

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 8-K

**CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

Date of Report (Date of earliest event reported): April 27, 2022

JASPER THERAPEUTICS, INC.
(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-39138
(Commission File Number)

84-2984849
(IRS Employer
Identification No.)

2200 Bridge Pkwy Suite #102
Redwood City, California 94065
(Address of Principal Executive Offices) (Zip Code)

(650) 549-1400
Registrant's telephone number, including area code

N/A
(Former Name, or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Exchange Act:

(Title of each class)	(Trading Symbol)	(Name of exchange on which registered)
Voting Common Stock, par value \$0.0001 per share	JSPR	The Nasdaq Stock Market LLC
Redeemable Warrants, each whole warrant exercisable for one share of Voting Common Stock at an exercise price of \$11.50	JSPRW	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 7.01. Regulation FD Disclosure.

On April 27, 2022, Jasper Therapeutics, Inc. (the “Company”) made available a corporate presentation (the “Presentation”). Representatives of the Company intend to use the Presentation in industry conferences, investor conferences and investor meetings from time to time.

The information in this Item 7.01, including the Presentation attached hereto as Exhibit 99.1, is being furnished under Item 7.01 of Form 8-K and shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of that section, and it shall not be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
99.1	Jasper Therapeutics, Inc. Presentation (Preliminary Data from a Phase 1 Study of JSP191, an Anti-CD117 Monoclonal Antibody, in Combination with Low Dose Irradiation and Fludarabine Conditioning; Well-Tolerated, Facilitates Chimerism and Clearance of Minimal Residual Disease in Older Adults with MDS/AML Undergoing Allogeneic HCT (NCT#04429191))
104	Cover Page Interactive Data File, formatted in Inline Extensible Business Reporting Language (iXBRL).

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: April 27, 2022

JASPER THERAPEUTICS, INC.

By: /s/ Jeet Mahal
Name: Jeet Mahal
Title: Chief Operating Officer and Chief Financial Officer

**Preliminary Data from a Phase 1 Study of
JSP191, an Anti-CD117 Monoclonal Antibody, in Combination
with Low Dose Irradiation and Fludarabine Conditioning:
Well-Tolerated, Facilitates Chimerism and Clearance of
Minimal Residual Disease in Older Adults with MDS/AML
Undergoing Allogeneic HCT (NCT#04429191)**

Lori Muffly, MD, MS¹, Catherine J. Lee, MD², Arpita Gandhi, MD³, Ankur Varma, MD, MPH⁴, Bart L. Scott, MD⁵, Hye-Sook Kwon, PhD⁶, Chikako Yanagiba, MS⁶, Jeyakavitha Arulprakasam, MS⁶, Mamatha Reddy, DVM⁶, Kevin N. Heller, MD⁶, Judith A. Shizuru, MD, PhD¹, Wendy W. Pang, MD, PhD⁶ and Andrew Artz, MD⁷

(1) Division of BMT and Cellular Therapy, Stanford University School of Medicine, Stanford, CA, (2) Division of Hematology and Hematologic Malignancies, Huntsman Cancer Institute, University of Utah, Salt Lake City, UT, (3) Oregon Health Sciences University, Portland, OR, (4) Division of Hematology, Oncology and Cellular Therapy, Rush University Medical Center, Chicago, IL, (5) Clinical Research Division, Fred Hutchinson Cancer Research Center, Seattle, WA, (6) Jasper Therapeutics, Inc., Redwood City, CA, (7) Department of Hematology/HCT, City of Hope National Medical Center, Duarte, CA

JSP191 is an investigational agent and not approved for any indication.

Conflict of Interest

Muffly - Advisory Boards: Pfizer, Amgen, Jazz, Medexus, CTI Biopharma, Kite; Research Funding: Astellas, Jasper, Adaptive, Kite, BMS; Consulting: Astellas

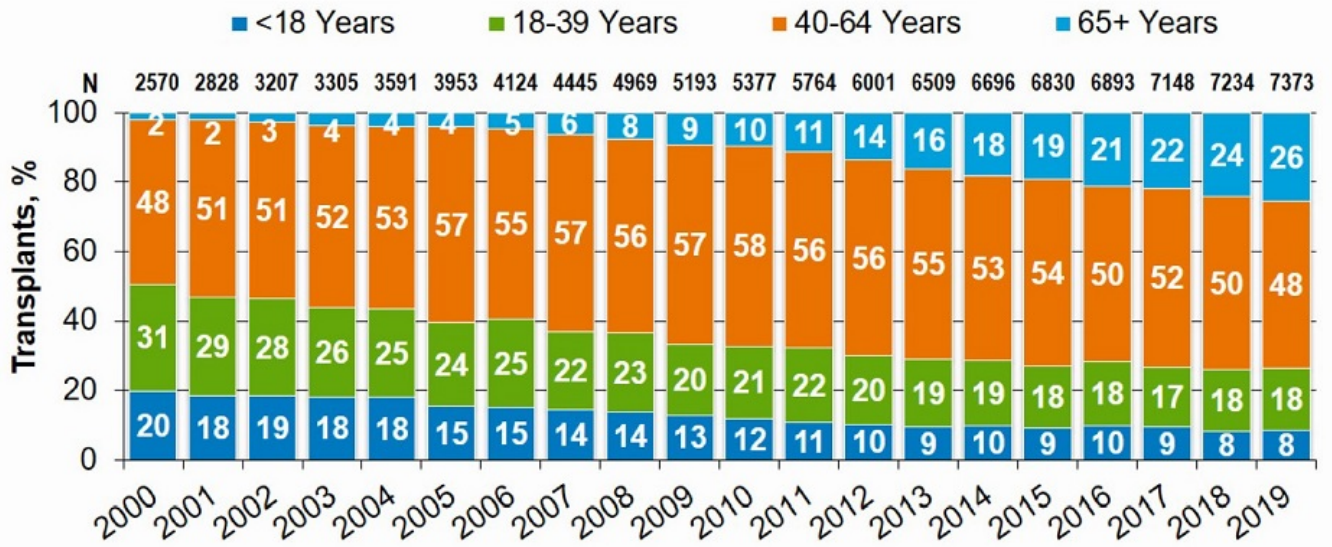
Lee - Advisory Boards: Kadmon, Kite, Jazz; Research Funding: Incyte; Consulting: Fresenius

Scott- Advisory Boards: BMS, Alexion, Incyte, Taiho

Kwon, Yanagiba, Arulprakasam, Reddy, Heller, Pang - Employment: Jasper

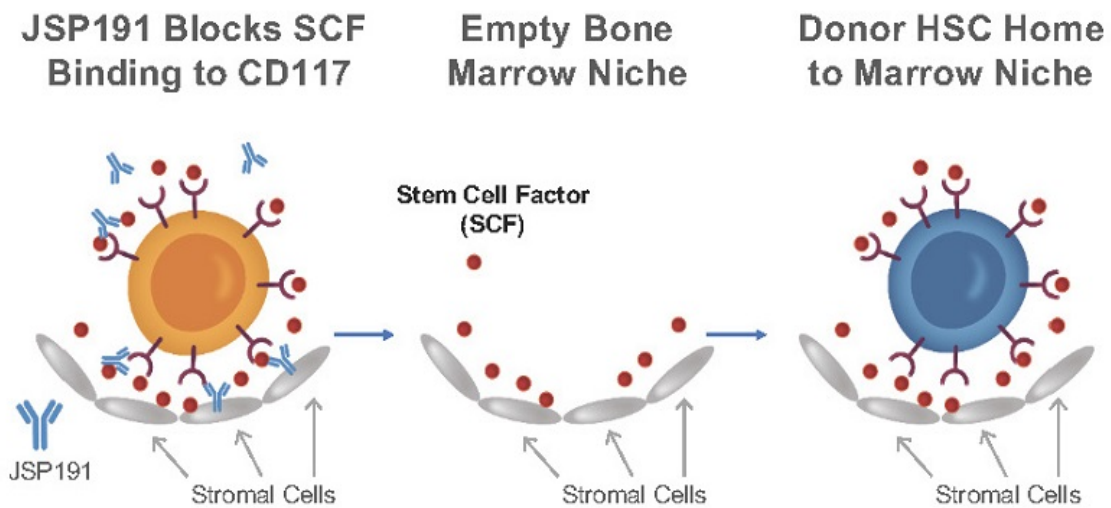
Shizuru - Executive: Jasper; Royalties: FortySeven

Trends in Allogeneic HCT in the U.S. by Age



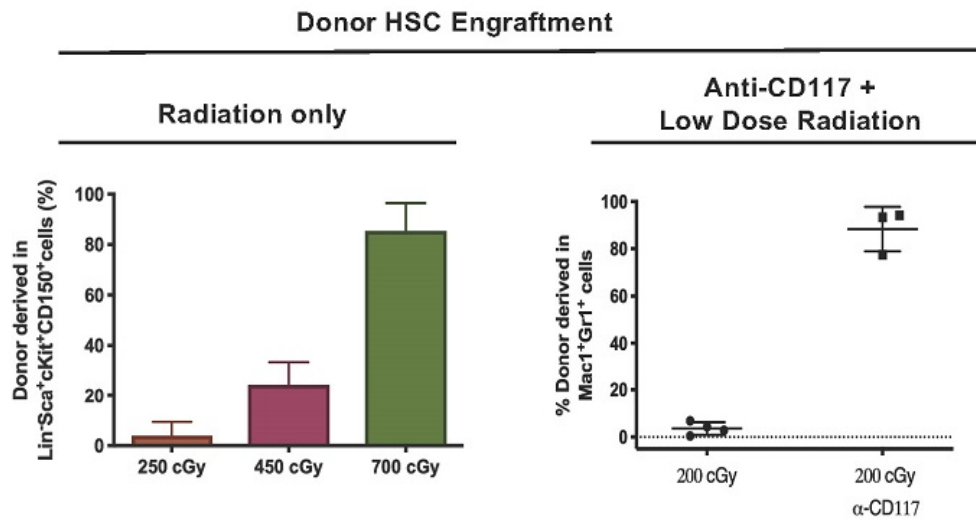
JSP191 Designed to Block CD117 (Stem Cell Factor Receptor) Signaling

Leading to Hematopoietic Stem Cell (HSC) Depletion without Significant Off-Target Toxicities



JSP191 is an investigational agent and not approved for any indication.

Blockade of CD117 is Synergistic with Low Dose Radiation Leading to Purified Donor HSC Engraftment in Immunocompetent Mouse Model



Chhabra et al. Sci Transl Med 2016; Pang et al. ASH 2019

JSP191 is an investigational agent and not approved for any indication.

Study Design

Single-arm, Open Label, in MDS/AML Patients Not Eligible for Myeloablative Conditioning Regimens

Key inclusion criteria:

- MDS or AML
- ≥ 60 years or HCT-CI ≥ 3
- HLA matched related or unrelated donor
- Exclude prior HCT

N = 24-40 patients

Experimental arm:

JSP191 0.6 mg/kg
+ **Flu** 30 mg/m² x 3 days
+ **TBI** 200-300 cGy
+ HCT

Assessments:

Primary endpoints:

- Safety and tolerability of JSP191/TBI/Flu
- JSP191 pharmacokinetics

Secondary endpoints:

- Engraftment and donor chimerism
- Relapse-free survival
- GVHD, Non-relapse mortality, and Overall Survival
- MRD clearance

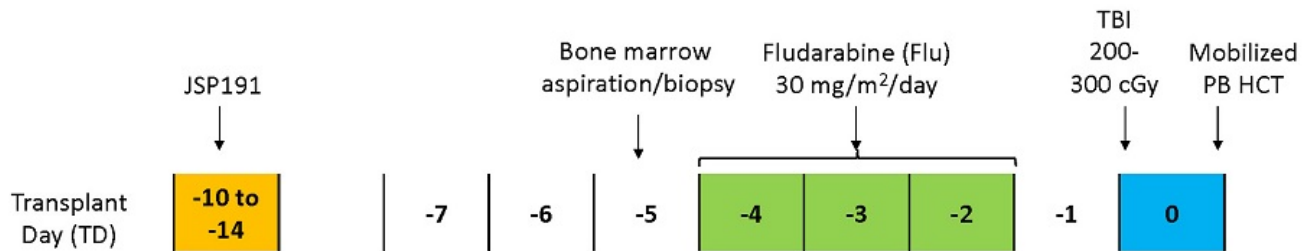
Exploratory endpoints:

- Depletion of HSPCs by JSP191

JSP191 is an investigational agent and not approved for any indication.

Treatment Schema

Outpatient Conditioning Regimen



- Real-time PK measurements and modeling were used to determine Flu start date
- TBI increased from 200 to 300 cGy after first 7 subjects to aid lymphoablation
- GVHD prophylaxis: Tacrolimus, Sirolimus, Mycophenolate Mofetil (Sandmaier et al, Lancet Haematology 2019)

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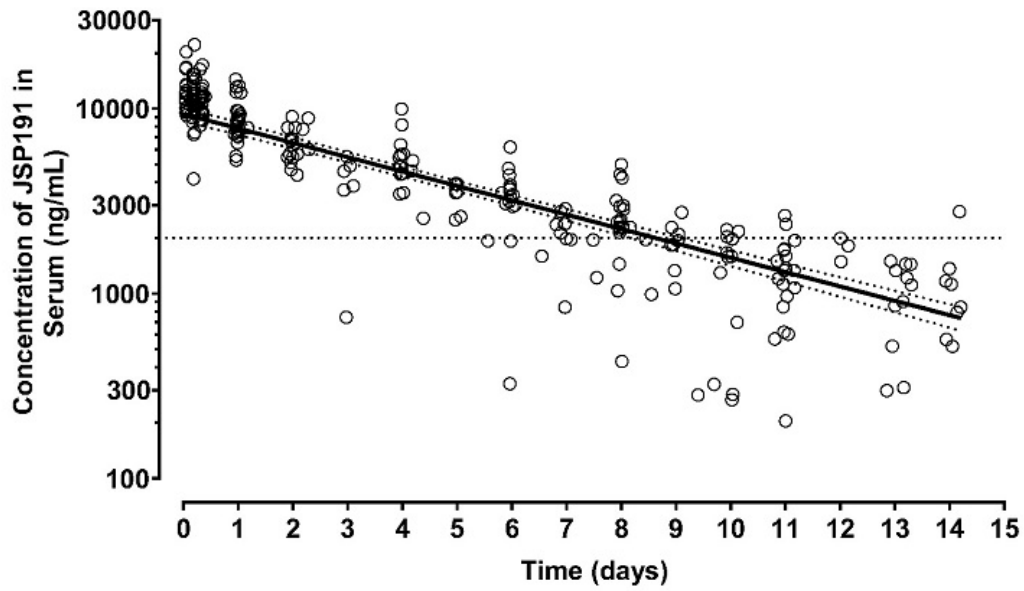
MDS & AML Patient Characteristics

Characteristic	All Patients (N = 24)	Patients with AML (N=11)*	Patients with MDS (N = 13)
Median age (range) - year	70 (62-79)	69 (62-79)	70 (67-77)
Sex – no. (%)			
Male	18 (75%)	8 (73%)	10 (77%)
Female	6 (25%)	3 (27%)	3 (23%)
Prior AML/MDS Therapy – no. (%)			
Untreated or growth factor supportive care only	3 (13%)	0 (0%)	3 (23%)
Hypomethylating agent-containing regimens only	13 (54%)	4 (36%)	9 (69%)
Anthracycline-based regimens (incl. liposomal formulations) only	3 (13%)	2 (18%)	1 (8%)
Multiple lines of therapy incl. both hypomethylating agent- and anthracycline-based regimens	5 (21%)	5 (45%)	0 (0%)
Donor Type – no. (%)			
Matched related donor	5 (21%)	1 (9%)	4 (33%)
Matched unrelated donor	19 (79%)	10 (91%)	9 (67%)
TBI dose – no. (%)			
200 cGy	7 (29%)	3 (27%)	4 (31%)
300 cGy	17 (71%)	8 (73%)	9 (69%)

*Patients with de novo AML (N = 8) & AML from MDS (N = 3)

JSP191 is an investigational agent and not approved for any indication.

0.6 mg/kg JSP191 PK: Consistent and Predictable Clearance



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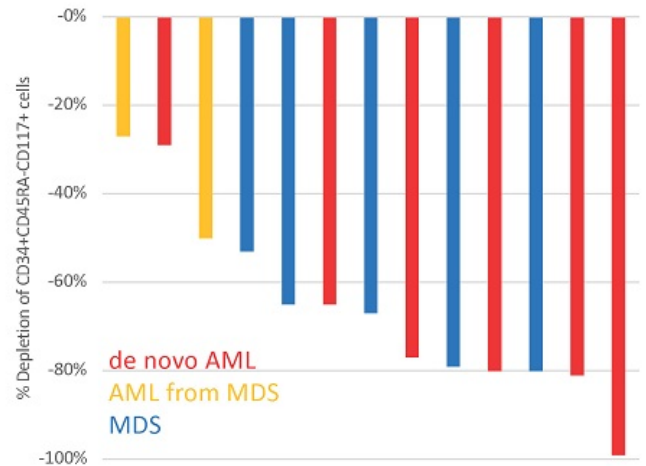
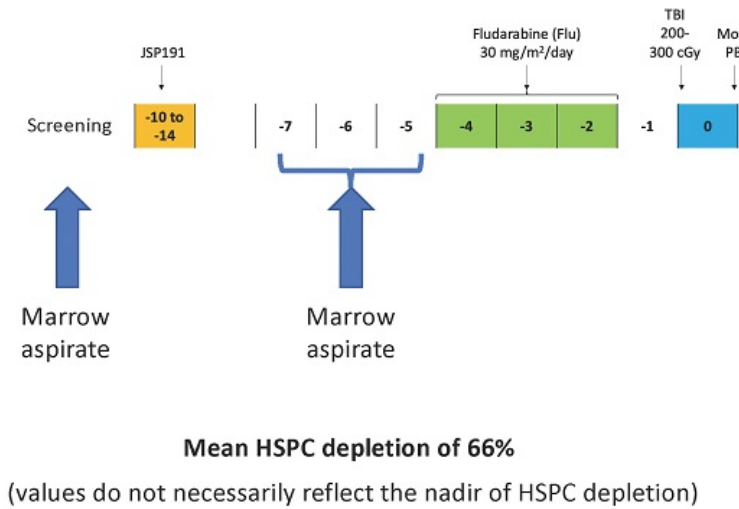
Safety and Tolerability

- No significant JSP191 infusion reactions
- No JSP191-related SAEs
- No primary graft failure (one case of secondary graft failure)

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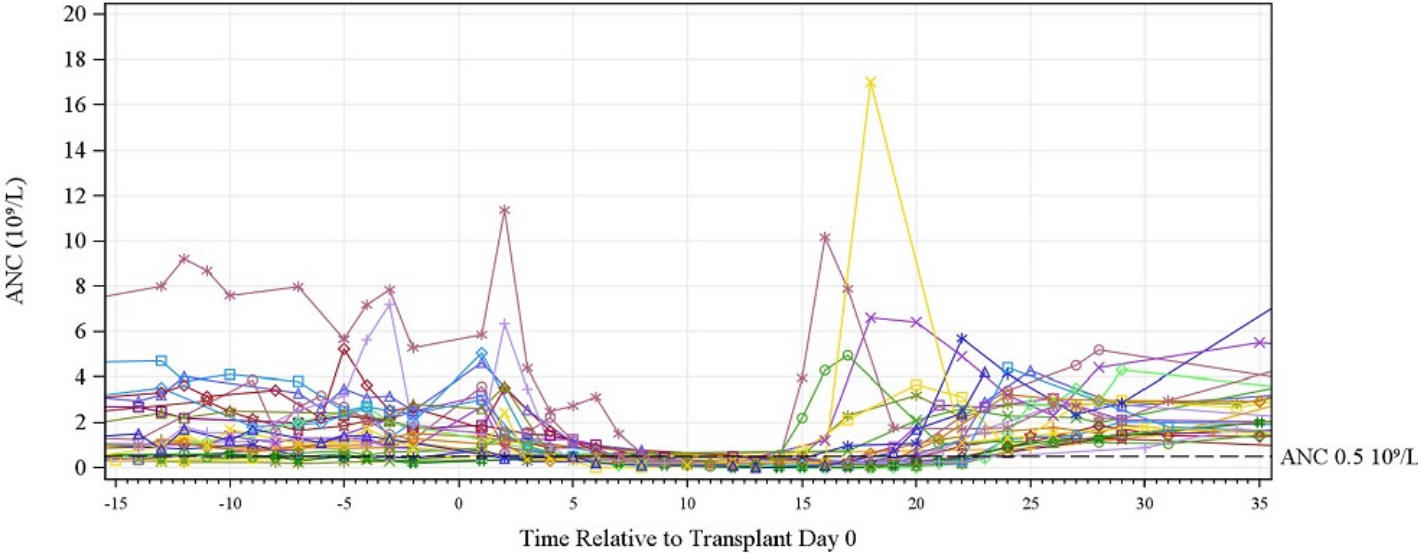
JSP191 Pharmacodynamics: Evaluation of JSP191 to Deplete HSPCs in Marrow of MDS and AML Patients

Marrow aspirates collected at screening and prior to administration of Flu/TBI



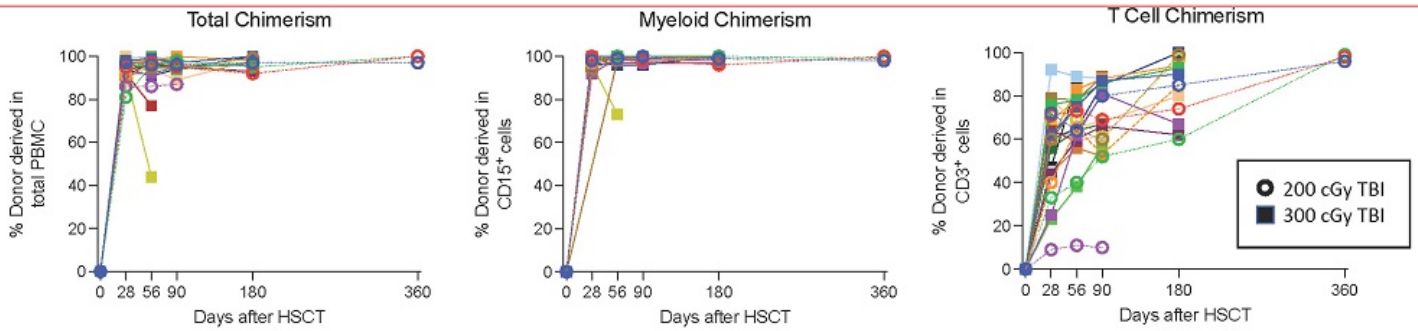
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JSP191/Flu/TBI Conditioning in All Patients Dosed to Date Resulted in Neutropenia Followed by Neutrophil Engraftment by TD+26



JSP191 is an investigational agent and not approved for any indication.

Donor Chimerism



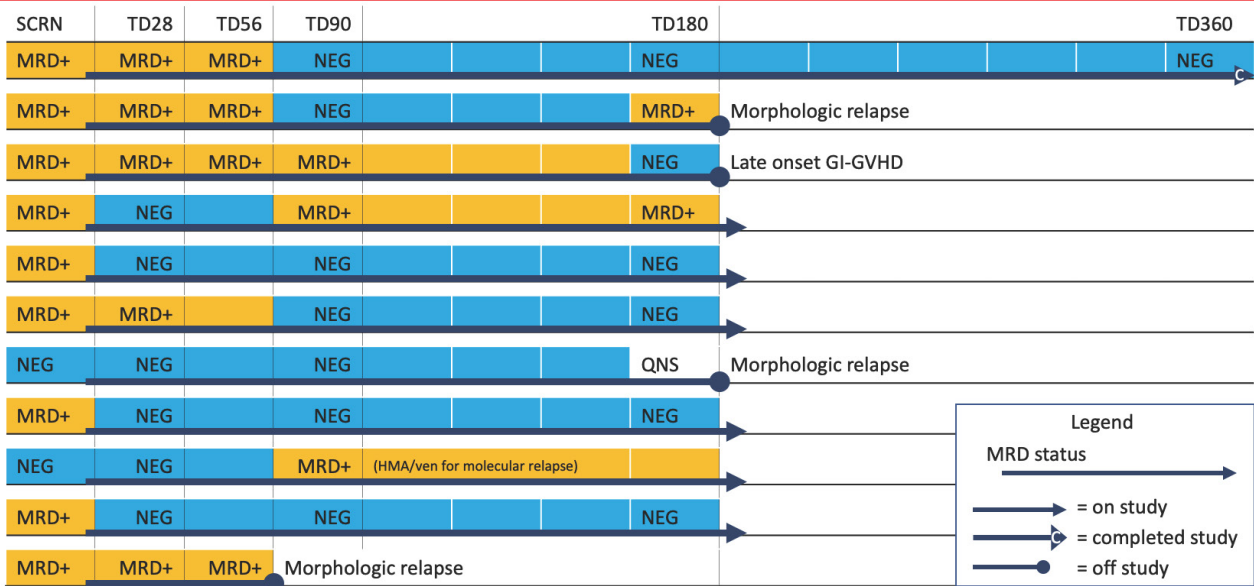
Median Donor Chimerism:

	TD+28			TD+90			TD+180		
	Total	CD15	CD3	Total	CD15	CD3	Total	CD15	CD3
200 cGy TBI	91%	98%	60%	95%	98%	60%	97%	99%	85%
300 cGy TBI	95%	99%	60%	95%	99%	83%	98%	99%	89%

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Multimodality Measurable Residual Disease (MRD) in patients with AML*

Cytogenetics, Flow Cytometry, Next Generation Sequencing



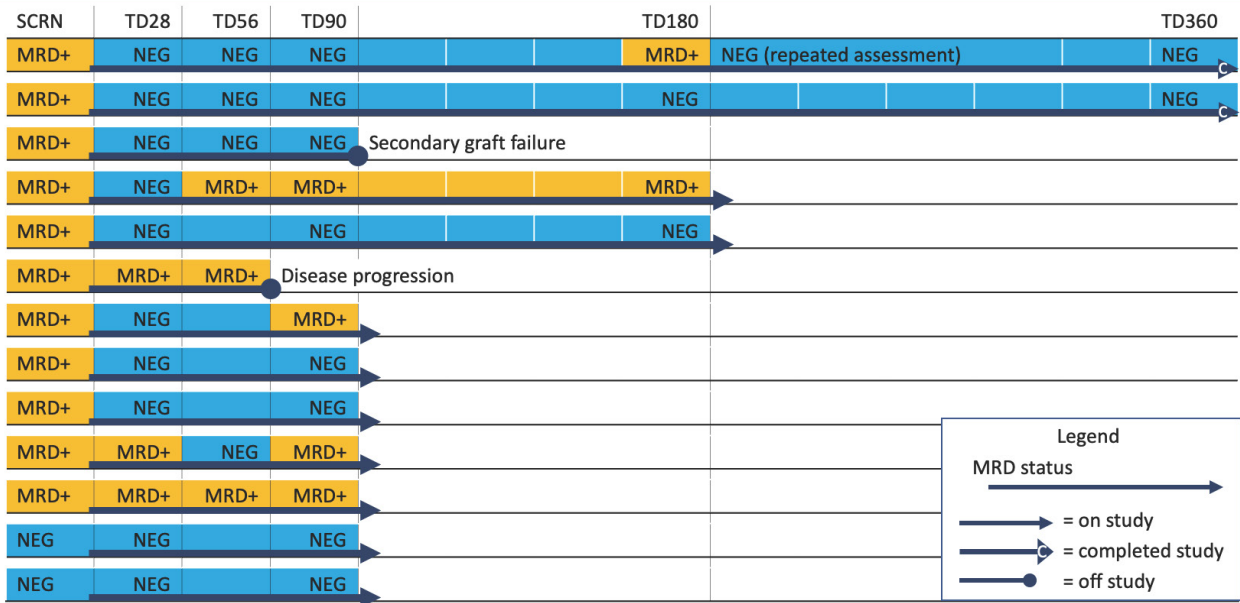
*Patients with de novo AML (N = 8) & AML from MDS (N = 3)

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QNS = quantity not sufficient

Multimodality Measurable Residual Disease (MRD) in patients with MDS

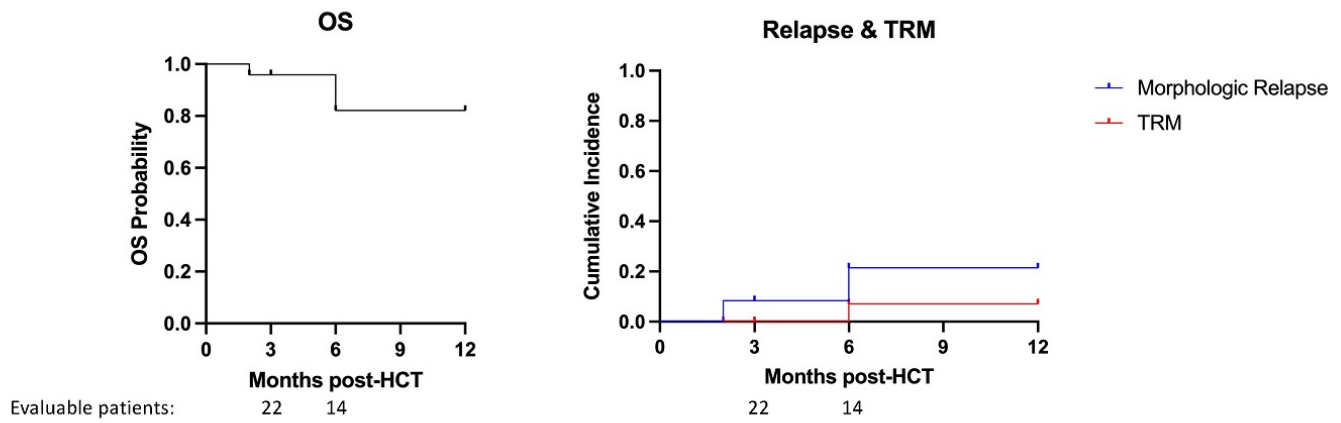
Cytogenetics, Flow Cytometry, Next Generation Sequencing



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Outcomes & GVHD reported to date

N = 24, median follow-up of 6 months (range 2-12 months)



- No classical grade II-IV acute GVHD reported to date
- 1 case of late onset grade III-IV acute GI GVHD reported to date
- Insufficient median follow up to draw conclusions regarding chronic GVHD

JSP191 is an investigational agent and not approved for any indication.

Summary of Phase I Trial Results To Date

- 0.6 mg/kg JSP191 PK is predictable and allows donor cell infusion 9-14 days after JSP191
- All patients engrafted with neutrophil recovery before Transplant Day +26
- MRD clearance was observed in 12 of 20 evaluable patients at last follow-up
- JSP191/Flu/TBI is a novel conditioning regimen that appears safe, well-tolerated, has on target effects on HSPC depletion, permits full donor myeloid chimerism, and results in promising early MRD clearance

JSP191 is an investigational agent and not approved for any indication.

Acknowledgements

Jasper Therapeutics and the Investigators would like to thank the patients and families for participating in this clinical trial (NCT#04429191).

We would also like to thank the participating clinical sites, clinical staff, and collaborators.



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