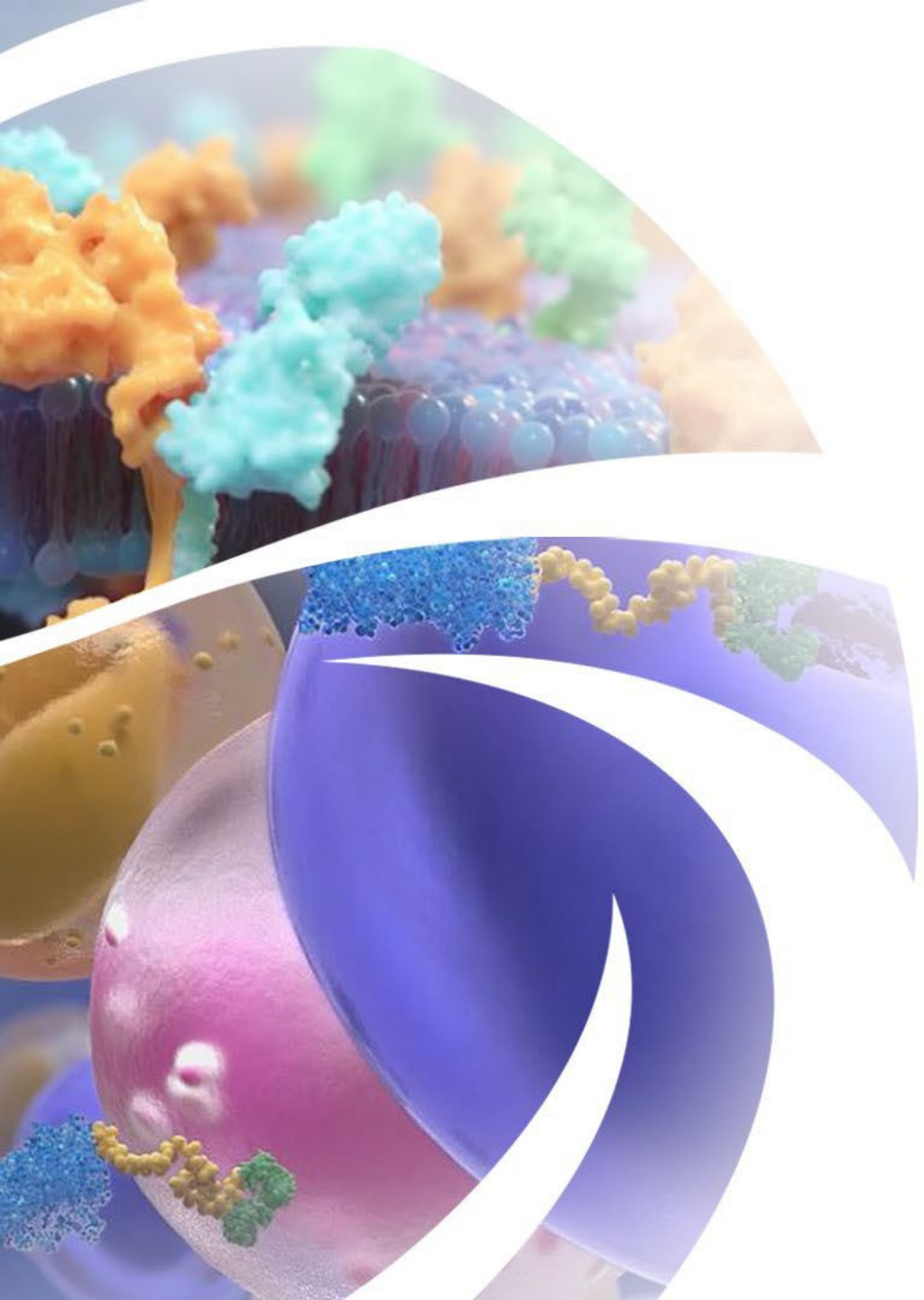


Spectrum Pharmaceuticals

A Biopharmaceutical Company Developing Targeted and Novel Therapies in Oncology

Tom Riga | CEO

August 2022 | Investor Presentation

SPECTRUM PHARMACEUTICALS

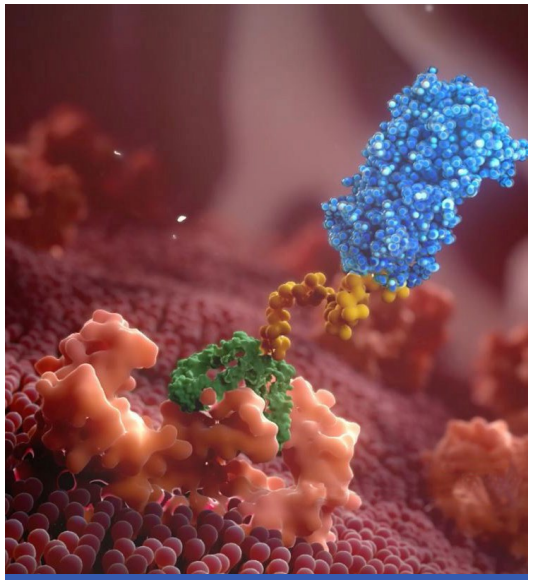
Redefining Cancer Care

Safe Harbor Statement

This presentation contains forward-looking statements regarding future events and the future performance of Spectrum Pharmaceuticals that involve risks and uncertainties that could cause actual results to differ materially. These statements are based on management's current beliefs and expectations. These statements include but are not limited to statements that relate to our business and its future, our strategy, the success of our drug candidates, the safety and efficacy of our drug products, product approvals, market potential, product sales, revenue, development, regulatory and approval timelines, product launches, product acquisitions, capital resources and any statements that relate to the intent, belief, plans or expectations of Spectrum or its management, or that are not a statement of historical fact.

Risks that could cause actual results to differ include the possibility that our existing and new drug candidates may not prove safe or effective, the possibility that our existing and new drug candidates may not receive approval from the FDA and other regulatory agencies in a timely manner or at all, the possibility that our existing and new drug candidates, if approved, may not be more effective, safer or more cost efficient than competing drugs, the possibility that price and other competitive pressures may make the marketing and sale of our drugs not commercially feasible, the possibility that our efforts to acquire or in-license and develop additional drug candidates may fail, our lack of sustained revenue history, our limited experience in establishing strategic alliances, our limited marketing experience, our customer concentration, the possibility for fluctuations in customer orders, evolving market dynamics, our dependence on third parties for clinical trials, manufacturing, distribution, information and quality control and other risks that are described in further detail in the Company's reports filed with the Securities and Exchange Commission. We do not plan to update any such forward-looking statements and expressly disclaim any duty to update the information contained in this presentation except as required by law.

Pipeline & Key Milestones



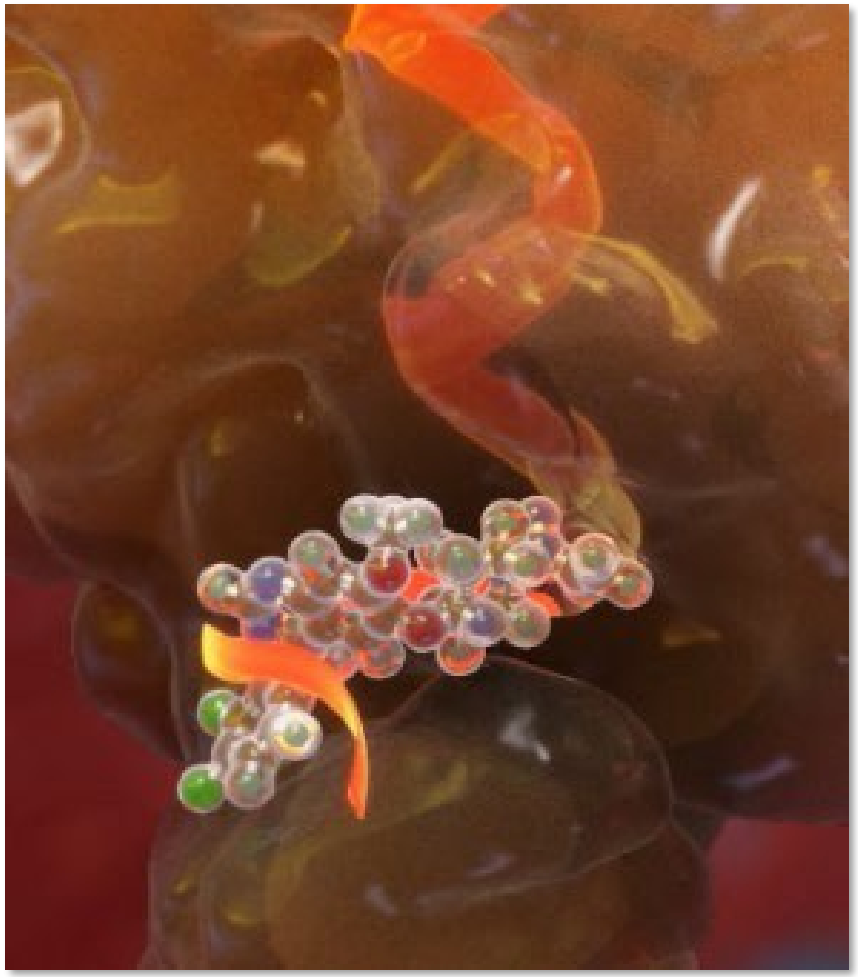
Eflapegrastim

PDUFA: September 9th

Poziotinib

ODAC: September 22nd
PDUFA: November 24th

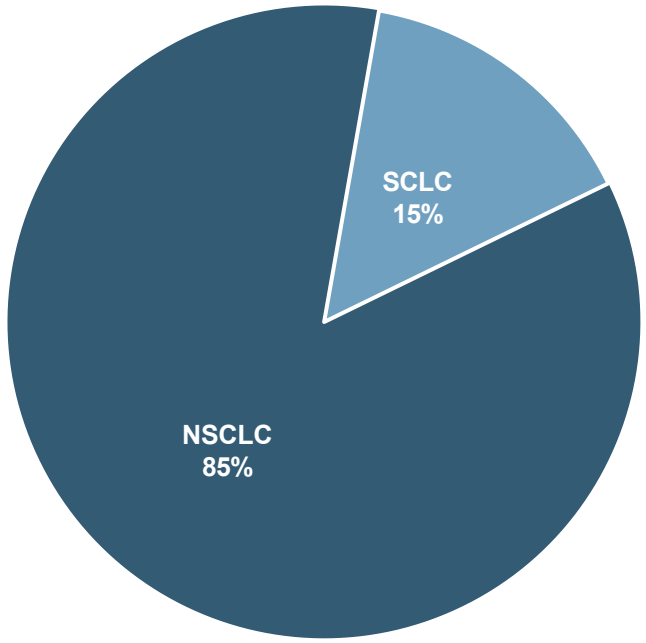
Poziotinib

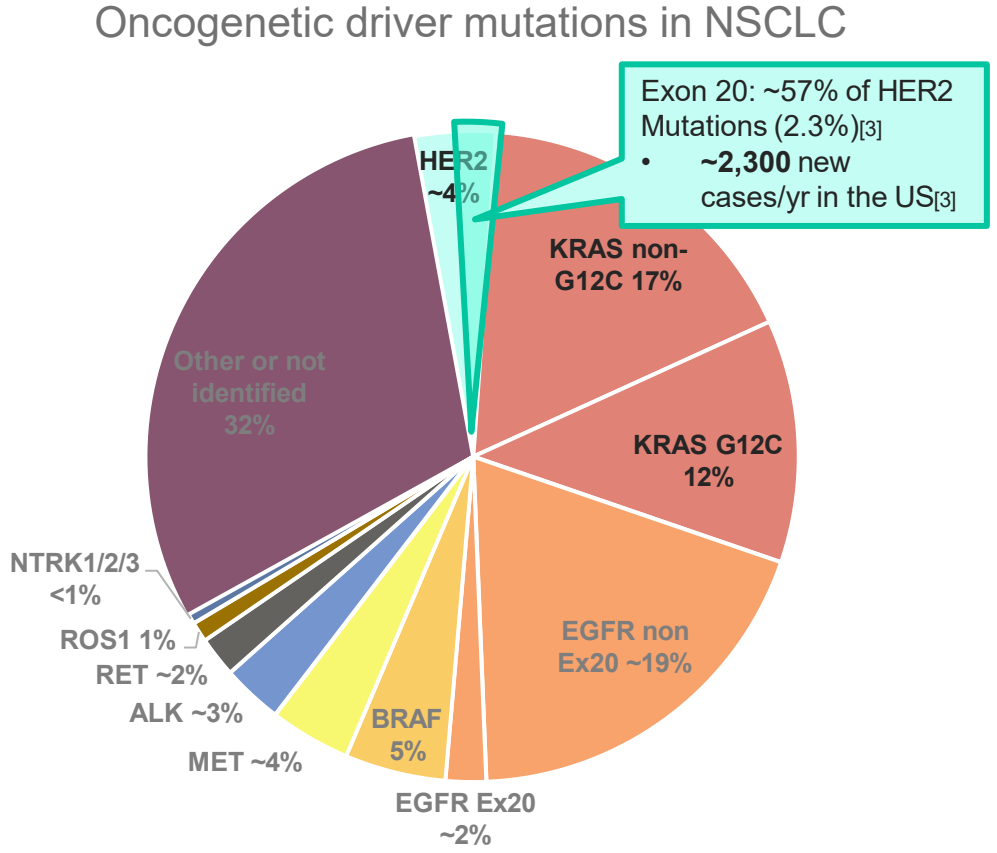


Pan ErbB inhibitor targeting mutations in lung cancer

NDA submission based on positive study results in patients with previously treated metastatic NSCLC harboring HER2 exon 20 insertion mutations

NSCLC Mutations





1 *Thai et al, Lancet 2021*
2 *Trinity, US Epi of NSCLC mutations*
3 *Robichaux 2019; Eng 2016; Patil 2020; Li 2018; Buttita 2006*

ZENITH20 Registrational Cohorts

Registrational Studies

Cohort 1
(n=115)
Previously treated NSCLC with **EGFR** exon 20 insertions
Fully Enrolled

Cohort 2
(n=90)
Previously treated NSCLC with **HER2** exon 20 insertions
Fully Enrolled

Primary Endpoint

- Objective Response Rate

Secondary Endpoints

- Disease Control Rate
- Duration of Response
- Safety & Tolerability

Key Eligibility Criteria

- NSCLC EGFR or HER2 exon20 insertions
- Point mutations, including T790M, are not allowed
- Brain mets are allowed if stable

Cohort 3
(n=79)
First-line NSCLC with **EGFR** exon 20 insertions
Fully Enrolled

Cohort 4
(n=70)
First-line NSCLC with **HER2** exon 20 insertions
16mg QD/8mg BID
Fully Enrolled

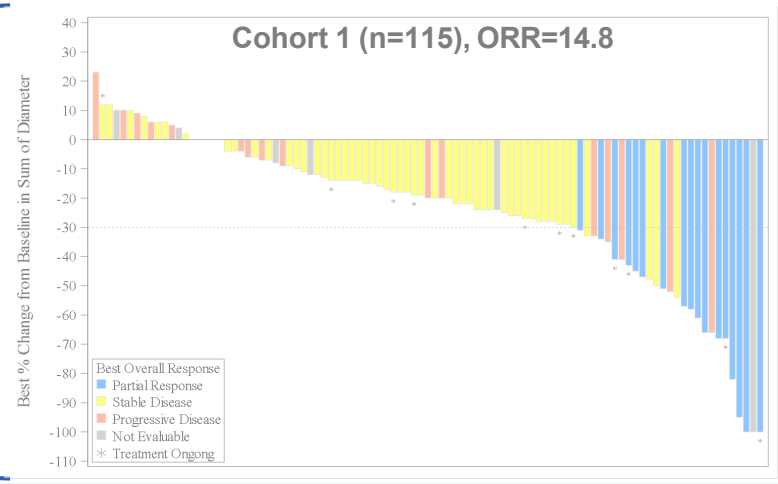
Exploratory cohorts:

- Cohort 5: Dose exploration of poziotinib in patients with previously-treated or treatment-naïve NSCLC with EGFR or HER2 mutations randomized to either QD or BID dosing
- Cohort 6: Patients with acquired EGFR mutations who progressed on first-line osimertinib
- Cohort 7: Patients with atypical EGFR or HER2 activating mutations

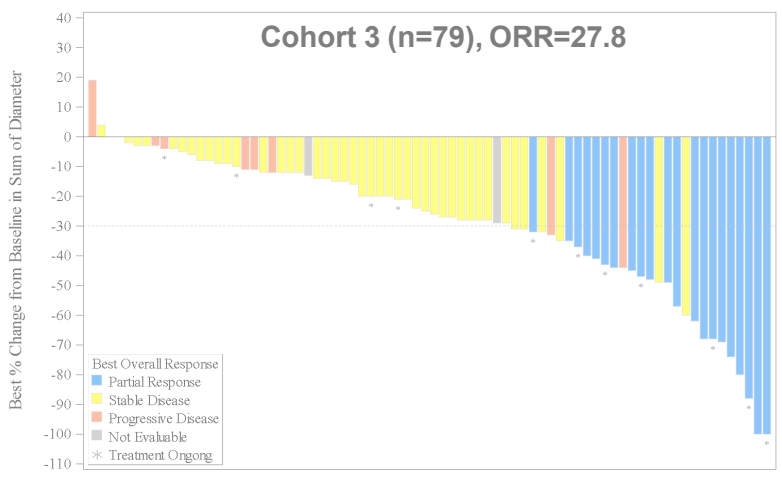
Poziotinib has Demonstrated Clinical Activity Across ZENITH20 Registrational Cohorts

EGFR

2L+ Exon 20 insertion mutations

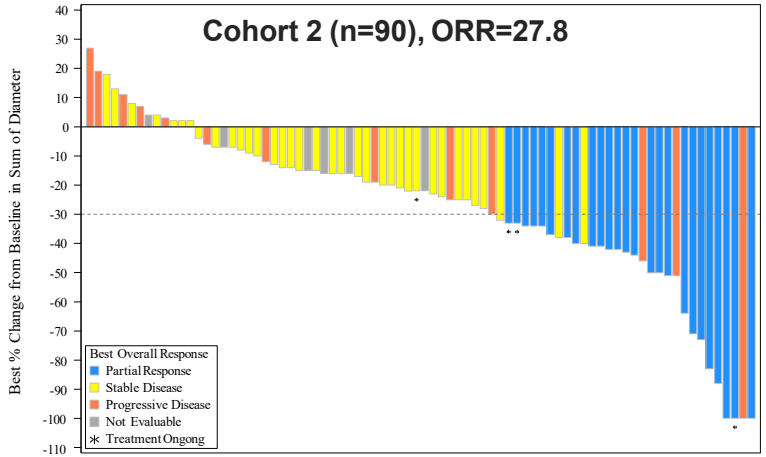


1L Exon 20 insertion mutations

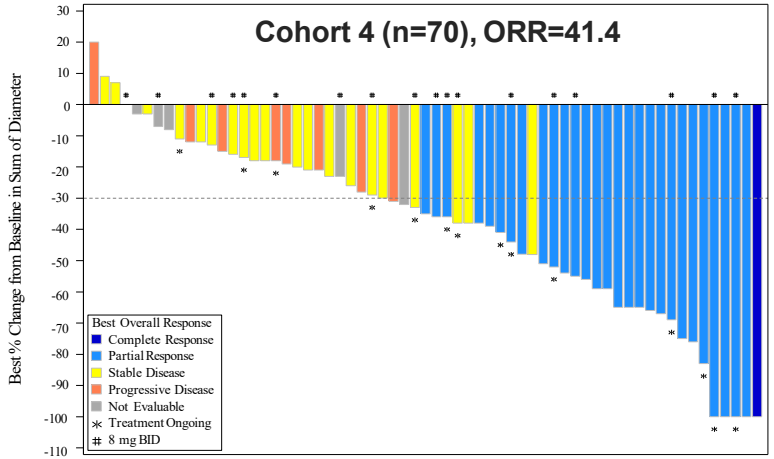


HER2

2L+ Exon 20 insertion mutations



1L Exon 20 insertion mutations



SPECTRUM PHARMACEUTICALS
Redefining Cancer Care

NDA Submission Based on Positive Cohort 2 Results

	Intent to treat (N=90) **N (%)**
Objective Response Rate (ORR) 95% Confidence Interval	**27.8%** **(18.9 – 38.2%)**
Disease Control Rate (DCR=CR+PR+SD)	**70%**
Duration of Response, Median (months)	**5.1**
Progression-free Survival, Median (months)	**5.5**

Cohort 2 met Primary Efficacy Endpoint: Observed lower bound of 18.9% exceeded the pre-specified lower bound of 17%

Safety Profile for Cohort 2 In-line with TKIs

- Cohort 2 starting dose 16 mg QD
- Safety profile was in-line with the type of adverse events seen with other second-generation EGFR TKIs
- Grade 3 incidence of rash was 30%
- Grade 3 incidence of diarrhea was 26%
- 11 patients (12%) permanently discontinued study due to adverse events

Exposure and Safety of HER2 First-line

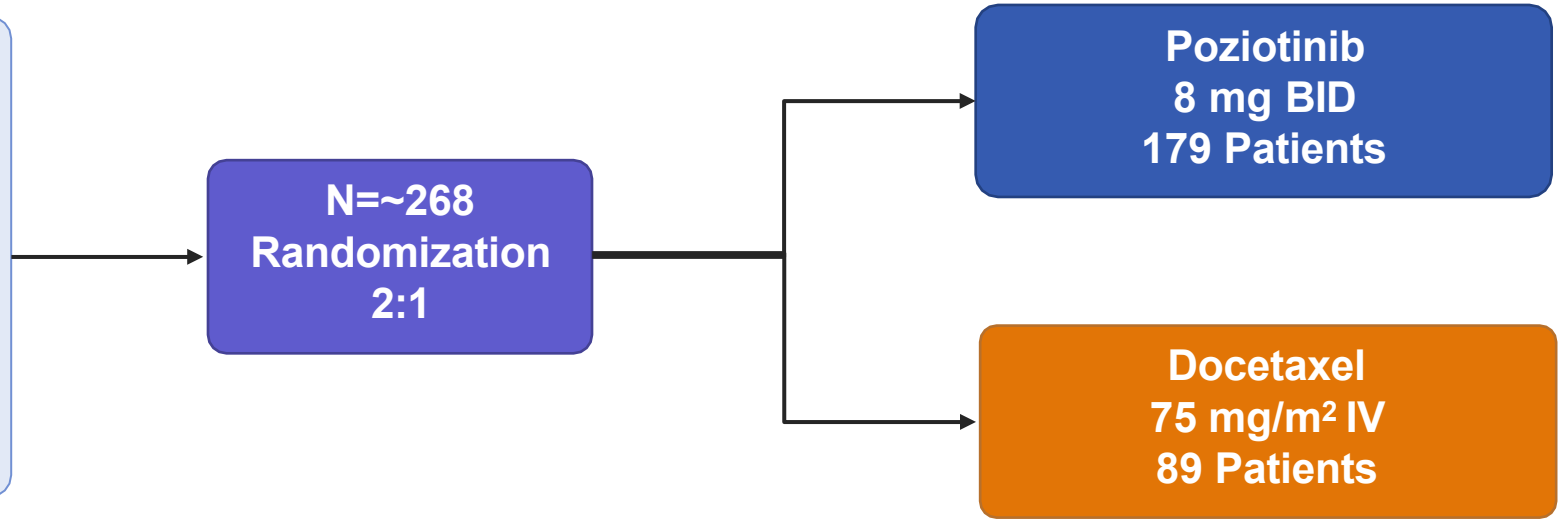
	QD (n=48)	BID (n=22)	Total (N=70)
Drug interruption, n (%)	43 (90%)	15 (68%)	58 (83%)
Median days to first interruption	19	26	23
Dose reduction, n (%)	38 (79%)	14 (64%)	52 (74%)
Median days to first reduction	36	33	36
Grade ≥3 TRAEs of special interest, n (%)			
Diarrhea	7 (15%)	3 (14%)	10 (14%)
Rash	17 (35%)	4 (18%)	21 (30%)
Stomatitis / Mucosal Inflammation	10 (21%)	3 (14%)	13 (19%)
Paronychia	4 (8%)	1 (5%)	5 (7%)
Pneumonitis	1 (2%)	1 (5%)	2 (3%)

Grade 4 TRAEs were reported in 2 patients in the BID cohort (*hypokalemia,hyponatremia*).
MedDRA preferred terms shown.

Global Confirmatory Study Initiated (PINNACLE)

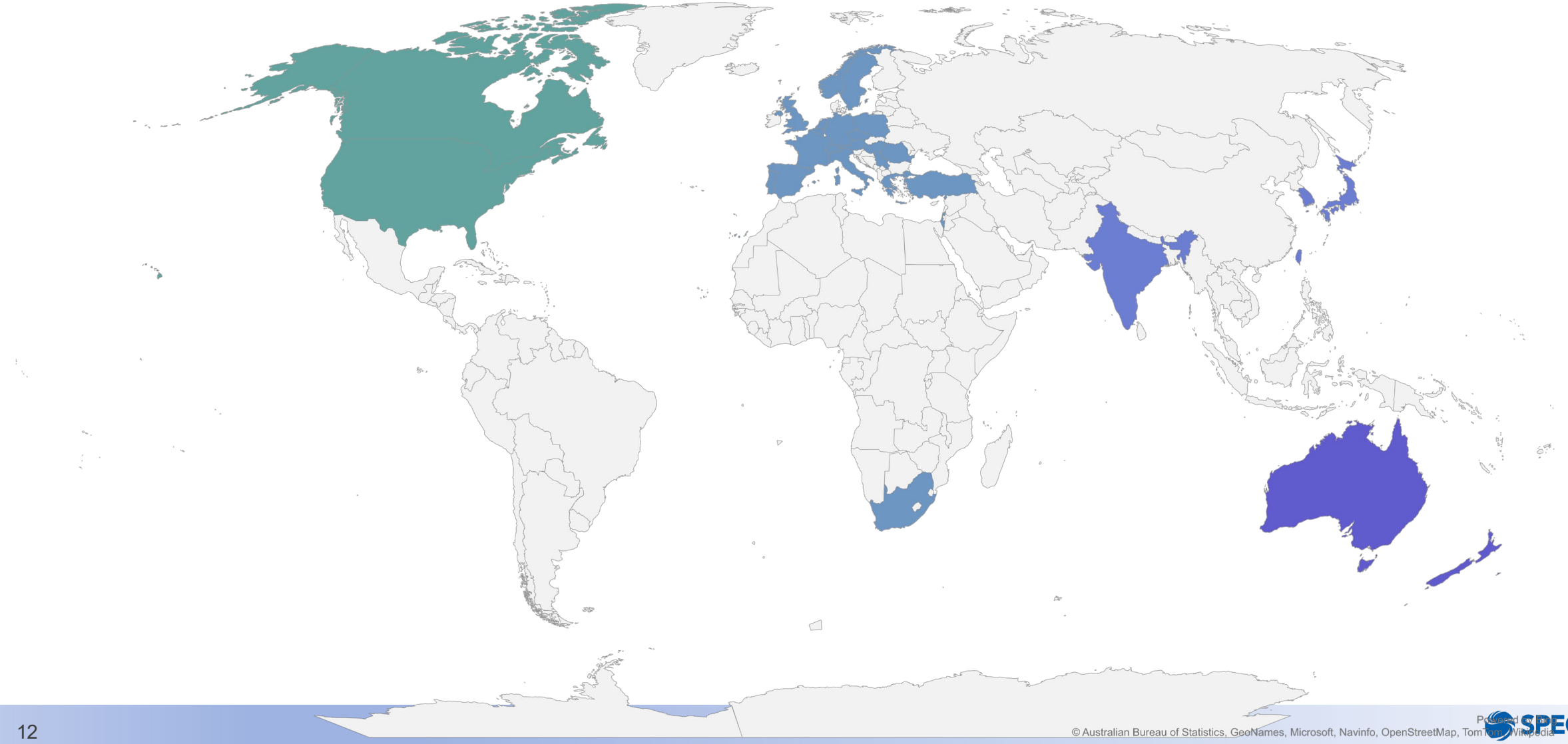
Phase 3, randomized, two-arm, active-control, open label, global-multicenter study

- Advanced or metastatic NSCLC harboring HER2 Exon 20 mutations
- Baseline imaging
- Genotyping Report from either tissue or plasma



- **Primary Objective: PFS**
- Secondary Objectives: OS, ORR, DCR, Safety & tolerability
- Exploratory Objective: Circulating ctDNA in subset of patients

Global Confirmatory Study with 100-150 Sites



SPECTRUM PHARMACEUTICALS
Redefining Cancer Care

Poziotinib Summary

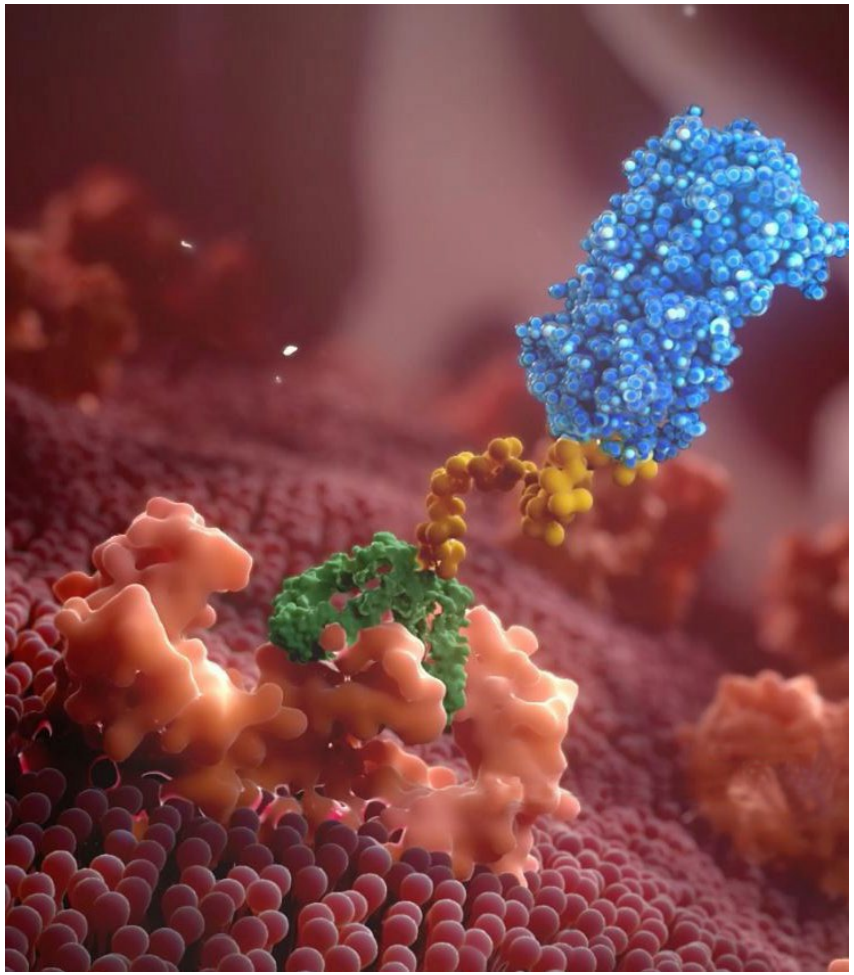
Review is under a Fast-Track Designation

NDA accepted based on the positive results in previously treated NSCLC patients harboring HER2 exon 20 insertion mutations

ODAC Meeting September 22, 2022

PDUFA date November 24, 2022

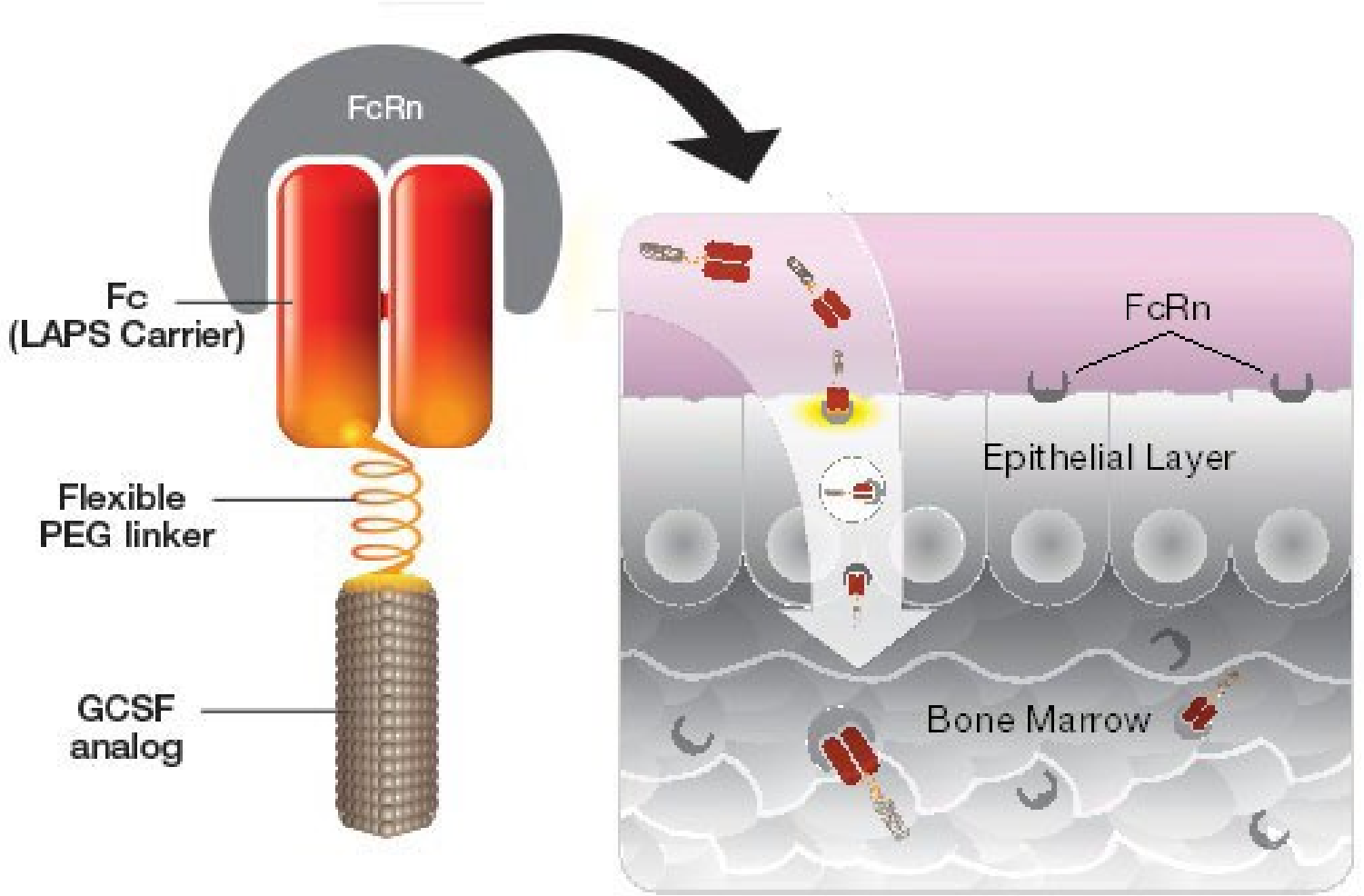
Eflapegrastim



Novel LA-GCSF developed with proprietary LAPSCOVERY technology

BLA submission based on two large phase 3 head-to-head non-inferiority studies vs. pegfilgrastim (n=643)

Eflapegrastim is a Novel Product with Unique Molecular Structure



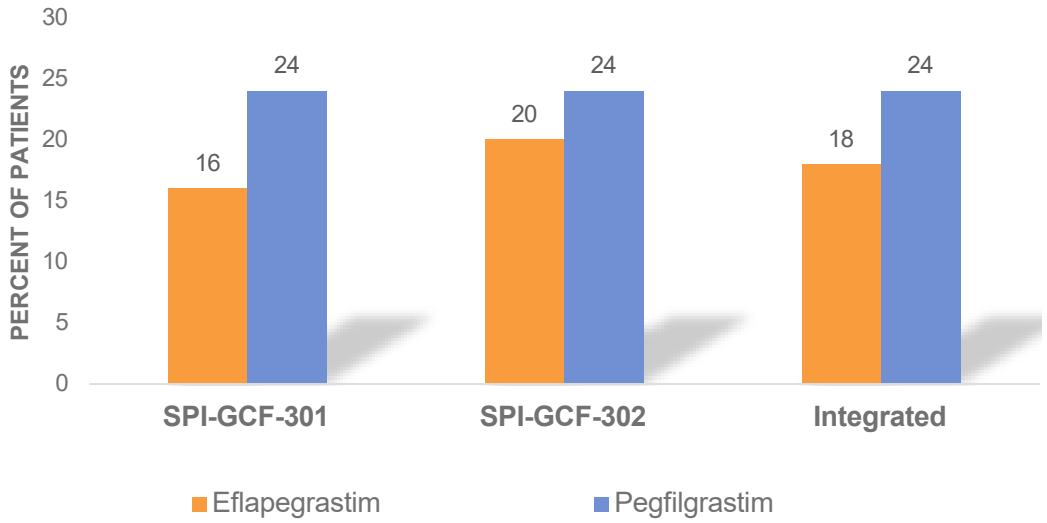
Eflapegrastim Demonstrated an Effect on Incidence and Duration of Severe Neutropenia

Two Phase 3 Fixed Dose Non-inferiority Studies with Eflapegrastim and Pegfilgrastim:

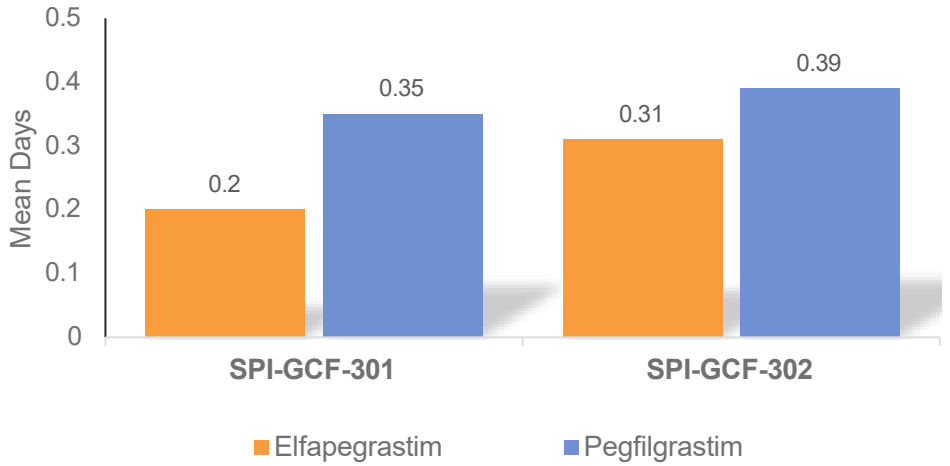
ADVANCE-301 (N=406) & RECOVER-302 (N=237)

Primary Endpoint: Duration of Severe Neutropenia

Incidence of SN in Cycle 1

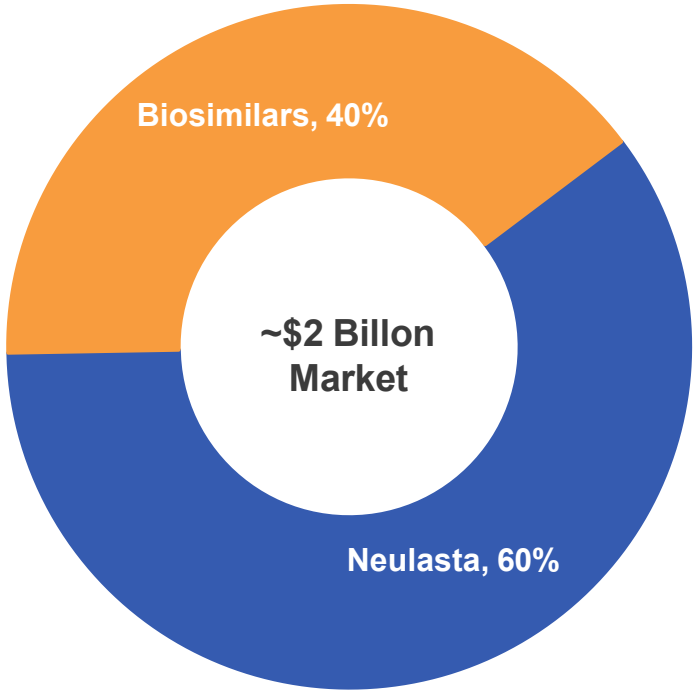


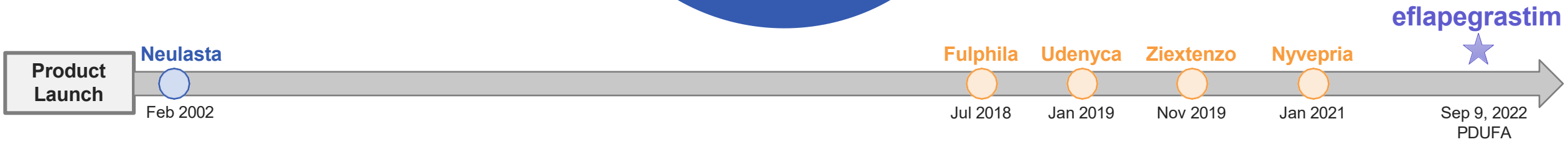
Duration of SN in Cycle 1



The LA-GCSF Market Presents a Compelling Opportunity

Eflapegrastim will be the first new novel LA-GCSF in more than 20 years





SPECTRUM PHARMACEUTICALS
Redefining Cancer Care

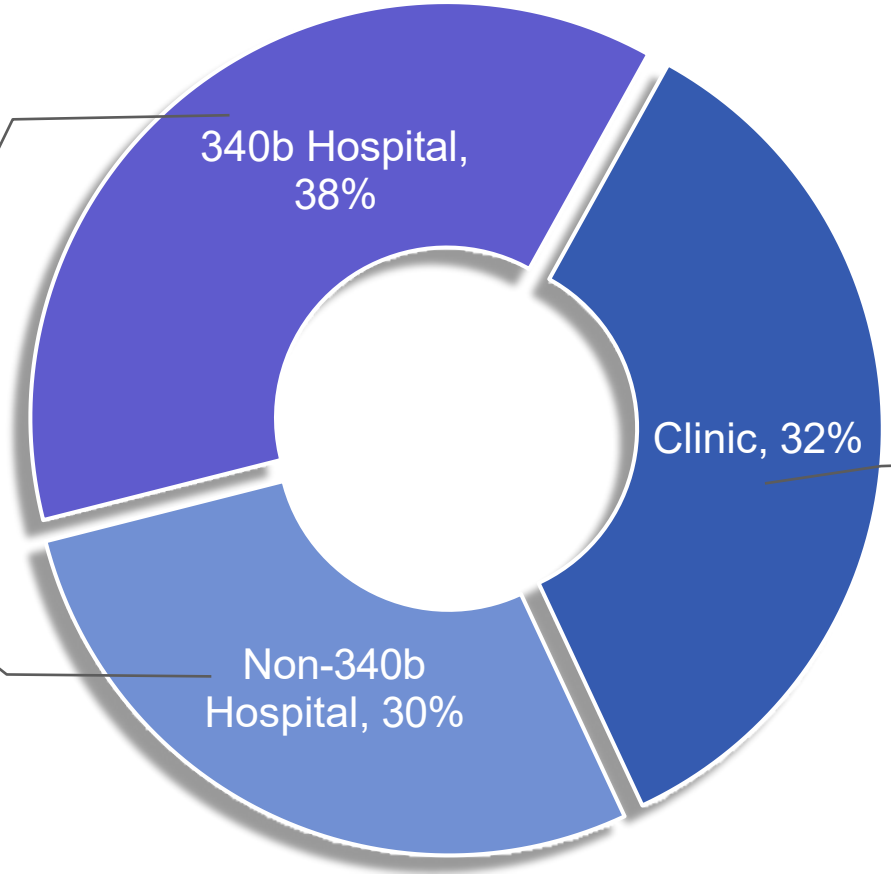
LA-GCSF Business Segmentation

340b Hospitals

- **Pass through** status impacts 340b reimbursement
  - ASP + 6% vs. ASP – 22.5%

Non-340b Hospitals

- Largely **acquisition cost** sensitive



Clinics

- Responsive to **tailored contracting**
- Value **ASP stability & predictability**
- High utilization of **Patient Access** & Support Programs

Commercial Effectiveness

Efficacious & Safe

Unique *clinical profile with proven safety and efficacy*

Compelling Value Proposition

Tailored *contracting & **independent** reimbursement*

Access and Reimbursement

*Prepared to **partner** with **providers** to ensure eflapegrastim is an available option*

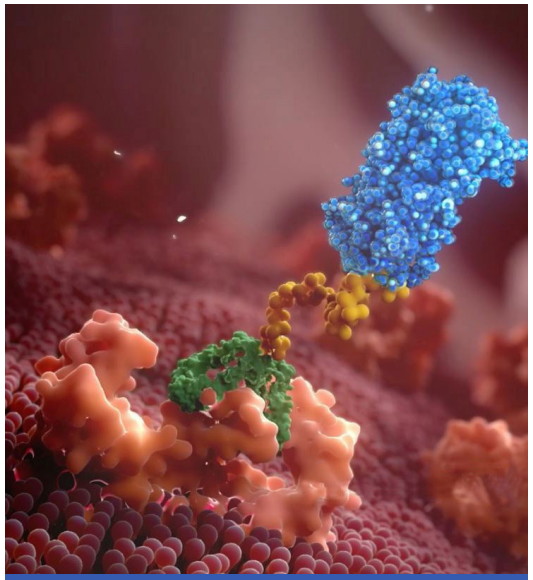
Exceptional Customer Support

Best in class *support programs with fully integrated field team*

Cash Runway into 2023

Cash and marketable securities as of June 30, 2022:	$68M
Q2 2022 Operating Expenses:	$25.4M
Q2 2022 Net Loss:	($29M)
Weighted Average Shares Outstanding as of June 30, 2022:	175.6M

Pipeline & Key Milestones



Eflapegrastim

PDUFA: September 9th

Poziotinib

ODAC: September 22nd
PDUFA: November 24th

SPECTRUM PHARMACEUTICALS, INC.
Condensed Consolidated Statements of Operations
(In thousands, except share and per share amounts)
(Unaudited)

	Three Months Ended June 30.		Six Months Ended June 30.	
	2022	**2021**	**2022**	**2021**
Operating costs and expenses:				
Selling, general and administrative	$ 9,385	$ 14,957	$ 19,255	$ 29,272
Research and development	16,007	29,114	20,200	48,485
Total operating costs and expenses	25,392	44,071	39,455	77,757
Loss from continuing operations before other income (expense) and income taxes	(25,392)	(44,071)	(39,455)	(77,757)
Other income (expense):				
Interest income, net	117	26	128	110
Other expense, net	(3,757)	(5,876)	(5,091)	(7,957)
Total other expense	(3,640)	(5,850)	(4,963)	(7,847)
Loss from continuing operations before income taxes	(29,032)	(49,921)	(44,418)	(85,604)
Provision for income taxes from continuing operations	(13)	(16)	(29)	(9)
Loss from continuing operations	(29,045)	(49,937)	(44,447)	(85,613)
Loss from discontinued operations, net of income taxes	(3)	(195)	(43)	(216)
Net loss	$ (29,048)	$ (50,132)	$ (44,490)	$ (85,829)
Basic and diluted loss per share:				
Loss from continuing operations	$ (0.17)	$ (0.32)	$ (0.26)	$ (0.57)
Loss from discontinued operations	$ (0.00)	$ (0.00)	$ (0.00)	$ (0.00)
Net loss per share, basic and diluted	$ (0.17)	$ (0.32)	$ (0.26)	$ (0.57)
Weighted average shares outstanding, basic and diluted	175,566,757	155,243,402	172,558,831	150,334,548

SPECTRUM PHARMACEUTICALS, INC.
Condensed Consolidated Balance Sheets
(In thousands, except share and par value amounts)
(Unaudited)

	June 30, 2022	December 31, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 25,512	$ 88,539
Marketable securities	42,447	12,108
Other receivables	608	1,028
Prepaid expenses and other current assets	5,012	2,277
Total current assets	73,579	103,952
Property and equipment, net	347	455
Facility and equipment under lease	1,703	2,505
Other assets	3,800	4,636
Total assets	$ 79,429	$ 111,548
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and other accrued liabilities	$ 33,123	$ 41,258
Accrued payroll and benefits	7,918	11,971
Total current liabilities	41,041	53,229
Other long-term liabilities	4,946	10,766
Total liabilities	45,987	63,995
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, $0.001 par value; 5,000,000 shares authorized; no shares issued and outstanding	—	—
Common stock, $0.001 par value; 300,000,000 shares authorized; 184,870,273 and 164,502,013 issued and outstanding at June 30, 2022 and December 31, 2021, respectively	185	165
Additional paid-in capital	1,124,625	1,094,353
Accumulated other comprehensive loss	(2,955)	(3,042)
Accumulated deficit	(1,088,413)	(1,043,923)
Total stockholders' equity	33,442	47,553
Total liabilities and stockholders' equity	$ 79,429	$ 111,548