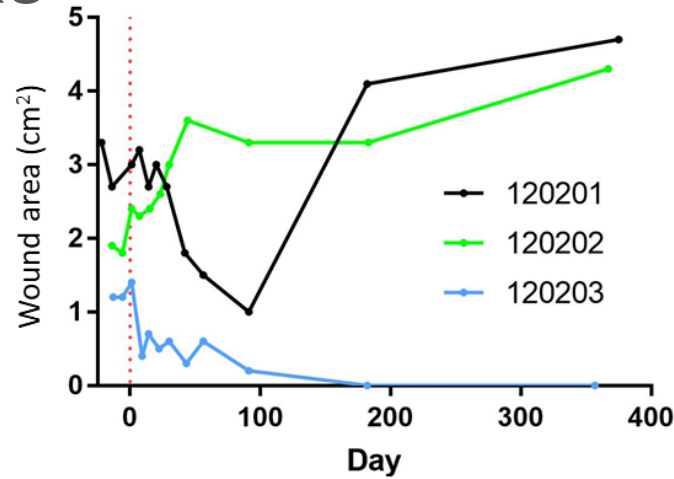
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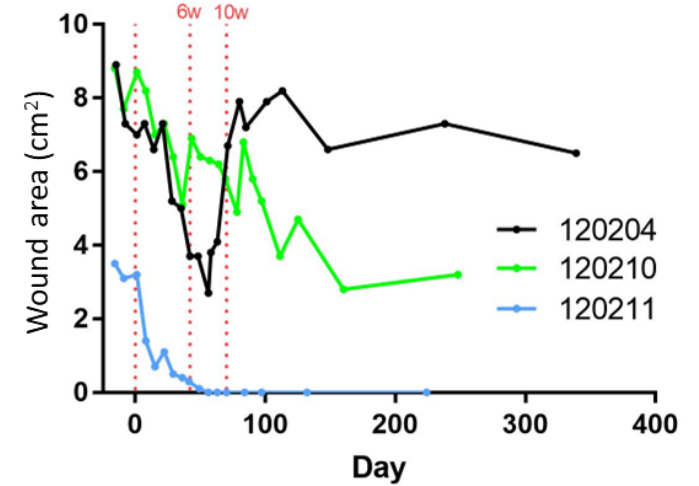
PHASE 1: AUP-16 ACCELERATES HEALING OF DIABETIC FOOT ULCERS

- **Best in class efficacy:**
- 83% of patients who received the lead therapeutic dose reached complete healing
- >30% wound size reduction in first 2 weeks treatment vs. >17% wound size increase in 2 weeks run-in period with SOC
- Median time to heal: 6.7 weeks / 47 days.
- No recurrence of healed wounds after 12 months follow-up
- **No Dose Limiting Toxicity**, no systemic or local safety nor tolerability issues

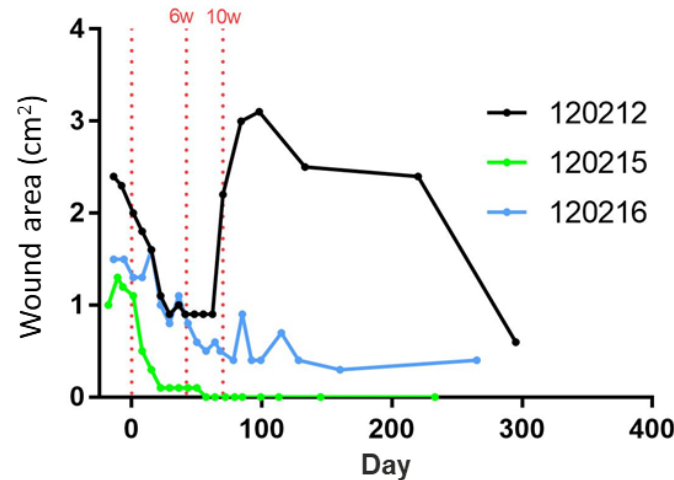
Cohort 1 (single safety dose)
Wound area reduction by patients



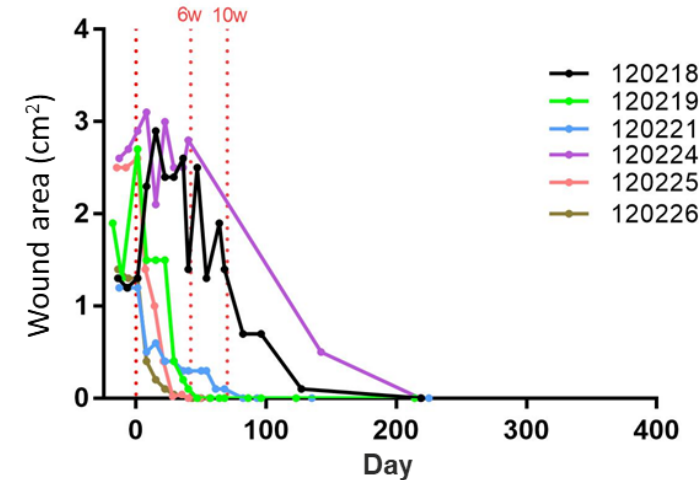
Cohort 2 (repeated low dose)
Wound area reduction by patients



Cohort 3 (repeated medium dose)
Wound area reduction by patients



Cohort 4 (repeated high dose)
Wound area reduction by patients






SUPERIOR EFFICACY TO CURRENT PRODUCTS

	Faster Healing	Higher Total-closure Rate
AUP-16 Phase 1	47d	83%
Skin substitutes	84d	60%
Standard of care	140d	30%



AUP-55

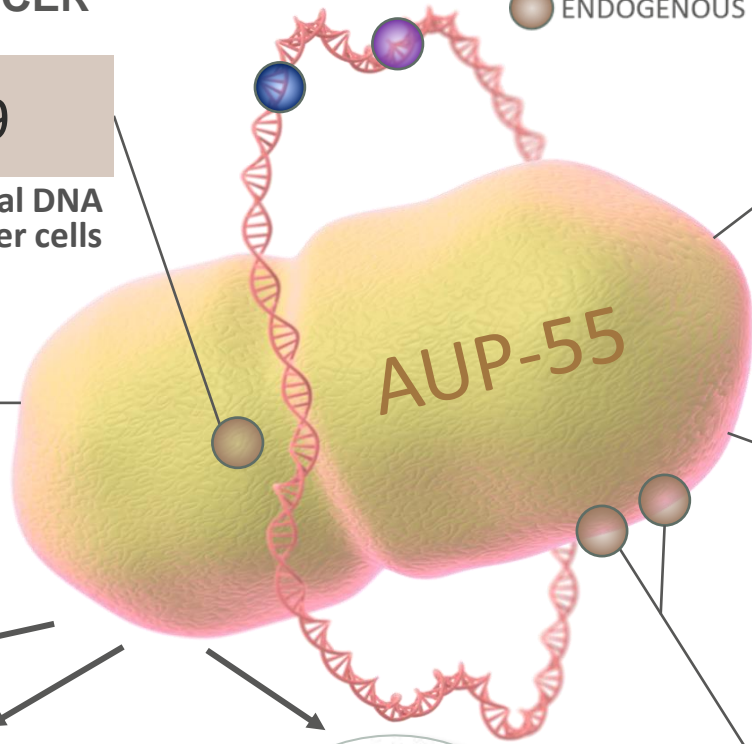
4-IN-1 BACTERIAL CELL AND GENE THERAPY FOR OVARIAN, PERITONEAL & BLADDER CANCER

-  INTERLEUKINS
-  OTHER CYTOKINES
-  ENDOGENOUS AGONISTS

Therapeutic Proteins:

4 **TLR9**
 Intra-cellular TLR9 agonist CpG motif of bacterial DNA driving adaptive immune response and killing of cancer cells

4 in 1



1 **h-IFN- α**
 Antiproliferative & antiangiogenic used in multiple cancers, modulating tumour cell growth, differentiation, survival, migration via autocrine & paracrine routes

2 **h-IL-15**
 Pleiotropic common gamma chain cytokine promoting the differentiation and expansion of T cells, B cells and natural killer cells

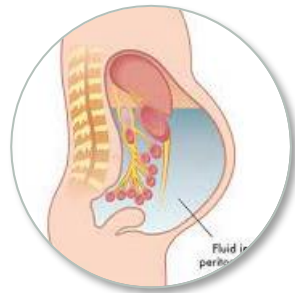
3 **TLR2 & NOD2**
 Surface TLR2 Lipoteichoic Acid and NOD2 Peptidoglycan Muropeptide enhancing immune response against cancer cells



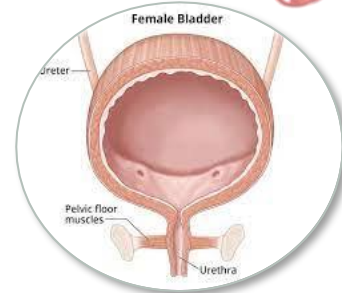
Intraperitoneal / intravesical injection



Ovarian Cancer



Peritoneal Carcinomatosis



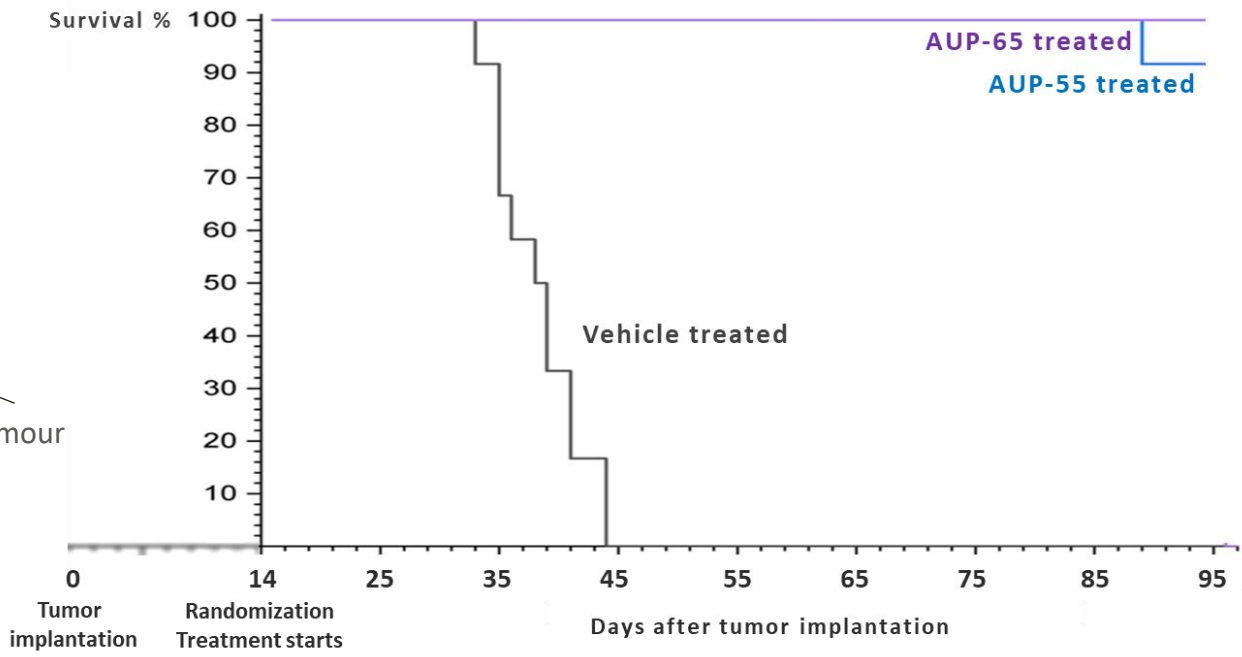
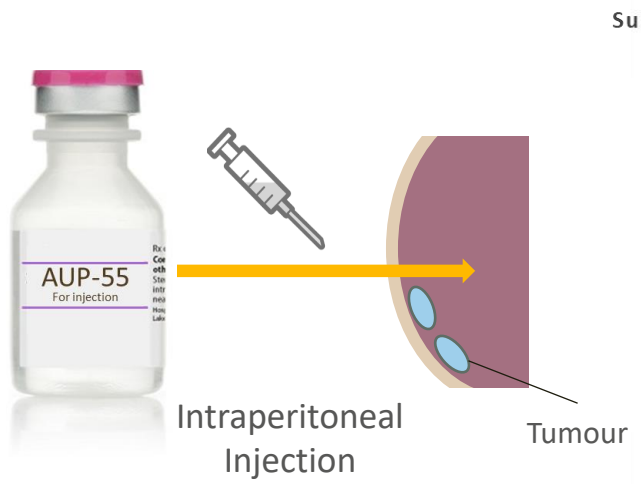
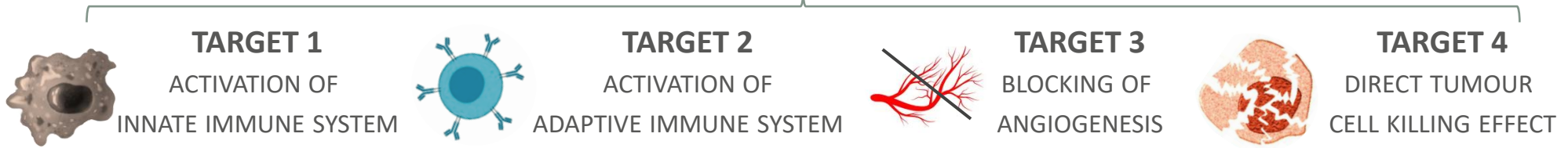
Bladder Cancer



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AUP-55: OVARIAN CANCER COMPLETE SURVIVAL WITH AUREALIS TREATMENT HITTING ALL FOUR KEY TARGETS

AUREALIS 4-IN-1 PRODUCT AUP-55



**AUREALIS 4-IN-1
AUP-55 AND AUP-65
SURVIVAL IN ID8 SYNGENIC
MOUSE MODEL**



HOW DO WE DIFFERENTIATE FROM COMPETITION?

	Aurealis Therapeutics platform	Non-pathogenic bacteria-based	Pathogenic bacteria-based	Viral vectors	Human cell and tissue therapies
Enables 4-in-1 targeting	✓	✗	✗	✗	✗
Non-pathogenic	✓	✓	✗	✗	✓
Controllable when administered	✓	✓	✓	✗	✗
Cost of goods and manufacturing scalability	✓	✓	✓	✗	✗
Easy to use	✓	✓	✓	✓	✗

Cell and gene therapy **technology platform comparison**. Separate competition analysis in each indication.



FINANCING

30 MCHF RAISED 2013-2021

- 20 MCHF equity and 10 MCHF non-diluting funding

10 MCHF ROUND

- Fully diluted pre-money valuation 30 MCHF
- Successfully over-subscribed Q1/2023

35 MCHF ROUND - TRANCHED

- Q3/2023 – Q1/2024, Q4/2024



OPERATIVE TEAM WITH TRACK RECORD IN CELL AND GENE THERAPY



CEO
Juha Yrjänheikki



CMO
Haritha Samaranyake



COO
Laurent Décory



Finance Director
Maija Rusi



Clinical Director
Lothar Pache



Genetic Engineering &
Manufacturing Director
Igor Mierau



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STRONG IPR PORTFOLIO

- I. AUP-16 extended composition of matter and medical use globally granted patents
 - USA, EU, Japan, China, South Korea, Australia, Canada, India etc.
- II. Proprietary plasmid technology platform PCT filed (published)
- III. Discovery stage technology platform PCT to be filed (non-published)
- IV. Discovery stage technology platform PCT to be filed (non-published)





OUR VISION FOR 2025

- ✕ Phase 2 data diabetic foot ulcer
- ✕ Phase 2 data venous leg ulcer
- ✕ Phase 2 data pressure ulcer
- ✕ Phase 1 initiated in ovarian cancer
- ✕ Keep options open: trade sale or stay as a profitable biopharma company (possible IPO)



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