Microbion strategy validated through $67M in non-dilutive grants and equity

$27 million in non-dilutive grant funding to-date

$10.3M from CARB-X to fund pre-clinical and clinical studies for treatment of cystic fibrosis-related lung infections

NIH provides unlimited, zero-cost preclinical/clinical services to Microbion as a CARB-X awardee

$7.6M from Cystic Fibrosis Foundation to fund pre-clinical/clinical studies treating cystic fibrosis-related lung infections

$2M – U.S. Navy/MTEC funding next study for treatment of biofilm-related infections, specifically moderate to severe diabetic foot ulcer infections

$2M – National Institute of Health provided direct funding and research

$5M - U.S. Army Institute of Surgical Research funded first clinical study for orthopedic infection treatment, Congressionally Directed Medical Research Program funded a second clinical study for orthopedic infection treatment

$40 million in equity investments to-date

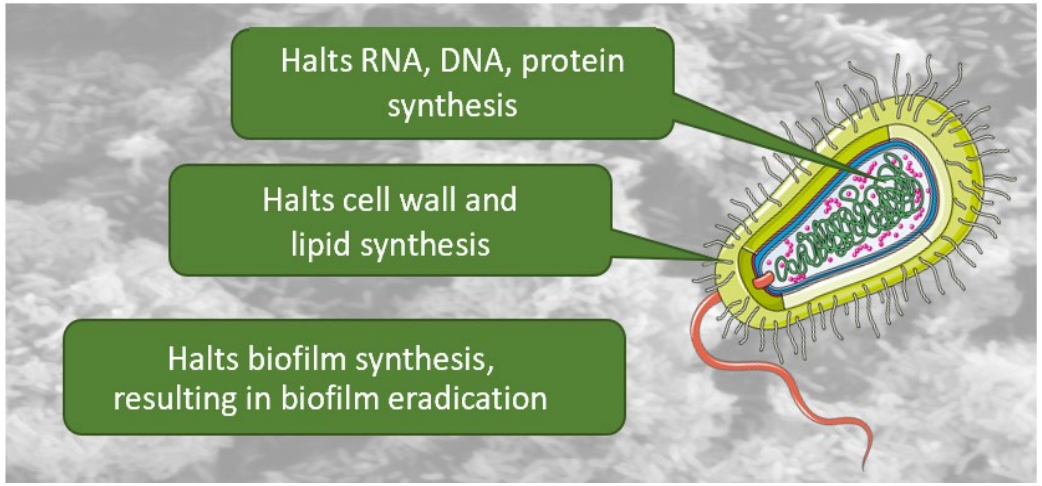
$25M Series A investment by Quark Venture and GF Securities through the Global Health Sciences Venture Fund in 2016

$2M cash investment by 5N Plus; also providing up to $2M supply of drug substance (GMP or R&D) and in-kind manufacturing development services through strategic partnership established in January 2021

$2.5M investment by Growing Impact Ventures in March 2021

Pravibismane: First-in-class with a unique antimicrobial strategy to overcome multi-drug resistant infections

- First in a new class (-bismane) of synthetic compounds; structurally-unrelated to all other known antibiotics
- Novel mechanism of action
- Unprecedented ability to prevent and eradicate bacterial biofilms
- Broad spectrum potency against MDR bacterial, mycobacterial, *and* fungal pathogens (incl. *C. auris*)
- Extremely low resistance and cross-resistance potential
- Safe and well-tolerated in over 325 humans across five clinical trials



Gram-positive Aerobes	
Organism (phenotype) (N)	**MIC range (µg/mL)**
MRSA (57)	0.5*
CA-MRSA (50)	0.5*
E. faecalis (VAN^{R}) (53)	1*
E. faecium (VAN^{R}) (52)	2*
S. pneumoniae (MDR) (6)	0.25 – 1.0
S. pyogenes (Macrolide^{R}) (4)	0.03 – 0.5
S. agalactiae (Macrolide^{R}) (5)	0.25 – 1.0

Gram-Negative Aerobes	
Organism (phenotype) (N)	**MIC range (µg/mL)**
A. baumannii (MDR) (15)	0.5 – 1.0
E. coli (MDR) (15)	0.5 – 2.0
K. pneumoniae (MDR) (19)	1.0 – 8.0
P. aeruginosa (MDR) (31)	2
N. gonorrhoeae (MDR) (16)	≤0.06 – 0.12

Pravibismane demonstrates potent activity against drug resistant priority pathogens and roughly equivalent potency against both planktonic MDR bacteria and the biofilms they produce

Pravibismane MIC generally ≤ 2 µg/ml in MDR *P. aeruginosa,* including carbapenem-R

Isolate	Resistance / β-lactamase Type	MIC (µg/mL)					
		Pravibismane	CAZ	CAZ/ CLAV	MEM	LVX	AMK
CDC 231	KPC/OXA	**2**	>64	>64/4	>8	>8	8
CDC 230	VIM/OXA	**0.5**	64	32/4	>8	8	>64
CDC 241	IMP/OXA	**4**	>64	>64/4	>8	8	32
CDC 246	NDM/OXA	**2**	>64	>64/4	>8	>8	>64
CDC 250	NDM/OXA	**2**	>64	>64/4	>8	>8	>64
CDC 516	KPC/AmpC	**1**	64	64/4	>8	0.25	2
CDC 518	KPC/AmpC	**1**	32	32/4	>8	>8	16

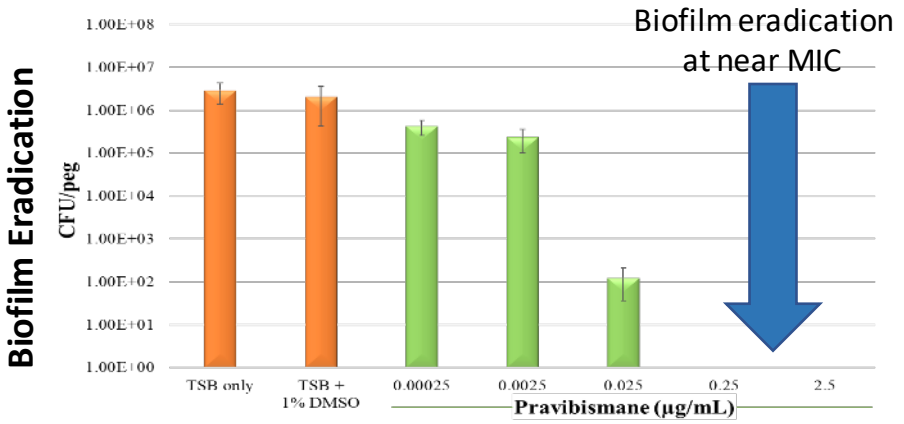
CDC = Centers for Disease Control and Prevention; KPC = *K. pneumoniae* carbapenemase; NDM = New Delhi metallo-β-lactamase; IMP = metallo-β-lactamase; VIM = metallo-β-lactamase; OXA = class D carbapenemases; AmpC = class C cephalosporinase; CAZ = ceftazidime; CLAV = clavulanate; MEM = meropenem, LVX = levofloxacin; AMK = amikacin

Pravibismane demonstrated equipotent MIC/MBEC activity against MDR *P. aeruginosa*

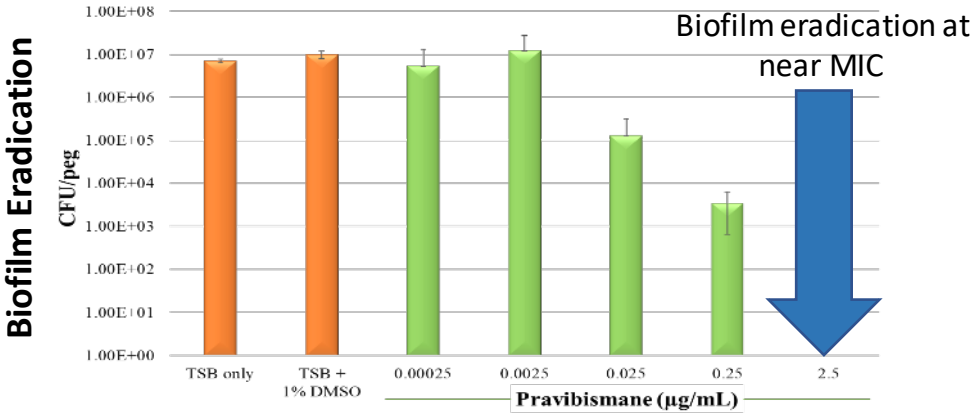
ID#	Type	MIC (µg/mL)
MR14	MDR CF-isolate	**1**
AG14	aminoglycoside^{R} CF-isolate	**0.5**

MIC study conducted at Seattle Children's Research Institute; MBEC study conducted at Univ of Washington.

Pravibismane treatment (24 hr) of 48 hr MDR *P. aeruginosa* (MR14) biofilms



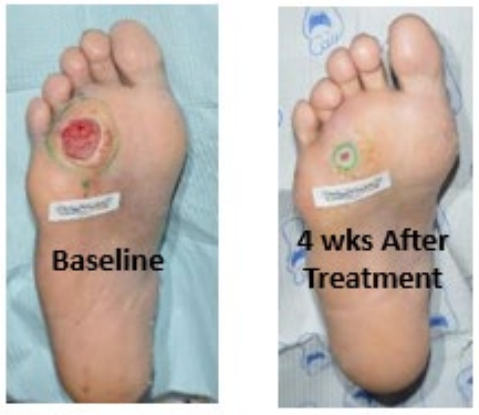
Pravibismane treatment (24 hr) of 24 hr aminoglycoside^{R} *P. aeruginosa* (AG14) biofilms



Microbion's targeted delivery approach reduces the risk of resistance development while addressing unmet medical needs of chronic, AMR infections

Chronic Wound Infections

Topical Pravibismane

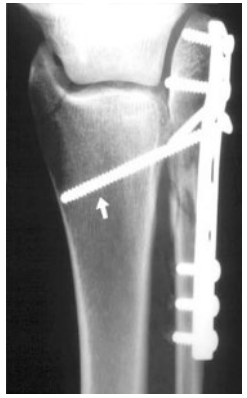


Phase 2

- Moderate and severe Diabetic Foot infections
- FDA Fast Track and QIDP designations
- Wound size and amputation reduction efficacy signal

Orthopedic Infections

Local Pravibismane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Phase 2

- Orthopedic device infections
- FDA Fast Track and QIDP designations
- Reduction of treatment failure efficacy signal

Pulmonary Lung Infections

Inhaled Pravibismane


1

Anticipated to be clinic-ready Q4 2021

- CF and nontuberculous mycobacteria (NTM) lung infections
- FDA Orphan Drug for CF lung infections, Fast Track and QIDP designations
- GLP-tox near completion

QIDP = Qualified Infectious Disease Product

Images: 1. https://www.cff.org/Life-With-CF/Treatments-and-Therapies/Medications/ and 2. http://emedicine.medscape.com/article/1247719-overview#a4