Alpha Cancer Technologies

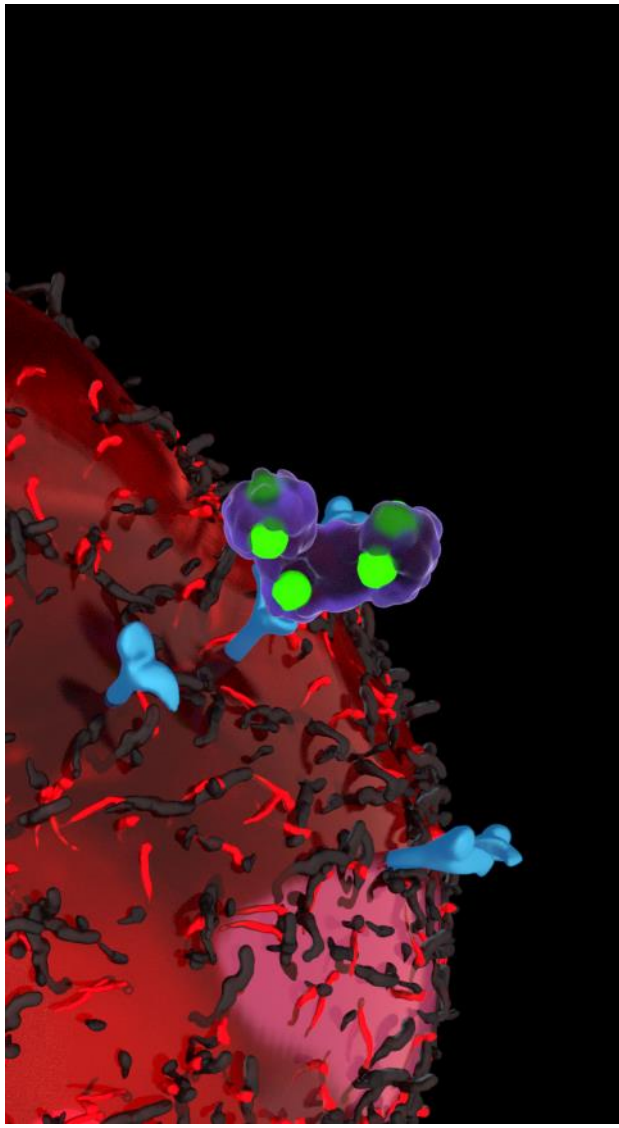
www.alpha-cancer.com

IMMUNOTHERAPY AND TARGETED IMMUNO-ONCOLOGY PLATFORMS

Dr. Igor Sherman | President & CEO

Richard Potts | Chair

October 2019



FORWARD LOOKING STATEMENTS

Caution Regarding Forward-Looking Information:

Certain statements contained in this material constitute forward-looking information within the meaning of applicable Canadian provincial securities legislation (collectively, the "forward-looking statements"). These forward-looking statements relate to, among other things, ACT's objectives, goals, targets, strategies, intentions, plans, beliefs, estimates and outlook, and can, in some cases, be identified by the use of words such as "believe," "anticipate," "expect," "intend," "plan," "will," "may" and other similar expressions. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances are forward-looking statements. These statements reflect management's current beliefs and are based on information currently available to management.

Certain material factors or assumptions are applied in making forward-looking statements, and actual results may differ materially from those expressed or implied in such statements. Important factors that could cause actual results to differ materially from these expectations include, among other things: uncertainties and risks related to, the availability of capital, changes in capital markets, uncertainties related to clinical trials and product development, rapid technological change, uncertainties related to forecasts, competition, potential product liability, unproven markets for technologies in development, the cost and supply of raw materials, management of growth, effects of payers'' willingness to pay for products, risks related to regulatory matters and risks related to intellectual property matters.

When relying on ACT's forward-looking statements to make decisions with respect to ACT, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. Such forward-looking statements are based on a number of estimates and assumptions which may prove to be incorrect, including, but not limited to, assumptions regarding the availability of financing for research and development companies in addition to general business and economic conditions. These risks and uncertainties should be considered carefully and investors and others should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in this material are based upon what management believes to be reasonable assumptions, ACT cannot provide assurance that actual results will be consistent with these forward-looking statements. ACT undertakes no obligation to update or revise any forward-looking statement.

KEY HIGHLIGHTS

- UNIQUE EFFICACY AND SAFETY PROFILE
- STRONG INTELLECTUAL PROPERTY PORTFOLIO
- ADDRESSES LARGE UNMET MARKET NEEDS
- GREATLY MITIGATED DEVELOPMENT PATHS
- SHORTER PATH TO MARKET– ORPHAN DISEASES
- CLINICAL PLAN – NUMEROUS SHOTS ON NET
- MAJOR SPONSOR – OWNS 15% EQUITY (US$10.5 MM)
- EXPERIENCED TEAM TO EXECUTE

MANAGEMENT TEAM

Richard Potts Chair

Demonstrated a rich blend of leadership roles with a track record of management, finance and marketing of growth companies across a diverse spectrum of industries, including biotechnology, medical and information technology. Mr. Potts CEO and Chair Lorus Therapeutics (Now Aptose) a TSX/NASDAQ biotech company. He has co-founded, established strategic plans, secured multi-million dollars in financing, public listings and facilitated partnerships as a founder, owner and executive in numerous companies in the knowledge-based industry.

Dr. Igor Sherman President & CEO

Extensive experience and expertise in the pharmaceutical and biotechnology industries, particularly in oncology. Prior to ACT, Dr. Sherman was Director of Clinical Research and Director of Scientific Affairs for YM Biosciences Inc., where he was responsible for preclinical and clinical development, as well as registration strategies for all oncology and pain products in YM Biosciences' portfolio. Dr. Sherman was also Scientific Director of Oncology for AstraZeneca Canada Inc.

Dianne Parsons (CA) CFO

Has held senior financial officer positions focused on strategic planning, operations and financial management in technology-based businesses, turnaround management situations, and manufacturing. She is active in the community and has been an a board member for several non- profit organizations. Ms. Parsons holds a Master of Accounting degree from the University of Waterloo and is a Chartered Professional Accountant and Chartered Accountant.

Betsy Bascom Corporate Development

An entrepreneurial executive with a track record of success in strategic planning, corporate and business development. She is well recognized for her ability to open doors, negotiate and structure strategic alliances and build solid partnerships. Prior to starting her own business, Global Connectworks and working with ACT, Ms. Bascom was the Vice President of Business Development at BIOTECanada. She was also the Vice President of Product Development at Umbra Limited and has a Master of Business Administration degree from University of Toronto.

BIOCATALYST DEVELOPMENT

Outsourced Project Management Team Support

COMPANY SUMMARY

ACT IS A CLINICAL STAGE COMPANY WITH PROPRIETARY BIOLOGIC - ALPHA FETOPROTEIN (AFP)

Toronto, Canada-based private company MaRS (MaRS Discovery District)

MAJOR MARKET OPPORTUNITIES

- **IMMUNOTHERAPY | ACT-101** (AFP) for:
  - **Myasthenia Gravis** (muscle weakness) - orphan drug designation in place – Phase II ready;
  - **IBD** (Crohn's/Colitis) – Phase II ready; plus **Hashimoto** Disease, **Multiple Sclerosis**, and 40+ other IgG-driven diseases
- **IMMUNO-ONCOLOGY | Lead asset - ACT-903** (AFP+Linker+Maytansine)
  - Targeting most solid and liquid tumors

- In-licensed technology with over $100 million spent on development, demonstrated safety in over 300 patients, international patents in place, large Drug Master file already with FDA including manufacturing, toxicology, and human safety – mitigated development path
- Global Key Opinion Leaders (KOLs) support clinical development plans
- Celgene (Merger with Bristol-Myers Squibb - closing Q4 2019) has invested $10.5 Million is a 15% equity shareholder with no other commercial rights
- Advancing toward Phase II Pivotal Myasthenia Gravis trial; Phase II Ulcerative Colitis trial and Phase Ia/b (to efficacy) oncology trial while at same time looking to monetize ACT-101
- US$20M equity raised to date

Unless otherwise stated all references are to US dollars.

THE STORY

HARNESSING NATURE

ALPHA FETOPROTEIN (AFP) IS A HUMAN PROTEIN PRODUCED BY THE EMBRYO DURING FETAL DEVELOPMENT AND SERVES TWO CRITICAL FUNCTIONS:

1. **NORMALIZES IMMUNE SYSTEM** responses so the mother's immune system doesn't attack the embryo. Symptoms of autoimmune diseases: Inflammatory Bowel Disease (Crohn's/Colitis), Myasthenia Gravis, Hashimoto, MS, Arthritis etc. go into remission during pregnancy and this correlates very well with the rise and fall of AFP.
2. **PICKS UP NUTRIENTS** from the maternal bloodstream needed by rapidly growing embryo. AFP circulates with the nutrients until it finds receptors which are present on all embryonic cells. It then binds to the receptor and is transported into cell where the payload is released. After birth, the production of AFP stops and the receptors disappear.

Cancer Cells And Suppressor Cells Like Embryonic Cells Express AFP Receptors While Healthy Cells Do Not

By attaching a chemotherapy payload to AFP we can selectively deliver chemotherapy to cancer cells and immune suppressor cells while bypassing normal cells. This results in increased efficacy by targeting and killing cancer cells and immune suppressor cells. Killing immune suppressor cells unleashes the immune system to mount an attack on cancer delivering one-two punch with a significant reduction or no toxicity.

PLANNED CLINICAL USE OF FUNDS

THERAPY	INDICATION	PARTNERS	DISCOVERY	PRE-CLINICAL	PHASE I	PHASE II
ACT-101 (AFP)	**IMMUNOTHERAPY**					
	Myasthenia Gravis - ODD (muscle weakness)					
	Inflammatory Bowel Disease (Crohn's/ Colitis)					
	Hashimoto Disease, Multiple Sclerosis, and 40+ others					
ACT-901 AFP + Paclitaxel	**IMMUNO-ONCOLOGY** Solid and liquid tumors	Collaboration University Health Network, Princess Margaret Cancer Center				
ACT-902 AFP + Thapsigargin	**IMMUNO-ONCOLOGY** Solid and liquid tumors	Collaboration University Health Network				
ACT-903 AFP + Linker + Maytansine	**IMMUNO-ONCOLOGY** Solid and liquid tumors	Collaboration Abzena				

PRACTICE LEADING PARTNERS

Ensuring efficient cash utilization and a focus on asset development via external (outsourced) support

SCIENTIFIC ADVISORY BOARD

Daniel D. Von Hoff MD, FACP, FASCO, FAACR

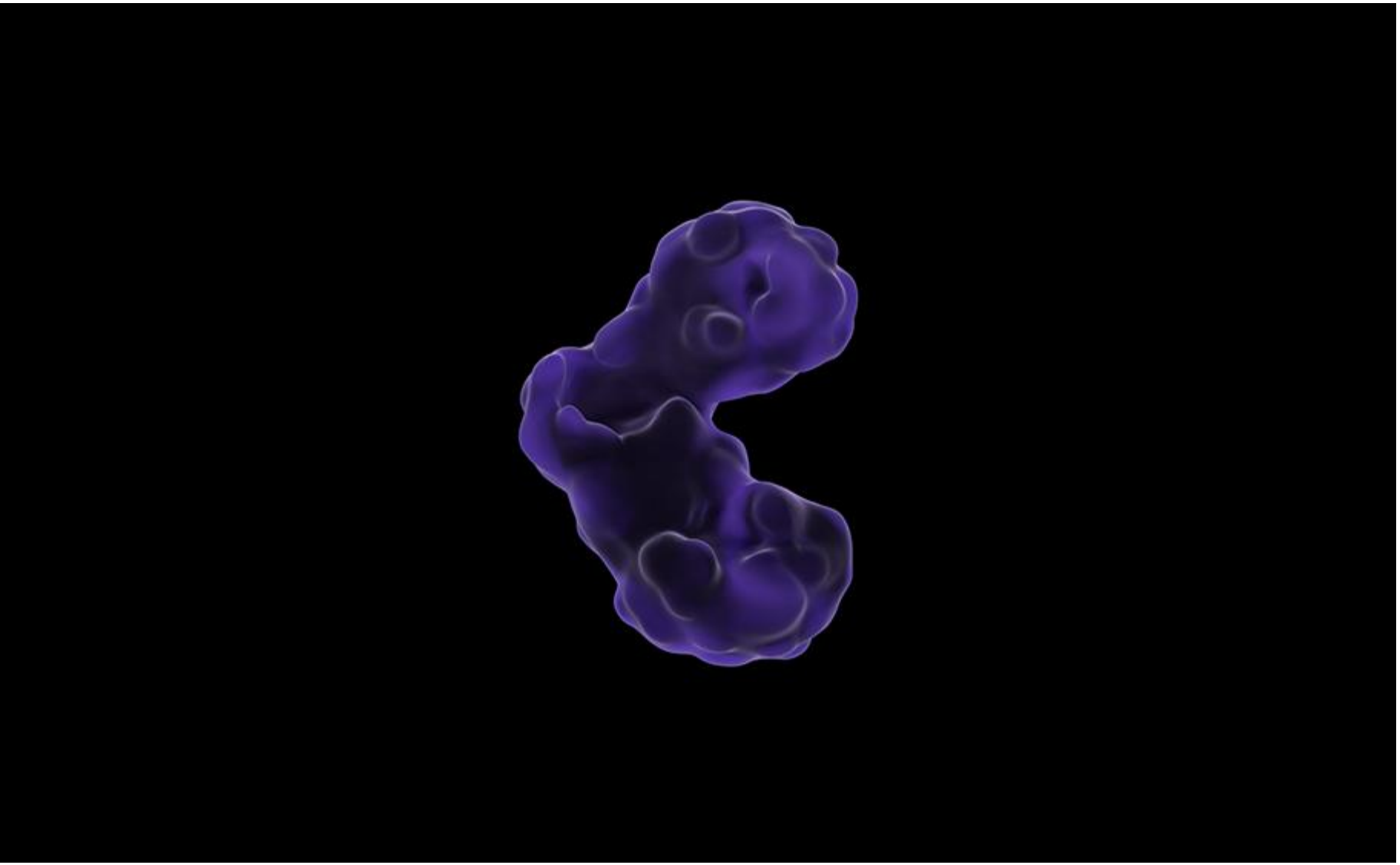
Physician in chief and director of translational research at Translational Genomics Research Institute (TGen). He is also a professor of medicine at the Mayo Clinic and medical director of research as well as chief scientific officer at US Oncology. He is most notable for his work in targeted therapies for the treatment of cancer.

Phil Gold CC, OQ, MD, PhD, FRSC, DSc (Hon) MACP, FRCP(C)

Douglas G. Cameron Professor of Medicine, Professor of Physiology and Oncology,
McGill University, Executive Director Clinical Research Centre (MGH) McGill University Heath Centre.

Michael Julius PhD

Vice-president, research, Sunnybrook Health Sciences Centre, Vice-president, research, Sunnybrook Research Institute, Senior scientist, Biological Sciences, Odette Cancer Research Program, Sunnybrook Research Institute Professor, department of immunology, University of Toronto



IMMUNOTHERAPY PLATFORM

ACT -101 TO TREAT:

- **MYASTHENIA GRAVIS**
- IBD (CROHN'S/COLITIS)
- HASHIMOTO DISEASE
- MULTIPLE SCLEROSIS
- 40+ OTHER AUTOANTIBODY DISEASES

ACT-101 OVERVIEW

PRODUCT SUMMARY

ACT-101 A RECOMBINANT FORM OF AFP IN DEVELOPMENT FOR MODERATE TO SEVERE GENERALIZED MYASTHENIA GRAVIS (MG) & IBD

OVERVIEW:

- ACT-101 (AFP) is being developed as an add-on therapy to standard immunosuppressive therapies currently used to treat MG and IBD
- ACT-101 is a specific and safe therapy with strong evidence of efficacy in MG and IBD

MECHANISM:

- ACT-101 is one of the 3 natural ligands to the FcRn receptor - the key regulator of IgG levels.

PROFILE SUMMARY:

- Very well tolerated molecule with exceptional safety demonstrated in over 300 patients with no drug-related adverse events
    - Safety far superior to existing treatments with respect to both adverse events and ability to add on to primary treatment regimens
- Expected to demonstrate significant clinical benefit in MG patients and in other conditions where IVIG is currently used

ADMINISTRATION

- Subcutaneous; once weekly

CURRENT LANDSCAPE OF FCRN ANTAGONISTS

Six Molecules in Clinical Development

There are six FcRn antagonists in clinical development today. The most advanced (efgartigimod) is from Argenx which has exhibited excellent Phase 2a data in Myasthenia Gravis and ITP.

While UCB has treated more patients overall it has reported a high rate of headaches in its Phase 2a study in Myasthenia Gravis. The other players (Affibody, Alexion, Momenta and Roivant) are all earlier in clinical development.

Obviously, there is a clinical race underway to approvals for relevant IgG-mediated diseases.

COMPARISON OF ACT-101 TO OTHER FCRN ANTAGONISTS

ACT-101 has the potential to be first-to-approval, high value FcRn antagonist. Its MOA is the same as that of the other six clinical candidates. It is delivered subcutaneously (subQ) which provides for much greater patient convenience. It is ready for commercial manufacture, has an approved Drug Master File, and has an excellent safety record in over 300 patients (three times as many as the closest competitor). The FDA has indicated that ACT can proceed to adequately powered pivotal study which could be used for registration.

Sponsor	ACT	argenx	UCB	Momenta	Alexion	Immunovant Roivant	Affibody /Alexion
Agent	ACT-101	efgartigimod	Rozanolixizumab	M281	SYNT001	IMVT-1401	ABY0389
FcRn Ligand Binding Site	Third (AFP)	First (IgG)	First (IgG)	First (IgG)	First (IgG)	First (IgG)	First (IgG)
Clinical Development	MG,RA	MG,ITP,PV	MG,ITP,CIDP	HDFN, MG	PV, WAIHA	MG	NA
Most Advanced Completed Study	Phase 2b	Phase 2a	Phase 2a	Phase 1b	Phase 1b	Phase 1a	Preclinical
Number of Patients Treated	300+	106	128	50	11	0	0
Current Mode of Delivery	**SubQ**	IV	SubQ	IV	IV	IV	SubQ
Headache Rate	**Similar to Placebo**	25%	57%	17%	55%	NA	NA

Note 1. Wall Street Analyst Reports; 2. Peak sales in both PV and WAIHA

MYASTHENIA GRAVIS
CLINICAL ADVISORY BOARD

Phase II Pivotal Study Protocol In Place And Approved By CAB

Vera Bril MD, FRCP

Clinical Researcher, Toronto General Research Institute (TGRI) Clinical Division Head, Toronto General Research Institute (TGRI)

Coordinating investigator in the clinical trial of UCB's rozanolixizumab for MG

James F. Howard Jr. MD

Distinguished Professor of Neuromuscular Disease; Professor of Neurology, Medicine & Allied Health; Chief, Neuromuscular Disorders Section, The University of North Carolina at Chapel Hill. Adjunct Professor of Clinical Sciences (Neurology), North Carolina State University College of Veterinary Medicine.

Lead investigator in the clinical trial of Alexion's Soliris in MG, approved by the FDA in 2017

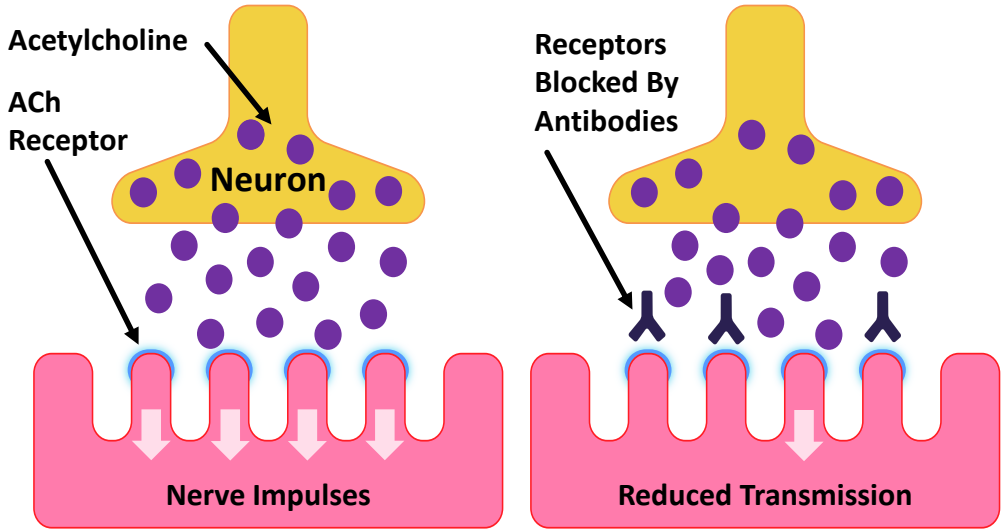
Gil Wolfe MD

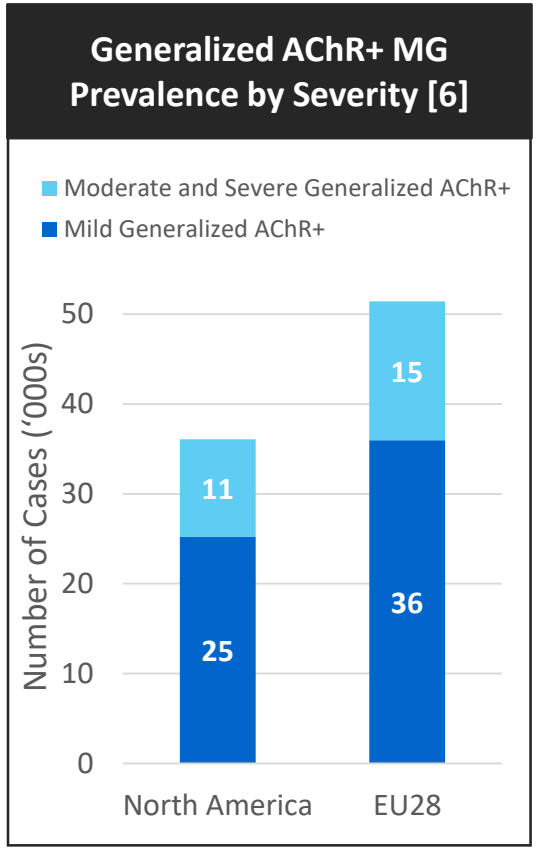
Department of Neurology University at Buffalo, State University of New York
Professor and Chairman; Irvin and Rosemary Smith Chair of Neurology

Head of the Panel for Myasthenia Gravis Treatment Guidance

MYASTHENIA GRAVIS (MG) IS AN ORPHAN AUTOIMMUNE DISEASE PRIMARILY CAUSED BY ACHR AUTOANTIBODIES

- Myasthenia Gravis is a rare, chronic autoimmune disease affecting an estimated 14/100k individuals.
- In over 72% of cases, the impaired neuromuscular function is caused by autoantibodies produced against the AChR receptor which inhibit the action of acetylcholine at neuromuscular junctions.
- AChR autoantibodies gradually destroy the receptors and disrupt the transmission of nerve signals required for control of muscular function.





ACT-101 OVERVIEW

PRECLINICAL EFFICACY (1)

TREATMENT WITH ACT-101 HAS REDUCED DISEASE SEVERITY AND LOWERED ANTI-ACHR ANTIBODIES LEVELS IN PRECLINICAL MG MODELS

EXPERIMENTAL DESIGN

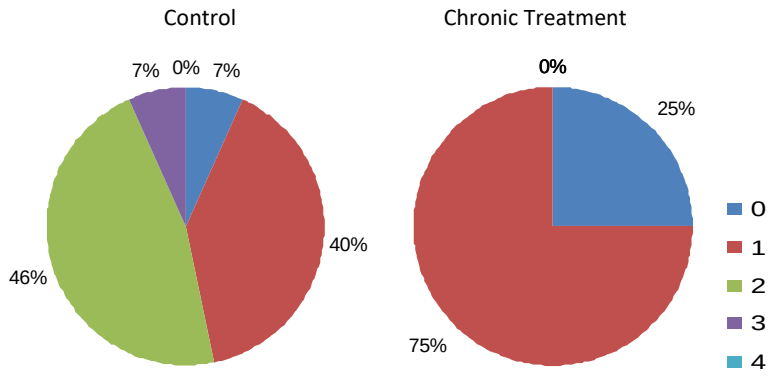
- Female Lewis rats with experimental autoimmune myasthenia gravis (EAMG) induced by injections of Ach-torpedo preparation were treated with alpha-fetoprotein to explore the therapeutic value of AFP
  - Control Group: saline (n=26)
  - Chronic Phase Group: rhAFP 60µg/kg/day from day 26 post-induction (n=26)
- Sera from the rats were assayed for anti-rat AChR antibodies and the rats were given a clinical severity score 0-5 based upon inspection for muscle weakness
- Dosage chosen to mimic AFP level during remission of autoimmunity in the 2nd half of human pregnancy

RESULTS

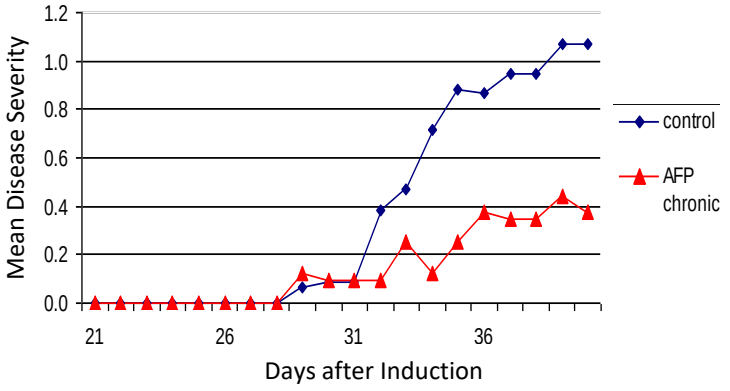
- Statistically significant reductions in disease severity and incidence were observed following rhAFP treatment
  - EAMG rats treated with AFP showed normal response to repetitive nerve stimulations, compared to placebo-controlled EAMG rats who showed a decreased response
  - Levels of anti-AChR antibodies directed against rat-AChR were lowered by 62% in the treated rats
- In the Chronic Phase Group, the natural course of gradual disease progression did not occur

SELECT STUDY DATA

Distribution of Maximal Disease Severity Score



Chronic Treatment Group Versus Control



Source: Brenner T. The effect of AFP on experimental Myasthenia gravis (EAMG) in Lewis rats. Results Summary.

ACT-101 OVERVIEW

PRECLINICAL EFFICACY (2)

IN A SUBSEQUENT STUDY, ACT-101 LOWERED CLINICAL SCORE, INCREASED GRIP STRENGTH, AND REDUCED IGG2 LEVELS IN MG MODELS

STUDY DESIGN

Objective: To evaluate the efficacy of ACT-101 in an experimental autoimmune MG rat model

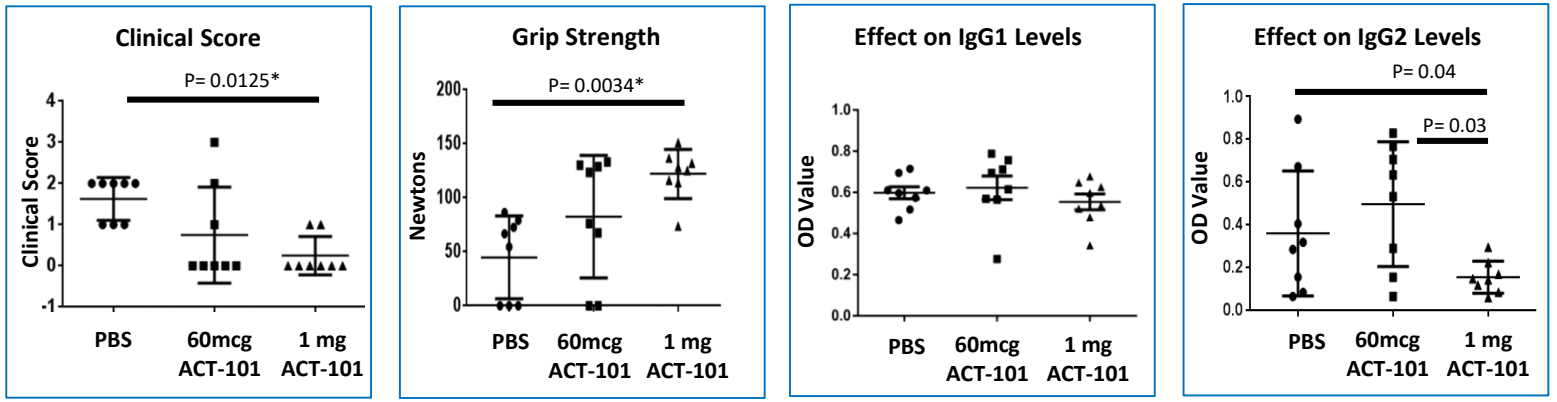
Experimental Design

- Experimental autoimmune MG was induced in 25 Lewis Female rats with tAChR
- On day 40 after induction, daily intraperitoneal injections of ACT-101 (60 mcg or 1 mg) or equivalent volume of placebo (PBS) was initiated
- After 14 days of treatment, EAMG rats were euthanized and samples were taken

RESULTS SUMMARY

- EAMG rats that received 1 mg of ACT-101 demonstrated lower clinical scores and greater grip strength than control rats
- Complement-activating anti-AChR IgG2 levels were significantly lower in AFP-treated rats while non-complement activating IgG1 levels were not reduced

SELECT STUDY DATA



*2-way ANOVA

ACT-101 OVERVIEW

CLINICAL SAFETY DATA

THE DOSE OF ACT-101 PROVEN SAFE IN CLINICAL STUDIES IS ~3 TIMES HIGHER THAN THE SERUM LEVEL SEEN IN PREGNANCY

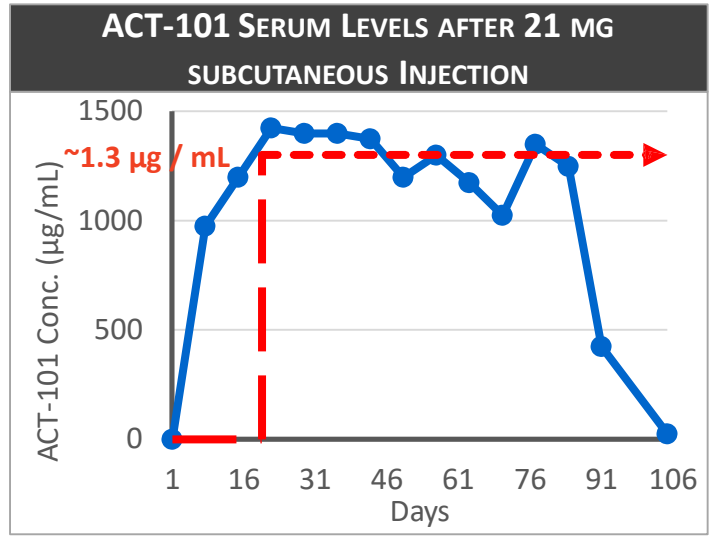
SAFETY STUDIES

1. **Experimental binding studies show AChR autoantibody binding inhibition by AFP of approximately 74% at an AFP concentration of 0.4 µg/mL**
   - This data follows the observation that serum concentration level in pregnancy (0.3 – 0.5 µg/mL) are associated with remission
2. **ACT-101 has demonstrated a strong safety profile across six clinical studies up at doses from 12 to 100 mg**
   - ACT-101 was previously being developed through Phase II by Merrimack Pharma for RA, psoriasis, and uveitis
   - Over 300 patients, treated for up to 24 weeks, demonstrated good tolerability

❖ Antibodies to ACT-101 were not detected in any of these studies

DOSING

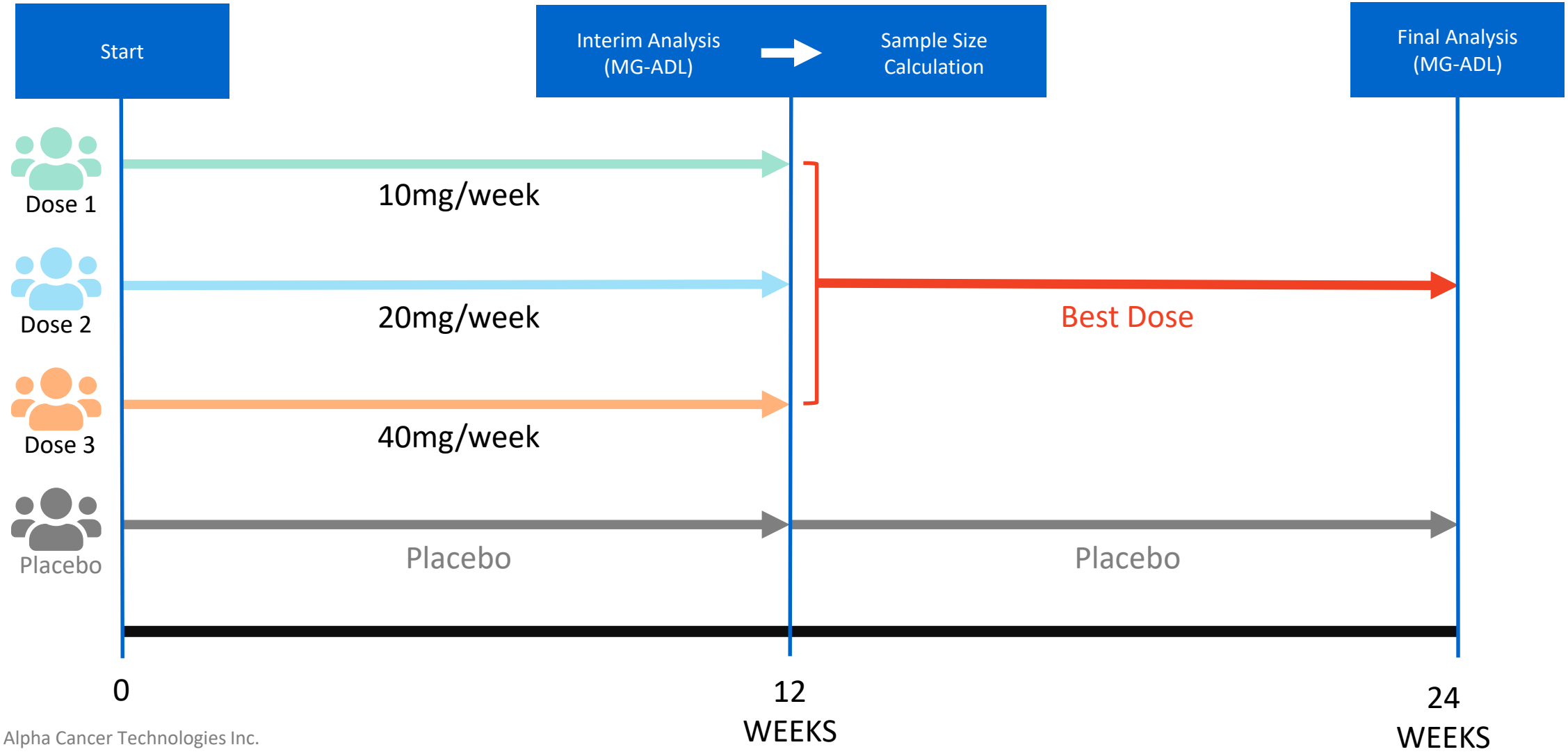
Based on the robust safety data, dosing of ACT-101 can safely exceed the serum concentration seen in the 3rd trimester during pregnancy

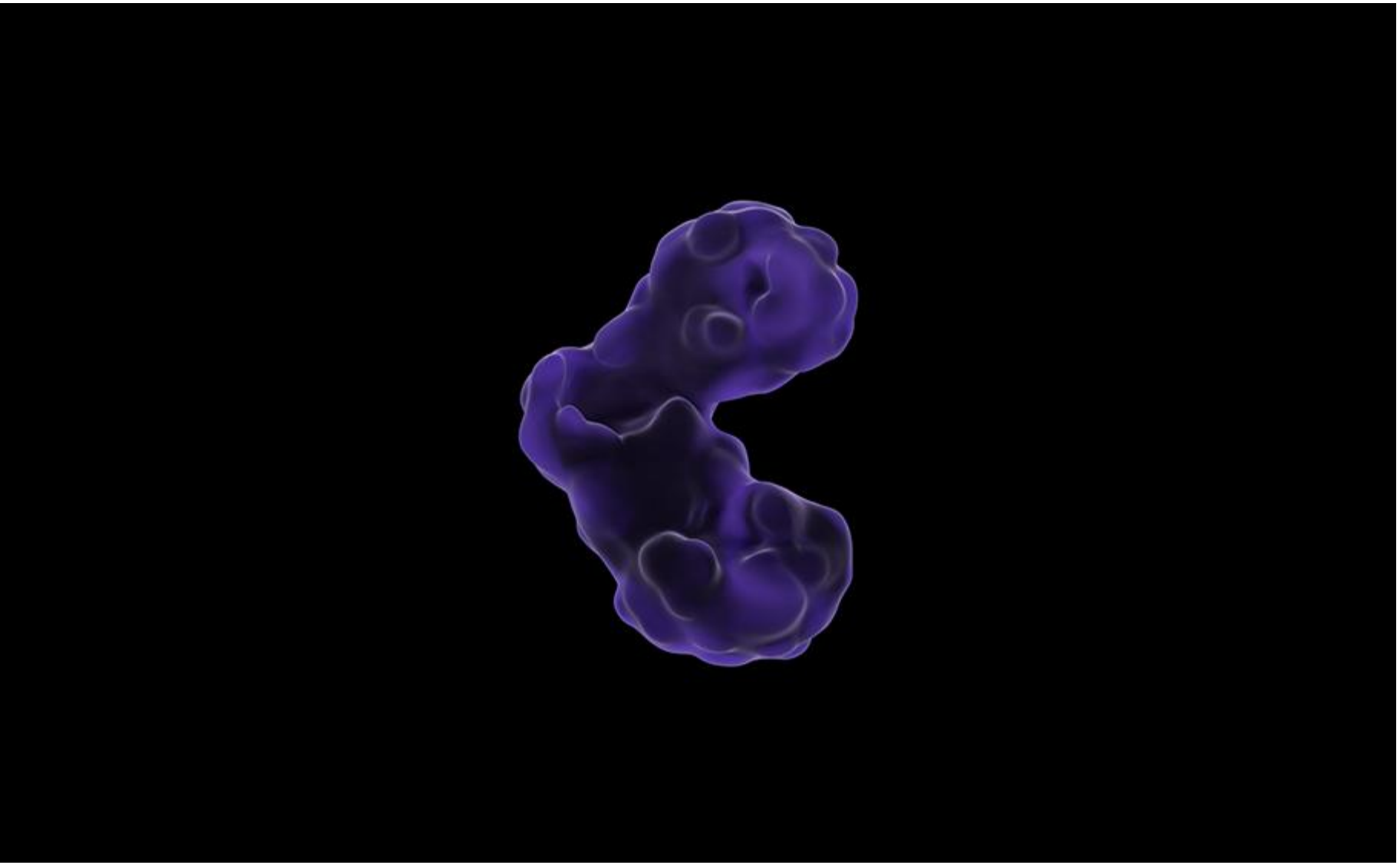


PIVOTAL STUDY DESIGN

15 Patients Per Cohort
3:1 Randomization

Additional 50-70 Patients (40-50 Per Cohort, final)
1:1 Randomization





IMMUNOTHERAPY PLATFORM

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- **IBD (CROHN'S/COLITIS)**
- HASHIMOTO DISEASE
- MULTIPLE SCLEROSIS
- 40+ OTHER AUTOANTIBODY DISEASES

IBD
CROHN'S & COLITIS
CLINICAL ADVISORY BOARD

Jean-Frédéric Colombel -MD

Head of the Center of Inflammatory Diseases of the Intestine at the Department of Gastroenterology of Icahn School of Medicine at Mount Sinai in New York. Professor of Gastroenterology & Hepatogastroenterology and Director of the Department of Hepatogastroenterology in Hopital Huriez, CHRU Lille (FRA). Chairman and President of the European Crohn's and Colitis Organization, and Scientific Secretary of the International Organization of IBD (IOIBD).

Pierre Desreumaux, MD, PhD

Professor of Gastroenterology, PhD in Immunology at the University and Medical School of Lille, France. Clinician in the Department of gastroenterology and nutrition of the university hospital of Lille, he is also head of the Research Unit on the patho-physiology of Inflammatory Bowel Diseases (IBD)

Stephen B Hanauer, MD

The Clifford Joseph Barborka Professor of Medicine in the Division of Gastroenterology and Hepatology at Northwestern University, Chicago. His clinical and research focus is in Crohn's disease and ulcerative colitis.

ADDITIONAL INDICATIONS

IBD Rationale and Preclinical Experimental Design

ACT conducted a preclinical animal study to further support the clinical rationale for the use of ACT-101 within IBD

Therapeutic Rationale

- AFP's utility in IBD stems from experimental findings that the compound reduces the ability of dendritic cells to present antigens and downregulates the production of antibodies by B cells
- A randomized clinical study of AFP vs. placebo was conducted in Russia and Israel between 2000 and 2004 exploring the potential of AFP in treating ulcerative colitis and Crohn's disease in 78 patients (56 with colitis, and 22 with Crohn's, 50:50 randomization)
  - After treatment with AFP, 100% of patients experienced definite improvement in their symptoms
  - 30% of Crohn's patients and 32% of colitis patients had complete restoration of normal bowel movements and no symptoms of disease post treatment
  - 30% of Crohn's patients reduced steroid dose by half and 20% went off steroids completely; 32% of colitis patients were able to reduce steroid dose by 40-60% and 7% went off steroids completely
  - No significant changes were observed in the placebo group
- Alpha Cancer conducted pre-clinical studies to validate the potential efficacy of AFP in a model of IBD

Preclinical Study Design

- Colitis was induced by anesthetizing mice and administering intrarectal 2,4,6-Trinitrobenzenesulfonic acid (TNBS)
- Macroscopic and histological assessments of colitis according to Wallace criteria performed blindly by two investigators
- Ameho's score, MPO, TNFα, IFNg, IL-1b, and IL-10 in colon tissues were also measured
- Mice were divided into the following groups:
  1) Vehicle (n=19)
  2) AFP 100 µg/day SC (n=19)
  3) AFP 200 µg/day SC (n=19)
  4) AFP 300 µg/day SC (n=19)
  5) AFP 200 µg/day IV (n=19)
  5) Positive Control - Anti-TNFα (n=19)

*Source: AFP from aborted fetal tissue. Alfetin. 4:239-244

ADDITIONAL INDICATIONS

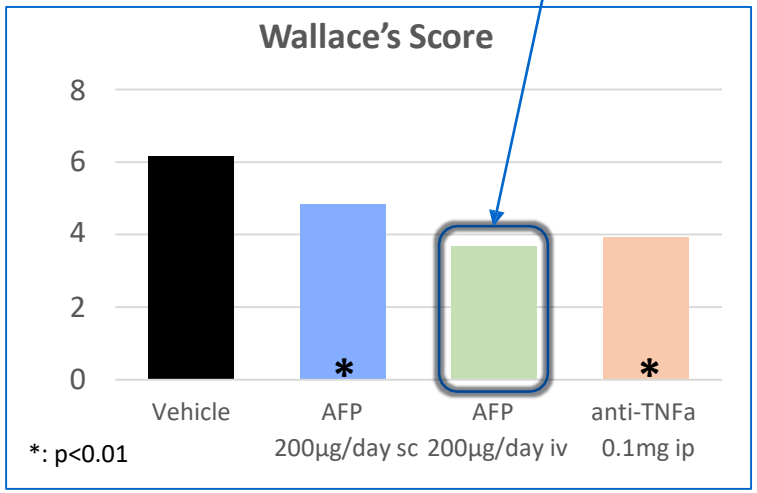
IBD Preclinical Experimental Results: Wallace's Score

Preclinical results of ACT-101 in a "gold standard" model of IBD showed a 53% decrease in Ameho's Score with results superior to Anti-TNFa

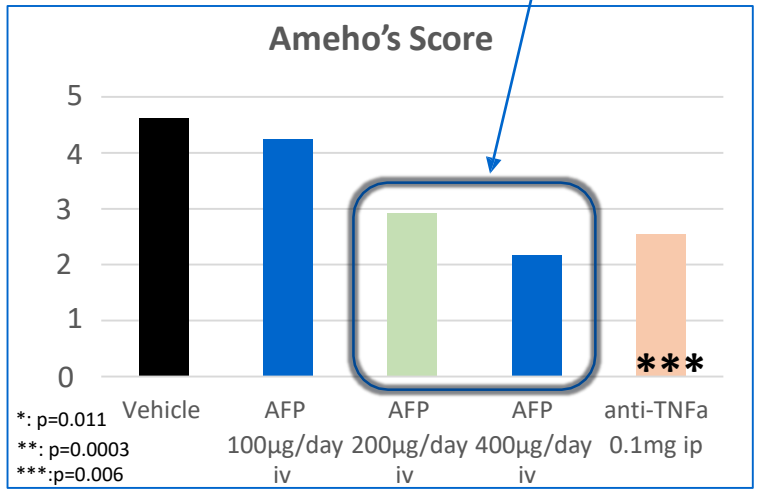
Results: Macroscopic and Histologic Evaluation

- A significant decrease in inflammation at the macroscopic level was observed with AFP at 200µg and 400µg/mouse/day administered by sc or iv injection
- A strong correlation between macroscopic and histological scores (Wallace's Score and Ameho's Score) show a significant improvement in inflammation

41% decrease with AFP 200µg/day by IV administration (similar effect to anti-TNFα)



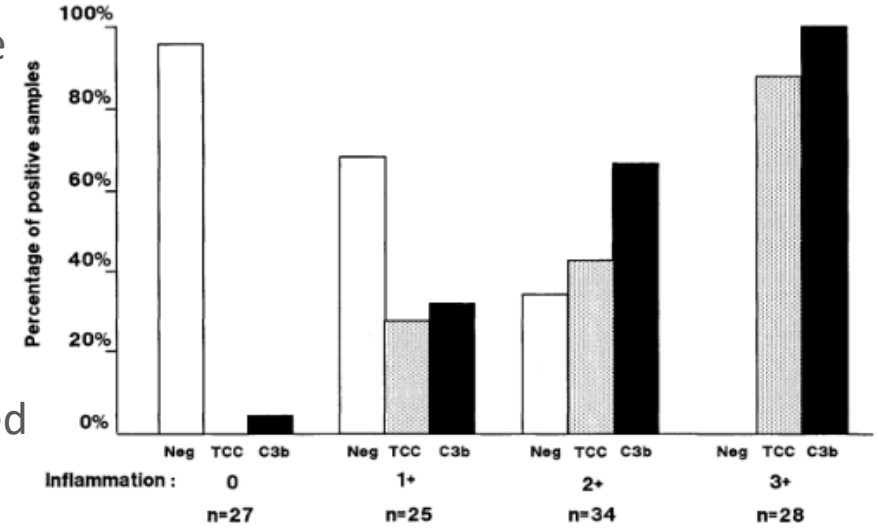
53% decrease in inflammation at the histological level than anti-TNFa at 45%



Source: Evaluation of anti-inflammatory properties of AFP compound in vivo, in the model of colitis induced by TNBS in mice. Intestinal Biotech Development. αCT project N°1-B. December 2016

RELATIONSHIP BETWEEN IGG AND IBD

- Well documented association of elevated levels of IgG subtypes in patients with IBD, with specific types of antibodies associated with different manifestations of IBD
- In 1989, elevated serum IgG1 levels in Ulcerative Colitis (CD) patients and IgG2 levels in CD were first described
- In 1992, elevated IgG1 (mainly in UC) and IgG2 (in Crohn's Disease (CD)) confirmed at the tissue level through biopsy
- Levels of ASCA, pANCA, anti OmpC IgG associated with complicated disease behavior
- Epithelial deposition of IgG1 and activated compliment (C3B and TCC) demonstrated in UC
- Activated complement associated with more severe inflammation



MacDermott et al. *Gastroenterology* 1989; Rütlein et al. *Gut* 1992; Arnott et l. *Am J Gastroenterol* 2004; Elkadri et al. *Inflamm Bowel Dis* 2013; Fleshner *et al. Clin Gastroenterol Hepatol* 2008; Fleshner *et al. Gut* 2001;Mow *et al. Gastroenterology* 2004; Brandtzaeg et al. Gastroenterology 1990

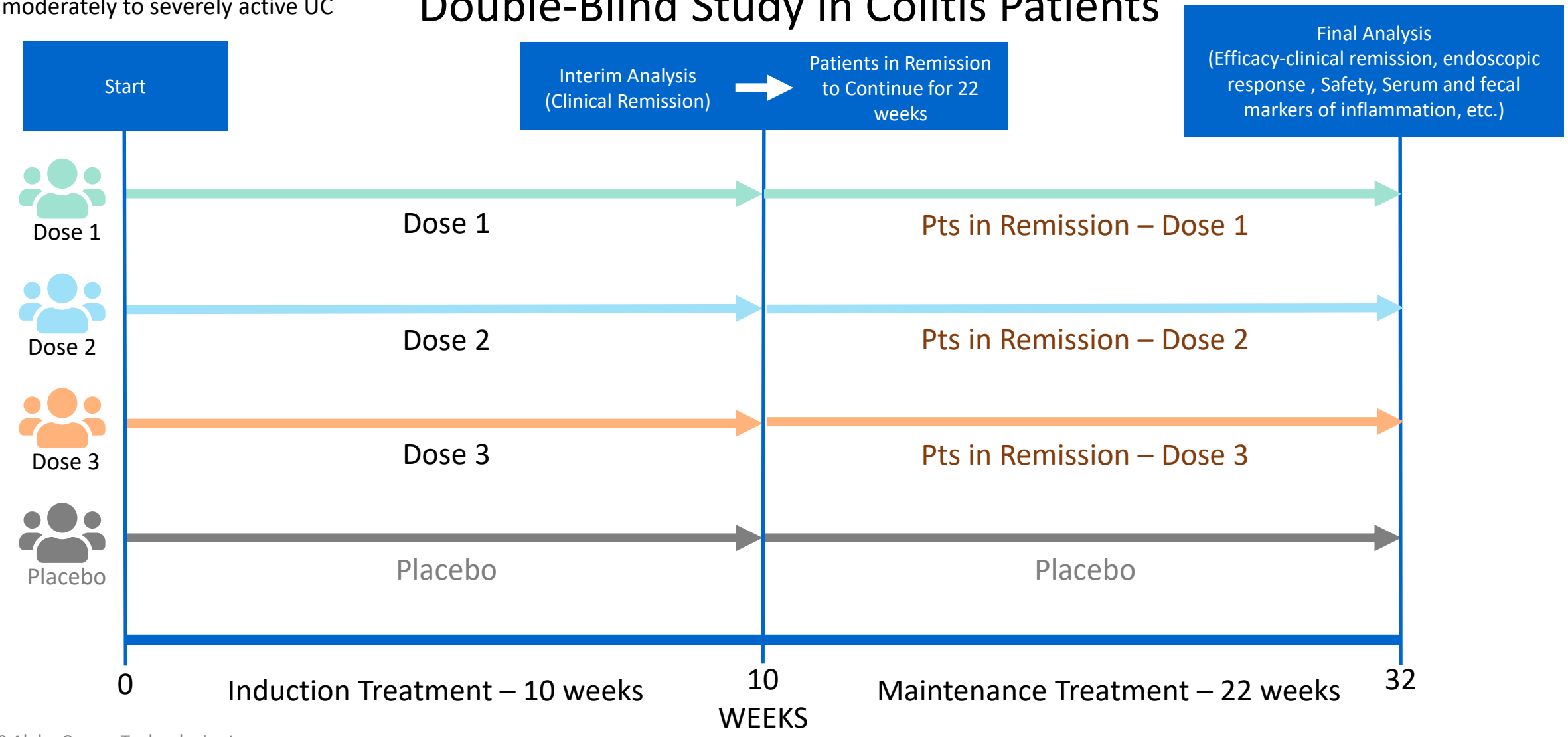
INHIBITION OF IBD BY IVIG

- IVIG has been assessed in both UC and CD
- IVIG demonstrated clinical effect in an open label trial in UC and CD in 1992
- Since then a review of 17 publications on use of IVIG in IBD indicates that IVIG can induce a rapid and significant improvement in aminosalicylate- and steroid-resistant CD, often within days of the initial administration
- Data from longer-term studies show that maintenance of remission over the medium term may also be possible
- Success in patients who had persistent symptoms even after treatment including multiple surgical procedures, approved TNF-a inhibitors, unapproved IL-23/IL-12 inhibitors as well as non-traditional therapies
- IVIG success suggests FcRn mediated treatment approach is likely to be equally effective

Am J Gastro 1992;87:91-100; Clin Exp Immunol 1997;108:340-5; Autoimmunity Reviews 2012; 12: 275-280

Phase 2 Randomized, Placebo-Controlled, Dose-Ranging, Double-Blind Study in Colitis Patients

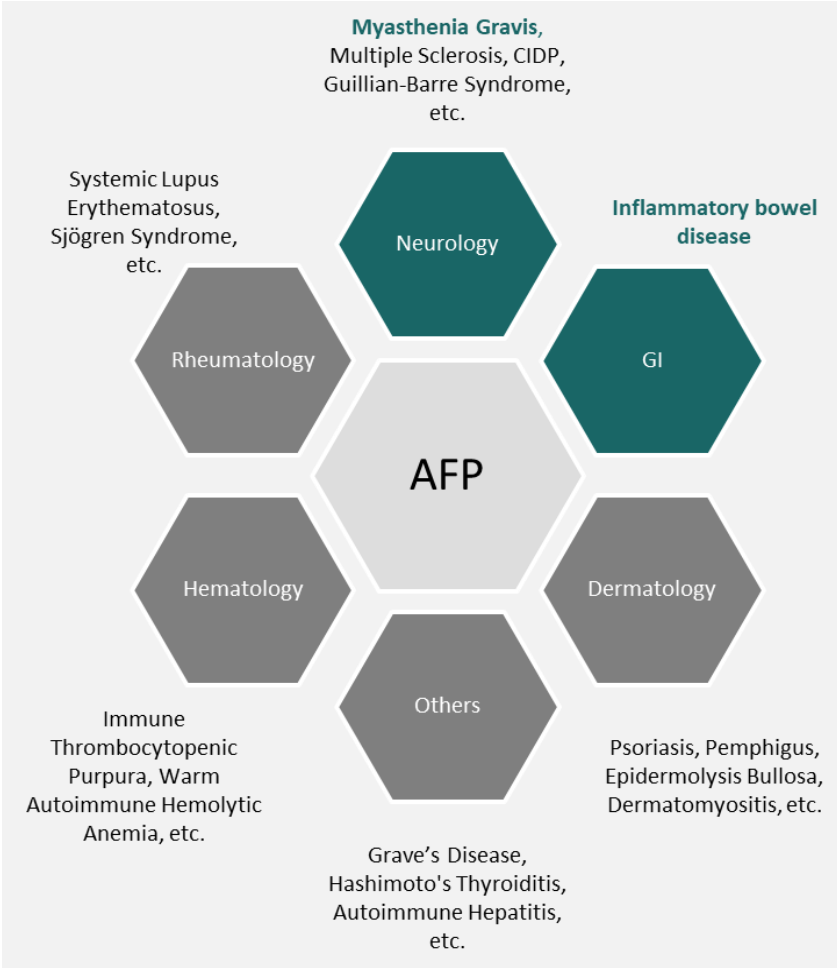
64 Patients Per Cohort
moderately to severely active UC



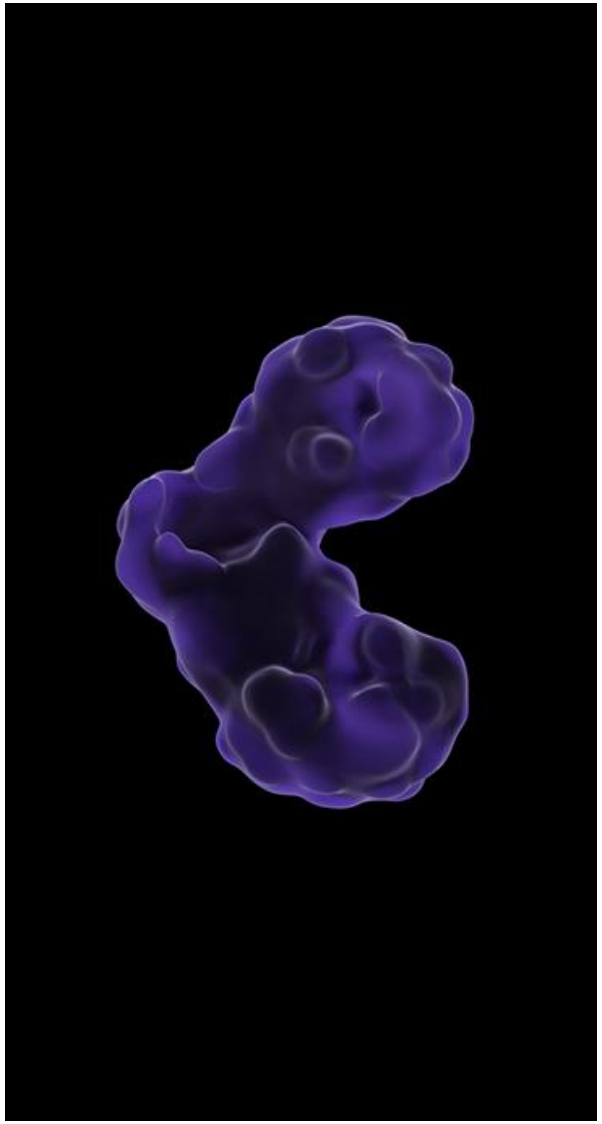
ADDITIONAL INDICATIONS

MOA Implies Broad Potential in Additional Indications

- AFP's MOA of FcRN blockade implies broad application in more autoimmune disorders, especially across autoantibody driven autoimmune diseases
- ~45 rare autoantibody driven autoimmune indications associated with significant morbidity affect ~1-2mm US patients
- Significant market with high unmet medical need in autoimmune diseases
- AFP reported positive animal model data in MG, MS and Inflammatory Bowel Disease
- Further indication expansion include the area of drug immunogenicity, to potentially enable reuse of certain biologic therapeutics whose efficacy got inhibited by antibodies

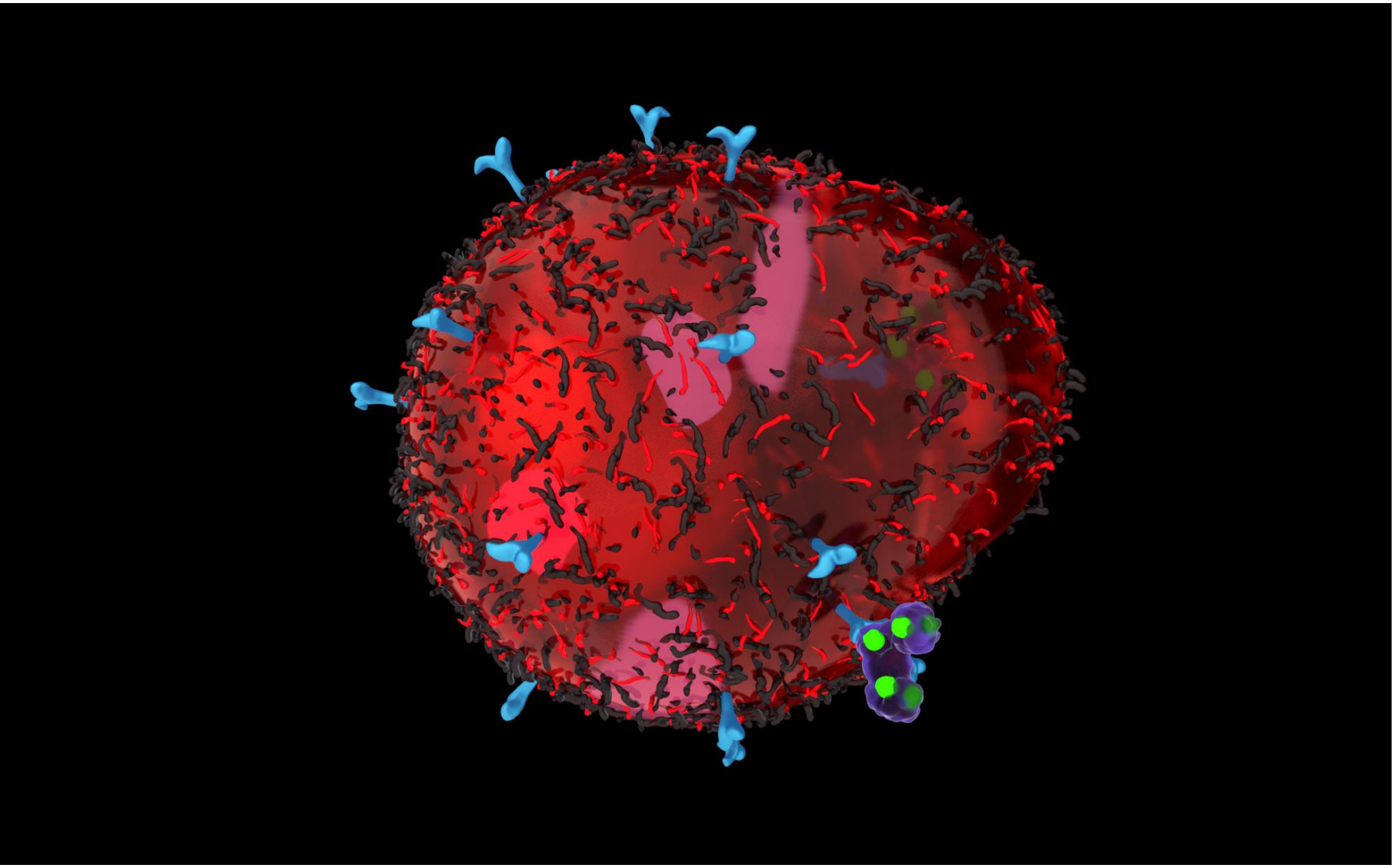


BUSINESS DEVELOPMENT SUMMARY



IMMUNOTHERAPY PLATFORM

- ✓ Novel anti-inflammatory immune modulating agent
- ✓ Protein fully characterized
- ✓ Mechanism of action clear - FcRn antagonist
- ✓ Massive safety data in over 300 humans – non-immunogenic
- ✓ International patents in place to 2025+ and additional 7/12 years market and data exclusivity as a biologic
- ✓ Phase II Ready in two indications with expansion to 40+ more
- ✓ Clinical Advisory Boards set – Orphan Designation in place
- ✓ Confirmation of efficacy in animal models
- ✓ FDA approved manufacturing process in place
- ✓ Significant risk mitigation and short path to value inflection
- ✓ **Monetization/Partnering efforts under way for ACT-101**

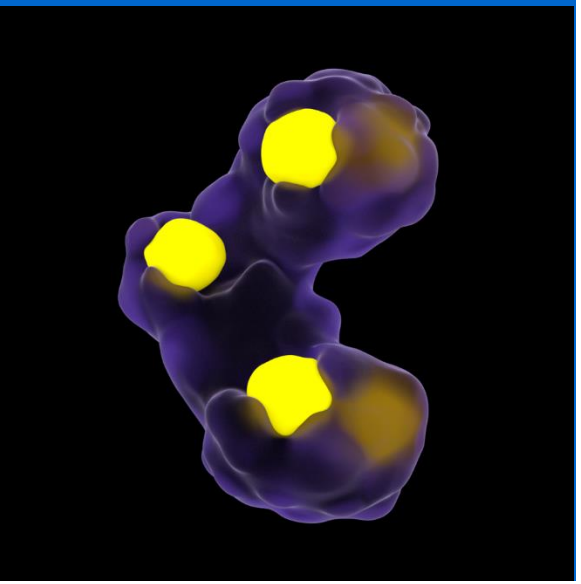


TARGETED IMMUNO-ONCOLOGY DELIVERY PLATFORM

ACT-901, 902, 903

LEAD ASSETS

ACT-901, 902, 903



ACT-901 (AFP + Paclitaxel), ACT-902 (AFP + Thapsigargin), ACT-903 (AFP + Linker + Maytansine)

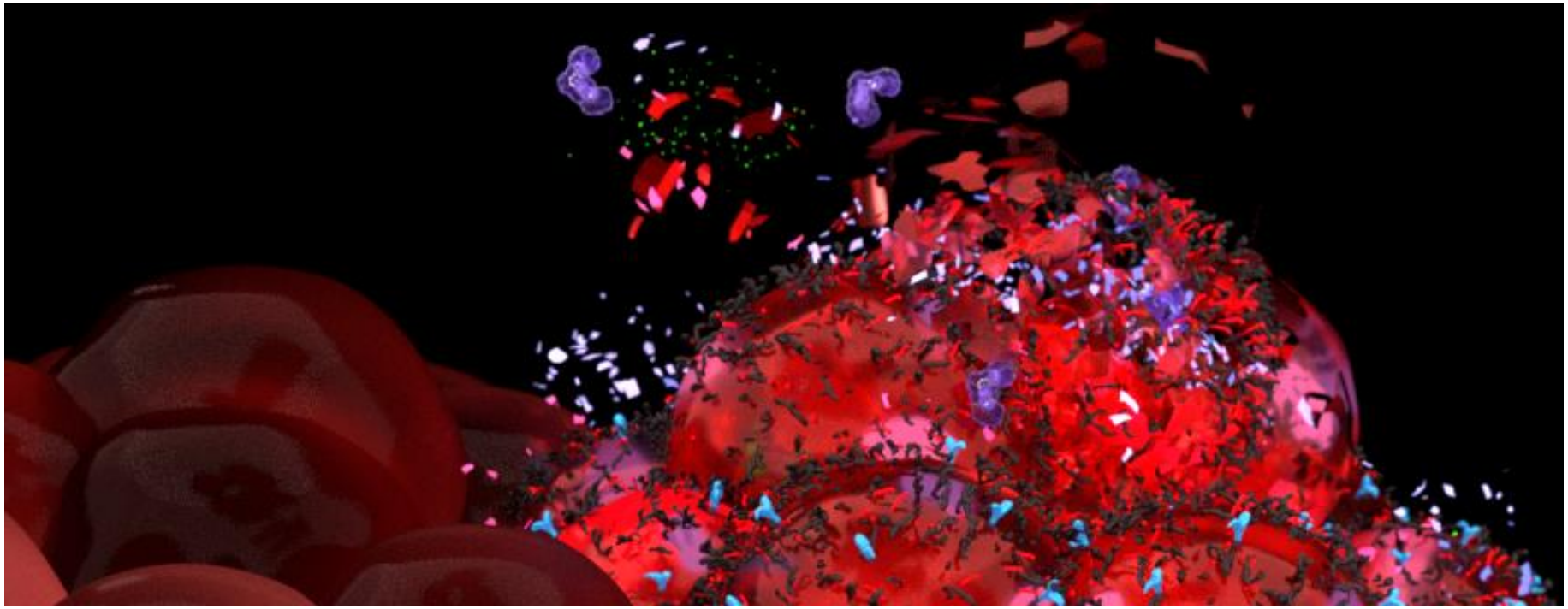
- AFP is a shuttle protein that targets AFP receptors on cancer cells
- Majority of solid and liquid cancer cells (>80%) have AFP receptors
- Healthy adult cells do not have AFP receptors except MDSCs
- Combines highly targeted and safe transporter protein AFP with a chemotherapy payload – could be generic or proprietary
- This chemotherapy payload is delivered selectively to cancer cells and to MDSCs

Benefits Of ACT's Targeted Approach

- Formulation combines two well-known molecules
- Currently in development for ovarian and testicular germ cell tumors – will seek Orphan Drug / Breakthrough Therapy Designation
- Will expand to other major indications
- Overcomes chemotherapy drug resistance as delivery bypasses membrane pumps
- AFP is non-immunogenic in humans – demonstrated safety in over 300 patients (as safe as placebo)
- Frequency of treatment driven by efficacy, not toxicity avoidance
- Treatment expected to minimize pain, suffering and healthcare cost

TARGET PRODUCT PROFILE

AFP + CHEMOTHERAPY

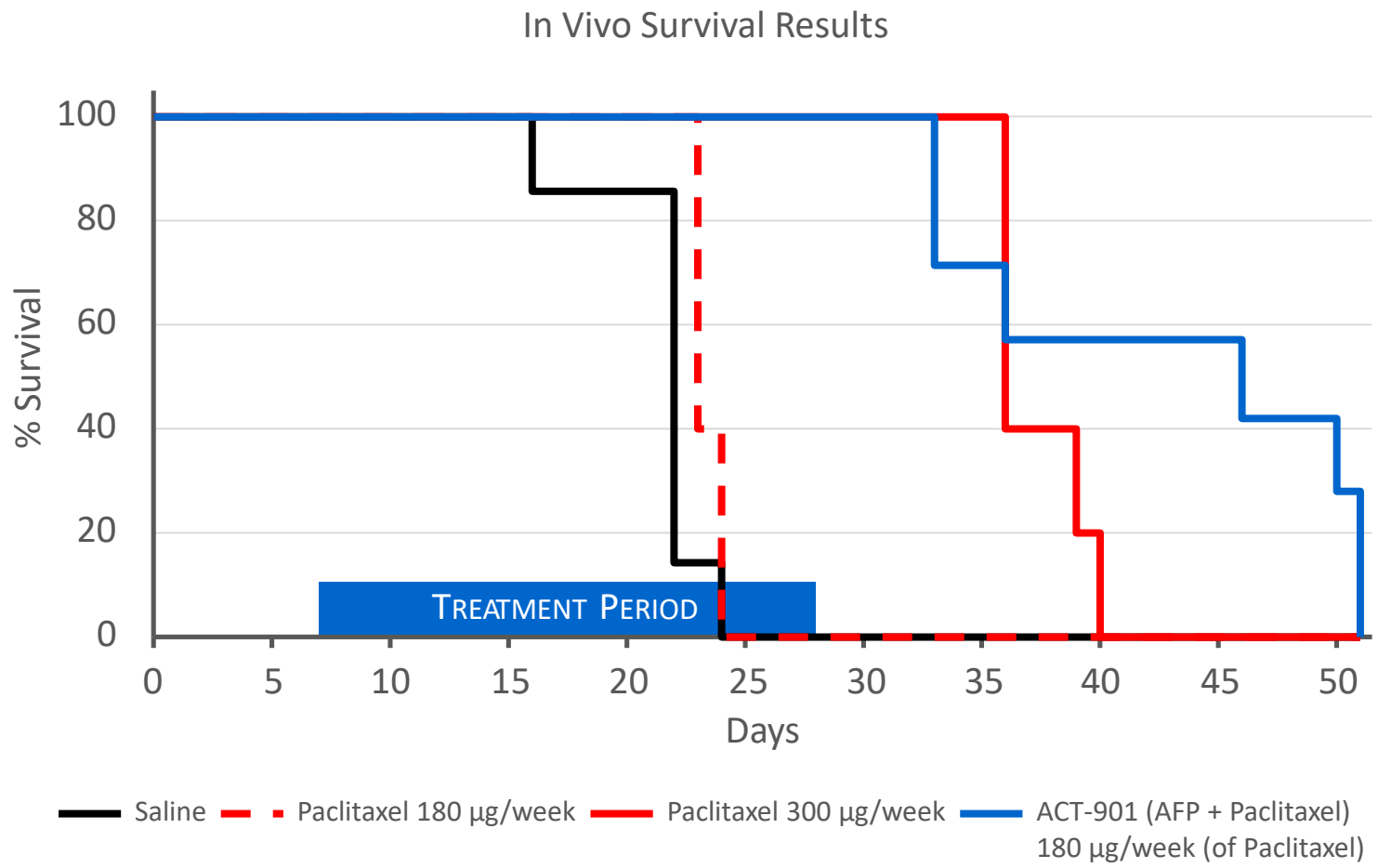


- Significantly less toxicity than targeted and non-targeted chemotherapy
- Improved efficacy compared with chemotherapy, targets cancer and stimulates immune system
- Not necessary to preselect patients for expression of the AFP receptor, because receptors are expressed in most cancers (solid and liquid), but are absent in normal tissues
- No neutralizing antibodies are triggered by AFP – fully human protein

EVIDENCE OF EFFICACY

IN VIVO SURVIVAL RESULTS ACT-901 (AFP + PACLITAXEL)

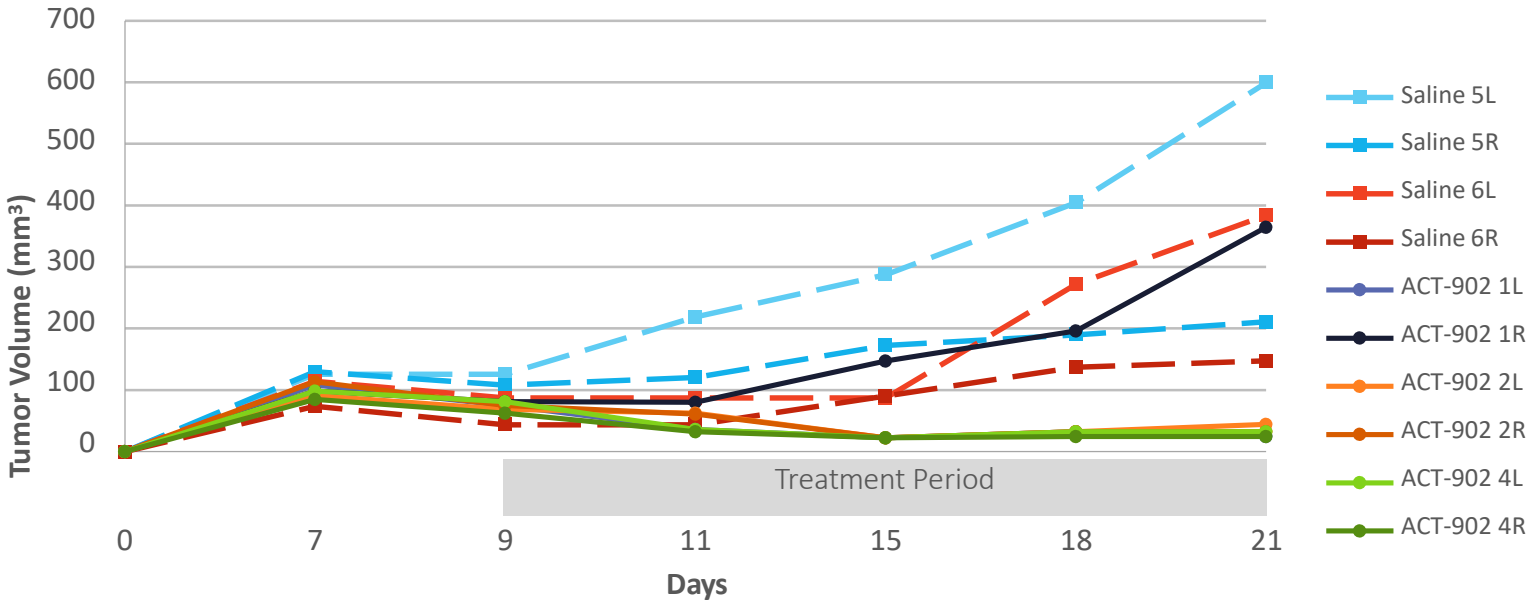
UHN – PRINCESS MARGARET CANCER CENTRE



EVIDENCE OF EFFICACY

IN VIVO STUDY
ACT-902
(AFP + THAPSIGARGIN)

PRIMARY HUMAN CANCER CELL LINE POP-92 XENOGRAFT MODEL



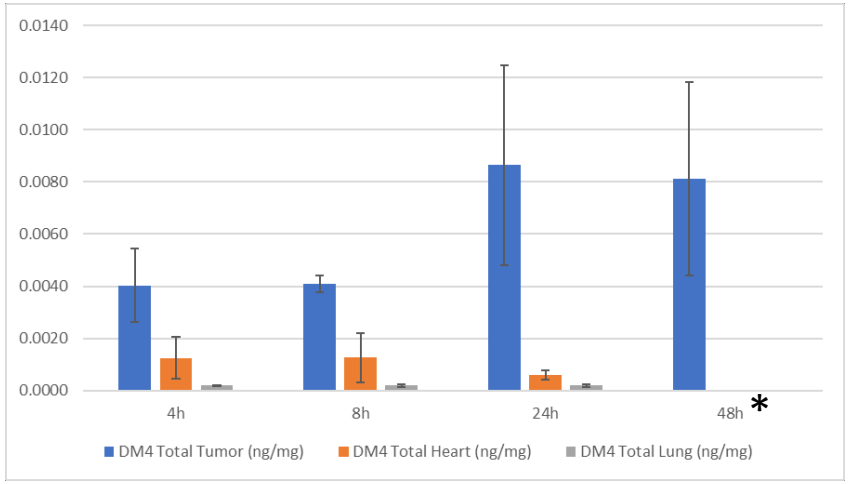
In this study 2 groups of mice were treated with saline (control group, n=4) or ACT-902 (n=6). Dotted lines show individual tumor volumes in control mice. All mice were dead by day 24. Solid lines show changes in tumor volumes of mice treated with ACT-902.

5 out of 6 ACT-902 treated tumors show complete regression of tumors by day 7 of treatment with no further growth thereafter. One tumor was unresponsive and continued to grow.

It should be noted that POP-92 cancer cells are from patient with BRAF mutated colorectal cancer. This type of cancer is highly resistant to chemotherapy resulting in poor prognosis for patients with this cancer type.

ACT-903 - Delivery is Selective for Tumor Bone Marrow Toxicity - Below Detection Level

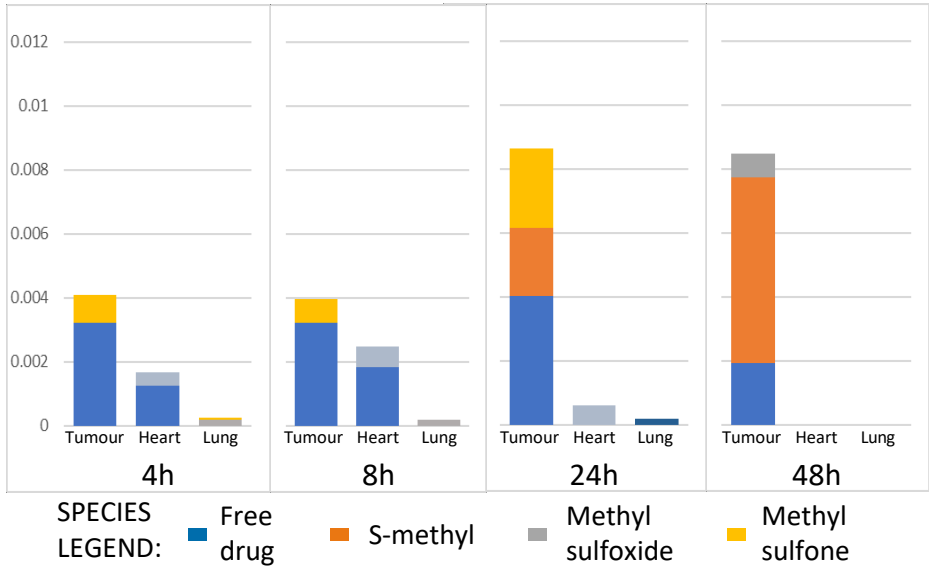
Total free drug + metabolite concentration at 4h/8h/24h (ng/mg)



	DM4 Total Tumour (ng/mg)	DM4 Total Heart (ng/mg)	DM4 Total Lung (ng/mg)
4h	0.0040	0.0013	0.0002
8h	0.0041	0.0013	0.0002
24h	0.0086	0.0006	0.0002
48h*	0.0081	n/a	n/a

* Tumour only data available, n =2

Free drug and metabolite concentration at 4h/8h/24h (ng/mg)



SOUTHERN RESEARCH

ABZENA
Enabling better biopharmaceuticals

* Studies conducted at Southern Research Institute and Abzena on behalf of ACT

AFP TARGETS FOUND ON TUMOR SUPPRESSOR CELLS

Daunorubicin conjugated with alpha-fetoprotein selectively eliminates myeloid-derived suppressor cells (MDSCs) and inhibits experimental tumor growth

Nikolai N. Belyaev, Nurshat Abdolla, Yuliya V. Perfilyeva, Yekaterina O. Ostapchuk, Vladimir K. Krasnoshtanov, Aikyn Kali, et

Cancer Immunology, Immunotherapy

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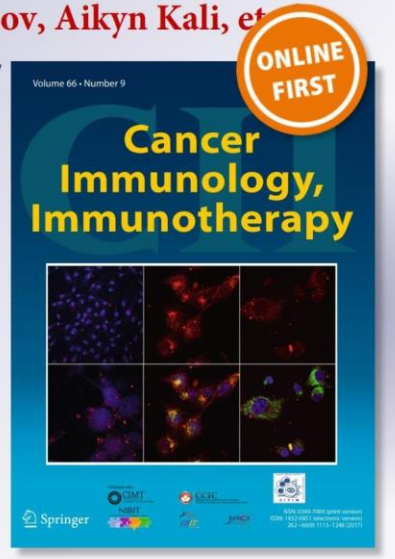
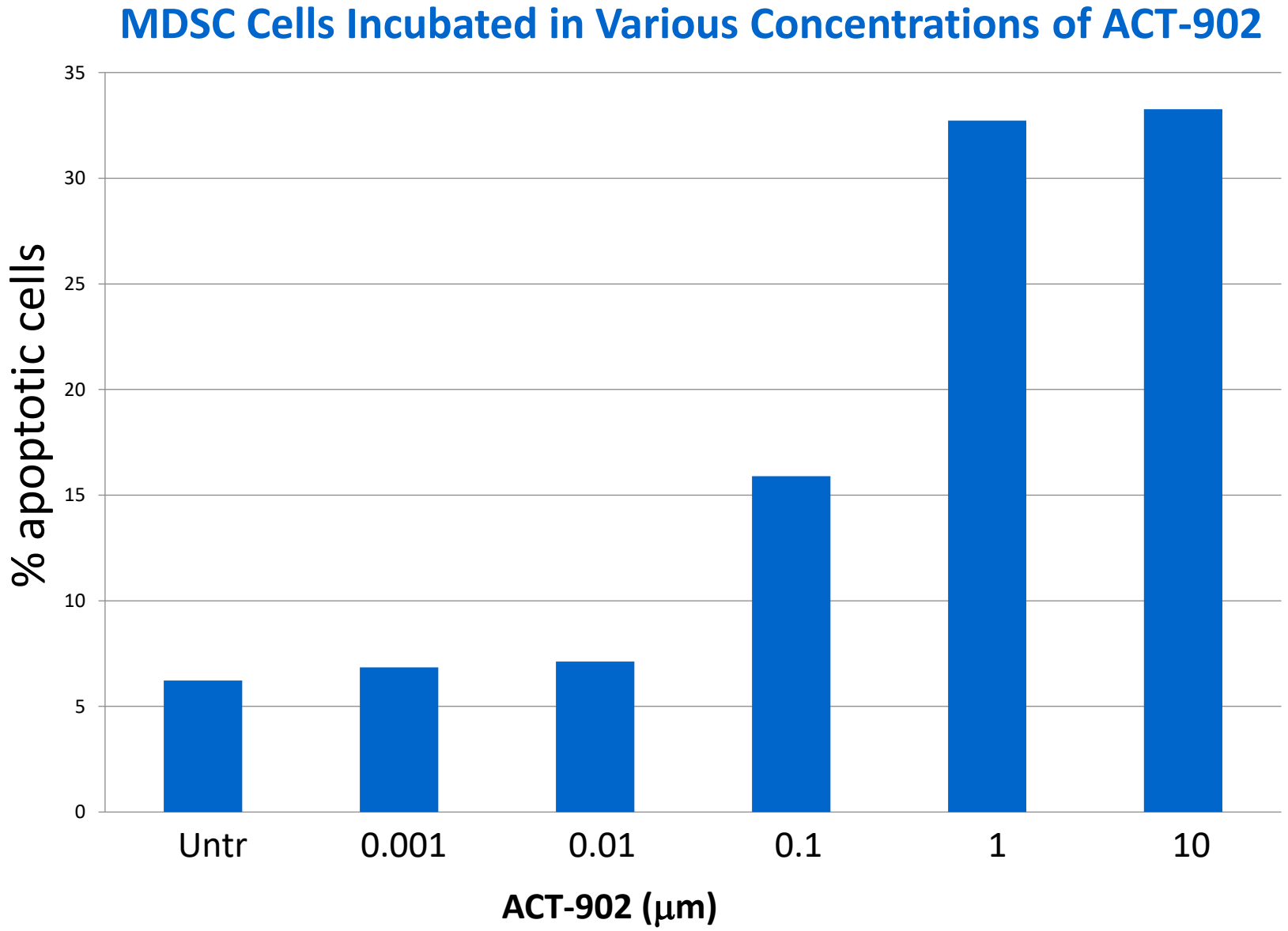
Cancer Immunol Immunother
DOI 10.1007/s00262-017-2067-y

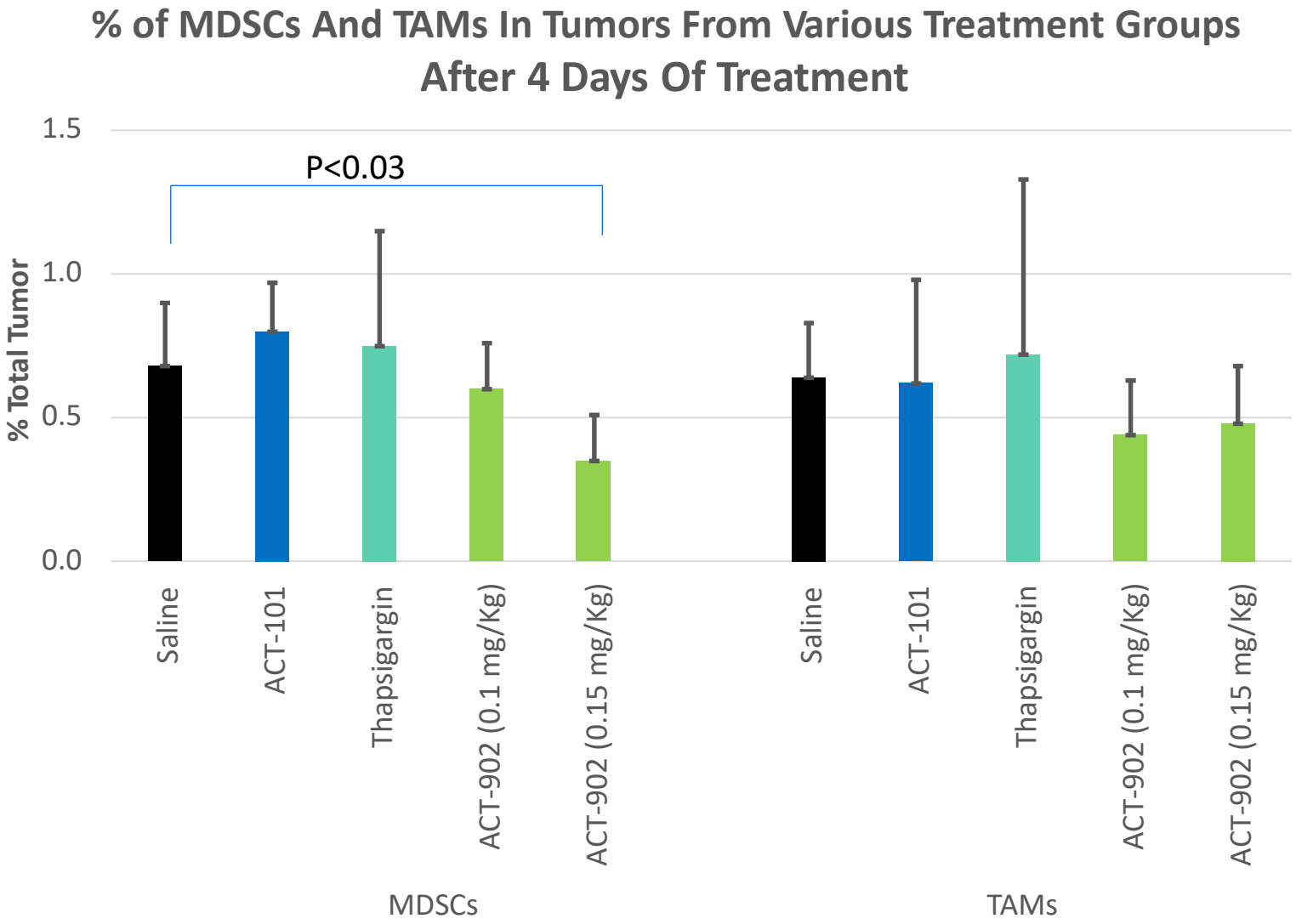


Springer

DOSE-DEPENDENT KILLING OF MDSCs



EFFECT OF ACT-902 ON TUMOR-INFILTRATING MDSCs



MITIGATED

DEVELOPMENT, MANUFACTURING, AND REIMBURSEMENT RISKS

EFFICACY

✓ Use of well studied effective chemotherapies widely used in multiple forms of cancer

✓ Enhanced efficacy in multiple tumor cell lines and xenograft models already demonstrated

SAFETY

✓ ACT-101 (targeting protein) shown to be as safe as placebo in over 300 humans in Phase I/II clinical testing

✓ Chemotherapy safety profiles well understood

DEVELOPMENT PATH IS CLEAR

✓ Validated targeted chemotherapy platform, delivering chemotherapy drugs to cancer cells

MANUFACTURING

✓ FDA-approved manufacturing processes for ACT-101

✓ Outsourced commercial manufacturing to combine ACT-101 and chemotherapy

PRICING & REIMBURSEMENT

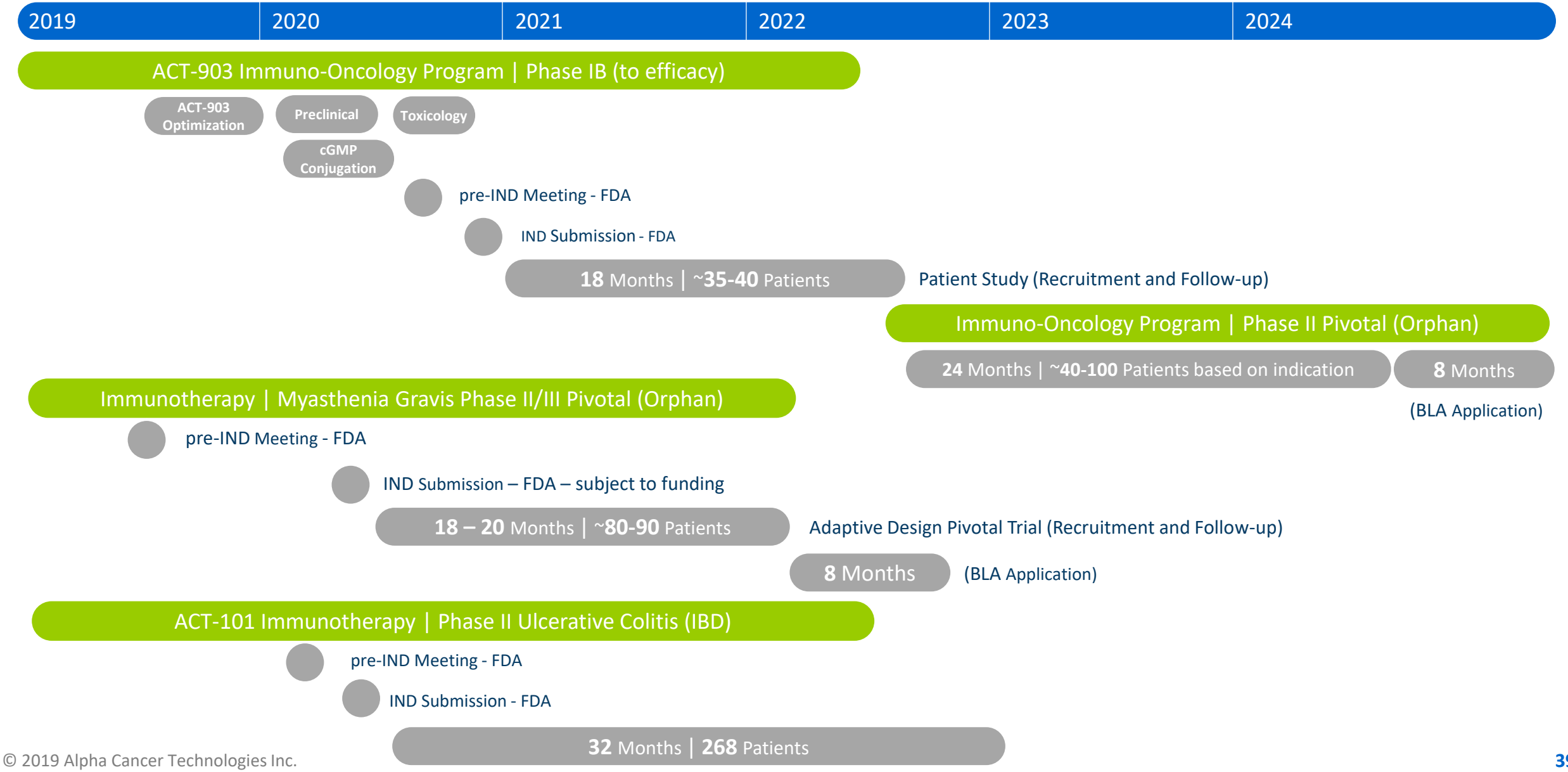
✓ Will substitute for chemotherapy's established use delivering a targeted and less toxic therapy

✓ Competitive with other targeted therapy options

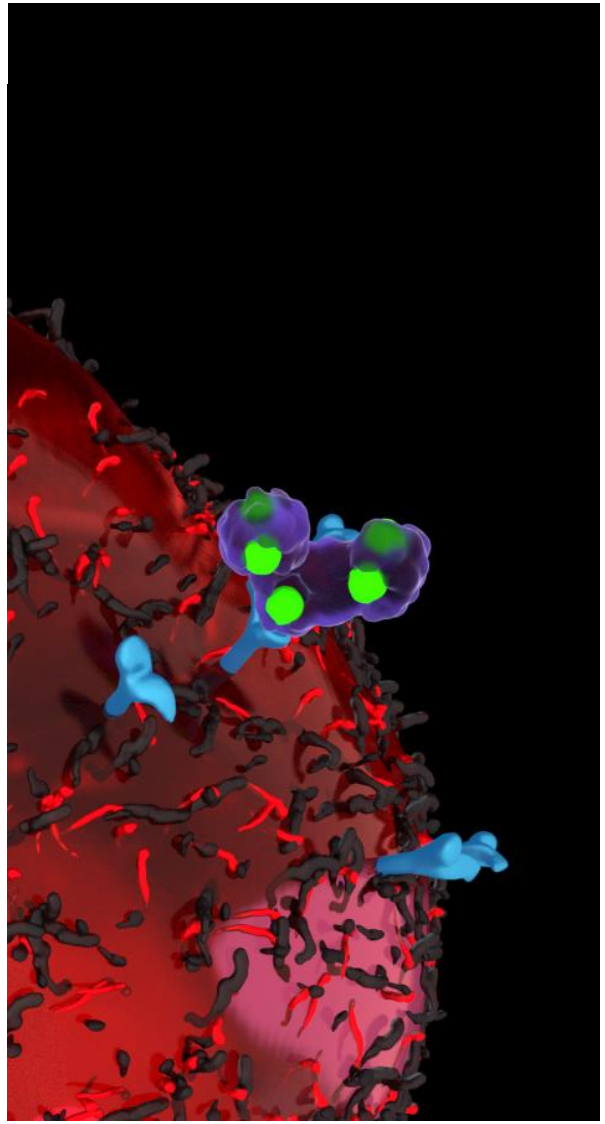
✓ High probability of reimbursement in target markets

TIMELINE FOR IMMUNOTHERAPY & IMMUNO-ONCOLOGY PROGRAMS

www.alpha-cancer.com



BUSINESS DEVELOPMENT SUMMARY



IMMUNO-ONCOLOGY PLATFORM

- ✓ Novel targeted chemotherapy delivery platform - AFP
- ✓ Targeting protein fully characterized
- ✓ Mechanism of action well understood
- ✓ Massive safety data in over 300 humans – non-immunogenic
- ✓ International patents in place to 2025+ and new filings and additional 7/12 years market and data exclusivity as a biologic
- ✓ Receptors found on >80% of all cancers (solid and liquid)
- ✓ Receptors found on MDSC cells
- ✓ Evidence of efficacy even in drug resistant tumors
- ✓ Demonstrated superior activity at low chemotherapy dose
- ✓ FDA approved manufacturing process in place
- ✓ Significant risk mitigation and short path to value inflection- – Phase Ib (treatment to efficacy)
- ✓ Lead asset ACT-903 - clear path to success

PHILANTHROPIC INVESTING - USE OF FUNDS

- Currently raising up to US$15M @US$1.50 per share
  - US$7.5M non brokered tranche **closed** at US$1.50 per share
  - Included strategic participation (with no other rights) by Celgene
  - All common shares
- Together with existing funds to be used for:
  - Phase II/III Pivotal Myasthenia Gravis (MG) study using ACT-101
  - Phase II Clinical trial in Ulcerative Colitis using ACT-101 – to be externally funded
  - Phase IB (to efficacy) ACT-903 immuno-oncology study – to be externally funded
  - Preclinical research expansion in other indications
  - Manufacturing of clinical supplies
  - Simultaneously working to risk/share, partner and monetize ACT-101 and ACT-903

RISK FACTORS

Investing in our securities is speculative and involves a high degree of risk. You should consider carefully the following risk factors.

Risks Related to Our Business and the Development and Commercialization of Our Product Candidates

We have a limited number of product candidates, all which are still in preclinical or early clinical development. If we do not obtain regulatory approval of one or more of our product candidates, or experience significant delays in doing so, our business will be materially adversely affected.

We do not currently have any products approved for sale or marketing. As a result, we are not currently permitted to market any of our product candidates in the United States or in any other country until we obtain such regulatory approvals. Our product candidates are in early stages of development and we have not submitted an application, or received marketing approval, for any of our product candidates. Obtaining regulatory approval of our product candidates will depend on many factors, including the following:

successfully completing formulation and process development activities;

completing clinical trials that demonstrate the efficacy and safety of our product candidates;

receiving marketing approval from applicable regulatory authorities;

establishing commercial manufacturing capabilities; and

launching commercial sales, marketing and distribution operations.

Many of these factors are wholly or partially beyond our control, including clinical advancement, the regulatory submission process and changes in the competitive landscape. If we do not achieve one or more of these factors in a timely manner, we could experience significant delays or an inability to develop our product candidates at all.

Successful development of our current and future product candidates is uncertain and we may discontinue or reprioritize the development of any of our product candidates at any time, at our discretion.

Before obtaining regulatory approval for the commercial distribution of our product candidates, we must conduct, at our own expense, extensive preclinical tests and clinical trials to demonstrate the safety and efficacy of our product candidates in humans. Preclinical and clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. Success in preclinical studies or early-stage clinical trials does not mean that future clinical trials will be successful because later-stage clinical trials may fail to demonstrate sufficient safety and efficacy to the satisfaction of regulatory authorities. There is a high failure rate for drugs proceeding through clinical studies. Alternatively, management may elect to discontinue development of certain product candidates to accommodate a shift in corporate strategy, despite positive clinical results.

We face significant competition and if our competitors develop and market products that are more effective, safer or less expensive than our product candidates, our commercial opportunities will be negatively impacted.

We have competitors both in the United States and internationally, including major multinational pharmaceutical companies, established biotechnology companies, specialty pharmaceutical companies, universities and other research institutions. Many of our competitors have significantly greater financial, manufacturing, marketing, drug development, technical and human resources than we do. Specifically, there are a large number of companies developing or marketing treatments for cancer and autoimmune disorders, including many major pharmaceutical and biotechnology companies.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe effects, are more convenient or are less expensive than any products that we may develop.

Risks Related to Our Financial Position and Need for Additional Capital

We have incurred significant losses since inception and anticipate that we will continue to incur losses for the foreseeable future. We have no products approved for commercial sale, and to date we have not generated any revenue or profit from product sales. We may never achieve or sustain profitability.

We are a clinical-stage biopharmaceutical company. We have incurred significant losses since our inception. We expect to continue to incur losses for the foreseeable future, and we expect these losses to increase as we continue our research and development of, and seek regulatory approvals for, our product candidates, prepare for and begin to commercialize any approved product candidates and add infrastructure and personnel to support our product development efforts and operations. The net losses and negative cash flows incurred to date, together with expected future losses, have had, and likely will continue to have, an adverse effect on our shareholders' deficit and working capital. The amount of future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenue. To become and remain profitable, we must succeed in developing and commercializing product candidates with significant market potential.

We will require substantial additional funding, which may not be available to us on acceptable terms, or at all, and, if not available, may require us to delay, scale back, or cease our product development programs or operations.

Developing pharmaceutical products, including conducting preclinical studies and clinical trials, is expensive. We will continue to require additional funding to complete the development and commercialization of our product candidates and to continue to advance the development of our other product candidates, and such funding may not be available on acceptable terms or at all.

Until we can generate a sufficient amount of product revenue to finance our cash requirements, which we may never do, we expect to finance future cash needs primarily through a combination of equity offerings, debt financings, strategic partnerships and grant funding. If sufficient funds on acceptable terms are not available when needed, or at all, we could be forced to significantly reduce operating expenses and delay, scale back or eliminate one or more of our development programs or our business operations.

FOR FURTHER INFORMATION CONTACT

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