Issuer Free Writing Prospectus dated July 19, 2024
Filed Pursuant to Rule 433 of the Securities Act 1933, as amended
Relating to Preliminary Prospectus dated July 19, 2024
Registration Statement No. 333-279734

ACTUATE THERAPEUTICS

CORPORATE OVERVIEW

July 2024

Legal Disclaimer

Actuate Therapeutics, Inc. (the "Company," "Actuate," "we," "our" and "us") has filed a registration statement (including a preliminary prospectus) on Form S-1 (File No. 333-279734) related to this proposed initial public offering with the Securities and Exchange Commission (the "SEC"). The registration statement has not yet become effective. Shares of our common stock may not be sold, nor may offers to buy be accepted, prior to the registration statement becoming effective. Before you invest, you should read the preliminary prospectus in that registration statement, and when available, the final prospectus relating to the offering, and the other documents we have filed with the SEC for more complete information about us and the proposed offering. You may get these documents for free by visiting EDGAR on the SEC website at ww.sec.gov. Alternatively, a copy of the prospectus may be obtained from Titan Partners Group LLC, a division of American Capital Partners, LLC at 4 World Trade Center, 29th Floor, New York, NY 10007, by phone at (929) 833-1246 or by email at prospectus@titanpartnersgrp.com.

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Forward-Looking Statements

This presentation contains forward-looking statements. Forward-looking statements are not historical facts but are based on certain assumptions of our management, which we believe to be reasonable but are inherently uncertain, and describe our future plans, strategies and expectations. Forward-looking statements can generally be identified by the use of forward-looking terminology, including, but not limited to, "may," "could," "seek," "guidance," "predict," "potential," "likely," "believe," "will," "expect," "anticipate," "estimate," "plan," "intend," "forecast," or variations of these terms and similar expressions, or the negative of these terms or similar expressions. Past performance is not a guarantee of future results or returns and no representation or warranty is made regarding future performance.

These statements relate to future events and involve known and unknown risks, uncertainties and other important factors beyond our control which may cause our actual results, performance or achievements to be materially different from any future performances or achievements expressed or implied by the forward-looking statements. Each of these statements is based only on current information, assumptions and expectations that are inherently subject to change and involve a number of risks and uncertainties. Such statements include, but are not limited to, statements about: expectations regarding our capitalization and resources; the adequacy of our capital to support our future operations and our ability to successfully initiate and complete pre-clinical and clinical trials; our strategy and focus; the research, development and commercial potential of any of our product candidates; the timing and success of our development efforts; the success of any of our planned preclinical and clinical trials and our ability to achieve regulatory approval for elraglusib or any future product candidate; the potential benefit of, and ability to enter into, modify, or terminate collaborative agreements; the timing and likelihood of regulatory filings with the FDA; the anticipated timing, costs, design and conduct of our ongoing and planned clinical trials and preclinical studies for elraglusib and any future product candidates; our ability to commercialize elraglusib and any future product candidates, if approved; the pricing and reimbursement of elraglusib and any future product candidates, if approved; the potential to develop future product candidates; the potential market or success for the clinical development programs of Actuate; and statements of historical fact, including those related to Actuate's future cash, market or financial position.

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Transaction Overview

Issuer	Actuate Therapeutics, Inc. (Nasdaq: ACTU)
Transaction Type	Initial Public Offering
Anticipated Offering Size	$25.0 million (+15% Over-allotment Option)
Securities Offered	2,777,778 Shares of Common Stock
Price Range	$8.00 - $10.00 per Share
Use of Proceeds	For clinical trials and product development, research and development, clinical manufacturing as well as for working capital and other general corporate purposes
Sole Bookrunner	Titan Partners Group, a division of American Capital Partners
Co-Manager	Newbridge Securities Corporation

Company Highlights

1. Developing elraglusib, a leading GSK-3β inhibitor with novel, multimodal MOA, in multiple advanced cancer Phase 2 trials

2. Clinical responses (CRs/PRs) and Disease Control observed across cancer histologies with elraglusib IV as single agent and in combination with chemotherapy

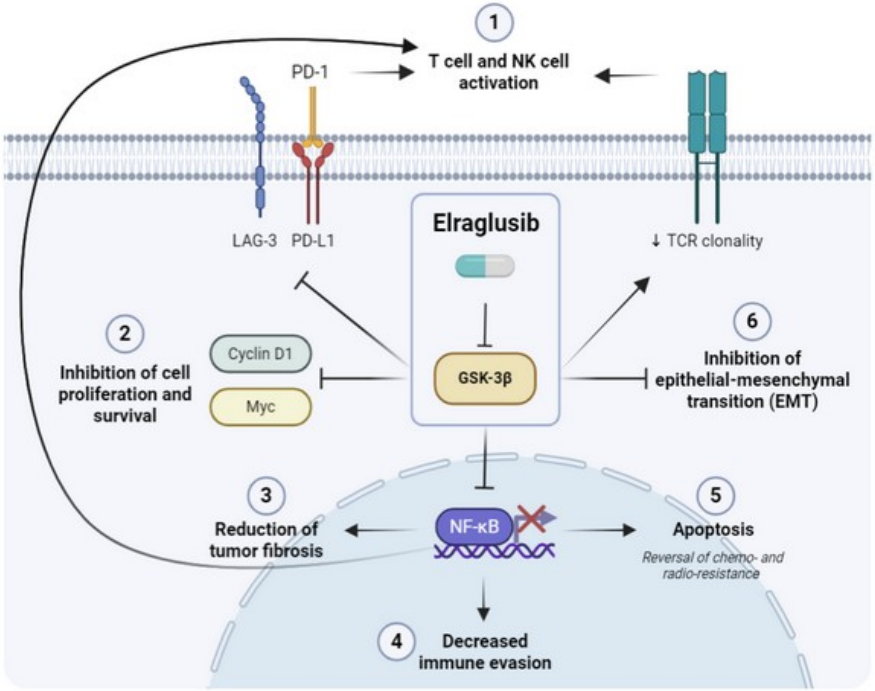
3. Extended survival and increased responses are observed in mPDAC and relapsed/ refractory Ewing sarcoma. Preliminary evidence of clinical benefit has also been observed in patients with metastatic melanoma and relapsed/refractory colorectal and lung cancer, which will be used to inform prioritization of the near-term pipeline

4. Oral version of elraglusib successfully evaluated in Healthy Volunteer Phase 1
   - Potentially expands clinical and commercial opportunities

5. Broad composition of matter IP protection and development incentives
   - Orphan Drug and Fast Track Designations for pancreatic or other cancer types could accelerate path to registration

Multimodal MOA Supported by Clinical Data

- Elraglusib is an ATP-competitive inhibitor of GSK-3β
  - GSK-3β has been shown to potentially contribute to tumor progression in many treatment naive and refractory/resistant tumors
    - Pleiotropic effects as signaling adaptor
- Elraglusib downregulates well-credentialed molecular pathways that can lead to chemotherapy and drug resistance
  - NF-kB pathway-anti-apoptotic protein expression
  - Alterations in TGF-b and pro-inflammatory cytokines suggest role in fibrosis in addition to immunomodulation
  - DDR pathways (ATR/ATM) including mismatch repair (PMS2)
  - Increase responsiveness of resistant/refractory tumors to chemo and immune therapy-"cold" tumors turned to "hot"
  - Inhibition of oncogenic epithelial-mesenchymal transitions



Source: Molecular Pathways, 2017; DOI: 10.1158/1078-0432.CCR-15-2240.

Multimodal MOA Supported by Clinical Data

Drug		Study	Phase 1	Phase 2	Phase 3	Anticipated Milestones
Elraglusib Injection	Adult Actuate-1801	**Part 1 and 2:** Dose Escalation Refractory Cancers	Fully Enrolled			Published Carneiro et al. 2024
		Part 3A: Pancreatic Cancer (combined with GnP) 1st line metastatic (single arm)	Completed			Submitted for publication
		Part 3B: Pancreatic Cancer (combined with GnP) 1st line metastatic (randomized, controlled) *Fast track designation*	Fully Enrolled			Topline Data: Q1 2025
	Pediatric Actuate-1902	**Phase 1 / 2:** Advanced, refractory solid cancers (including Ewing Sarcoma patients)	Ongoing			Topline Data: 2H 2025
		Study Amendment for Phase 2 portion in planning for Ewing Sarcoma Only	In Planning			TBD
Elraglusib Oral Tablet	Adult Actuate-2401	**Phase 1:** Advanced, refractory solid cancers	In Planning			TBD
		Phase 2: • Melanoma (metastatic, CPI refractory) • Colorectal cancer (metastatic, refractory)	In Planning			
	Pediatric	**Phase 1:** Advanced, refractory cancer (solid and hematological)	In Planning			TBD

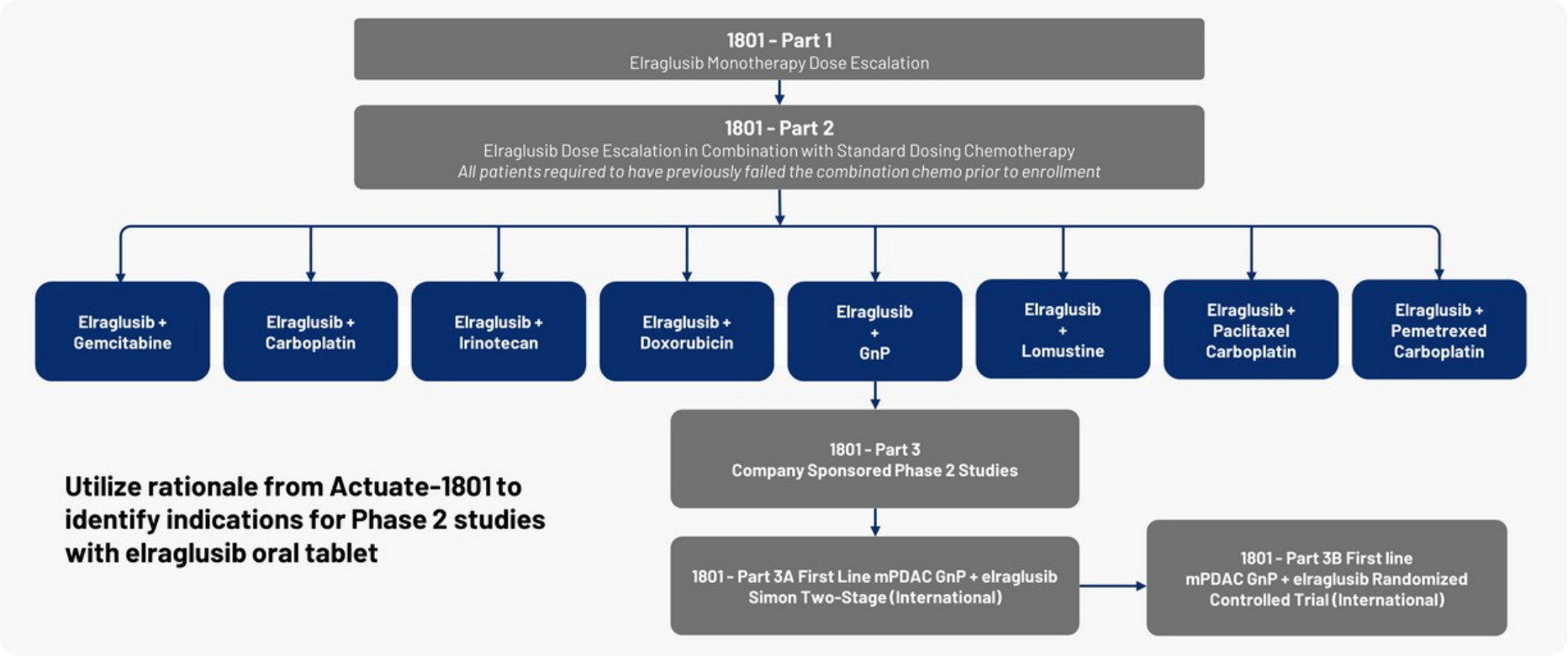
Note: As of May 2024
Within each study (1801, 1902, 2401), each subsequent part or phase is successive to the preceding part or phase and not a separate study that will individually proceed through each of phases 1, 2, and 3 of clinical trials.

GnP: gemcitabine/nab-paclitaxel
FPFD: First patient first dose
RP2D: Recommended Phase 2 Dose

Clinical Study Actuate-1801

Phase 1/2 Study Design for Elraglusib Injection

Establishes process for transition from elraglusib (9-ING-41) Monotherapy (Part 1) to evaluation of multiple chemotherapy combinations (Part 2) to Phase 2 efficacy studies (Part 3) under one protocol



Utilize rationale from Actuate-1801 to identify indications for Phase 2 studies with elraglusib oral tablet

GnP: gemcitabine/nab-paclitaxel

Safety Profile of Elraglusib

As Monotherapy and in combination with chemotherapy

Treatment-Emergent Adverse Events of Any Grade Reported in ≥20% of Patients Treated with elraglusib in Actuate 1801 Part 1 and 2

Adverse event	Patients, n (%)			
	Elraglusib monotherapy Part 1 (N=67)		Elraglusib with chemotherapy Part 2 (N=171)	
	Any Grade	Grade ≥3	Any Grade	Grade ≥3
Any TEAE	67 (100)	37 (55.2)	171 (100)	124 (72.5)
Serious TEAE	29 (43.3)	26 (38.8)	72 (42.1)	67 (39.2)
Leading to treatment discontinuation	6 (9)	4 (6)	36 (21.1)	30 (17.5)
Leading to death	5 (7.5)	5 (7.5)	18 (10.5)	18 (10.5)
TEAEs of any Grade in ≥20% of Patients				
Visual impairment	34 (50.7)	0	104 (60.8)	1 (0.6)
Fatigue	32 (47.8)	2 (3)	86 (50.3)	8 (4.7)
Nausea	25 (37.3)	1 (1.5)	77 (45)	3 (1.8)
Diarrhea	21 (31.3)	3 (4.5)	52 (30.4)	6 (3.5)
Anemia	17 (25.4)	4 (6)	80 (46.8)	43 (25.2)
Vomiting	17 (25.4)	1 (1.5)	47 (27.5)	5 (2.9)
Headache	16 (23.9)	0	36 (21.1)	1 (0.6)
Abdominal pain	12 (17.9)	3 (4.5)	38 (22.2)	6 (3.5)
Neutrophil count decrease	2 (3)	2 (3)	45 (26.3)	36 (21.1)
Platelet count decrease	1 (1.5)	0	50 (29.2)	27 (15.8)
White blood cell count decrease	Not reported	Not reported	42 (24.6)	28 (16.3)

Treatment-Emergent Adverse Events of Any Grade Reported in ≥20% of Patients Treated with elraglusib (December 31, 2023) in Actuate 1801 Part 3B (ongoing)

Adverse event	Patients, n (%)			
	Elraglusib with Nab-Paclitaxel + Gemcitabine (N=139)		Nab-Paclitaxel + Gemcitabine (N=62)	
	Any Grade	Grade ≥3	Any Grade	Grade ≥3
Any TEAE	128 (92.1)	105 (75.5)	54 (87.1)	33 (53.2)
Serious TEAE	63 (45.3)	60 (43.2)	25 (40.3)	23 (37.1)
Leading to Stoppage of Any Study Drug	19 (13.7)	16 (11.5)	8 (12.9)	8 (12.9)
Leading to death	13 (9.4)	13 (9.4)	8 (12.9)	8 (12.9)
TEAEs of any Grade in ≥20% of Patients				
Visual impairment	80 (57.6)	0	3 (4.8)	0
Neutropenia[1]	67 (48.2)	63 (45.3)	17 (27.4)	11 (17.7)
Fatigue	64 (46)	15 (10.8)	18 (29)	1 (1.6)
Nausea	61 (43.9)	10 (7.2)	19 (30.6)	1 (1.6)
Diarrhea	57 (41)	11 (7.9)	19 (30.6)	2 (3.2)
Anemia[2]	45 (32.4)	25 (18)	14 (22.6)	8 (12.9)
Alopecia	43 (30.9)	1 (0.7)	18 (29)	0
Decreased appetite	41 (29.5)	5 (3.6)	9 (14.5)	2 (3.2)
Thrombocytopenia[3]	38 (27.3)	11 (7.9)	12 (19.4)	2 (3.2)
Vomiting	36 (25.9)	2 (1.4)	15 (24.2)	1 (1.6)
Constipation	36 (25.9)	2 (1.4)	14 (22.6)	1 (1.6)

1. Includes PT terms neutropenia and neutrophil count decreased
2. Includes PT terms anemia and hemoglobin decreased
3. Includes PT terms thrombocytopenia and platelet count decreased

Key Takeaways

Most adverse events when used as monotherapy were reported as mild to moderate

- Transient visual impairment described as transient alterations in color and skin tones under fluorescent light
- No permanent changes to eye structure or vision
- Visual impairment and fatigue are the two most frequent adverse events attributed to elraglusib
- Visual impairment decreases after a few cycles of treatment

1st Line Treatment of mPDAC

Phase 2 – Actuate 1801 Part 3A

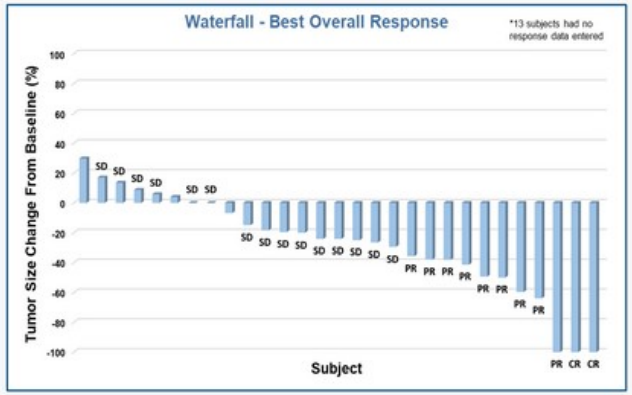
- Simon's two-stage design - Stage 1
- 1st line metastatic pancreatic cancer (mPDAC)
- Evaluate combination of elraglusib and gemcitabine/nab-paclitaxel (GnP)
- First 23 consecutively evaluable patients defined as analysis set n= 29 after replacing non-evaluable patients (EE population)
  - 2 CRs confirmed
  - 9 PRs confirmed
  - DCR: 52%, ORR: 38%
  - Met Simon's stage 1 threshold of DCR≥50%
- 42 total patients enrolled (ITT)

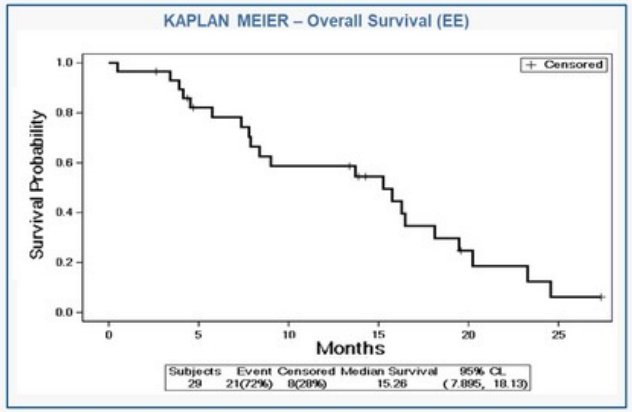
Evaluation of best overall response and CA19-9 in ITT

- Evidence for clinical activity based on tumor and CA19-9 response

Based on these data, we pivoted to a Phase 2 RCT

- N=286
- Randomized (2:1), controlled
- Elraglusib + GnP vs GnP alone





RCT: randomized, controlled trial; PDAC: pancreatic ductal adenocarcinoma; ITT: intent to treat; mITT: modified intent-to-treat; EE: efficacy evaluable; CR: complete response; PR: partial response; DCR: disease control rate; ORR: overall response rate;

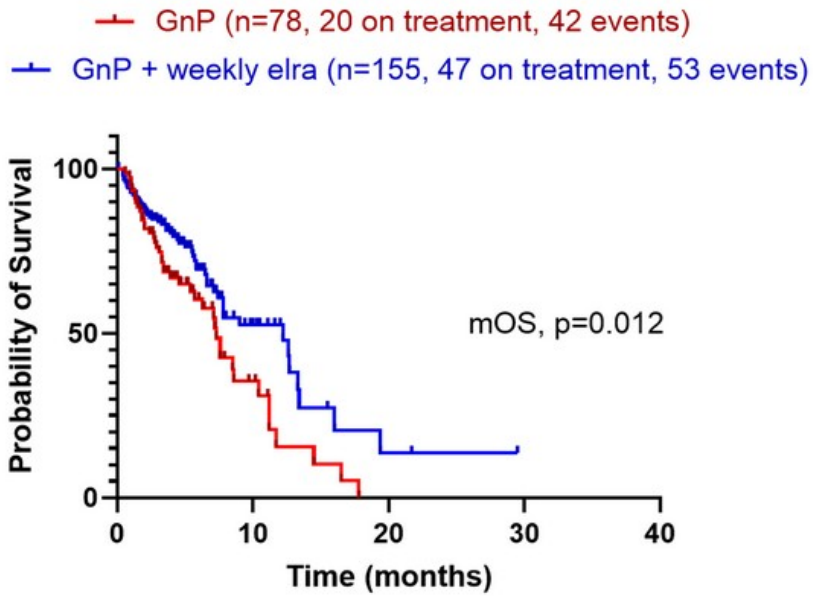
Phase 2 RCT in First-Line Metastatic PDAC

Phase 2 RCT

- Primary endpoint: OS
- Secondary endpoints: ORR, DOR, PFS
- Total enrollment: 286 (completed Jan 2024)
- Sample size based on increase in 1 year OS from 35% in GnP to 55% in elraglusib/GnP with α=0.05; 232 patients needed for 80% power

	GnP (78)	Elraglusib/GnP (155)	
OS			
mOS (months)	7.3	12.2	HR=0.60; log-rank p=0.012
Events (% events)	42 (53.8%)	53 (34.2%)	
12-month OS (%)	15.5	52.5	
18-month OS (%)	0	20.5	
24-month OS (%)	0	13.6	
PFS			
mPFS (months)	4.6	4.8	HR=0.90; P=NS
Events (% events)	50 (64.1%)	79 (51%)	
ORR			
n (%)	12 (24%)	32 (30.8%)	Evaluable for response

Analysis of the interim data from Actuate-1801 3B is based on the study statistical analysis plan for informal interim data analysis when >50% of the patients in the GnP control group progressed and were no longer receiving GnP.



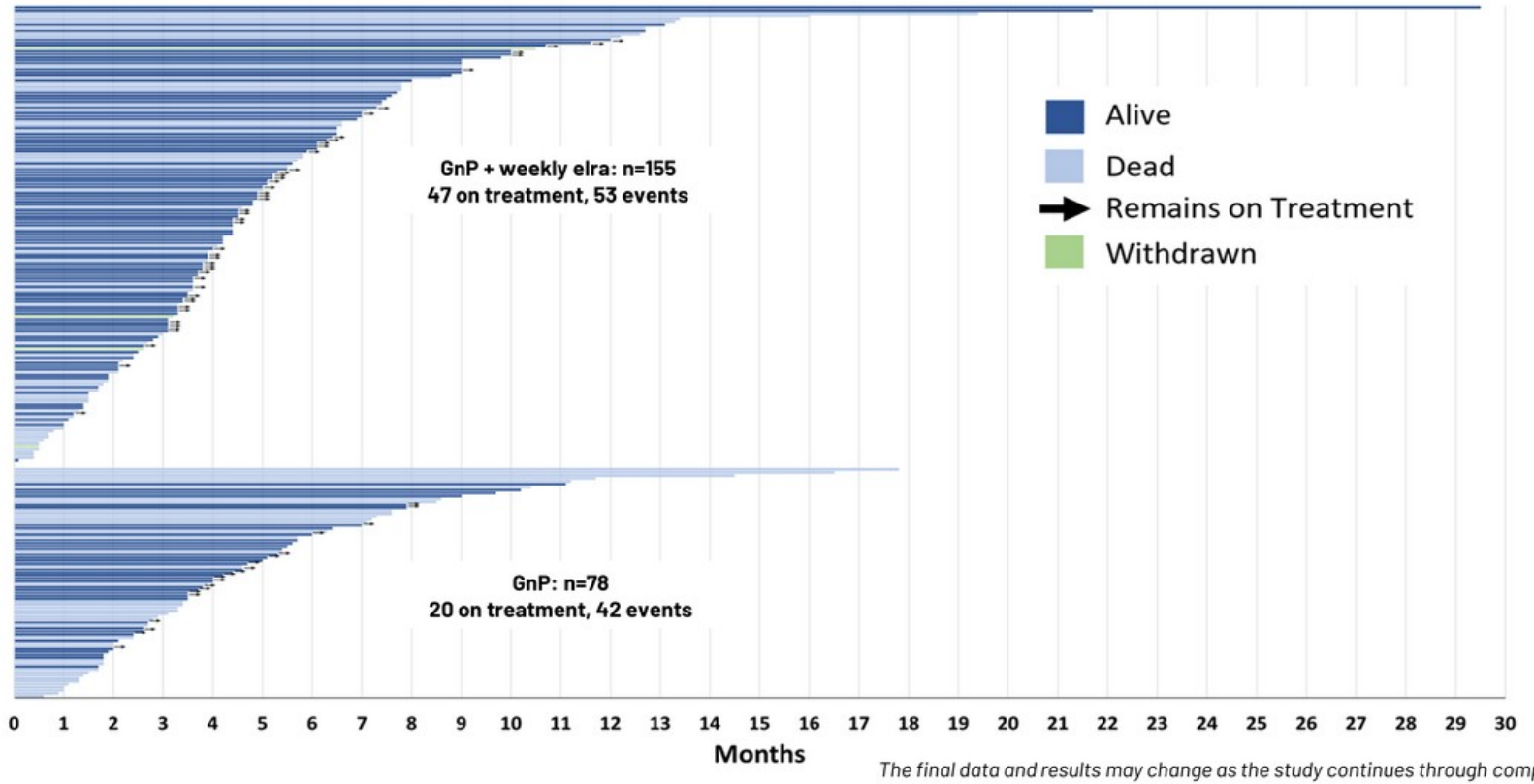
The final data and results may change as the study continues through completion

RCT: randomized, controlled trial; PDAC: pancreatic ductal adenocarcinoma; OS: overall survival; ORR: overall response rate; DOR: duration of response; PFS: progression-free survival

Predefined Safety Population
Draft unaudited data as of April 30, 2024

Phase 2 RCT in First-Line Metastatic PDAC

Survival Swim Plots



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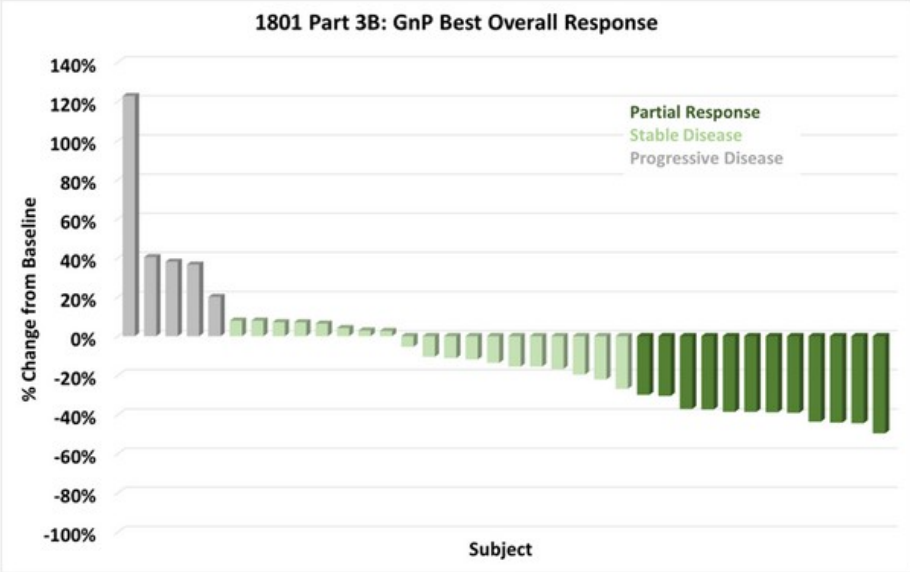
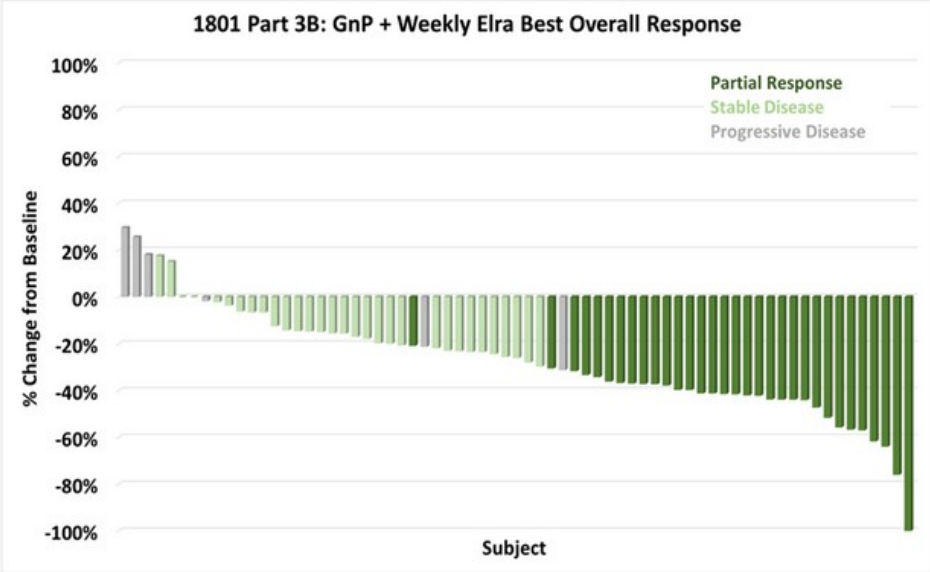
Predefined Safety Population
Draft unaudited data as of April 30, 2024

Phase 2 RCT in First-Line Metastatic PDAC

Best Overall Response Waterfall Plots





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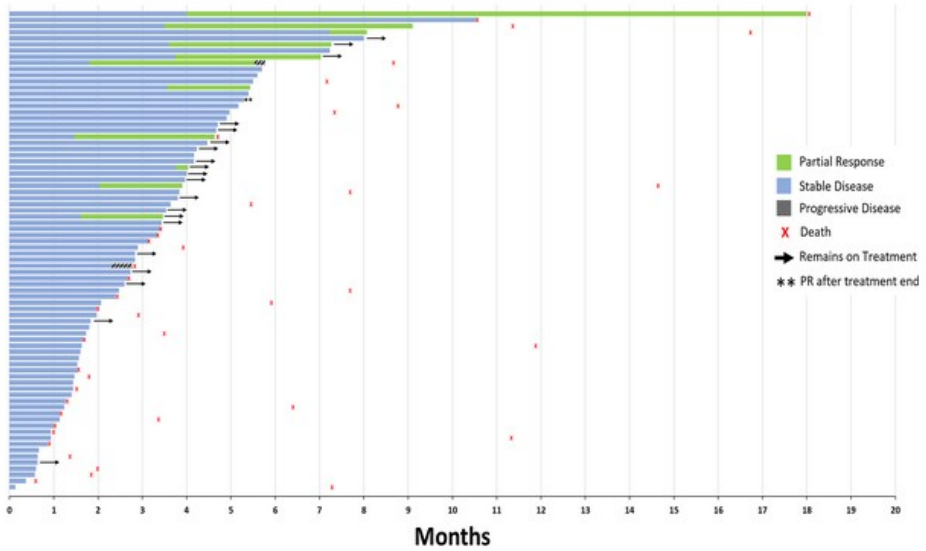
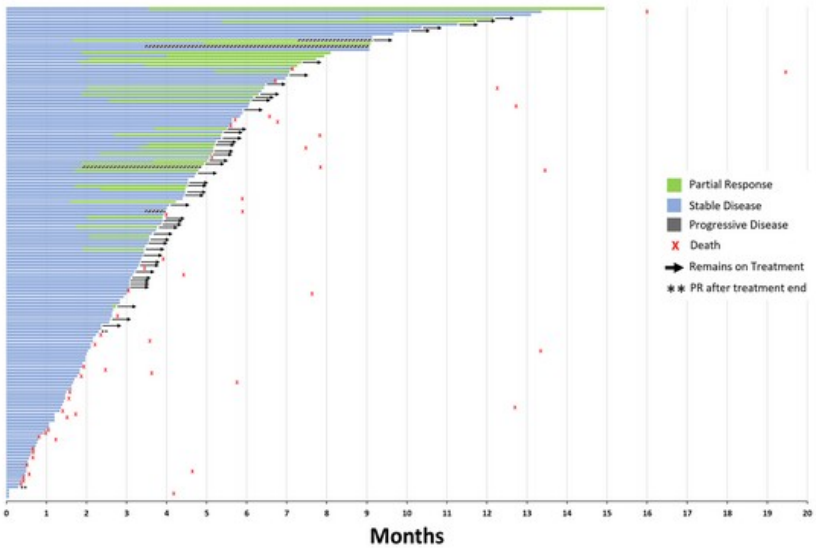
Phase 2 RCT in First-Line Metastatic PDAC

Time on Treatment Swim Plots

GnP | n=78 (12 PRs)



GnP + weekly elra | n=155 (32 PRs)



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Predefined Safety Population
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Patient Demographics

as of May 1, 2024

Demographics – 1801 3B		GnP (N = 78)	9-ING-41 (1x/wk) + GnP (N=155)
Sex			
	Female	35 (44.9%)	75 (48.4%)
	Male	43 (55.1%)	80 (51.6%)
Age (years)			
	n (%)	78 (100%)	155 (100%)
	Mean (S.D.)	66.0 (9.9)	65.1 (9.1)
	Median	67.0	65.0
	Min, Max	42.0, 85.0	42.0, 86.0
Race			
	Asian	2 (2.6%)	5 (3.2%)
	Black or African American	6 (7.7%)	7 (4.5%)
	White	65 (83.3%)	128 (82.6%)
	Multiracial	0	1 (0.6%)
	Unknown/Not Reported	5 (6.4%)	14 (9.0%)
Ethnicity			
	Hispanic or Latino	0	8 (5.2%)
	Not Hispanic or Latino	77 (98.7%)	141 (91.0%)
	Unknown/Not Reported	1 (1.3%)	6 (3.9%)
Height (inches)			
	n (%)	77 (98.7%)	155 (100%)
	Mean (S.D.)	67 (4)	66 (4)
	Median	67	67
	Min, Max	59, 76	42, 76
Weight (pounds)			
	n (%)	78 (100%)	155 (100%)
	Mean (S.D.)	159.0 (42.2)	159.8 (38.3)
	Median	154.4	156.3
	Min, Max	85.3, 343.3	84.5, 335.0
Body Surface Area (BSA) (m2)			
	n (%)	78 (100%)	154 (99.4%)
	Mean (S.D.)	1.83 (0.26)	1.82 (0.22)
	Median	1.82	1.81
	Min, Max	1.31, 2.77	1.30, 2.41
Eastern Cooperative Oncology Group Performance Status			
	0	31 (39.7%)	64 (41.3%)
	1	44 (56.4%)	88 (56.8%)
	2	2 (2.6%)	2 (1.3%)

General Classification of Pancreatic Cancer (at initial diagnosis)	GnP (N = 78)	9-ING-41(1x/wk)+GnP (N=155)
Borderline resectable pancreatic carcinoma	0	9 (5.8%)
Locally advanced pancreatic carcinoma	5 (6.4%)	10 (6.5%)
Metastatic pancreatic carcinoma	64 (82.1%)	116 (74.8%)
Resectable pancreatic carcinoma	8 (10.3%)	20 (12.9%)
Pancreatic carcinoma NOS	1 (1.3%)	0

Site of Metastases

Anatomical Location	GnP (N = 78)	9-ING-41(1x/wk)+GnP (N=155)
Pancreas	73 (93.6%)	127 (81.9%)
Liver	67 (85.9%)	115 (74.2%)
Lymph Node (BSA)	29 (37.2%)	71 (45.8%)
Lung	27 (34.6%)	57 (36.8%)

The final data and results may change as the study continues through completion

Predefined Safety Population
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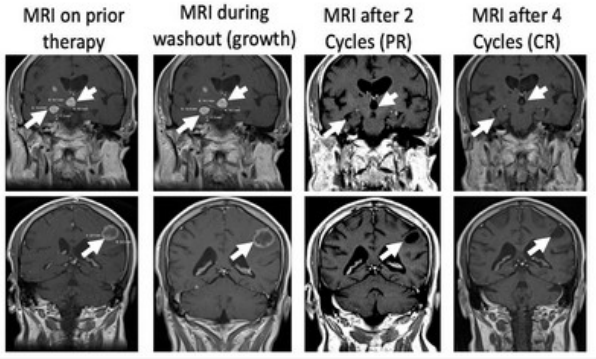
Clinical Activity in Areas of High Unmet Need in 1801 Part 1 and 2

- **Actuate 1801 Part 1 evaluated elraglusib as a single agent**
  - Extraordinary results for two melanoma patients in the study
  - First objective response reported in patient treated with 5 mg/kg elraglusib monotherapy
  - Metastatic melanoma diagnosed in 2018; widely metastasized to the brain, lungs, bones, muscles, stomach, lymph nodes, pancreas and adrenal glands.
  - Refractory to all FDA-approved standard therapies, including several checkpoint inhibitors and BRAF / MEK inhibitor
  - **After 12 Weeks on elraglusib:** Brain MRI showed complete response (CR) by RANO criteria, PET scan showed complete metabolic response ("CMR").
  - **Durable CMR ongoing (>5.0 years as of February 1, 2024)**

- **Refractory, metastatic melanoma identified as clinical indication for elraglusib development**
  - A second patient receiving single agent elraglusib has ongoing stable disease (SD) (3.1 years as of last documented alive date)
  - Also failed all FDA-approved standard therapies including immune checkpoint inhibitors and several experimental treatments
  - Patients receiving chemotherapy salvage after anti-PD-1 treatment have a mOS of 6.9 months across all chemotherapy tested[1]
  - **Potential for biomarker enrichment to improve probability of success**



12 weeks on elraglusib leads to Complete Response by PET-MRI. Cystic lesions observed in place of prior tumor

Combination	Key Histologies	mOS (1801)
Elraglusib/Gemcitabine/ nab-paclitaxel	Metastatic Pancreatic Cancer (mPDAC)	15.3 months (Part 3A) 12.2 months (Part 3B)
Elraglusib Monotherapy	Refractory, Metastatic Melanoma	9.1 months
Elraglusib/Irinotecan	Refractory, metastatic Colorectal	6.9 months

1. Goldinger at el., Eur J Cancer 2022; 162: 22.

Clinical Responses in Areas of High Unmet Need-Pediatric Oncology

Objective responses and durable survival highlight development opportunity in Ewing sarcoma

Phase 1/2 study (Actuate-1902) in pediatric cancer patients with recurrent/refractory solid cancers

There are currently no treatment regimens that meaningfully extend life in Ewing sarcoma patients with metastatic, refractory disease

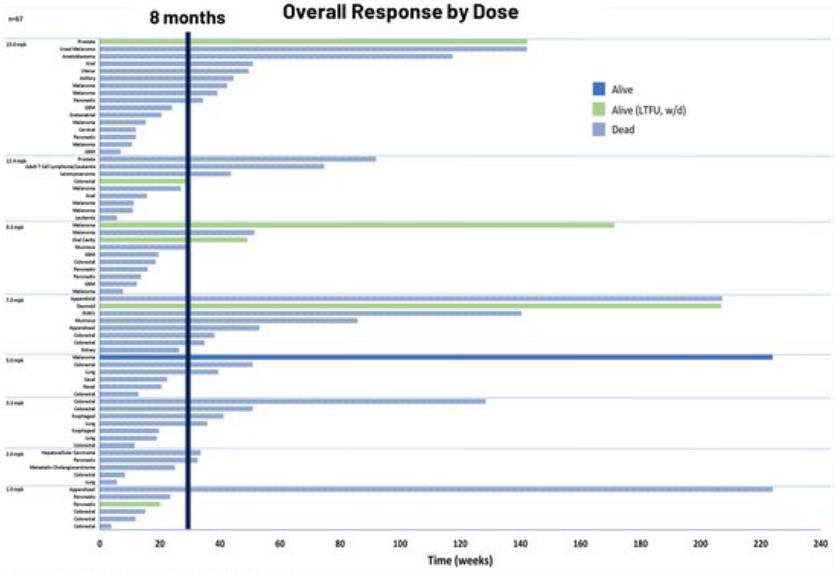
Patients that have metastasis and disease recurrence after chemotherapy have short survival of 3-8 months[1]

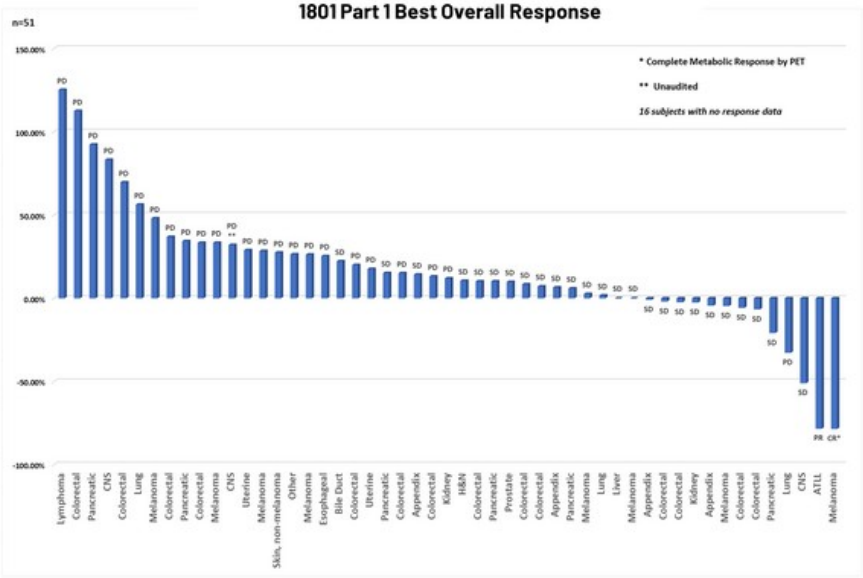
- Seven patients were enrolled in Actuate-1902 and appear to have metastatic, refractory Ewing and Ewing-like sarcoma and had disease progression on their last treatment regimen prior to joining the study
- All seven patients received the combination of elraglusib+cyclophosphamide/topotecan in 1902
- Four out of seven patients had received two or more previous chemotherapy regimens
- One patient had CR at their 1st scan as Best Overall Response (BOR)
  - Stopped all treatments after four months and continues to be in complete remission with no evidence of disease almost two years after termination of treatment
- One patient had BOR of CMR (Complete Metabolic Response, no detectable lesions by FDG-PET);
- One patient had BOR of PR (52% reduction in tumor)
- Two patients had BOR of SD and one patient had BOR of PD
- Four patients remain alive and three continue on treatment

1. Van Mater and Wagner. Onco Targets Ther. 2019;12:2279-2288.

Higher Doses of Elraglusib Appear Associated with Better Overall Survival

- Single agent dose escalation (Actuate-1801 Part 1) was evaluated in 67 patients in 15 different cancer types[1]
- 35/67 subjects were enrolled at the three highest doses (9.4, 12.4 and 15 mg/kg)
- Patients were advanced, refractory patients that had been heavily pre-treated [median 3 (1-13)]
- A large number of patients had prolonged overall survival (OS) and some tumor shrinkage even of it did not reach level of an objective response at these higher doses of elraglusib single agent
- Similar dose-response observed with chemotherapy combinations in Actuate-1801 Part 2
- mOS 7.7 month in Actuate-1801 Part 1 benchmarks favorably with published data for clinically active agents in Phase 1 (mOS~8-10 months[2,3])





Best Overall Response by Cancer Histology in Part 1

CR=complete response; PR=partial response; SD-stable disease; all response assessments per RECIST 1.1.

1. Carneiro et al Clin Cancer Res 2023: 30: 522
2. Menon et al., 2022 Cancer Rep (Hoboken); 5: e1465
3. Paluri et al. Scientific Rep

Elraglusib Clinical Pharmacology

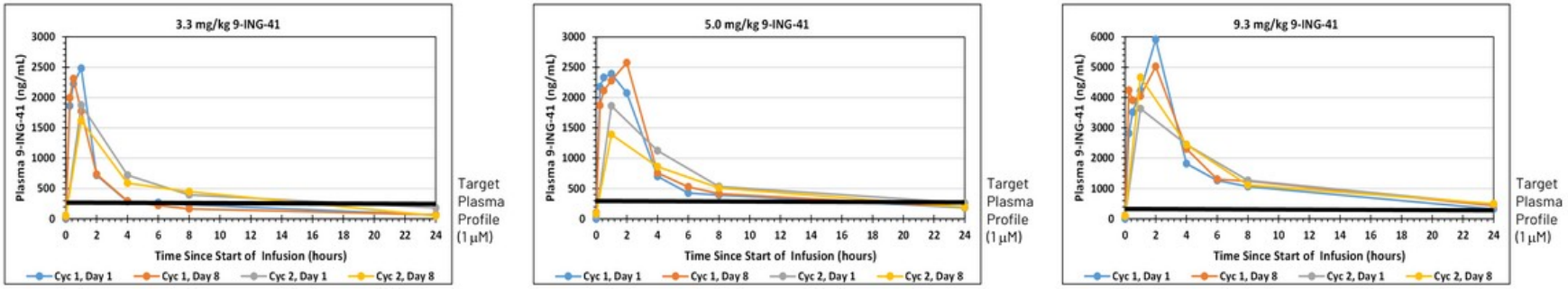
Supports Additional Dose Exploration

Plasma Pharmacokinetics (PK) after a Single IV Dose in Actuate-1801 Part 1

Dose mg/kg	n	Cmax ng/mL	Tmax H	AUC24 ng•h/mL	AUC72 ng•h/mL	AUC∞ ng•h/mL	λz 1/h	t1/2 h	CL L/h/kg	Vz L/kg
1	2-3	560.5	1.067	2,961	6,145	4,648	0.1027	16.76	0.2854	4.427
2	5-5	1 242	1.110	5 932	9 271	8 002	0.05622	15.63	0.2915	5.529
3.3	4-5	1,930	1.577	11,571	15,150	13,097	0.08754	11.33	0.2775	4.262
5	5-5	1 896	2.200	15 191	23 771	29 335	0.03094	31.93	0.2067	7.605
7	5-7	4,027	1.388	30,151	48,433	47,971	0.04612	24.75	0.1835	5.555
9.3	7-8	4 146	1.036	31 160	50 405	63 358	0.03827	28.79	0.1953	6.446
12.37	5-5	6 912	2.080	44 094	84 381	86 579	0.04856	15.24	0.1881	4.090
15	1-2	4,300	1.067	62,376	84,367	87,580	0.02908	36.18	0.1713	3.717

- Range of clinical benefit for elraglusib injection is hypothesized at 5 mg/kg and above based on PK data in patients[1]
- Exceeds in vitro IC50 for tumor cell line death/apoptosis in pre-clinical studies for >12 hours
- These doses lead to plasma exposure of elraglusib of up to 87,850 ng•h/mL

Mean Plasma 9-ING-41 (elraglusib) Concentration-Time Profiles in Actuate-1801 Part 1

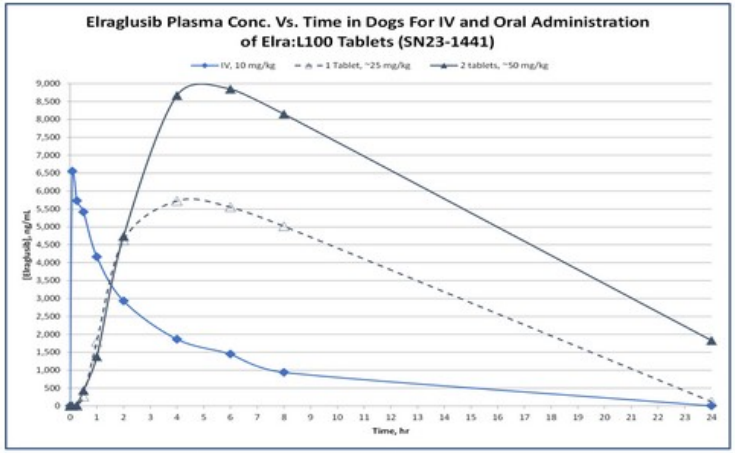


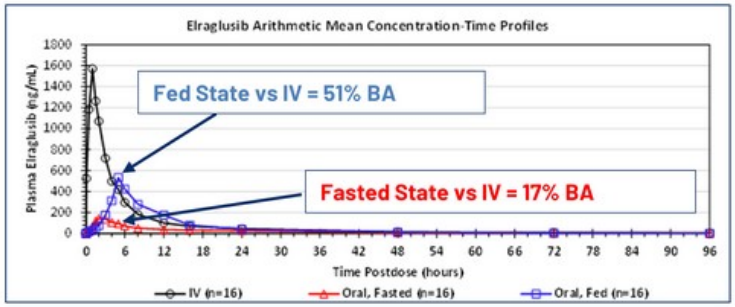
1. Carneiro et al Clin Cancer Res 2023: 30: 522

Elraglusib Oral Formulations

Oral elraglusib formulations have been developed that provide similar drug exposures to current IV

- Several possible oral dosage forms may allow potential expansion into pediatric cancer indications and adult indications where standard of care is oral
- May improve compliance and patient experience in indications where long DCR is observed
- Decreased cost of manufacturing at commercial scale compared to IV formulations
- Phase 1 Study of Oral Solution in Normal Healthy Volunteers (NHV) recently completed
  - Oral Solution vs IV >50% bioavailability when dosed with food
  - Exposure and pharmacodynamic effects exhibited in fed/fasted patients
- Phase 1 dose escalation study using Elraglusib Oral Tablet in advanced cancer patients (not healthy volunteers) in planning





Elraglusib Oral Tablet

Exceeds Plasma Exposures of Elraglusib Injection

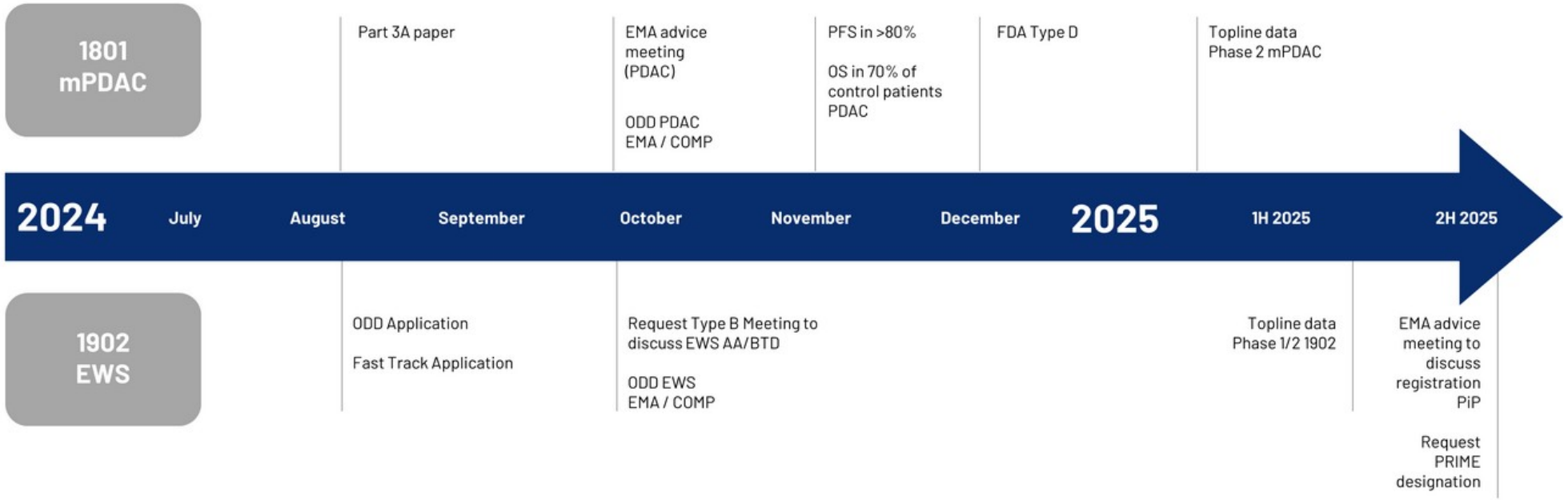
Elraglusib Oral Tablet Plasma Exposure (AUC) at MTD is similar to the Highest Dose of elraglusib Injection tested to date

Route	Potency	Dose Number	Target Dose (mg/kg)	Actual Dose (mg/kg)	Half-life (hr)	T_{max} (hr)	C_{max} (ng/mL)	AUC_{last} (hr*ng/mL)	Dose-limiting Toxicity
IV	N/A	1	10	10	2.63	0.0830	6,560	22,300	No
Oral	250 mg	2	25	24.5	3.01	4.50	6,090	77,000	No (MTD)
Oral	500 mg	3	50	49.9	7.63	6.00	9,230	137,000	Yes

- Pharmacokinetics to date have been largely dose-proportional
- Elraglusib Oral Tablet will be given daily, which should achieve steady state plasma levels of drug
- Elraglusib Oral Tablet should achieve daily exposures that are similar to what was previously delivered twice weekly using the IV formulation
    - Flat oral dosing vs IV dosing based on weight simplify use and may improve patient compliance
    - MTD in dogs after a single dose is approximately 25 mg/kg elraglusib Oral Tablet 250 mg
- Population PK studies have demonstrated that elraglusib does not increase plasma levels of any of the chemotherapy backbones evaluated to date (gemcitabine, nab-paclitaxel, irinotecan, cyclophosphamide/topotecan)
- These studies have also demonstrated that the only known toxicity observed to date with elraglusib Injection have correlated with plasma exposure is the visual impairment
- Elraglusib Injection did not accumulate in plasma when given on Days 1 and 4 in Actuate-1801 Part 1 and 2
- This will allow further exploration of risk-benefit, dose and anti-cancer activity in indications identified as promising in Actuate-1801

Key Near Term Anticipated Development Plans and Milestones

IV Program



Actuate Patent Portfolio

United States

US 8,207,216-licensed from UIC

Claims directed to compounds, pharmaceutical compositions, and methods of use
Expires March 16, 2028, Eligible for Patent Term Extension (PTE) (March 16, 2033)
Pediatric Exclusivity: + 6 months

Europe

EP 2125683 (Germany, France, United Kingdom, Italy, Spain)

Claims directed to compounds, pharmaceutical compositions, and uses
Expires December 19, 2027

Canada

CA 2673368

Claims directed to compounds, pharmaceutical compositions, and uses
Expires December 19, 2027

International

9-ING-41 Polymorph I Composition of Matter: Patent Issued (10/5/2021) US 11,136,334
Patent Application No. PCT/US2018/046203, filed August 10, 2018
Expires August 10, 2038, Potentially Eligible for Patent Term Extension (PTE)
Claims directed to Polymorph I, compounds, pharmaceutical compositions, methods of preparing, and uses for treating cancers
Polymorph compositions allowed/issued: US, EPO, Japan, China, Mexico, others

9-ING-41 Polymorph II Composition of Matter: Patent issued (8/9/2022): US 11,407,759
International Patent Application No. PCT/US2018/056083, filed October 16, 2018
Expires October 16, 2038, Potentially Eligible for Patent Term Extension (PTE)
Claims directed to Polymorph II, compounds, pharmaceutical compositions, methods of preparing, and uses for treating cancers
Polymorph compositions allowed/issued: US, EPO, Japan, China, Mexico, others

World-Wide: National Stage Applications Pending in North America, Asia, Europe, South America, Israel, Africa and Australia

International Patent Application No. PCT/US2019/032639, filed May 16, 2019
Claims directed to methods and compositions for using, to treat idiopathic pulmonary fibrosis with GSK-3b inhibitors
Expires May 16, 2039, Potentially Eligible for Patent Term Extension (PTE)

International Patent Application No. PCT/US2019/035576, filed June 5, 2019
Claims directed to methods and compositions for using, to treat malignant lymphoproliferative disorders
Expires June 5, 2039, Potentially Eligible for Patent Term Extension (PTE)

International Patent Application No. PCT/US2020/066762, filed December 23, 2020
Claims directed to methods of treating myelofibrosis using GSK-3b inhibitor, as a single agent or combined with a JAK inhibitor like ruxolitinib.
WW National Stage June 26, 2022 Expires December 23, 2040, Potentially Eligible for PTE

International Patent Application No. PCT/US2023/069518, filed June 27, 2022
Claims directed to oral dosage forms of elraglusib
WW National Stage December 27, 2024 Expires June 27, 2042, Potentially Eligible for PTE

International Patent Application No. PCT/US2019/032639, filed May 16, 2019
Claims directed to methods and compositions for using, to treat idiopathic pulmonary fibrosis with GSK-3b inhibitors
Expires May 16, 2039, Potentially Eligible for Patent Term Extension (PTE)

International Patent Application No. PCT/US2019/035576, filed June 5, 2019
Claims directed to methods and compositions for using, to treat malignant lymphoproliferative disorders
Expires June 5, 2039, Potentially Eligible for Patent Term Extension (PTE)

International Patent Application No. PCT/US2020/066762, filed December 23, 2020
Claims directed to methods of treating myelofibrosis using GSK-3b inhibitor, as a single agent or combined with a JAK inhibitor like ruxolitinib.
WW National Stage June 26, 2022 Expires December 23, 2040, Potentially Eligible for PTE

Capitalization

As of March 31, 2024

Pre-IPO Cap Table (as converted, assumes $9.00 offering price and 1:1.8 reverse split)	
Common Stock	16,215,937[1]
Warrants (WAEP: $10.32)	94,599
Options (WAEP: $2.97)	393,346
Fully Diluted Shares Outstanding	**16,703,882**

1) Includes the conversion of all outstanding shares of convertible Series A, B, and C preferred stock; net exercise of in-the-money Series B Warrants; the conversion of Bridge Notes (principal amount $5.5 million)upon the IPO; and a 1:1.8 reverse stock split of our common stock immediately prior to the offering.

Seasoned and Successful Leadership

Experienced leadership team with demonstrated ability to develop and commercialize cancer drugs

Daniel M. Schmitt – Chief Executive Officer and Founder

- 30+ years of biotechnology and pharmaceutical experience across senior executive roles
- Led and contributed to the successful development and launch of multiple pharmaceutical products
- Exosurf, Zovirax, Valtrex, Adenoscan, Ambisome, Duraclon, Campath, Abraxane, enTrust
- Executed ~1B+ in milestone value through licensing, acquisition, and development deals

Andrew Mazar, PhD – Chief Operating Officer and Scientific Co-Founder

- Co-founder, Chief Scientific Officer and Director, Monopar Therapeutics, Inc. (Nasdaq: MNPR)
- Entrepreneur-in-Residence; Professor of Pharmacology; Founding Director, Center for Developmental Therapeutics, Northwestern University
- Chief Scientific Officer, Attenuon, LLC
- Internationally recognized expert in cancer metastasis and translational oncology
- Eleven drugs from discovery through Phase 2
- >250 peer-reviewed publications and book chapters and inventor on > 70 patents
- Serial entrepreneur with seven start-ups founded

Paul Lytle – Chief Financial Officer

- 30+ years of finance and accounting experience
- 25+ years of public company experience for Nasdaq listed companies
- Served as co-founder, CFO, and director for multiple biotech companies
- Raised in excess of $500 million in net proceeds from various equity and debt offerings

Steven D. Reich, MD – Sr VP, Clinical Development and Acting Chief Medical Officer

- Oncology drug development executive leader for commercial clinical development and strategy
- Directed multi-national medical research groups within pharmaceutical/biotechnology companies and CRO
- Lead investigator for Phase I-III trials and designed and managed Phase I-IV trials for industrial sponsors
- Headed the clinical research programs leading to multiple US, Canadian, and European drug approvals
- Epogen, Targretin, Panretin, Fludara, Inlyta

Investment Highlights

Leading Therapeutic Profile
Extensive data on activity from leading research institutions and promising clinical data in multiple cancer histologies

Significant Unmet Needs
Developing elraglusib to address therapeutic shortcomings in key difficult-to-treat and refractory tumors

Complementary Mechanisms of Action
Focus on mediating cancer cell survival and chemoresistance through regulation of NF-kB and regulating antitumor immune response

Robust IP Portfolio
Expansive, global patent portfolio with significant exclusivity runway

Clearly Defined Regulatory Path
Multiple key regulatory designations available
(Fast Track, Orphan Drug, Rare Pediatric) with registration path clinical trials underway and in development

Seasoned Leadership Team
Distinguished leadership and recognized world leading scientific advisory team


ACTUATE
THERAPEUTICS