UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 OF THE SECURITIES EXCHANGE ACT OF 1934

For the month of January 2022

Commission File Number: 001-36187

EVOGENE LTD.

(Translation of Registrant's Name into English)

13 Gad Feinstein Street, Park Rehovot, Rehovot P.O.B 4173, Ness Ziona, 7414002, Israel

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.					
	Form 20-F ⊠	Form 40-F □			
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T	Γ Rule 101(b)(1)	:			
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T	T Rule 101(b)(7)	:			

Attached hereto and incorporated by reference herein is the following exhibit:

99.1 Biomica Investor Presentation.

Signature

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

EVOGENE LTD. (Registrant)

Date: January 10, 2022

By: <u>/s/ Dorit Kreiner</u> Dorit Kreiner Chief Financial Officer



Forward-looking statement



This presentation contains "forward-looking statements" relating to future events, and we may from time to time make other statements, regarding our outlook or expectations for future financial or operating results

and/or other matters regarding or affecting Evogene Ltd. or its subsidiaries, including Biomica Ltd. ("Biomica") (collectively, "Evogene" or "we"), that are considered "forward-looking statements" as defined in the U.S. Private Securities Litigation Reform Act of 1995 (the "PSLRA") and other securities laws. Such forward-looking statements may be identified by the use of such words as "believe," "expect," "anticipate," "should," "planned," "estimated," "intend" and "potential" or words of similar meaning. For these statements, Biomica claims the protection of the safe harbor for forward-looking statements contained in the PSLRA and other securities laws.



Such statements are based on current expectations, estimates, projections and assumptions, describe opinions about future events, involve certain risks and uncertainties which are difficult to predict and are not guarantees of

future performance. Therefore, actual future results, performance or achievements, and trends in the future of Biomica and Evogene may differ materially from what is expressed or implied by such forward-looking statements due to a variety of factors, many of which are beyond Biomica's and Evogene's control, including, without limitation, those described in greater detail in Evogene's Annual Report on Form 20-F and in other information it files and furnishes with the Israel Securities Authority and the U.S. Securities and Exchange Commission, including those factors under the heading "Risk Factors."



All written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirely by the previous statements. Except for any obligations to disclose information as required by applicable

securities laws, Biomica and Evogene disclaim any obligation or commitment to update any information contained in this presentation or to publicly release the results of any revisions to any statements that may be made to reflect future events or developments or changes in expectations, estimates, projections and assumptions.



The information contained herein does not constitute a prospectus or other offering document, nor does it constitute or form part of any

invitation or offer to sell, or any solicitation of any invitation or offer to purchase or subscribe for, any securities of Evogene or any other entity, nor shall the information or any part of it or the fact of its distribution form the basis of, or be relied on in connection with, any action, contract, commitment or relating thereto or to the securities of Evogene. The trademarks included herein are the property of the owners thereof and are used for reference purposes only. Such use should not be construed as an endorsement of the products or services of Evogene.





We are Biomica

An emerging biopharmaceutical company with cutting edge computational capabilities to develop the most optimized microbiome-based therapeutics.





Rooted in excellence

Subsidiary of Evogene Ltd.
(NASDAQ, TASE: EVGN), a pioneer
in the field of applied
computational predictive biology,
creating next-generation life
sciences products.





Breakthrough platform

Drug candidates identified and designed with PRISM—a proprietary computational platform combining Al capabilities with big data.



Spearheading the future

Optimized discovery, design & development, resulting in best-inclass pharmaceuticals.

Precise & efficient – from concept to clinical trials in only 3 years.

Our Mission

To discover & develop novel therapies for microbiome-related human disorders.

We utilize computational predictive biology to provide new therapeutic modalities for high-value, unmet medical needs.



Showing promise in immune-mediated & infectious diseases

Current programs:

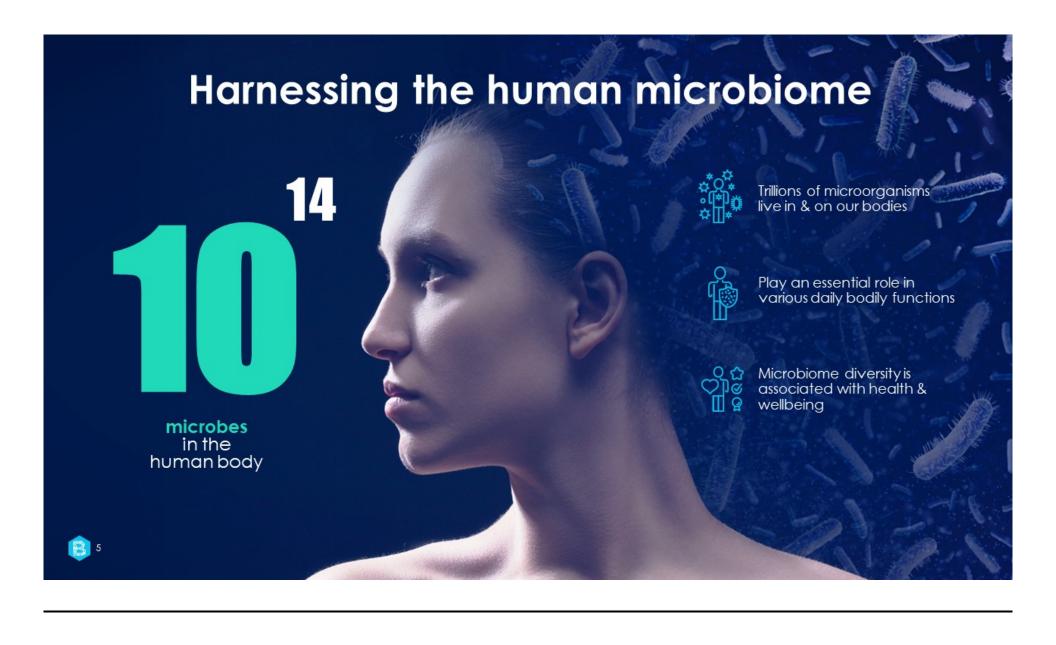


Immuno-oncology



Gastrointestinal (GI) related disorders





Right field, right time

Industry

Multi \$Bn market opportunity

More than \$4Bn invested in microbiome companies since 2014

Record high investments In microbiome companies



Areas of focus 44%

Most candidates are still in the discovery & preclinical stages; Increasing number advancing to clinical stage (Ph. II/III)

- Dermatology (8%)
- CNS (7%)
- Other (6%)
- GI-related disorders (44%)
- Cancer & Immunemediated Diseases (35%)

Key Players

Big pharma



















BCC Research (2017) -Human Microbiome-based Drugs and Diagnostics Market SVB -Emerging Healthcare: Microbiome Investment Trends Aug 2017)

https://www.microbiometimes.com /the-microbiome-biotechlandscape-an-analysis-of-thepharmaceutical-pipeline/









Prominent VCs







Active companies

Right field, right time

The microbiome is flourishing



17 June, 2021

The Microbiome's Time To Shine

Exclusive Interview With Seventure CEO Isabelle de Cremoux



26 January, 2021

The century of the microbiome: an exciting time for human health



Seres and Nestlé enter up to \$525m deal for microbiome therapeutic



Early investments powering the ascent of microbiome therapeutics

BOSTON BUSINESS JOURNAL

Seres stock jumps 400% on microbiome trial success

A clinical promise comes true



Finch Therapeutics Announces Positive Topline
Results from Randomized Controlled Trial of CP101,
an Oral Microbiome Drug, for the Prevention of
Recurrent C. difficile Infection



First microbiome-based drug clears phase III, in clinical trial turnaround

Positive phase 3 clinical data shows strong validation of microbiome therapeutics.



Limitations of common approaches

	Number of microbial entities	QC	Scalability	Druggability	Patentability	cogs	Targeted multiple functions composition	Potency*	Safety**
Fecal Microbiota Transplantation (FMT)	_	-	-	~	~	~	_	~	~
Single-strain method	~~	~~	~~	~~	~	~ ~	_	~	~~
Multi-strain rationally- designed Live biotherapeutic products (LBPs)	~	~ ~	~	~~	_	~	_	~~	~



^{*} Higher efficacy due to multiple carefully selected MoAs

✓✓ Fully addressed ✓ Partial addressed — Not addressed

^{**} Better safety due to fewer & carefully selected entities

Finding the optimal combination of microbes is complex

To develop **best-in-class drugs**, one must find, select, and combine **only the most suitable microbes** from the thousands of strains in our bodies.

Each method has its own set of challenges





Computational, targeted & function-based drug design



Modulating a patient's microbiome



Computational predictive biology platform



Function-based drug design process







2



Computational predictive biology platform



Proven, robust data integration, analysis & prediction

Big data









Proprietary computational algorithms utilized to mine data





20 years of experience

\$\$\$ tens of millions of dollars invested

Validation

through collaborations with industrial leaders & internal results





Computational predictive biology platform





Holistically determining the best strains for the patient

Patients' microbiome:

Identifies the strains present & the functions they perform



Strain identifier



Function finder



Strain-function allocator

Patients' genetic & clinical data: Examining the patient's clinical data & genomic data



Clinical data



Human genomics



Consolidator

Analysis, integration & prioritization Computational & researcherguided selection of candidate microbes



Drug





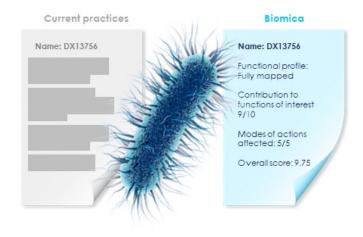
Function based drug design process



An emphasis on microbial function

PRISM allows high resolution analysis to rationally design therapeutics **based on** microbial functions*.

This differentiates Biomica from current practices.



* Functions:

Genetic elements (e.g. genes, operons, pathway, plasmids) and/or their biosynthetic products (e.g. metabolites, proteins, enzymes)

The optimal combination

Up to 4 bacterial strains are carefullyselected, based on their functions, which may work across several complementary mechanisms.



Minimum no. of microbial strains





Maximum relevant & complementary functions



=

Optimal therapeutic impact

Biomica's optimal therapeutic outcome

	Number of microbial entities	QC	Scalability	Druggability	Patentability	cogs	Targeted multiple functions composition	Potency*	Safety**
Fecal Microbiota Transplantation (FMT)	_	-	-	~	~	~	-	~	~
Single-strain method	~~	~	~~	~~	~	~	-	~	~~
Multi-strain rationally- designed LBPs	~	~~	~	~~	-	~	-	~~	~
Biomica's rationally- designed LBPs	~~	~ ~	~~	~ ~	~ ~	~ ~	~ ~	~ ~	~~



^{*} Higher efficacy due to multiple carefully selected MoAs

✓ ✓ Fully addressed ✓ Partial addressed — Not addressed

^{**} Better safety due to fewer & carefully selected entities

The pipeline

	Program	Indication / Target	Discovery	Preclinical	Phase 1 / POC	Phase 2	Approach
Immuno- oncology	BMC128	Combination Therapy with ICI* for Solid Tumors					
GI-related	BMC333	IBD					٩
disorders BMC	BMC426	IBS					٩
Antimicrobial resistance (AMR)	BMC202	C. difficile Infection					<u>-</u>
	TBD**	MRSA Infection					

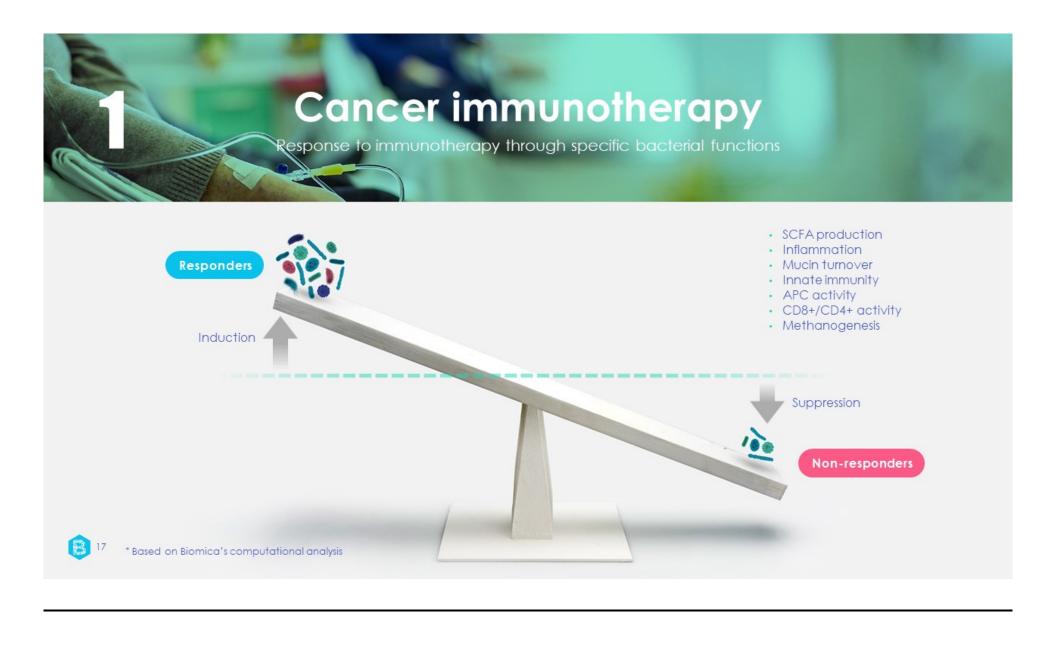


^{*} Immune checkpoint inhibitors





^{**}Biomica in collaboration with Nobel Prize Laureate Prof. Ada Yonath at Weizmann Institute of Science to develop a selective treatment for MRSA infection.



POC in humans

Modulating gut microbiome improves cancer treatment

Science

NEWS | HEALTH

Fecal transplants could help patients on cancer immunotherapy drugs

Early results hint that benefits seen in mice could extend to people

5 APR 2019 · BY JOCELYN KAISER

www.sciencemag.org/news/2019/04/fecal-transplants-could-

...Now, another potential therapy is being tested in clinical studies: fecal transplants. Early results from two groups described at the annual meeting of the American Association for Cancer Research (AACR) here this week suggest some patients who initially did not benefit from immunotherapy drugs saw their tumors stop growing or even shrink after receiving a stool sample from patients for whom the drugs worked...

...One unresolved question is exactly which microbes help ramp up the desired immune activity...



POC in humans

Modulating gut microbiome improves cancer treatment

Science

Reports

Cite as: E. N. Baruch et al., Science 10.1126/science.abb5920 (2020).

Fecal microbiota transplant promotes response in immunotherapy-refractory melanoma patients

Erez N. Baruch^{1,24+}, Ilan Youngster^{3,4}, Guy Ben-Betzalel¹, Rona Ortenberg¹, Adi Lahat², Lior Katz⁶, Katerina Adler⁷, Daniela Dick-Necula⁸, Stephen Raskin^{4,9}, Naamah Bloch¹⁰, Daniil Rotin⁸, Liat Anafi⁸, Jenny Melnichenko¹, Yael Steinberg-Silman¹, Ronae Mamtanl¹¹, Hagit Harati¹, Nethanel Asher¹, Ronnie Shapira-Frommer¹, Tal Brosh-Nissimov¹², Yael Eshet^{1,5,13}, Shira Ben-Simon¹⁰, Oren Ziv¹⁰, Md Abdul Wadud Khan¹³, Moran Amiti¹⁵, Nadim J. Ajami¹⁴, Iris Barshack^{1,5}, Jacob Schachter^{1,4}, Jennifer A. Wargo^{15,19}, Omry Koren¹⁰, Gal Markel^{1,5,17}; Ben Boursi^{1,5,18},

Science

Clinical Trials

Davar et al., Science **371**, 595–602 (2021) 5 February 2021

Fecal microbiota transplant overcomes resistance to anti-PD-1 therapy in melanoma patients

Diwakar Davar^{1*}, Amiran K. Dzutsev^{2*}, John A. McCulloch², Richard R. Rodrigues^{2,3},
Joe-Marc Chauvin¹, Robert M. Morrison¹, Richelle N. Deblasio¹, Carmine Menna¹, Quanquan Ding¹,
Ornella Pagliano¹, Bochra Zidi¹, Shuowen Zhang¹†, Jonathan H. Badger², Marie Vetizou²,
Alicia M. Cole², Miriam R. Fernandes², Stephanie Prescott², Raquel G. F. Costa², Ascharya K. Balaji²,

www.science.org/doi/10.1126/science.abb5920

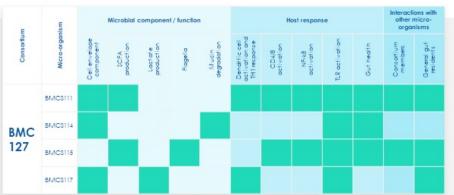
www.science.org/doi/10.1126/science.abf3363



Combination therapy

Initial focus on solid tumors: Lung cancer (**NSCLC**), renal cell carcinoma (**RCC**), and **melanoma**. Biomica aims to **improve clinical response** to ICI through immunomodulating combination therapy.





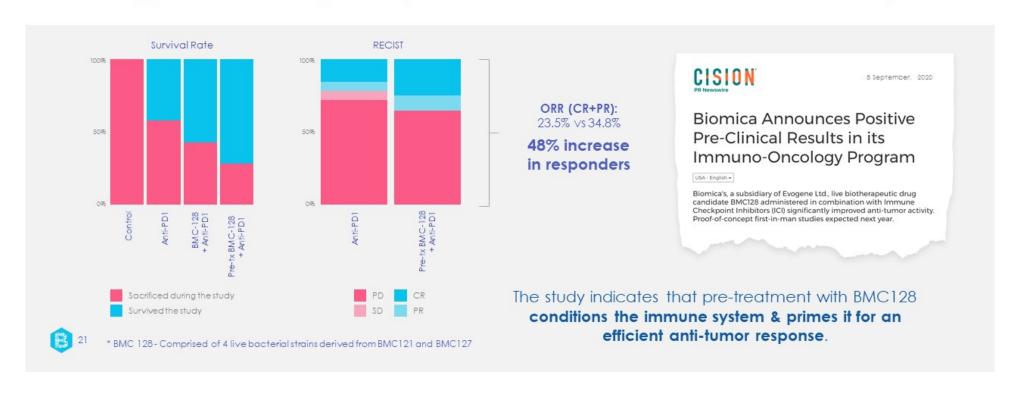


Next gen. optimized consortia

A new combination providing the selected microbial functions & presenting higher likelihood for survival in GI.

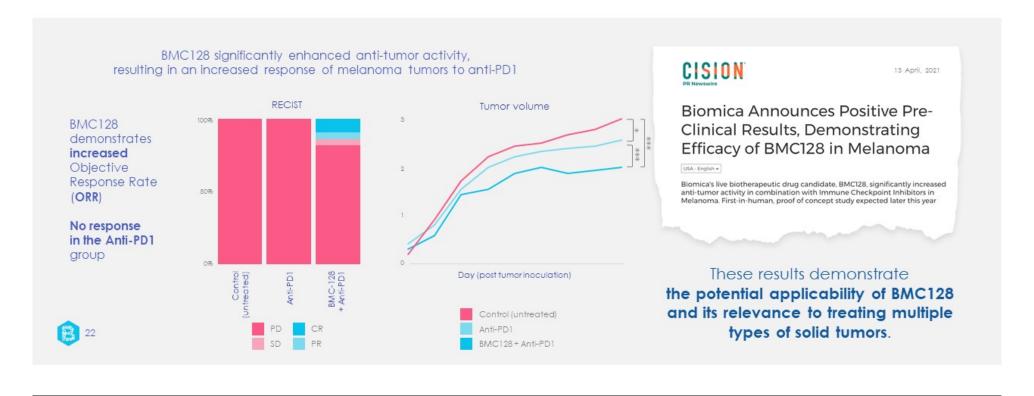


BMC128 administered prior to and in combination with anti-PD1 significantly improved anti-tumor activity



Cancer immunotherapy

BMC128 demonstrating efficacy against melanoma



Cancer immunotherapy

Advancing into the clinical phase



BMC128 consists of 4 live bacterial strains.



Results demonstrated a significant **reduction of tumor volume**, and **increased animal survival** compared to anti-PD1 therapy alone.



MoA is immune mediated – Increased tumor inflammation & infiltration of T lymphocytes and NK cells.



Potential applicability in the treatment various types of solid tumors.



13 October, 2020

Biomica Announces Initiation of Large-Scale Production of Live Bacterial Product (LBP) Candidate Consortium in its Immuno-Oncology Program

USA - English •

The company is advancing to scale-up and GMP batch production, to support anticipated first-in-man proof-of-concept clinical trials next year



Biomica completed large-scale GMP-production of BMC128 to support its **first-in-human** proof of concept clinical study, expected in early **2022**

GI-related disorders

IBS & IBD



Irritable bowel syndrome (IBS)*

A common intestinal functional disorder, group of symptoms: Abdominal pain, constipation or diarrhea, bloating, gas & diarrhea.



Inflammatory bowel disease (IBD)

A group of inflammatory conditions of the colon and small intestine (Crohn's disease, ulcerative colitis & pouchitis).



*In collaboration with The University of North Carolina (UNC) at Chapel Hill

Both clearly related to the microbiome

Biomica pushes the barriers posed by existing therapies by addressing the underlying cause of the disorder, rather than the symptoms.

https://www.grandviewresearch.com/industryanalysis/irritable-bowel-syndrome-ibs-treatment-market

https://www.grandviewresearch.com/industryanalysis/inflammatory-bowel-disease-ibd-treatment-market

IBS (40M)

IBS-D (16M) IBS-C (14M) IBS-M (9M)

IBD (3M)

Crohn's disease (2M) Ulcerative colitis (1M) Pouchitis (150K)



IBS (\$1.5Bn)

IBD (\$19.2Bn)



Established role for microbiome in IBD etiology

A state of inflammation is associated with reduced richness of microbial taxa and functions

> Gastroenterology, 2017 Feb;152(2):327-339.e4, doi: 10.1053/j.gastro.2016.10.012.

Roles for Intestinal Bacteria, Viruses, and Fungi in Pathogenesis of Inflammatory Bowel Diseases and Therapeutic Approaches

R Balfour Sartor 1, Gary D Wu 2

Affiliations

- Departments of Medicine, Microbiology and Immunology, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina. Electronic address: rbs@med.unc.edu.
- 2 Division of Gastroenterology, Perelman School of Medicine, the University of Pennsylvania, Philadelphia, Pennsylvania, Electronic address; gdwu@mail.med.upenn.edu.

PMID: 27769810 PMCID: PMC5511756 DOI: 10.1053/j.gastro.2016.10.012

BMC333

Optimized drug candidate derived from Biomica's drug candidates BMC321 and BMC322

Aimed to reduce inflammation for treating IBD

> Curr Treat Options Gastroenterol. 2015 Mar;13(1):105-20. doi: 10.1007/s11938-014-0042-7.

Therapeutic Manipulation of the Microbiome in IBD: Current Results and Future Approaches

Jonathan J Hansen 1, R Balfour Sartor

Affiliation

Department of Medicine, University of North Carolina at Chapel Hill, CB 7032, Chapel Hill, NC, 27599, USA, jjhansen@med.unc.edu.

PMID: 25595930 PMCID: PMC4364996 DOI: 10.1007/s11938-014-0042-7



Drug comprised of 4 bacterial strains, detected through Biomica's proprietary computational functional genomic analysis platform.



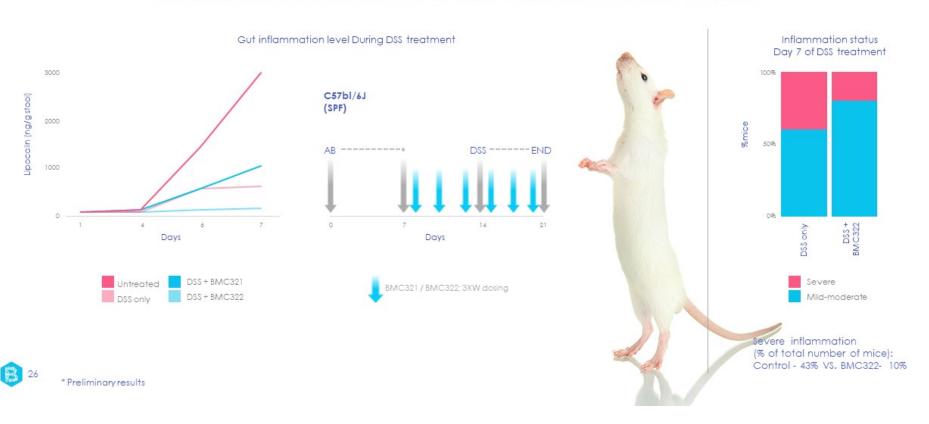
Strains selected for their anti-inflammatory functions, complement each other and target both immunocytes and intestinal mucosal cells.



Each strain supports growth and metabolism of other strains, along with favorable gut resident bacteria.



BMC321 & BMC322 indicate to reduce inflammation in a DSS-treated mouse model*

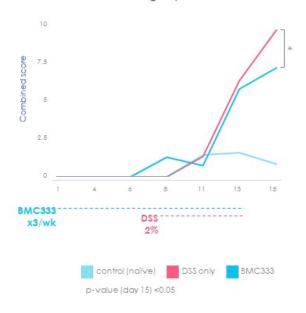


BMC333 reduce tissue damage due to inflammation

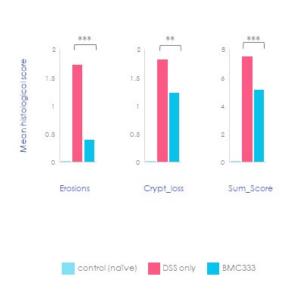
Study design for testing the anti-inflammatory effect of BMC333 in DSS-induced colitis murine model.



Disease severity along study evaluated by Disease Activity Index (DAI) combined score following DSS administration in BMC333-treated and untreated groups.



Histological evaluation from H&E staining of mice colon sections after DSS administration in BMC333-treated and untreated groups.



Antimicrobial resistance (AMR)

Targeting multi-drug resistant bacterium while preserving healthy gut microbiome

C. difficile infection (CDI)



Most common hospital-acquired infections (Over 600,000 a year).



Increasing cause of morbidity and mortality.



Developing a selective anti-bacterial agent designed to inhibit the C. difficile toxin.

Due mostly to hospitalization, the economic cost of CDI (est.)

\$5.4Bn



MRSA infection

A collaboration between Biomica and the Nobel Prize Laureate Prof. Ada Yonath at the Weizmann Institute of Science.

In-licensed IP and knowhow generated by Prof. Ada Yonath.

Cause to tens of thousands of annual cases of mortality in the US.

MRSA market in 2025 (est.) \$3.9Bn



Upcoming advancements



The potential for future drugs



An experienced management team



Elran Haber, PhD, MBA

Previously served as the CEO of Therapix Biosciences (Nasdaq, TASE: TRPX), leading the company to a successful IPO on Nasdaq and advancing the Company's programs to clinical stage. Spent more than 10 years as Chairman and board member of several privately held, and publicly traded companies. Served in senior executive roles in various life science companies and a private investment firm. Holds a PhD in Pharmaceutical Science and an MBA in Finance & Financial Engineering, both from The Hebrew University of Jerusalem, Israel.



Prof. Yehuda Ringel

Chief of the Gastroenterology and Hepatology Division of the Meir Medical Center in Israel; Professor of Medicine at Chapel Hill, North Carolina and is affiliated with University of North Carolina Hospitals.

Has more than 30 years of diverse experiences, especially in Gastroenterology and translational research, and is an expert on IBS and functional motility disorders; Recipient of several prestigious awards. MD from Technion Institute of Technology, Israel.



Shiri Meshner, PhD VP of Research & Development

Previously served as the head & principal investigator of the Dead Sea microbiology lab in the Dead Sea-Arava Science Center.

Spent over 5 years working in the pharmal industry both in the US and in Israel (OSI pharmaceuticals and Teva pharmaceuticals). Holds a PhD in systems microbiology from the Department of Physics of Complex Systems at The Weizmann Institute.



Eyal Partuk **VP Finance**

10 years experience in corporate finance, public and private companies. Spent the last years as the CFO of a start-up company - involvement in over \$200M private fundraising.

Certificated CPA - Hebrew University of Jerusalem. Ernst & Young alumnus.

Board of directors



Ofer Haviv Chairman

Mr. Ofer Haviv serves as Evogene's (Nasdaq: EVGN) President and CEO since of



Doron Ben Ami Director

Mr. Doron Ben Ami is a highly experienced executive with a successful track record of more than 20 years of in the Pharma industry.



Kinneret Savitsky, PhD Director

Dr. Kinneret Livnat-Savitzky is the CEO and board member of PutuRx Ltd (OrbiMed, J&J Innovation and Takeda's accelerator), Kinneret has over 25 years of experience in senior leadership positions in the biopharmaceutical industry.











World-class scientific advisory board & advisors



Prof. Yehuda Ringel

Chief Division of Gastroenterology and Hepatology at Meir Medical Center, Israel. Professor of Medicine at Chapel Hill, North Carolina and is affiliated with University of North Carolina Hospitals.



Prof. Willem M De Vos

Professor and Chair of Microbiology at Wageningen University, the Netherlands and Professor of Human Microbiomics at the University of Helsinki, Finland.



Prof. R. Balfour Sartor

Serves as the Midget Distinguished Professor of Medicine, Microbiology and Immunology and Director of the Multidisciplinary IBD Center at the University of North Carolina, Chapel Hill.





Prof. James Versalovic

Pathologist-In-Chief at Texas Children's Hospital and Director of Texas Children's Microbiome Center, Professor and Vice Chair of Pathology & Immunology at Baylor College of Medicine.



Prof. David Rubin

Section chief of gastroenterology, hepatology, and nutrition at University of Chicago Medicine. Chair-elect of the National Scientific Advisory Committee of the Crohn's and Colitis Foundation.



Dr. Ravid Straussman

Principle investigator of the Tumor microenvironment, tumor microbiome and resistance to anti-cancer therapy lab at the Weizmann Institute of Science, Israel.

POC first-in-human

clinical trial to be initiated early 2022

A phase 1, open-label study to evaluate the safety and tolerability of **BMC128** in combination with anti-PD-1 in patients with **non-small cell lung cancer** (NSCLC), **melanoma** or **renal cell carcinoma** (RCC).





Q1 2022

is the expected start of this study, in a leading medical center in Israel.



12-15 Patients

expected to be enrolled in this phase I trial.



Safety & tolerability

of the BMC128 and anti PD-1 combination will be investigated as primary objective.



Exploratory objectives

are to explore efficacy variables in response to combined treatment with BMC128 and anti PD-1.



Summary



Human microbiome-based therapeutics is a rapidly growing space, and represents a multi \$Bn market opportunity.



Biomica develops innovative microbiome-based therapeutics utilizing dedicated computational predictive biology tools.



Biomica's computational tools and unique approach provide a significant differentiation.



First-in-human POC study in cancer slated early 2022.



Focus on high-value clinical programs for the development of therapies for antibiotic resistant bacteria, immunooncology and microbiome-related gastrointestinal (GI) disorders.



Experienced management team, board of directors
& world-class scientific advisory board.



