

OPEXA THERAPEUTICS, INC.

FORM FWP

(Free Writing Prospectus - Filing under Securities Act Rules 163/433)

Filed 07/22/13

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OPEXA THERAPEUTICS

Issuer Free Writing Prospectus
Filed Pursuant to Rule 433
Registration No. 333-189395
July 22, 2013



Precision Immunotherapy™

Opexa Therapeutics, Inc.

NASDAQ: OPXA

July 2013
The Woodlands, TX

Forward-Looking Statements

- This investor presentation contains forward-looking statements which are made pursuant to the safe harbor provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Statements contained in this presentation, other than statements of historical fact, constitute “forward-looking statements.” The words “expects,” “believes,” “anticipates,” “estimates,” “may,” “could,” “intends,” and similar expressions are intended to identify forward-looking statements. Forward-looking statements do not constitute guarantees of future performance. Investors are cautioned that statements which are not strictly historical statements, including, without limitation, statements regarding the development of our product candidate, Tcelna (imilecleucel-T), constitute forward-looking statements.
- Such forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated, which include, but are not limited to, risks associated with: market conditions; our capital position; the rights and preferences provided to the Series A convertible preferred stock and investors in the July 2012 convertible secured notes; our ability to compete with larger, better financed pharmaceutical and biotechnology companies; new approaches to the treatment of our targeted diseases; our expectation of incurring continued losses; our ability to raise additional capital to continue our development programs or access the financing potentially available under the purchase agreements with Lincoln Park Capital Fund, LLC; our ability to maintain compliance with NASDAQ listing standards; the success of our clinical trials (including the Phase IIb trial for Tcelna in Secondary Progressive Multiple Sclerosis (“SPMS”) which, depending upon results, may determine whether Ares Trading SA (“Merck”) elects to exercise its option to obtain license rights to Tcelna in multiple sclerosis (the “Option”)); whether Merck exercises the Option and, if so, whether we receive any development or commercialization milestone payments or royalties from Merck pursuant to the Option; our dependence (if Merck exercises the Option) on the resources and abilities of Merck for the further development of Tcelna; the efficacy of Tcelna for any particular indication; our ability to develop and commercialize products; our ability to obtain required regulatory approvals; our compliance with all FDA regulations; our ability to obtain, maintain and protect intellectual property rights; the risk of litigation regarding our intellectual property rights or the rights of third parties; our limited manufacturing capabilities; our dependence on third-party manufacturers; our volatile stock price; and other risks detailed in our filings with the SEC.
- These forward-looking statements speak only as of the date made. We assume no obligation or undertaking to update any forward-looking statements to reflect any changes in expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based. You should, however, review additional disclosures we make in our registration statement on Form S-1 initially filed on June 17, 2013 and as subsequently amended as well as in our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K filed with the SEC.

Free Writing Prospectus Statement

- This presentation highlights basic information about us and the offering. Being a summary document, this slide deck does not contain all the information that you should consider before investing.
- We have filed a registration statement (including a preliminary prospectus) with the SEC for the offering to which this presentation relates. The registration statement has not yet become effective. Before you invest, you should read the preliminary prospectus in the registration statement (including the risk factors described therein) and other documents that we have filed with the SEC for more complete information about us and the offering. You may get these documents for free by visiting the “Search EDGAR” section on the SEC web site at <http://www.sec.gov>. The preliminary prospectus, dated July 22, 2013, is available on the SEC website. Alternatively, we or Aegis Capital Corp., the underwriter participating in this offering, will arrange to send you a preliminary prospectus if you contact Aegis Capital Corp., Prospectus Department, 810 Seventh Avenue, 18th Floor, New York, NY 10019; Telephone: (212) 813-1010; Email: prospectus@aegiscap.com

Offering Summary

Issuer	Opexa Therapeutics, Inc.
Exchange/Ticker	NASDAQ / OPXA
Offering Size	Approximately \$15 Million (100 % Primary)
Over-allotment	15% (100% Primary)
Use of Proceeds	Clinical Development of Tcelna and conduct of ongoing Phase IIb Abili-T study, operating expenses, general corporate purposes and potential pay down of convertible debt
Sole Book - Runner	Aegis Capital Corp.

Investment Thesis

- T-cell platform company with Fast Track designation in SPMS
- Esteemed Scientific Advisory Board
- Precision Immunotherapy potentially optimizes benefit-risk profile
- Targeting an unmet medical need in a potentially substantial market
- Option Agreement with Merck Serono, a strong commercial partner
- Replacement value of company is multiples of present market cap
- Attractive potential risk-reward profile for long term/value investors
- Goal-oriented management team focused on value creation

Experienced Management Team and Board of Directors

Neil Warma, President & CEO, Director

- › 19+ years international healthcare experience with large Pharma and emerging biotechnology companies
- › Former Senior Management, Novartis Pharmaceuticals, Basel, Switzerland
- › Former CEO, Viron Therapeutics, Inc.
- › Co-founder and President of MedExact Inc., a company subsequently acquired

Karthik Radhakrishnan, Chief Financial Officer

- › 10+ years of health care capital markets experience
- › Formerly, Vice President at ING Investment Management
- › MBA, MS in Engineering, CFA charter holder

Don Healey, Ph.D., Chief Scientific Officer

- › 25+ years of experience in cellular immunology and immune regulation
- › Former Director of Immunology, Argos Therapeutics

Donna Rill, Chief Development Officer

- › 30 years in cell and gene therapy research and clinical application
- › Designed and validated cGMP Cell & Gene Therapy Laboratories, Vector Production facilities, and Translational Research Labs

Kenny Frazier, VP of Clinical Dev. and Regulatory Affairs

- › 24 years of extensive clinical and regulatory experience
- › Formerly, Head of Clinical Operations, Lexicon Pharmaceuticals and Tanox, Inc.

Board of Directors

Gail J. Maderis

CEO, BayBio, Former CEO of Five Prime Therapeutics, Founder of Genzyme Molecular Oncology

Michael S. Richman

CEO, Amplimmune

Scott B. Seaman

Executive Director, Alkek Foundation

David E. Jorden

Interim CEO, Nanospectra Biosciences

Neil K. Warma

CEO, Opexa

SPMS Scientific Advisory Board

- **Dawn McGuire, M.D., FAAN (Chair)**
 - Advisory Council of the Gill Heart Institute
 - Former Vice President of Clinical Research at Elan Pharmaceuticals
- **Hans-Peter Hartung, M.D.**
 - Chair of Neurology at Heinrich-Heine University, Düsseldorf
 - President ECTRIMS, World Health Organization Advisory Board on MS
- **Mark S. Freedman, M.D.**
 - Director of the Multiple Sclerosis Research Unit at Ottawa Hospital
 - Multiple Sclerosis Society of Canada, National MS Society (USA)
 - ACTRIMS committee member
- **Clyde Markowitz, M.D.**
 - Director of MS Center at the University of Pennsylvania
- **Doug Arnold, M.D.**
 - James McGill Professor Neurology and Neurosurgery at the Montreal Neurological Institute
- **Edward Fox, M.D., Ph.D.**
 - Director of Multiple Sclerosis Clinic of Central Texas
 - Advisory Committee, Lone Star Chapter of the National Multiple Sclerosis Society

Pipeline and Potential Areas of Investigation

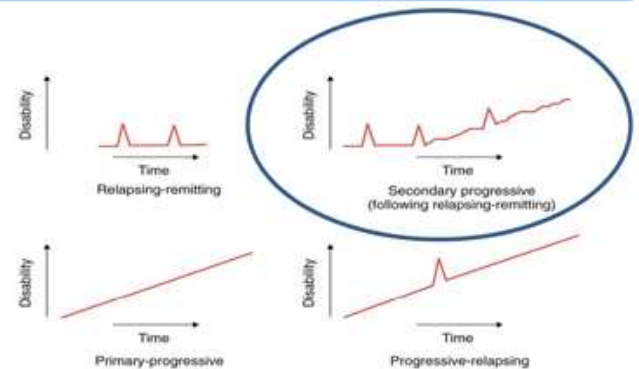
Stage of Development

Indication	Evaluation	Preclinical	Phase I	Phase II	Phase III	Commercial
T-CELL PLATFORM						
Multiple Sclerosis (Tcelna)*						
<i>Secondary Progressive MS*</i>		<i>Phase IIb ongoing</i>				
<i>Relapsing Remitting MS*</i>		<i>Phase III not yet initiated</i>				
STEM CELL PLATFORM						
Type 1 Diabetes						

* Rights granted to Merck Serono under option and license agreement (Feb. 5, 2013)

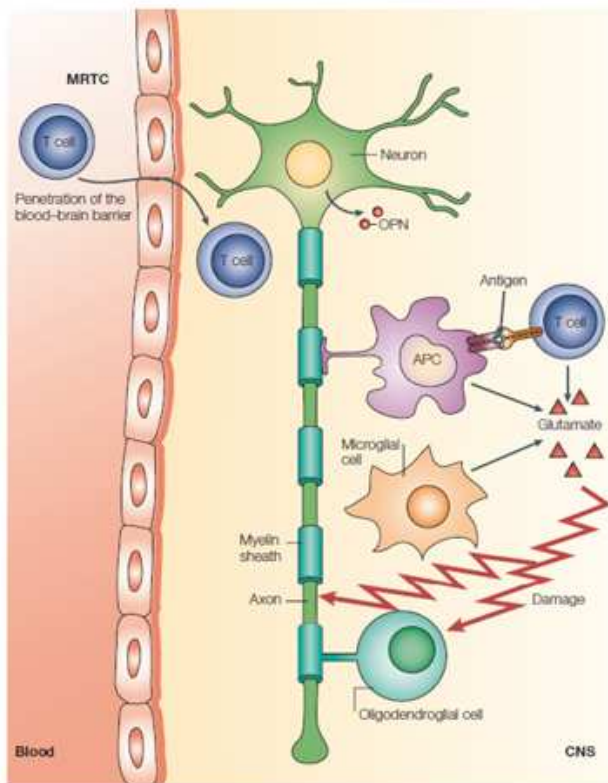
Tcelna in Secondary Progressive Multiple Sclerosis

- Patients initially experience a relapsing-remitting course then transition to SPMS
- SPMS patients experience worsening QOL / disability with or without relapses
- **Over 450,000 patients in North America and 2 million world wide have MS**
- Approximately 30-45% of MS patients can be classified as Secondary Progressive
- Tcelna is being pursued for this SPMS indication
- Potential SPMS market in the North America alone could exceed **\$7 billion** [150,000 SPMS patients at average cost of \$50,000 per year of treatment]
- No SPMS treatment approved by EMA; only one approved by FDA with limited use due to toxicity
- Upon successful clinical development, Tcelna has the potential to be the treatment of choice in SPMS



Tcelna Addressing the Root Cause of Multiple Sclerosis

Preventing Demyelination and Enabling Remyelination



Nature Reviews | Immunology

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- Myelin Reactive T-cells (MRTC) cross the blood brain barrier, enter the brain, bind to antigen presenting cells (APC) causing release of pro-inflammatory cytokines which lead to a two pronged attack through:
 - i. Activation of microglial cells leading to destruction of myelin sheath, the protective coating of nerve fibers
 - ii. Destruction of oligodendroglial cells which are responsible for producing myelin

Result → Destruction of the myelin sheath with barriers to prevent remyelination

- T cells play a vital role in our immune system. Only a very small proportion develop into MRTC. Most competing therapies **non-specifically** suppress all T-cells (including beneficial T cells) and/or focus on preventing their entry into the central nervous system, which may lead to serious side effects.

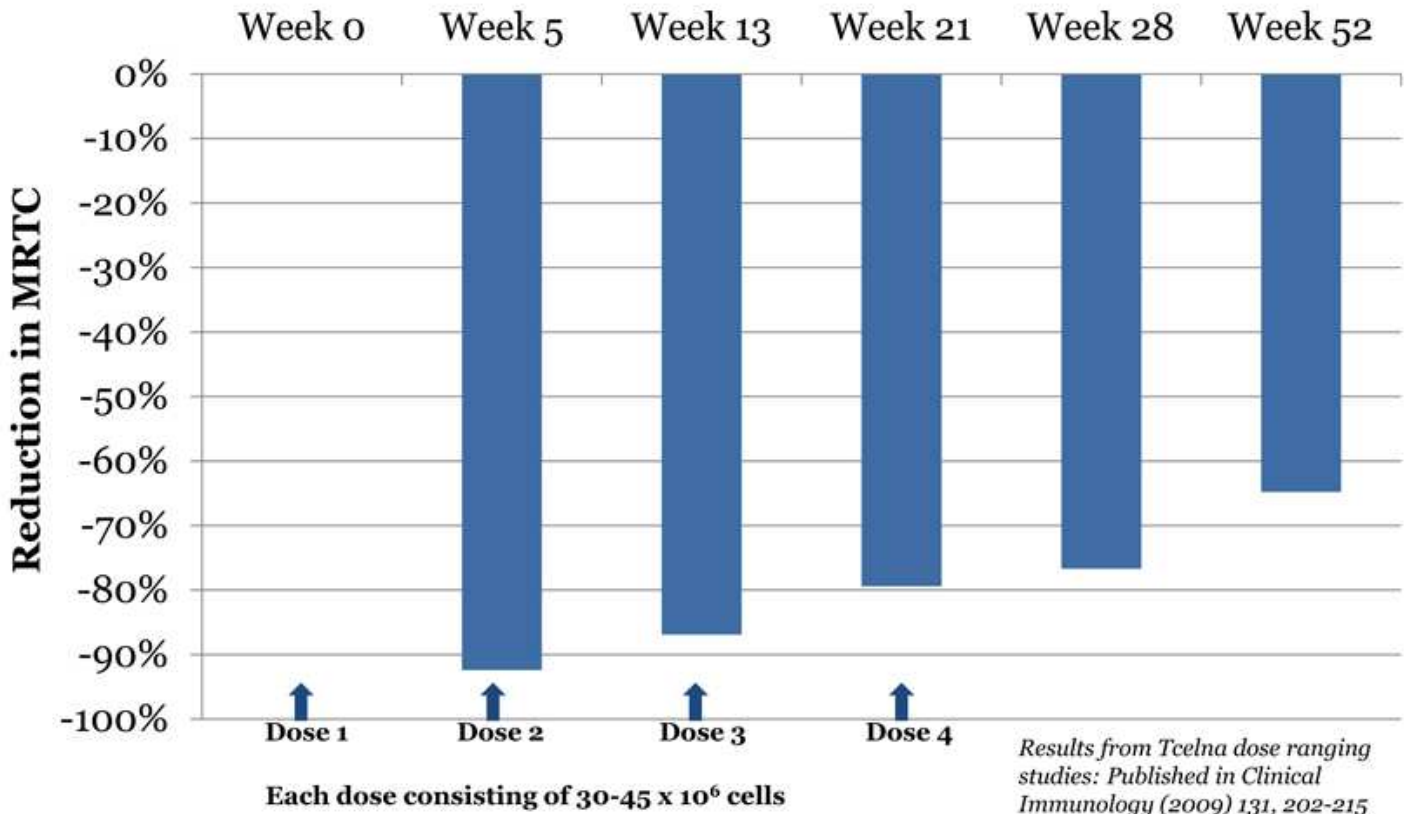
Opexa's Strategy

Tcelna programs the immune system to **specifically** recognize MRTC as pathogenic thereby inhibiting further destruction of the myelin sheath and potentially enabling remyelination

Mechanism of Action

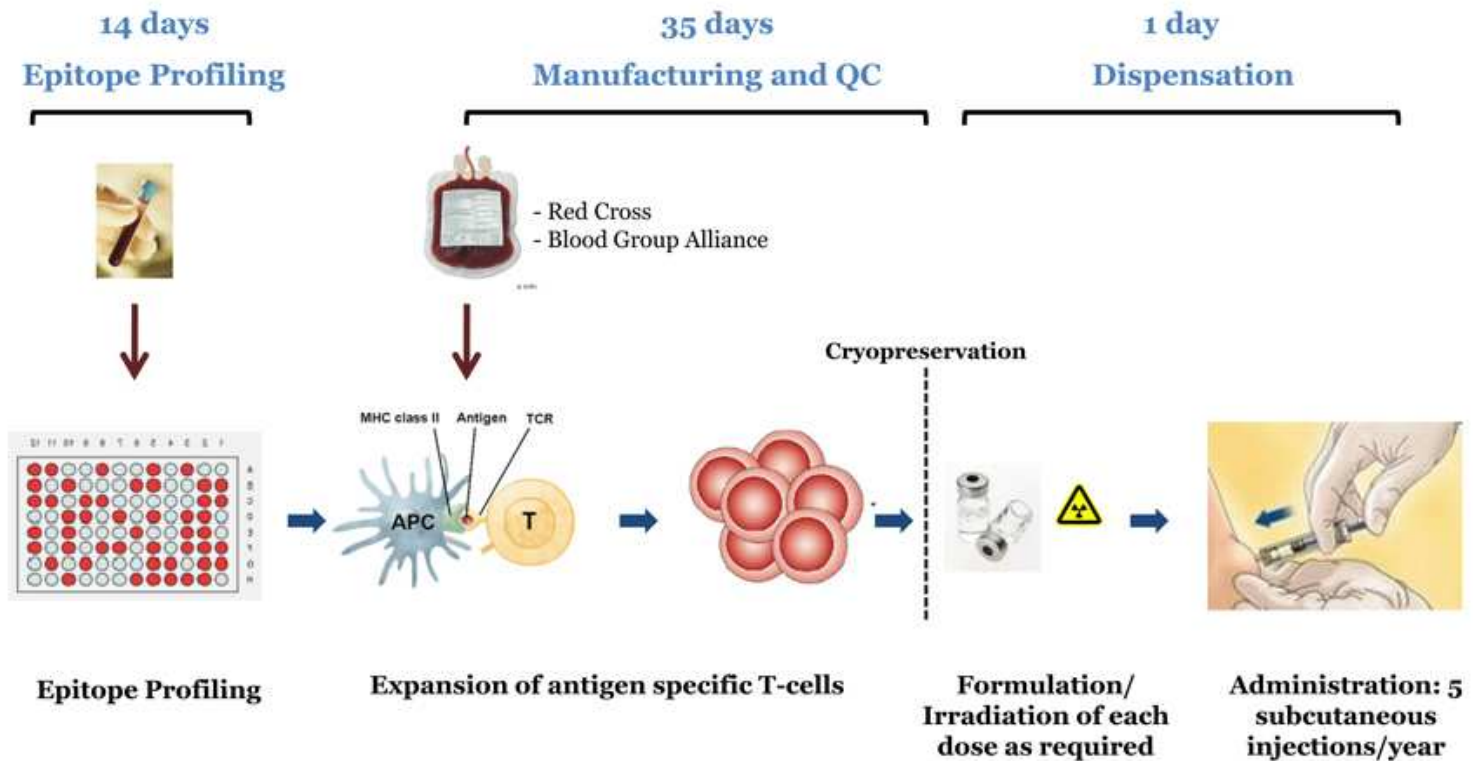
Reduction in Myelin Reactive T-Cells

Tcelna Demonstrated a Reduction in Myelin Reactive T-cells (MRTC)



Single Cycle Manufacturing Process:

Annual course of treatment (5 doses) from one blood draw



Merck Serono Agreement for MS indication

- **February 2013 option and license agreement with Merck Serono**
 - Up to \$220 million in additional payments
 - Option exercise \$25 million for starting Phase III/ or \$15 million if another Phase II
 - \$35 million FDA filing, approval and commercialized in US
 - \$30 million for EU filing, approval and commercialization in at least three countries
 - RRMS development and commercialization of up to \$40 million
 - One time commercial milestones of up to \$85 million
- **Royalties ranging from 8% to 15% of annual net sales with step-ups occurring when net sales exceed \$500 million, \$1 B & \$2 B**
- **Opexa maintains key rights:**
 - Development and commercialization rights to Tcelna in Japan
 - Certain manufacturing rights
 - Co-development funding option in exchange for increased royalties
 - Rights to all other disease indications

Tcelna Development Program

Broad Spectrum of MS patients treated

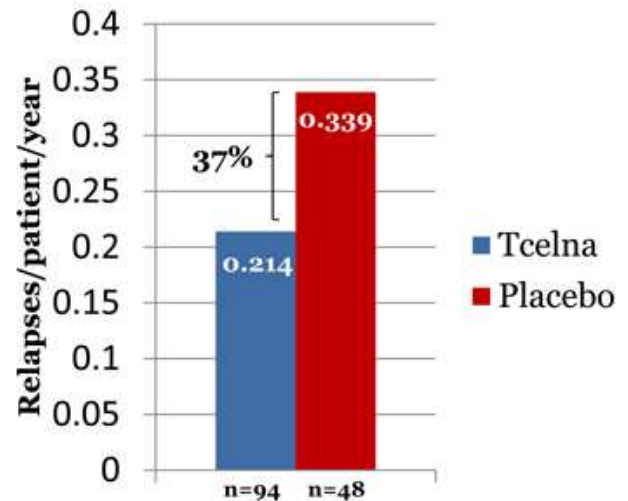
Phase	Completion Dates	Population	Total N	Treatment Duration (months)	Tcelna	Placebo
Baylor	1998	RRMS, PPMS, SPMS (26)	114	Up to 24 months	114	
Phase I dose escalation	2006	RRMS (5) SPMS (6)	16	12	16	-
Phase I/II Open label retreatment	2007	RRMS (9) SPMS (4)	13	12	13	-
Phase IIb TERMS	2008	RRMS, CIS	150	12	100	50
Phase IIb extension OLTERMS	2008	RRMS, CIS	38	At least one dose post TERMS	15 from placebo arm	
Phase IIb Abili-T	1 st Half 2016*	SPMS	180*	24*	90*	90*

* Expected upon completion of ongoing SPMS Abili-T trial

TERMS Study

A Completed Phase IIb Clinical Trial in RRMS

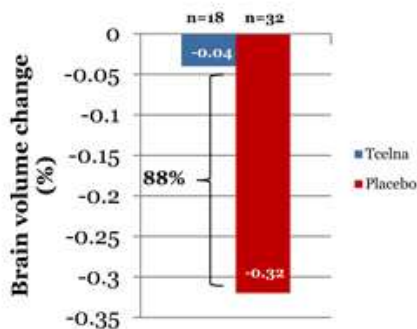
- Completed Phase IIb clinical trial in 150 RRMS patients; 33 sites in U.S.
- mITT population (n=142)
 - 37% reduction in ARR vs. placebo
 - ARR 0.214 vs. 0.339
- Superior safety and promising efficacy trend demonstrated
- Two *End-of-Phase II* meetings with FDA successfully completed



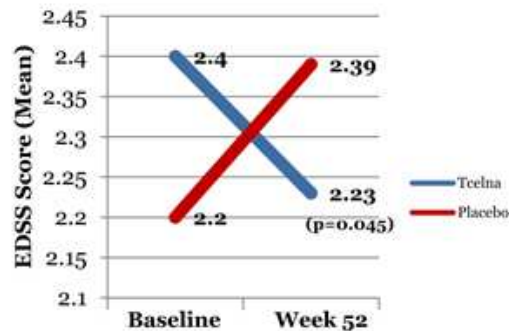
TERMS Study - Prospective Analysis in More Active or Progressive Patients

Sub-population of patients (n=50) with more progressed/active disease profile (baseline ARR >1) most closely mirrors SPMS patients

Percent Brain Volume Change at Week 52

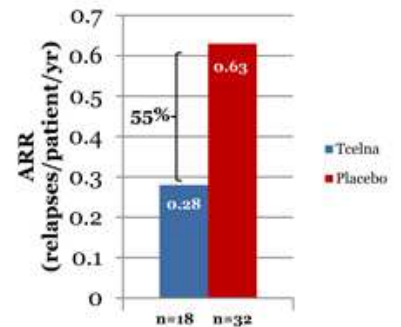


Change in Disability (EDSS) at Week 52



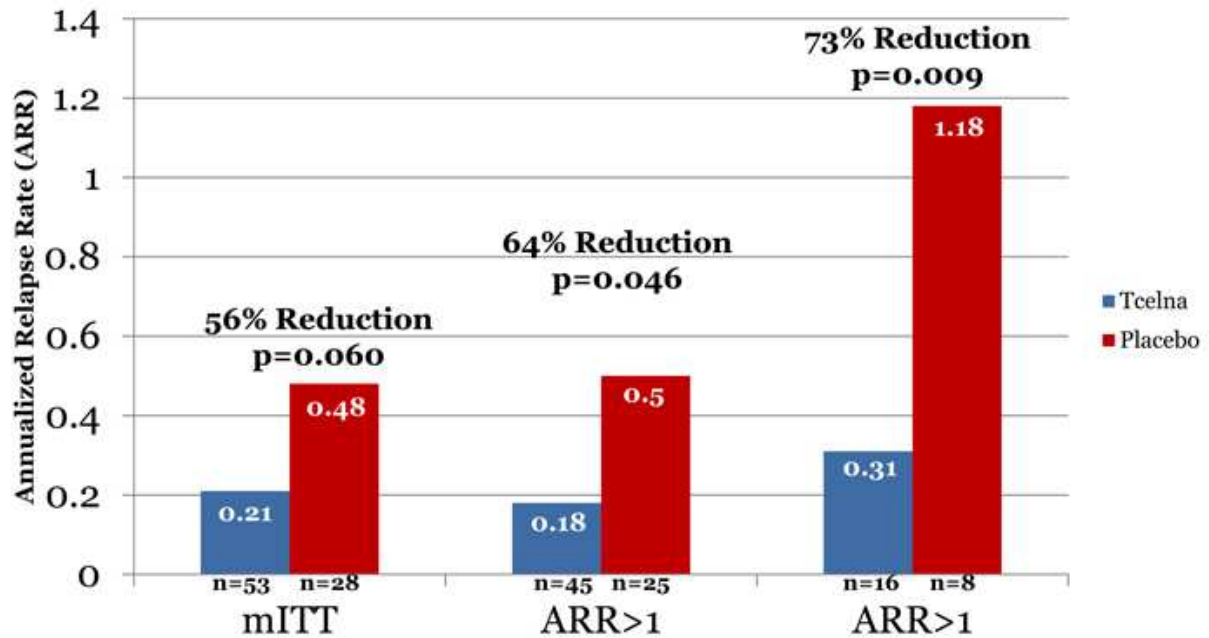
Statistically Significant Improvement in Disability (p=0.045)

Annualized Relapse Rate (ARR) at Week 52



These Data Support Phase IIb Program in SPMS

TERMS Study - Subgroup Analysis in Patients Naïve to DMT



Annualized relapse rate in DMT naïve populations. ARR in placebo subjects without previous disease modifying treatment (DMT) experience reflects relapse rates commonly seen in other placebo controlled trials in MS. In this subpopulation, treatment with Tcelna resulted in a 56–73% reduction in ARR compared with placebo.

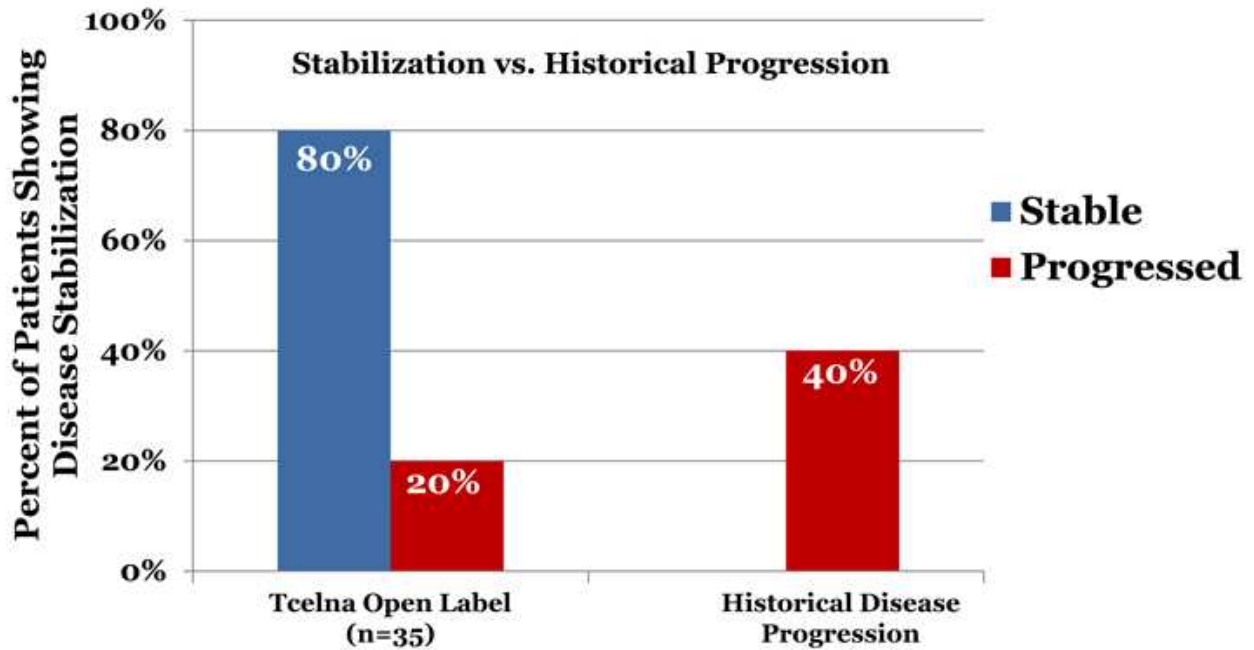
Secondary Progressive MS:

Overview of Phase I/II Patients treated with Tcelna

- **36 SPMS patients treated in three clinical studies**
 - 35 of these patients were treated with Tcelna for two years
 - 26 patients treated at Baylor; 10 patients treated by Opexa
- **Promising efficacy observed**
 - Disease stabilization as measured by EDSS was observed in 80% of patients at two years (compared to a historical control data that shows progression rate of 40%)
 - 10 patients in Opexa sponsored study showed significant reduction in relapse rates from a baseline ARR of 0.5 to an ARR of 0.1 at two years
 - No worsening in key Quality of Life Indicators (physical and psychological condition) at two years
- **Well-tolerated with a favorable safety profile**
 - No Serious Adverse Events

Tcelna Stabilizes Disease in SPMS at 2 Years

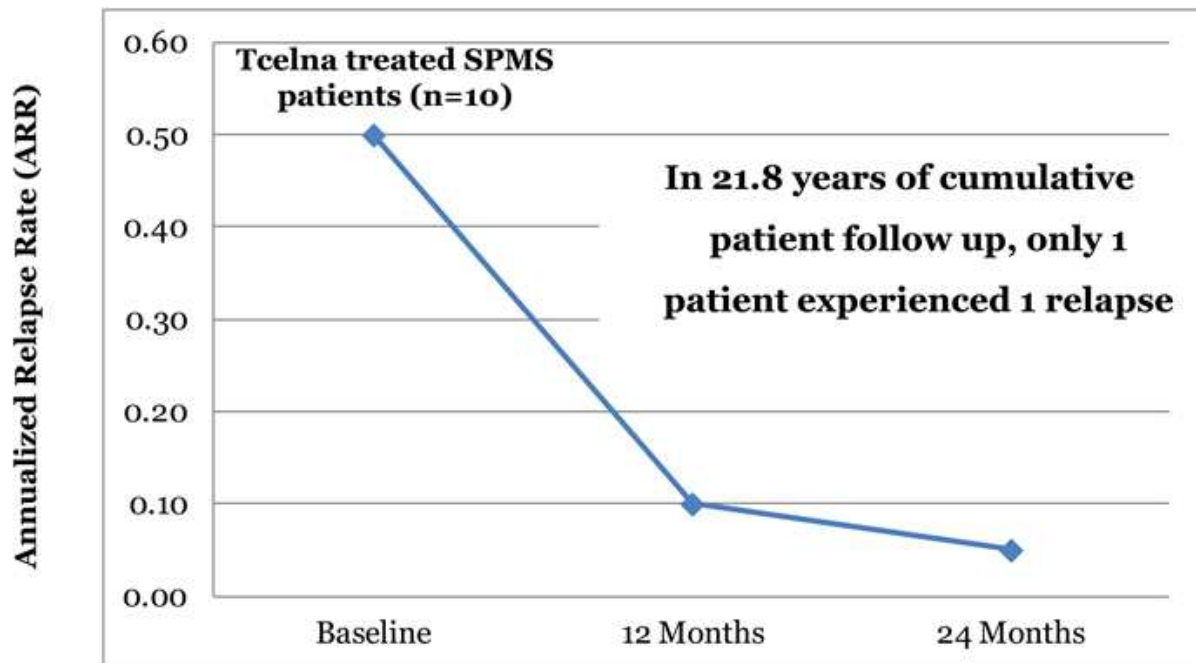
80% of subjects treated with Tcelna showed no further disease progression by EDSS at 2 years



*A small percentage of patients in pooled analysis showed an improvement (i.e. decrease in progression)

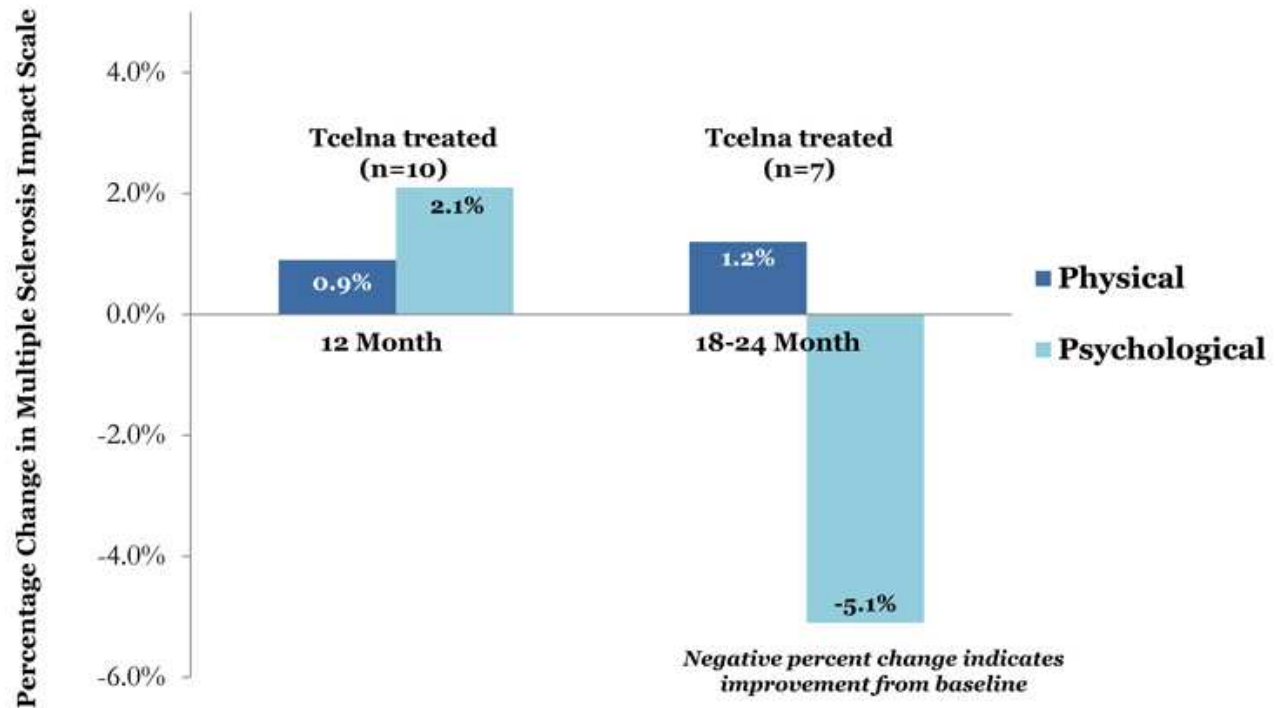
**Historical control: ESIMS Study, published *Honmes Lancet* 2004

Tcelna Reduces Annualized Relapse Rate (ARR) in SPMS at 2 years



One relapse observed in 21 years of cumulative patient follow up

Tcelna Stabilizes Quality of Life Scores in SPMS at 2 years



Following two years of treatment, no worsening of physical condition and improvement in psychological condition

Abili-T : Landmark trial in SPMS

- **Abili-T Phase IIb clinical trial in SPMS is ongoing**
 - Double-blind, 1:1 randomized, placebo-controlled
 - Inclusion criteria: Secondary Progressive MS with EDSS of 3 to 6
 - 53 patients enrolled at June 14, 2013
 - Immune Monitoring program conducted on a blinded basis
- **Fast Track designation granted by FDA for Tcelna in SPMS**
- **180 Patients expected to be enrolled**
 - SPMS population
 - 30 sites in USA and Canada
- **2 annual courses of personalized therapy**

Efficacy Assessments

- **Primary Endpoint**
 - Whole-brain atrophy
- **Secondary Endpoints**
 - Sustained progression measured by EDSS
 - Time to sustained progression
 - T2 lesions progressing to hypointense lesions (black holes)
 - Change in EDSS
 - Annualized Relapse Rate (ARR)
 - Change in MSFC Assessment of disability
 - Change in Symbol Digit Modality Test (SDMT)
- **Exploratory Endpoints**
 - Quality of life assessment by MSQLI
 - Gd-enhancing lesion volume with increasing MTR
 - Gd-enhancing lesion volume with decreasing MTR
 - Change in MTR in normal-appearing white matter
 - Changes in T-regulatory cell repertoire and function



Immune Monitoring Program



Immuno vigilance

Whole blood analysis:
Absolute frequency of T-cells, B-cells, Dendritic cells and Monocytes

- Goal is to show no systemic impact on immune response, i.e. Tcelna is a Precision Immunotherapy
- Tcelna differentiates by not depleting a broad spectrum of T-cells

Phenotypical Analysis (CD4 and CD8)

Pro-inflammatory Anti-inflammatory

TH1	Treg
TH17	Tr1
	TH2
IL-2	IL-4
IL-6	IL-5
IL-12	IL-10
IL-17E, IL-17F	
IL-23	IL-27
TNF α	TGF β
IFN γ	BDNF

Plausible indicators of Tcelna efficacy

- Reduction in Th1/TH17
- Increase in Treg/Tr1 cells
- Reduction in proinflammatory cytokines (IL-12, IL-23, IFN γ , TNF α)
- Increase in anti-inflammatory cytokines (IL-10, IL-27)
- Loss of proinflammatory monocyte markers (CD16/HLA-DR, CCR5)
- Gain in anti-inflammatory monocyte markers (PDL-1, HLA-G, ICOS)

Financials

Pro forma as of June 30, 2013

Cash and Cash Equivalents (MM)	\$5.0
Convertible Debt (MM) ⁽¹⁾	\$3.2
Shares Outstanding (MM)	~8.1
Warrants (MM) ⁽²⁾	~3.1
Stock Options (MM) ⁽³⁾	~1.1

(1) Principal outstanding on convertible debt

(2) Weighted average exercise price = \$4.12

(3) Weighted average exercise price = \$4.46

Goals and Milestones

- Present Immune Monitoring base line data at ACTRIMS Conference (2013)
- Activate Canadian sites and initiate enrollment in Canada (2013)
- Activate and initiate all Abili-T clinical sites in U.S. (2013)
- Advance and complete enrollment in Phase IIb Abili-T study in SPMS (2013-14)
- Evaluate and present interim immune monitoring data (2013-15)
- Evaluate potential of T-cell platform in additional autoimmune diseases (2013-14)

Investment Highlights

- Lead product, **Tcelna**[®], a T-cell immunotherapy for Multiple Sclerosis (MS)
- Currently conducting a Phase IIb clinical trial in Secondary Progressive MS (SPMS)
- Limited treatment options currently available for SPMS
- Potential SPMS market in North America alone could exceed \$7 Billion
- Tcelna positioned as potential first-to-market personalized T-cell immunotherapy
- Option and license agreement secured with Merck Serono for Tcelna in MS indications only, worldwide excluding Japan
- Opexa's in-house cGMP manufacturing enables close control of process and COGS
- In previous MS clinical studies, Tcelna has demonstrated good safety and potential indications of clinical efficacy
- FDA has granted Opexa Fast Track Designation for Tcelna in SPMS



APPENDIX

Tcelna[®] Highlights

- Clinical studies conducted in Relapsing Remitting and Secondary Progressive MS
- Progress made on manufacturing with focus on commercially viable process
 - Over 850 Tcelna preparations have been successfully manufactured, reproducible and consistent
- Safety demonstrated and trends in clinical efficacy across broad spectrum of patients for relapsing remitting and secondary progressive MS
- Dose and regimen for ongoing clinical development has been selected based on dose ranging studies
- Commercial opportunities in MS:
 - Secondary Progressive MS
 - Abili-T Phase II SPMS trial ongoing with 180 patients expected in U.S. and Canada
 - Fast track designation
 - Relapsing Remitting MS
 - Formal *End of Phase II* meetings have been conducted
 - FDA feedback obtained for potential Phase III studies

Tcelna Manufacturing: Personalization followed by Expansion Step

The Epitope Profiling Assay (EPA)

- Screen peripheral blood for Myelin-Reactive T-cells (MRTCs), and mapping of immunodominant epitopes to MBP, MOG and PLP
 - 109 overlapping peptides encompassing MBP, MOG and PLP
 - Interferon gamma response to individual peptide pools defines positive response in 7 day assay

ImmPath™ Process

- Procure unit of blood from which up to six T-cell lines reactive with immunodominant myelin peptides are generated and pooled as a patient-specific Tcelna product
 - Manufacturing performed under GMP/GTPs in functionally closed system
 - Process generates a year of Tcelna doses from a single unit of blood

Tcelna Manufacturing: Precision Medicine

Proprietary Assay Enables Annual Personalized Treatments

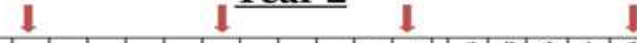
Year 1

Conduct analysis of 109 peptides from all three key myelin proteins (MBP, MOG, PLP)



Patient XX	Peptide 1	Peptide 2	Peptide 3	Peptide 4	Peptide 5	Peptide 6	Peptide 7	Peptide 8	Peptide 9	Peptide 10	Peptide 11	Peptide 104	Peptide 105	Peptide 106	Peptide 107	Peptide 108	Peptide 109
MBP																	
MOG																	
PLP																	

Year 2



Patient XX	Peptide 1	Peptide 2	Peptide 3	Peptide 4	Peptide 5	Peptide 6	Peptide 7	Peptide 8	Peptide 9	Peptide 10	Peptide 11	Peptide 104	Peptide 105	Peptide 106	Peptide 107	Peptide 108	Peptide 109
MBP																	
MOG																	
PLP																	

- Re-assess epitope profile annually to identify epitope shift
- Develop newly personalized formulation annually based on evolved epitope profile

Year 3

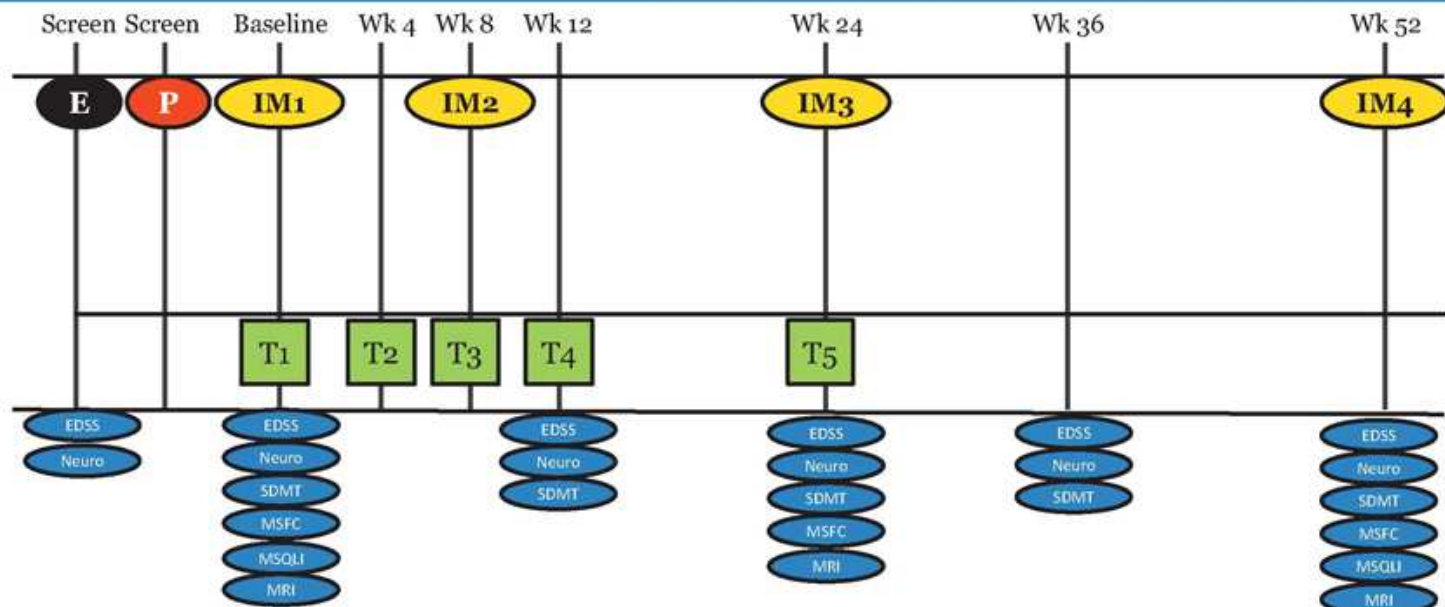


Patient XX	Peptide 1	Peptide 2	Peptide 3	Peptide 4	Peptide 5	Peptide 6	Peptide 7	Peptide 8	Peptide 9	Peptide 10	Peptide 11	Peptide 104	Peptide 105	Peptide 106	Peptide 107	Peptide 108	Peptide 109
MBP																	
MOG																	
PLP																	

TERMS Study: Safety Overview

Safety Summary	
Deaths	• No deaths occurred
Serious Adverse Events (SAEs)	• No treatment-related SAEs
Most common adverse events	• Mild to moderate injection site reaction

Abili-T Annual Treatment and Efficacy Assessment Schedule



Efficacy Assessments

EDSS: Expanded Disability Status Scale
 NEURO: Neurological Examination
 SDMT: Symbol Digit Modalities Test
 MSFC: MS Functional Composite
 MSQLI: MS Quality of Life Indicator
 MRI: Magnetic Resonance Imaging

T

Teelna dose

E

Epitope
Profile Assay

IM

Immune
Monitoring

P

500 mL
Procurement

Mechanism of Action

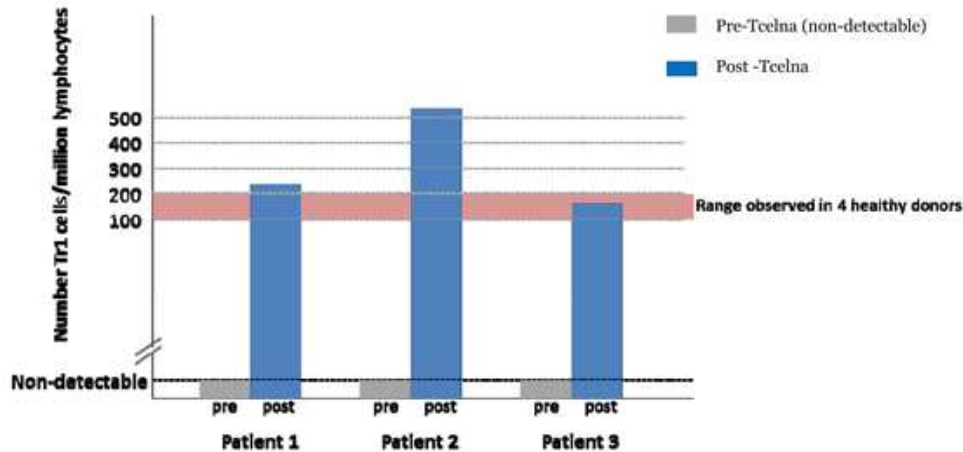
- **Attenuated, patient-specific (autologous) myelin reactive T-cells (MRTC)**
 - MRTC expanded *ex vivo* in response to immunodominant peptides of MBP, MOG and PLP
- **Therapeutic sc dosing ($30-45 \times 10^6$ cells) stimulates host reactivity to the ‘over-represented’ MRTC inducing a dominant negative ‘regulatory T-cell’ response leading to:**
 - Down-regulation of similar endogenous disease-causing myelin reactive T-cells
 - Potential to induce up-regulation of regulatory cells (Foxp3+ and Tr1 cells) to reduce inflammation and provide possible neuroprotection, should these gain entry to the CNS
- **Phase I/II studies conducted with Tcelna in RRMS and SPMS showed a substantial reduction in MRTC, and improved clinical outcomes**
 - lower relapse rates and stabilization of disease as defined by EDSS

Mechanism of Action

Tcelna increases Tr1 cells in SPMS Patients

Observations

- Increase in Tr1 cells from non-detectable to detectable levels in Tcelna treated patients (n=3)
- Increase in Tr1 cells to a level similar to those observed in healthy controls (n=4)
- $p=0.971$ (i.e. no statistical difference between healthy donor and post-treatment TR1 dose levels)



Clinical findings in Tcelna treated patients

- All three patients (who had experienced relapse in preceding 12-24 month) remained relapse free during the 52-week assessment
- Showed stabilization of disease progression
- Showed a 57%-67% reduction in myelin reactive T-cell counts from baseline

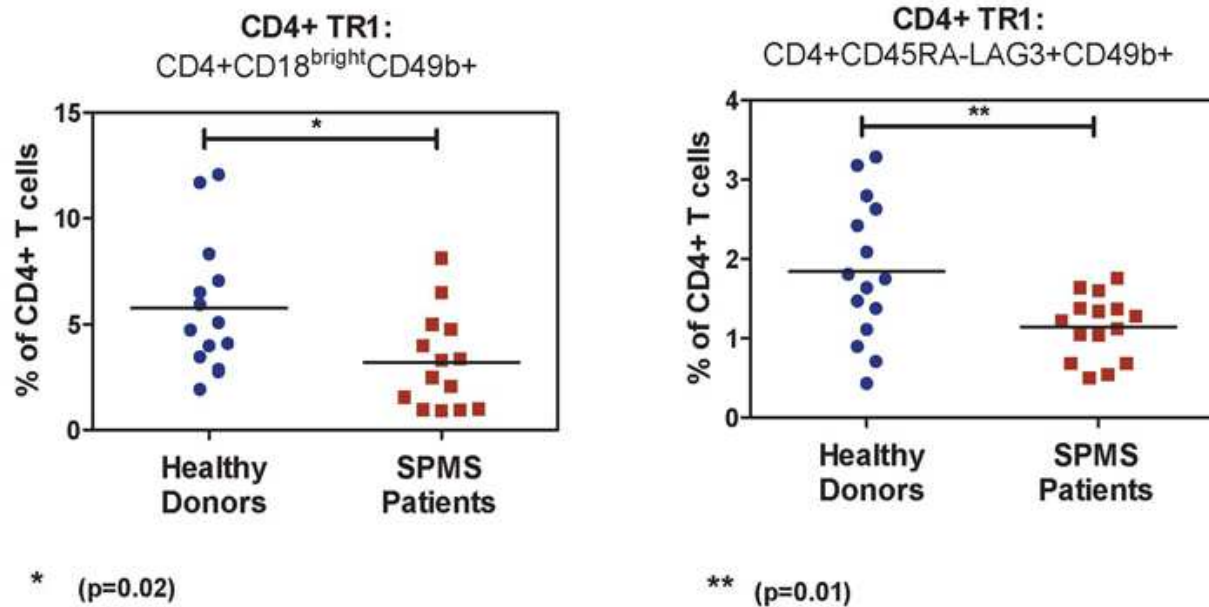
Mechanism of Action

The Immunopathology of SPMS

- **SPMS is associated with compartmentalized CNS inflammatory cells**
 - Microglia activation suggests ongoing chronic innate immune responses
- **SPMS is associated with inflammatory processes localized within the central nervous system**
 - Mechanisms responsible for continued neurodegeneration in SPMS are distinct from those of RRMS
 - In SPMS, it is believed that the Blood Brain Barrier (BBB) remains closed enabling only those products that are able to cross the BBB to be potentially effective
 - SPMS is characterized by a chronic inflammatory process (vs. acute episodes for RRMS)
- **Immunological defects associated with progression to SPMS**
 - Levels of the anti-inflammatory cytokine IL-10 are reduced in patients with SPMS
 - A therapeutic that has the potential to restore local production of IL-10 would be expected to alleviate chronic inflammation, and thereby reduce neurodegeneration

Baseline Abili-T patients versus Healthy Individuals

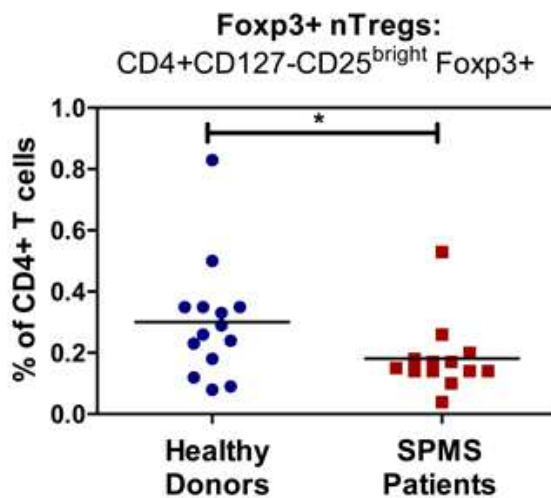
SPMS subjects have a reduced frequency of IL-10 secreting TR1 cells



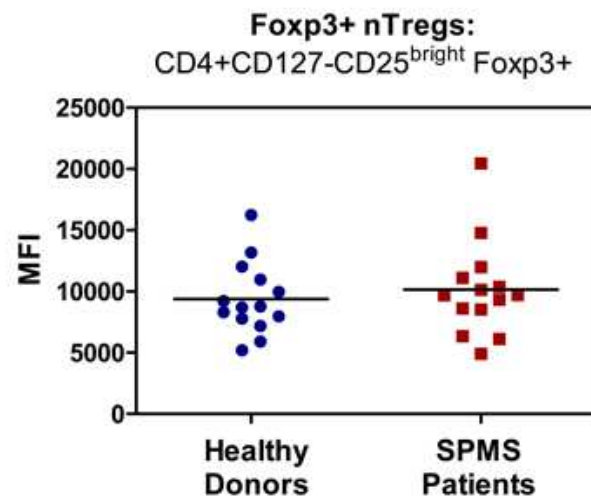
ACTRIMS 2013 Poster: Profiling of Secondary Progressive MS by Multicolor Flow Cytometry
 Lauren W Collison, Ph.D; Chris L Ayers, Ph.D., Jordan L Harrell, MBE; Don Healey, Ph.D.

SPMS subjects have reduced nTReg cells (another type of CD4 cells)

Frequency of nTregs may be reduced in SPMS, although the level of Foxp3 expression is equivalent to that of healthy donors. Therefore, function of Tregs cells is equivalent between the populations, unlike in RRMS where reduction in Tregs may play a greater role in the persistence of autoimmunity.



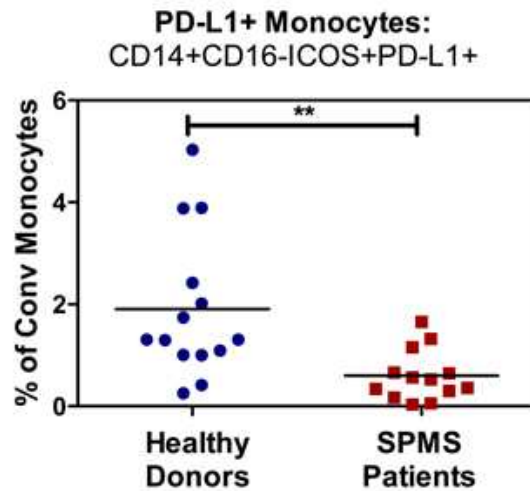
* (p=0.06)



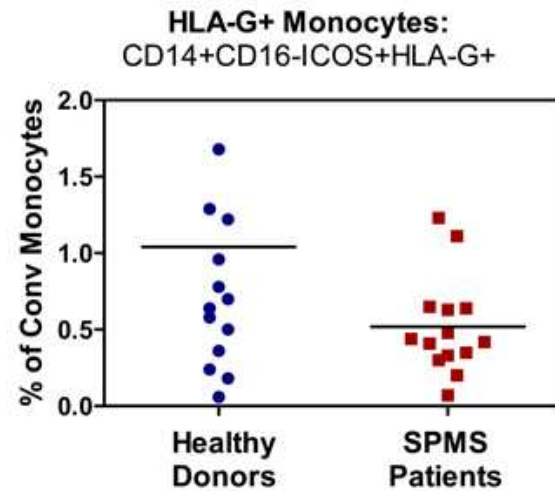
(p=0.56)

ACTRIMS 2013 Poster: Profiling of Secondary Progressive MS by Multicolor Flow Cytometry
Lauren W Collison, Ph.D; Chris L Ayers, Ph.D., Jordan L Harrell, MBE; Don Healey, Ph.D.

SPMS patients have fewer Anti-inflammatory monocytes (PDL1 and HLA-G)



** (p=0.004)



(p=0.164)

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