



The Future of Cancer Immunotherapy

BriaCell Therapeutics Corp.

BCT:TSXV; BCTXF:OTCQB

Investor Presentation

October 2020

BriaCell Therapeutics Corp. (“**BriaCell**”)

Except for historical information, this presentation contains forward-looking statements, which reflect BriaCell’s current expectations regarding future events. These forward-looking statements involve known and unknown risks and uncertainties that could cause BriaCell’s actual results to differ materially from those statements. Those risks and uncertainties include, but are not limited to, our ability to access capital, the successful and timely completion of clinical trials, the receipt of all regulatory approvals and other risks detailed in our our registration statement on Form F-1 which we filed with the Securities and Exchange Commission on February 21, 2020, as amended from time to time and available at www.sec.gov. The forward-looking statements in this presentation are also based on a number of assumptions which may prove to be incorrect.

Forward-looking statements contained in this presentation represent views only as of the date of this presentation and are presented for the purpose of assisting potential investors in understanding BriaCell’s business, and may not be appropriate for other purposes. BriaCell does not undertake to update forward-looking statements, whether written or oral, that may be made from time to time by or on its behalf, except as required under applicable securities legislation.

- BriaCell Therapeutics Corp. is a clinical stage immunotherapy company developing treatments that boost the ability of the body's own cancer-fighting cells to destroy cancerous tumors including Bria-IMT™ for **Advanced breast cancer** (the cause of over 40,000 deaths per year in the U.S.)
- The company recruited 35 patients showing robust response and is engaged in developing the next generation of HLA-type matching therapies from a simple saliva test
- Immunotherapy Clinical Pipeline:
 - **Bria-IMT™ combined with immune checkpoint inhibitors (Phase I/IIa)**
 1. Bria-IMT™ combined with pembrolizumab (KEYTRUDA®); dosed 11 patients → transitioned to Incyte combination
 - Investigator-initiated study at Thomas Jefferson University with **Merck to provide KEYTRUDA®**
 2. Bria-IMT™ combined with **Incyte's selected compounds under corporate collaboration**
 - **Bria-OTS™ "Off-The-Shelf Personalized"** immunotherapy based on patient's HLA-type
 - **Registration Study** initiation expected late-2021 → Bria-IMT™ combined with immune checkpoint inhibitor
- **BriaCell Team:**
 - CEO, Dr. William Williams, and his team have been involved in many of drug approvals.
 - Founder, Dr. Charles Wiseman, served as Clinical Professor of Medicine, Keck-USC School of Medicine



We believe BriaCell's Phase II clinical program in Breast Cancer is ready for partnering

Experienced Drug Development & Financial Team



William V. Williams, MD, FACP, President & CEO, Director

- Former VP, Exploratory Development, Incyte Corporation
- Former VP, Experimental Medicine, GlaxoSmithKline
- Former Head, Rheumatology Research, University of Pennsylvania
- Extensive drug development experience

Charles Wiseman, MD, Co-Founder & Director

- Director, Immunotherapy Lab, St. Vincent Medical Center
- Clinical Professor of Medicine (retired), Keck-USC School of Medicine
- Former Acting Chief of the Division of Oncology/Hematology at the White Memorial Medical Center

Rebecca A. Taub, MD, Director

- Current: CMO & EVP, Director, Founder, Madrigal Pharmaceuticals
- Senior VP, VIA Pharmaceuticals
- VP of Research, Metabolic Diseases, Hoffmann-La Roche Company
- Executive Director, Bristol-Myers Squibb
- Executive Director, Dupont Pharmaceuticals
- Professor of Genetics and Medicine, University of Pennsylvania

Jamieson Bondarenko, CFA, CMT, Chairman of the Board

- Previously Principal and Managing Director of the Equity Capital Markets group of Eight Capital
- Previously several positions at Dundee Securities Ltd., including Managing Director, Director, Vice President and Associate

Vaughn Embro-Pantalony, MBA, FCPA, FCMA, CDir, ACC, Director

- Current: Chair, Board of Directors, Sorcimmed Biopharma Inc.
- Board and Audit Committee Member, Microbix Biosystems Inc.
- VP, Finance & CFO, Teva Novopharm Limited
- VP, Finance & Administration, Bayer Healthcare
- Director, Finance and Administration & CFO, Zeneca Pharma Inc.

Richard J. Berman, JD, MBA, Director

- Current: Director, Advaxis, Inc., Cryoport, Inc., Immuron Limited, Cev & Microbix Biosystems Inc.
- Chairman: Cevolva Biotech, Inc., MetaStat, Inc., & National Investment Managers
- Director & Chairman & CEO: Nexmed Inc. (Apricus Biosciences, Inc) & Internet Commerce Corporation (Easylink Services); Director, Catasys, Inc.
- Director, Stern School of Business of NYU

CEO involved in eleven drug approvals

Therapeutic	Indication	Preclinical	Phase I	Phase II	Phase III	Anticipated Milestones
Bria-IMT™ combined with Incyte Compounds	Advanced Breast Cancer (3 rd + line)					Further safety and early efficacy data from 4Q 2020 through 2022
Bria-IMT™ with KEYTRUDA®	Advanced Breast Cancer (3 rd + line)					Safety and efficacy 4Q 2020 through 2022
Bria-OTS™	Breast Cancer					IND filing 2021
NICL1*	Prostate Cancer					IND Filing 2021 [§]
NICL2*	Non-Small Cell Lung Cancer					IND Filing 2021 [§]
Antibodies / Antigens	SARS-CoV-2					IND filing 2021 [§]
NICL3*	Melanoma					IND Filing 2022 [§]
Bria-TILsRx™	Prostate Cancer					IND Filing 2022 [§]
Bria-TILsRx™	Epithelial and Glandular					IND Filing 2022 [§]
PKCδi**	RAS Transformed Cancers					Candidate Selection 2021

*NICL = Novel Immunotherapy Cell Lines **PKCδi = Protein kinase C delta inhibitor

[§]Each of these IND filings would require an additional ~\$1M above the minimal budget

Big Pharmaceutical Companies Are Active

- Partnership & collaboration opportunities exist in the advanced breast cancer oncology market, particularly in immunotherapies, which directly stimulate the body's own cancer-fighting cells to attack and destroy breast cancer tumors.
- **BriaCell's approach is Targeted Immunotherapy; not CAR-T or gene therapy.**
- **BriaCell has had collaboration discussions with several 'Big Pharma' companies.**
- **We believe BriaCell's Phase I/IIa safety & efficacy show similar or superior results to those of other advanced or approved drugs for breast cancer when they were at a similar clinical stage of development.**

Lilly eyes more cancer deals, but wary of CAR-T, gene therapy

Eli Lilly and Co remains in the hunt for cancer drugs even after announcing an \$8 billion purchase of Loxo Oncology this week...

-- Reuters; January 11, 2019

Bristol-Myers Reports Higher Sales but Another Lung-Cancer Setback

Merck's Keytruda immunotherapy scored a major advantage when it received U.S. approval for newly diagnosed lung-cancer patients, while Bristol's Opdivo immunotherapy failed a trial to show its effectiveness in the patients..

-- The Wall Street Journal; January 25, 2019

GlaxoSmithKline to look for early-stage assets: CEO

GlaxoSmithKline Plc will actively look to buy early-stage assets and partner with companies, the drugmaker's chief executive officer said Tuesday. ... she said GlaxoSmithKline had almost doubled the size of its immuno-oncology pipeline over the past few months.

-- Reuters; January 8, 2019

Agenus shares soar after cancer therapy deal with Gilead

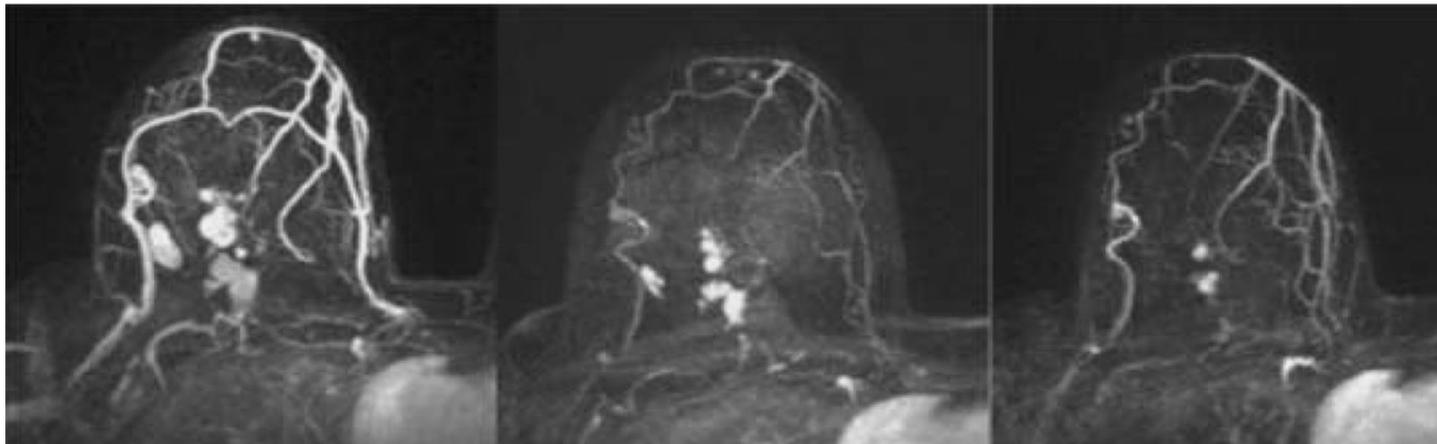
...the company said it would develop and market up to five of its immuno-oncology therapies in partnership with Gilead Sciences Inc.

-- Reuters; December 20, 2018

Positive Human Proof-of-Concept Trials in Advanced Breast Cancer

- 1999-2003 & 2004-2006, Dr. Charles Wiseman (current BriaCell Director)
- Bria-IMT™ was developed from a breast cancer cell line called SV-BR-1

	1999 – 2003 (SV-BR-1)	2004 – 2006 (Bria-IMT™)
Patients	N=14 late stage	N=4 late stage
Safety Profile	Well tolerated; no severe AEs	Well tolerated; no severe AEs
Median Survival	12.1 months	35 months



Baseline

3 Inoculations (2 months)

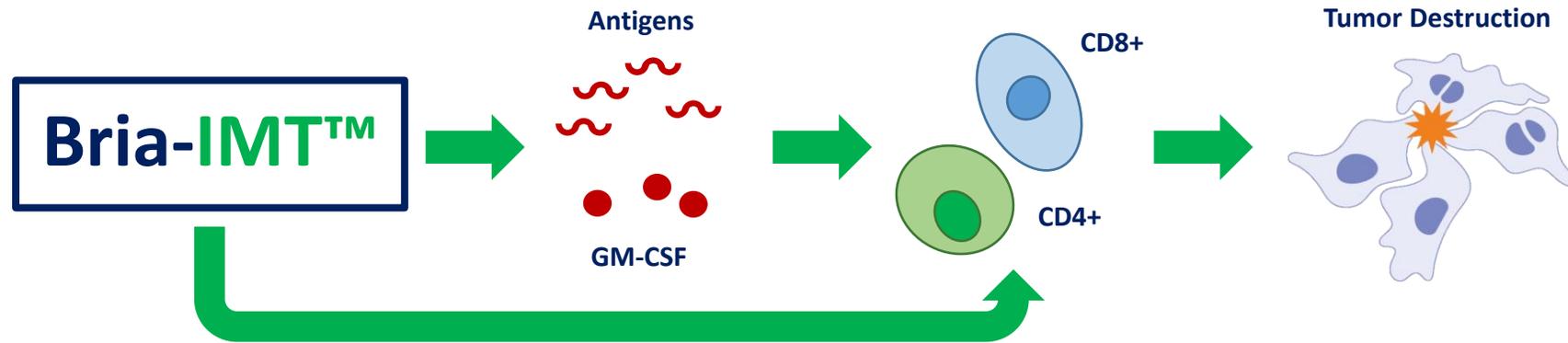
6 Inoculations (5 months)

Patient A002 – Robust Responder

Patient A002 was treated with the Bria-IMT™ regimen and had a robust response with substantial tumor regression in the breast and bone, and complete clearance in the lungs and soft tissues.

Is this the KEY?... Patient A002 had key HLA-types that matched with Bria-IMT™

Bria-IMT™ is a patented (USPTO) immunotherapy approach that is believed by us to directly stimulate the body's own cancer-fighting cells to attack and destroy breast cancer tumors.



We believe that Bria-IMT™:

1. Produces **antigens** (proteins made by breast cancer cells).
2. Further boosts the immune response through secretion of a protein called **GM-CSF**.
3. The antigens are 'presented' to **CD4+ and CD8+ T-cells**, cells known for tumor destruction.
4. Also directly *stimulates* these cancer-fighting T-cells, further boosting the response.

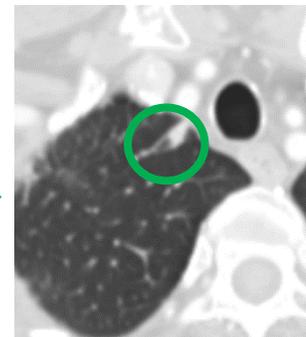
How we believe it works: *Specific Immune Activation* directly stimulates cancer-fighting cells in advanced breast cancer

Mechanism of Action & Proof-of-Concept (Dec 2018)

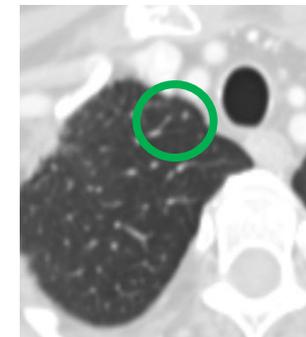
- 23 patients were dosed in the 2017-2018 study, all very heavily pre-treated (with chemotherapy).
- **Safety & Efficacy Data:** We believe the data was similar or superior to those of other advanced or approved drugs for breast cancer when they were at a similar clinical stage of development.
- **Findings:** BriaCell has closed enrollment for this Bria-IMT™ monotherapy study.

HLA-Type Matching and Biological Activity (original patients + phase I/IIa data)

Patients	HLA Match	Disease Control*	Disease Control in Immune Responders**
N=6	≥ 2	50%	75%
N=20	≥ 1	25%	33%
N=7	0	29%	29%



Pre-Treatment



Post-Treatment

Patient 01-002 – Two HLA Matches

Patient 01-002 was treated with the Bria-IMT™ regimen and had what we conclude was a robust response, specifically substantial tumor regression in 20 lung metastases that all either disappeared or shrunk to tiny scars.

*Immune response measured by delayed-type hypersensitivity.

HLA Matching Hypothesis: We believe tumor regression is most pronounced in patients who match Bria-IMT™ at specific HLA-types & develop an immune response

Bria-IMT™



Checkpoint
Inhibitors

How Do Checkpoint Inhibitors Work?

- PD-L1 molecules block immune cells from attacking cancer cells
- Immune checkpoint inhibitors (such as pembrolizumab (KEYTRUDA®)) are designed to neutralize this immune suppression in cancer patients

Why did we combine Bria-IMT™ with immune checkpoint inhibitors?

- BriaCell has observed PD-L1 expression on circulating cancer cells & cancer-associated cells in >90% of patients
- We believe Bria-IMT™ *increases immune response* while checkpoint inhibitors such as KEYTRUDA® *decrease immune suppression*
- BriaCell believes that Bria-IMT™ can exert additive or synergistic tumor-directed effects with checkpoint inhibitors
- **BriaCell's hypothesis:** We believe that checkpoint inhibitors act by "awakening" a component of the immune system, while Bria-IMT™ "puts the foot on the gas" of the immune system, which we believe may lead to more powerful anti-tumor activity
- BriaCell currently dosing Bria-IMT™ with Incyte's selected compounds under corporate collaboration
- Additional investigator-initiated combination therapy study with a supply agreement from Merck for KEYTRUDA®
 - Approved February 2020; to be run at Thomas Jefferson University, Philadelphia, PA

We believe the combination of Bria-IMT™ with immune checkpoint inhibitors may induce a more potent anti-cancer response

Phase I/IIa Combination Study

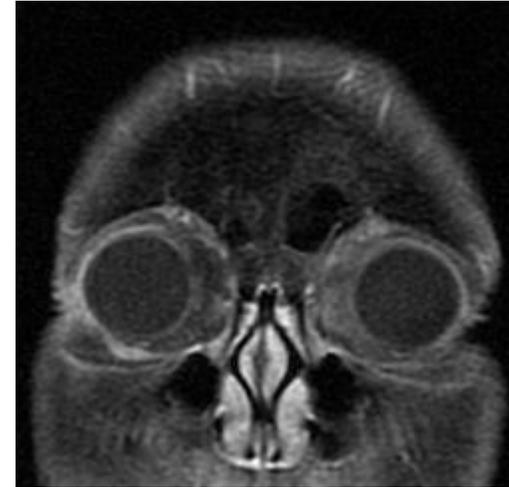
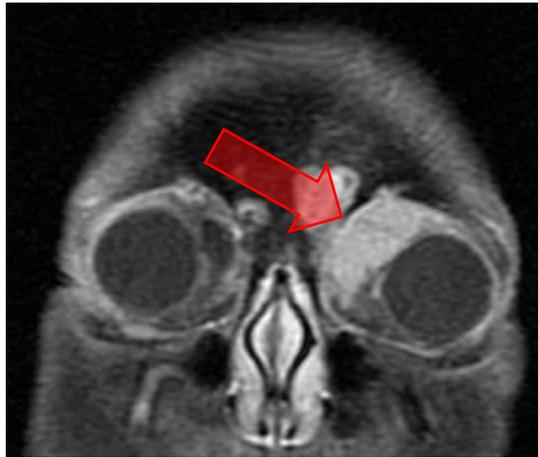
- Patients were treated with the combination of Bria-IMT™ and anti-PD-1 antibody KEYTRUDA®.
- We believe that an excellent safety and tolerability profile** on the first 11 patients was observed.
- All 11 patients were very heavily pre-treated with a median of 5 prior systemic therapy regimens (such as chemotherapy).
 - Most had very weak immune systems, further emphasizing the importance of what we believe were the positive results observed.
 - As BriaCell had been purchasing the KEYTRUDA® for the study from Merck without a supply agreement, the study was switched to evaluating combination therapy with Incyte drugs and the combination with KEYTRUDA® was discontinued
- Remarkable Responders Noted; Median Overall Survival of 13.25 months** – Recent publication in similar patients (*Kazmi S et al Breast Cancer Res Treat. 2020 Aug 17*) showed a median overall survival of 7.2 - 9.8 months

	Patient	HLA Match	Observations	
Rolled-over from Bria-IMT™ study	1	0	25% reduction in sum of diameters of target liver metastases (breast cancer tumors in the liver)	<ul style="list-style-type: none"> She had 8 prior chemotherapy regimens with extensive tumor growth in her liver. She is <u>not</u> an HLA match with Bria-IMT™ suggesting that—in combination with KEYTRUDA®—tumor reduction may occur without a match with Bria-IMT™.
Remarkable Responder announced Sept. 2019 Did <u>not</u> roll over	5	2	70% reduction in longest diameter of breast cancer tumor in the adrenal, with reductions in orbital (behind the eye) brain lining metastases.	<ul style="list-style-type: none"> She had failed 12 prior regimens with 16 agents (13 chemotherapy and 3 hormonal). Match at HLA-C and HLA-DRB3 loci.

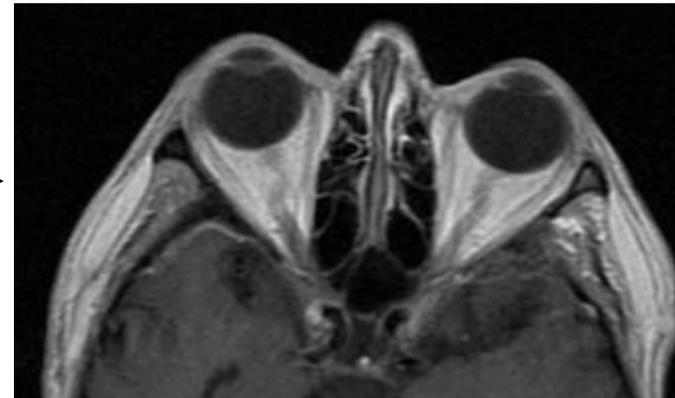
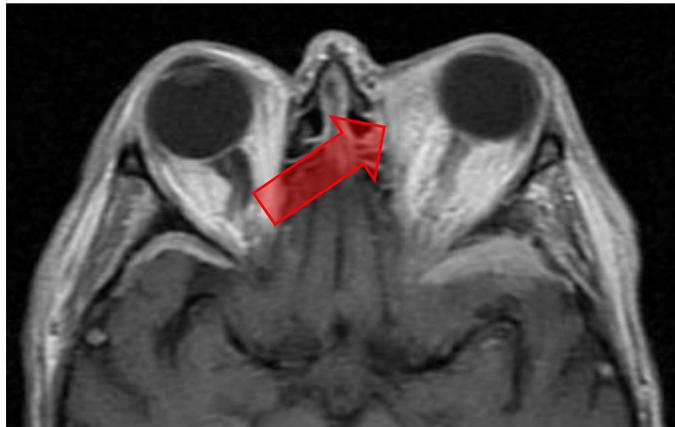
We believe these findings support BriaCell’s hypothesis: Evidence of rapid additive or synergistic anti-tumor activity

Tumor behind the left eye causing proptosis completely resolves

**Baseline
Scans**



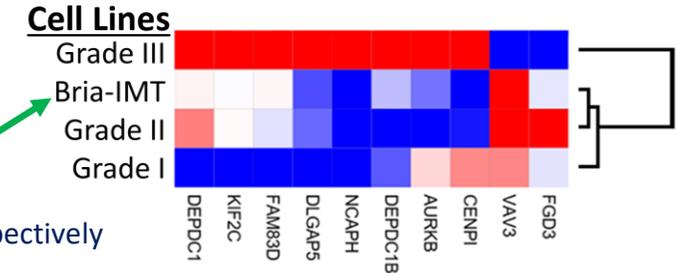
**Six months
On Treatment
Scans**



Complete resolution of orbital tumor in a heavily pre-treated patient with 2 HLA matches and a grade II tumor supports remarkable activity of Bria-IMT™

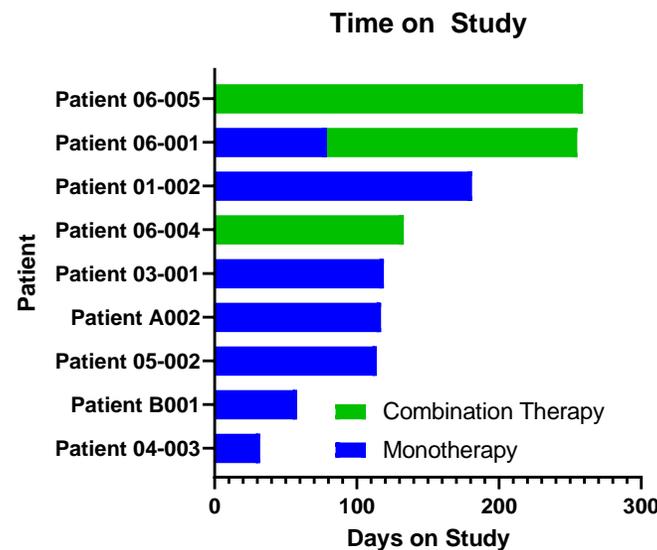
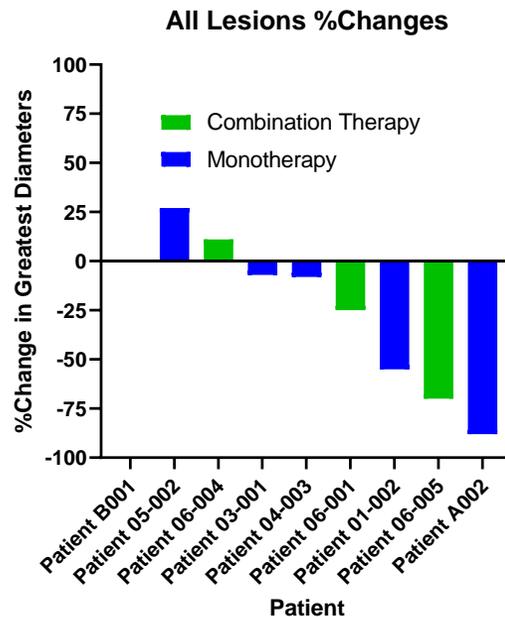
Breast Cancer Grade Correlates with Response

- Bria-IMT™ is derived from a grade II (moderately differentiated) breast cancer.
- The genes expressed by Bria-IMT™ match best with grade I/II Breast Cancer Cell Lines
 - Cell lines classified as Luminal, Basal A & Basal B, which are believed to correspond best with grade I, II & III, respectively
 - Approximately 40% of recurrent breast cancers are grade I/II
- **The clinical benefit rate in our monotherapy studies for Grade I/II patients with immune responses was 5/7 (71%)**
 - Patients very heavily pre-treated, median of 7 prior regimens
- **In our combination therapy study with pembrolizumab, all 3 patients with Grade I/II tumors had clinical benefit (100%)**
 - All had been very heavily pre-treated with 14-15 prior regimens



Tumor shrinkage seen in most patients with Grade I/II Tumors.

Patients with the greatest tumor reductions had double HLA matches with Bria-IMT™



Extensive time on study especially with combination therapy suggesting clinical benefit

We believe these findings identify a patient population with higher clinical benefit rates

BriaCell & Incyte Collaboration and Supply Agreement

Non-exclusive clinical trial collaboration to evaluate the effects of combinations



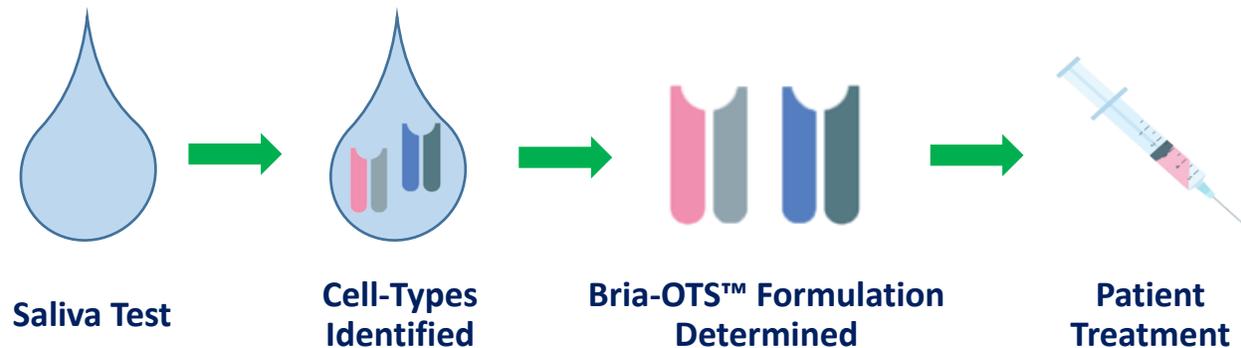
- We anticipate the clinical study will focus on BriaCell's lead candidate, Bria-IMT™, in combination with Incyte's selected compounds for advanced breast cancer.
- We expect Incyte to provide compounds from its development portfolio, including an anti-PD-1 monoclonal antibody (*INCMGA00012*), and an IDO1 inhibitor (*epacadostat*), for use in combination studies with BriaCell's lead candidate, Bria-IMT™.
- **Incyte** is a global biopharmaceutical company focused on discovering and developing novel therapeutics in oncology and inflammation & autoimmunity.
- Initial data on the first patient who transitioned from combination therapy with KEYTRUDA® to the combination with INCMGA00012 shows continued stable disease and **complete disappearance of an orbital nodule** (behind the eye) which had been pushing her eye forward. One other patient also tolerated the combination well. Recruitment is ongoing.

BriaCell hypothesizes that checkpoint inhibitors, of which Incyte has several candidates, may, in our opinion, significantly amplify the tumor-reducing effects of Bria-IMT™

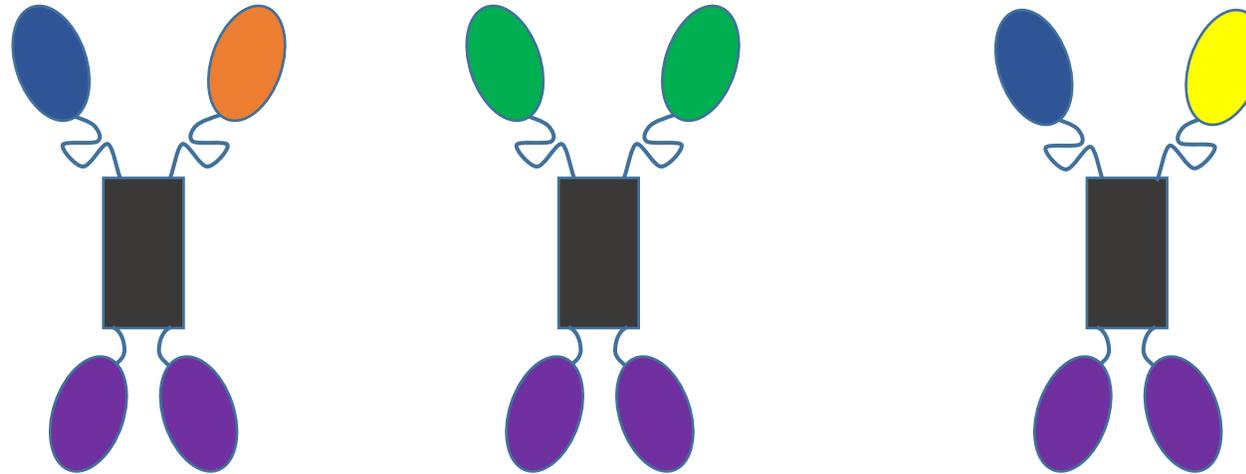
Bria-OTS™: *Off-The-Shelf* Personalized Immunotherapy

Confirmation of “Matching Hypothesis” resulted in BriaCell’s “OTS” strategy

- We believe BriaCell’s treatment is most effective when the patient’s **HLA-type** matches the Bria-IMT™ **HLA-type**
- **Bria-OTS™** involves a simple saliva test to determine the **HLA-type** of each patient
 - Each patient will then be treated with the appropriate pre-manufactured **Bria-OTS™** formulation
- BriaCell is engineering **15 unique HLA types (molecules)**, collectively referred to as **Bria-OTS™**, allowing for what we believe will be treatment of over 99% of patients



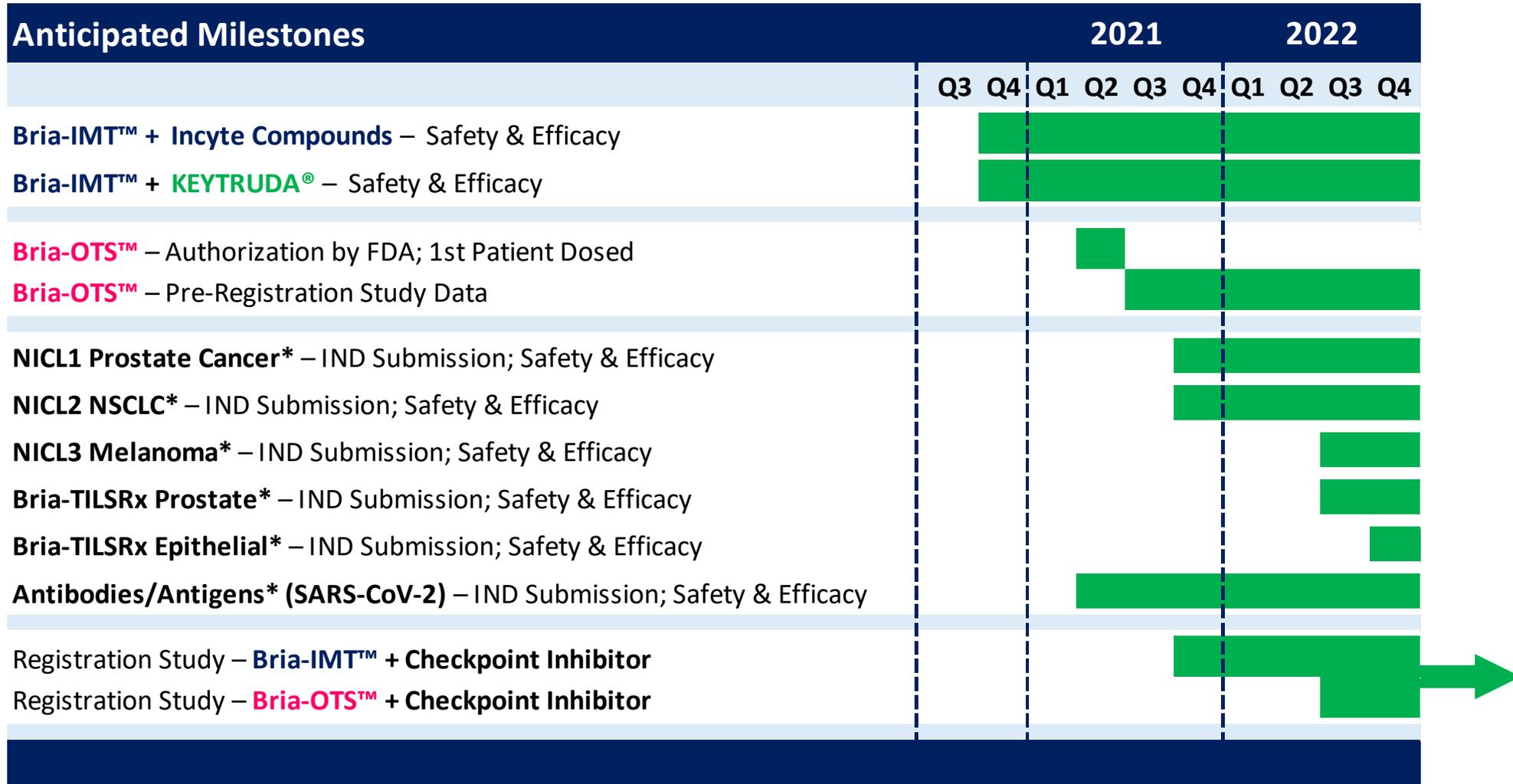
We anticipate each patient will be treated with a pre-manufactured formulation based on HLA-type



- Multi-Specific Binding Reagents have been developed with the potential to:
 - Bind to cancer cells
 - Link the cancer cells with immune cells (T cells) to kill the cancer cells
 - Selectively block cancer-induced suppression of the immune response

BriaCell's TILsRx Multivalent Binding Reagents are the Subject of a Provisional Patent Application Filed April 23, 2020 with the USPTO

Development Timeline & Catalysts



Clinical data to be submitted to key scientific meetings including AACR, ASCO and the San Antonio Breast Cancer Meeting

Outstanding Securities

Common Shares	771,962
Warrants (WAEP \$44.41)	193,230
Options (WAEP \$49.00)	19,969

Insider Ownership*

Jamieson Bondarenko	119,856	15.5%
Dr. William Williams	66,886	8.7%
Dr. Charles Wiseman	44,604	5.8%
Other	10,333	1.3%

* Based on 771,962 common shares outstanding and common shares owned (does not include warrants and options)

Immunotherapy approach

- Subject of many recent deals with big pharma companies

Targets advanced breast cancer

- High unmet need with what we perceive are multiple regulatory advantages (fast track, accelerated review, etc.)

Several remarkable results in clinical trials to date:

- Patients who have failed all available therapies have shown what we perceive are remarkable tumor regressions
- Dosing very safe and well tolerated
- Combination with immune checkpoint inhibitor appears safe and suggests what we view as evidence of additive or synergistic activity → study amended to evaluate combination with Incyte immunotherapy drugs
- Patients with Grade I/II tumors have a high rate of clinical benefit
- Combination study with Incyte PD-1 inhibitor + other immune checkpoint inhibitor is ongoing
- Investigator-initiated combination study with KEYTRUDA®, under a clinical supply agreement with Merck approved February 2020

Multiple catalysts in 2020 and 2021

- Includes planned presentations at several scientific meetings such as the American Association of Cancer Research (AACR), and the San Antonio Breast Cancer Meetings
- Potential to negotiate a registration study design with FDA

Highly Experienced Management Team

- CEO has been involved in eleven drug approvals.
- ~\$5M current management and board investment; largest shareholders.

We believe BriaCell is Poised to Execute the Clinical Strategy with a Transformational Technology



BriaCell Therapeutics Corp.

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Thank you