Annual General Meeting 2023

MorphoSys AG | May 17, 2023

Strategic Focus on Oncology Supported by Strong Financial Position

OUR AMBITION

Redefine How Cancer is Treated

PELABRESIB

Improve standard of care in myelofibrosis and expand into other myeloid diseases

Monjuvi®	Drive use in second-line DLBCL and expand into new indications
Tulmimetostat	Demonstrate potential in different advanced solid tumors and lymphomas

STRONG BALANCE SHEET TO FUND STRATEGIC PRIORITIES

Monjuvi® (tafasitamab-cxix) is approved under accelerated approval by the U.S. FDA in combination with lenalidomide for the treatment of adult patients with relapsed or refractory DLBCL not otherwise specified, including DLBCL arising from low grade lymphoma, and who are not eligible for autologous stem cell transplant (ASCT); DLBCL: diffuse large B-cell lymphoma; Pelabresib and tulmimetostat are investigational medicines that have not yet been evaluated or approved by any regulatory authorities.

Phase 3 MANIFEST-2 Study of Pelabresib in First-Line Myelofibrosis Fully Enrolled

Topline Data Available by End of 2023, Several Months Earlier Than Anticipated

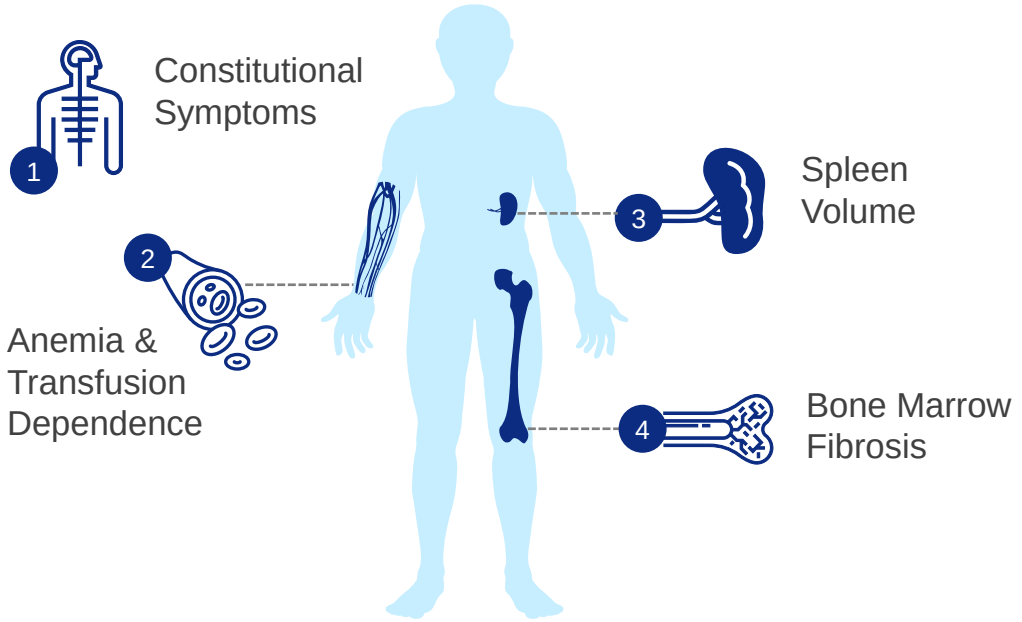
END OF 2023

Pelabresib is a Potential Best- and First-in-Class, Foundational First-Line Myelofibrosis Treatment

AVAILABLE TREATMENTS

Don’t Address All Four Hallmarks

Only ~50% of patients achieve adequate control and responses are limited in duration



PELABRESIB + RUXOLITINIB

Phase 2 Data Suggest Potential to Improve Standard of Care

- Synergistic effects between BET inhibition and JAK inhibition
- SVR35 week 24: 68%
TSS50 week 24: 56%
- Prolonged improvement in SVR35 and TSS50 at 40 and 60 weeks
- Changes in biomarkers suggest disease-modifying effect

Mascarenhas J, et al. ASH 2022. Abstract 238. | Kleppe M, et al. Cancer Cell 2018;33:29–43.e7

Pelabresib is an investigational medicines that has not yet been evaluated or approved by any regulatory authorities.

Monjuvi® Serves Critical DLBCL Patient Needs in Second-Line Setting, with Potential to Expand into First-Line

Only FDA-approved, out-patient, in-practice immunotherapy for 2L+ adult NTE DLBCL in combination with lenalidomide

FY 2022 & Q1 2023 U.S. SALES

FY 2022: $89.4M

+13% YoY

Q1 2023: $20.8M

+11% YoY

NEW 5-YEAR EFFICACY & SAFETY 2L+ ANALYSIS

40%

of patients who received regimen were alive at five years*

PHASE 3 *front*MIND TRIAL IN 1L ENROLLED

880+

Patients randomized

H2 2025

Topline data available

Monjuvi® (tafasitamab-cxix) is approved under accelerated approval by the U.S. FDA in combination with lenalidomide for the treatment of adult patients with relapsed or refractory DLBCL not otherwise specified, including DLBCL arising from low grade lymphoma, and who are not eligible for ASCT based on the one-year primary analysis of the Phase 2 L-MIND study; The data for the five-year analysis of the L-MIND study have not yet been submitted to, or reviewed by, the FDA; DLBCL: diffuse large B-cell lymphoma

*Duell J, et al. AACR 2023. Abstract 9810; Based on Kaplan-Meier estimate

Tulmimetostat Offers Potential to Treat Broad Array of Advanced Cancers

Potential Use in Array of Advanced Tumors

Abnormal EZH2 function is seen in different types of cancer

Designed to Improve on First Generation EZH2i

Dual inhibitor of EZH2 and EZH1 with best-in-class potential

Initial Data from Ongoing Basket Trial

Ongoing Phase 1/2 study with anti-tumor responses across patients with ovarian cancer, endometrial cancer, mesothelioma, PTCL

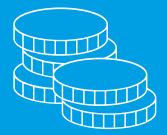
EZH2: enhancer of zeste homolog 2
PTCL: peripheral T-cell lymphoma
Tulmimetostat is an investigational medicines that has not yet been evaluated or approved by any regulatory authorities.

Strengthened Financial Position and Focused Resources

CONCENTRATED PIPELINE

+ HI-Bio license deal for:
  - Felzartamab
  - MOR210
+ Novartis license deal for:
  - Preclinical inhibitors of cancer target

OPTIMIZED COST STRUCTURE



+ Reduction of selling expenses
+ Stopped pre-clinical research work and operations

REDUCED DEBT

+ Convertible bond buy back

World Class Team Of Experts with Universal Drive to Put Patients First

~600

Employees in the U.S. & Germany (as of Dec 31, 2022)

44%

Percentage of Leadership Positions Held by Women

61%

Percentage of Female Employees

43

Nationalities Represented

Our Sustainability Approach

We weigh our actions in terms of their impact on the patients, our employees, the environment and society

Support Patient Access

Empower Our People

Reduce Carbon Footprint

Rich Set of Pivotal Catalysts Through 2025

MorphoSys Pivotal Studies

ASSET	DISEASE AREA	STATUS
Pelabresib (MANIFEST-2)	1L Myelofibrosis	Topline data available by end of 2023
Tafasitamab (*front*MIND)	1L DLBCL	Topline data available in H2 2025
Tafasitamab (*in*MIND)	r/r FL / MZL	Topline data available in 2024

DLBCL: diffuse large B-cell lymphoma.
r/r FL / MZL: relapsed/refractory Follicular Lymphoma or Marginal Zone Lymphoma

Partner Pivotal Studies

ASSET	DISEASE AREA	STATUS
Ianalumab (Novartis)	Sjögren's, Lupus Nephritis and other autoimmune diseases	Development program with several ongoing Phase 3 studies
Abelacimab (Anthos Therapeutics)	Venous Thromboembolism Prevention	Development program with three ongoing Phase 3 studies
Setrusumab (Ultragenyx / Mereo BioPharma)	Osteogenesis Imperfecta	Pivotal Phase 2/3 ongoing clinical study

Full Year 2022: Consolidated Profit or Loss Statement

IN € MILLION	FY 2022	FY 2021	Δ
Revenues	**278.3**	179.6	55%
Product Sales	84.9	66.9	27%
Royalties	99.9	65.6	52%
Licenses, Milestones and Other	93.5	47.2	98%
Cost of Sales	**(48.6)**	(32.2)	51%
Gross Profit	**229.6**	147.4	56%
Research and Development	(297.8)	(225.2)	32%
Selling	(92.4)	(121.5)	(24)%
General and Administrative	(60.1)	(78.3)	(23)%
Impairment of Goodwill	—	(230.7)	(100)%
Total Operating Expenses	**(450.4)**	(655.8)	(31)%
Operating Profit / (Loss)	**(220.7)**	(508.3)	(57)%
Consolidated Net Profit / (Loss)	**(151.1)**	(514.5)	(71)%
Earnings per Share, basic and diluted (in €)	**(4.42)**	(15.40)	(71)%

Differences due to rounding

On December 31, 2022 MorphoSys' cash and investments amounted to € 907.2 million (December 31, 2021: € 976.9 million)

Full Year 2022: Consolidated Balance Sheet

IN € MILLION	DEC 31, 2022	DEC 31, 2021
Assets		
Current assets	1,089.0	1,133.0
Non-current assets	1,307.9	1,423.3
Assets Total	**2,396.9**	**2,556.3**
Liabilities		
Current liabilities	278.3	284.5
Non-current liabilities	1,961.2	2,026.8
Liabilities Total	**2,239.5**	**2,311.4**
Total Stockholders` Equity	**157.4**	**244.9**
Cash and Investments	**907.2**	**976.9**
Number of shares (in units)	**34,231,943**	**34,231,943**

Differences due to rounding

Q1 2023: Consolidated Profit or Loss Statement

IN € MILLION	Q1 2023	Q1 2022	Δ
Revenues	**62.3**	41.5	50%
Product Sales	19.4	16.6	17%
Royalties	21.6	19.0	14%
Licenses, Milestones and Other	21.3	5.8	>100%
Cost of Sales	**(21.0)**	(7.9)	>100%
Gross Profit	**41.3**	33.6	23%
R&D Expenses	(83.1)	(65.0)	28%
Selling Expenses	(16.9)	(21.9)	(23)%
G&A Expenses	(10.9)	(14.6)	(25)%
Total Operating Expenses	**(110.8)**	(101.5)	9%
Operating Profit / (Loss)	**(69.5)**	(68.0)	2%
Consolidated Net Profit / (Net Loss)	**(44.4)**	(122.7)	(64)%
Earnings per Share, basic and diluted (in €)	**(1.30)**	(3.59)	(64)%

Differences due to rounding

On March 31, 2023, MorphoSys' cash and investments amounted to € 791.5 million (December 31, 2022: € 907.2 million)

Q1 2023: Consolidated Balance Sheet

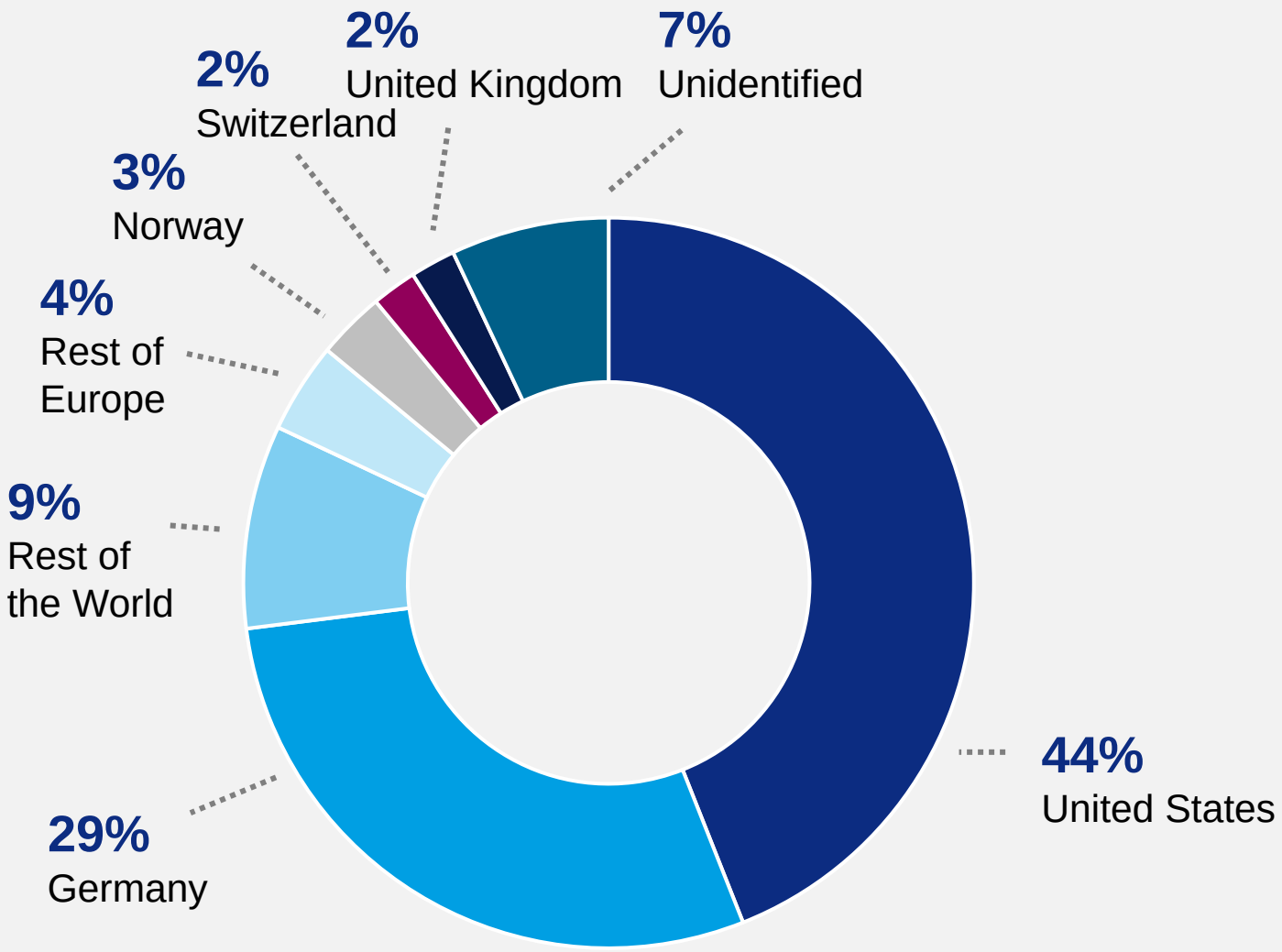
IN € MILLION	MARCH 31, 2023	DEC 31, 2022
Assets		
Current assets	949.6	1,089.0
Non-current assets	1279,9	1,307.9
Assets Total	**2,229.5**	**2,396.9**
Liabilities		
Current liabilities	263.9	278.3
Non-current liabilities	1,868.6	1,961.2
Liabilities Total	**2,132.5**	**2,239.5**
Total Stockholders` Equity	**97.0**	**157.4**
Cash and Investments	**791.5**	**907.2**
Number of shares (in units)	**34,231,943**	**34,231,943**

Differences due to rounding

Financial Guidance Full-Year 2023

Monjuvi U.S. Net Product Sales	US$ 80m – 95m
Gross Margin for Monjuvi U.S. Net Product Sales	75% – 80%
R&D Expenses	€ 290m – 315m
SG&A Expenses	€ 140m – 155m

MorphoSys Shareholder Structure



Estimate based on a shareholder structure survey of institutional investors conducted in February 2023

Shareholders with more than 3%

5.8% Armistice Capital	5.3% T. Rowe Price
3.9% Royalty Pharma Management	3.1% Caligan Partners

Thank you!

www.morphosys.com