MEDIA RELEASE

MorphoSys to present MANIFEST and RE-MIND2 data from expanded hematology-oncology portfolio at the 2021 American Society of Hematology (ASH) Annual Meeting

- Updates from MANIFEST phase 2 trial in patients with myelofibrosis, including clinical updates on JAK naïve patients treated with pelabresib in combination with ruxolitinib, including translational data
- MANIFEST update on pelabresib monotherapy in patients with myelofibrosis
- Expanded Real-World RE-MIND2 dataset comparing outcomes for tafasitamab plus lenalidomide versus pola-BR, R2, and CAR T in relapsed/refractory diffuse large B-Cell lymphoma

PLANEGG/MUNICH, Germany – November 4, 2021 – MorphoSys AG (FSE: MOR; NASDAQ: MOR) today announced that new data on approved and clinical-stage therapeutics will be presented during the American Society of Hematology (ASH) Annual Meeting from December 11-14 in Atlanta, Georgia United States. Ten abstracts were accepted, including two oral presentations, from the comprehensive MorphoSys portfolio, including abstracts for the BET inhibitor pelabresib, which MorphoSys added to its pipeline through the acquisition of Constellation Pharmaceuticals.

“MorphoSys continues to contribute significantly to scientific advances in hematology-oncology with our cancer immunotherapy and our expanded portfolio including the development of epigenetic modifiers,” said Malte Peters, MD, MorphoSys Chief Research and Development Officer. “The important data published in our ASH presentations show our commitment to finding cures that redefine how cancer is treated.”

The MANIFEST and RE-MIND2 presentations at ASH 2021 are the culmination of a transformational year for MorphoSys. Through groundbreaking proprietary research in immunotherapy and the addition of Constellation Pharmaceuticals’ high-potential product candidates, MorphoSys has bolstered its position as an emerging leader in hematology-oncology.

Highlights of presentations from the MorphoSys hematology-oncology portfolio include:

- An update of clinical and translational data from the ongoing MANIFEST trial for JAK naïve patients treated with pelabresib (CPI-0610) in combination with ruxolitinib (study arm 3), representing the analysis for the primary endpoint SVR35
- An update of clinical and translational data from the ongoing MANIFEST trial for pelabresib (CPI-0610) monotherapy in patients with myelofibrosis
- Expanded Real-World RE-MIND2 dataset comparing tafasitamab and lenalidomide (Tafa+Len) outcomes to those observed in matched cohorts of 1) polatuzumab vedotin plus bendamustine and rituximab (pola-BR), 2) rituximab plus lenalidomide (R2); and 3) CAR-T therapies

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PELABRESIB ASH 2021 ACCEPTED ABSTRACTS

Study	Abstract Title	Authors	Status / Publication # / Session
MANIFEST	Pelabresib (CPI-0610) Monotherapy in Patients with Myelofibrosis – Update of Clinical and Translational Data from the Ongoing MANIFEST Trial	Marina Kremyanskaya, John Mascarenhas, Francesca Palandri, Alessandro M. Vannucchi, Srdan Verstovsek, Claire Harrison, Prithviraj Bose, Gary J. Schiller, Raajit K. Rampal, Mark W. Drummond, Vikas Gupta, Andrea Patriarca, Nikki Granacher, Joseph Scandura, Witold Prejzner, Lino Teichmann, Natalia Curto-García, Ronald Hoffman, Gozde Colak, Zheng Ren, Suresh Bobba, Jike Cui, Sergey Efuni, Moshe Talpaz	Oral Presentation #141 Session Name: 634. Myeloproliferative Syndromes: Clinical and Epidemiological: Non-JAK inhibitor Therapies for Myelofibrosis Session Date: Saturday, December 11, 2021 Session Time: 12:00 PM - 1:30 PM Presentation Time: 12:30 PM Room: Georgia World Congress Center, A411-A412
Pelabresib Ph1	PK and PD Assessment of BET Inhibitor Pelabresib (CPI-0610) in Patients With Relapsed or Refractory Lymphoma: Findings from a Phase 1 Study	Kristie A. Blum, Jeffrey Supko, Michael Maris, Ian Flinn, Andre Goy, Anas Younes, Suresh Bobba, Adrian Senderowicz, Sergey Efuni, Ronda Rippley, Jeremy S. Abramson	POSTER #1202 Session Name: 605. Molecular Pharmacology and Drug Resistance: Lymphoid Neoplasms: Poster I Date: Saturday, December 11, 2021 Presentation Time: 5:30 PM - 7:30 PM Location: Georgia World Congress Center, Hall B5
MANIFEST	Disease-Modifying Potential of BET Inhibitor Pelabresib (CPI-0610) as Demonstrated by Improvements in Bone Marrow Function and Clinical Activity in Patients With Myelofibrosis – Preliminary Data	Srdan Verstovsek, Mohamed E. Salama, John Mascarenhas, Moshe Talpaz, Ruben Mesa, Alessandro M. Vannucchi, Raajit K. Rampal, Stephen Oh, Horatiu Olteanu, April Chiu, Dong Chen, Curtis A Hanson, Natalia Curto-García, Pietro Taverna, Jike Cui, Oksana Zavidij, Zehua Chen, Gozde Colak, Sergey Efuni, Patricia Keller, Patrick Trojer, Claire Harrison	Accepted as poster #2568 Session Name: 634. Myeloproliferative Syndromes: Clinical and Epidemiological: Poster II Date: Sunday, December 12, 2021 Presentation Time: 6:00 PM - 8:00 PM Location: Georgia World Congress Center, Hall B5

TAFASITAMAB ASH 2021 ACCEPTED ABSTRACTS

Study	Abstract Title	Authors	Status / Publication # / Session
RE-MIND2	Tafasitamab plus Lenalidomide versus pola-BR, R2, and CAR T: Comparing Outcomes from RE-MIND2, an Observational, Retrospective Cohort Study in Relapsed/Refractory Diffuse Large B-Cell Lymphoma	Grzegorz S. Nowakowski, Dok Hyun Yoon, Patrizia Mondello, Erel Joffe, Anthea Peters, Isabelle Fleury, Richard Greil, Matthew Ku, Reinhard Marks, Kibum Kim, Pier Luigi Zinzani, Judith Trotman, Lorenzo Sabatelli, Dan Huang, Eva E. Waltl, Mark Winderlich, Sumeet Ambarkhane, Nuwan C. Kurukulasuriya, Raul Cordoba, Georg Hess, Gilles Salles	Accepted as oral presentation #183 Session Name: 905. Outcomes Research-Lymphoid Malignancies: Lymphoma/CLL Real-World Data Session Date: Saturday, December 11, 2021 Session Time: 12:00 PM - 1:30 PM Presentation Time: 12:30 PM Room: Georgia World Congress Center, Sidney Marcus Auditorium
Shared Decision Making in R/R DLBCL	Preferences and Perceptions Regarding Treatment Decision-Making For Relapsed or Refractory Diffuse Large B-Cell Lymphoma (R/R DLBCL)	Mallory Yung, Frederick Schnell, Mirko Vukcevic, Nuwan C. Kurukulasuriya	Accepted as poster (collaboration with Avalere) #1928 Session Name: 902. Health Services Research—Lymphoid Malignancies: Poster I Date: Saturday, December 11, 2021 Presentation Time: 5:30 PM - 7:30 PM Location: Georgia World Congress Center, Hall B5
inMIND (Incyte)	inMIND: A Phase 3 Study of Tafasitamab Plus Lenalidomide and Rituximab Versus Placebo Plus Lenalidomide and Rituximab for Relapsed/Refractory Follicular or Marginal Zone Lymphoma	Sehn L, Luminari S, Salar A, Wahlin B, Gopal A, Bonnet C, Paneesha S, Trneny M, Manzke O, Seguy F, Li D, Hubel K, Scholz C	Accepted as poster Session Name: 623. Mantle Cell, Follicular, and Other Indolent B Cell Lymphomas: Clinical and Epidemiological: Poster II Date: Sunday, December 12, 2021 Presentation Time: 6:00 PM - 8:00 PM
Tafasitamab + TAK981 preclinical	The SUMOylation Inhibitor TAK-981 in Combination with the CD19-Targeting Antibody Tafasitamab Shows Enhanced Anti-Tumor Activity in Preclinical B-Cell Lymphoma Models	Maria Patra-Kneuer, Akito Nakamura, Keli Song, Stephen Grossman, Andrea Polzer, Carmen Ginzel, Stefan Steidl, Allison J Berger, Igor Proscurshim, Christina Heitmüller	Accepted as poster #2268 Session Name: 605. Molecular Pharmacology and Drug Resistance: Lymphoid Neoplasms: Poster II Date: Sunday, December 12, 2021 Presentation Time: 6:00 PM - 8:00 PM Location: Georgia World Congress Center, Hall B5

Tafasitamab + CAR-T preclinical	The Impact of Prior Treatment with a CD19 Targeting Monoclonal Antibody on Subsequent Treatment with CD19 Targeting CART Cell Therapy in Preclinical Models	Reona Sakemura, Claudia Manriquez Roman, Paulina Horvei, Ekene Ogbodo, Erin E. Tapper,Elizabeth L. Siegler, Carli M. Stewart, Kendall J. Schick, Ismail Can, Mohamad M. Adada, Evandro D. Bezerra, Lionel Aurelien A. Kankeu Fonkoua, Mehrdad Hefazi, Michael W. Ruff, Christian Augsberger, Jürgen Schanzer, Maria Patra-Kneuer, Christina Heitmüller, Stefan Steidl, Jan Endell, Wei Ding, Sameer A. Parikh, Neil E. Kay, Greg Nowakowski, Michelle J. Cox, Saad S. Kenderian	Accepted as poster (collaboration with Mayo Clinic) #2412 Session Name: 622. Lymphomas: Translational—Non-Genetic: Poster II Date: Sunday, December 12, 2021 Presentation Time: 6:00 PM - 8:00 PM Location: Georgia World Congress Center, Hall B5
First-MIND	First-MIND: Primary Analysis from a Phase Ib, Open-Label, Randomized Study to Assess Safety of Tafasitamab or Tafasitamab + Lenalidomide in Addition to R-CHOP in Patients with Newly Diagnosed Diffuse Large B-cell Lymphoma	David Belada, Katerina Kopeckova, Juan Miguel Bergua Burgues, Don Stevens, Marc André, Ernesto Perez Persona, Petra Pichler, Philipp Staber, Marek Trneny, Bettina Brackertz, Neha Shah, Andrea Sporchia, John M. Burke, Grzegorz S. Nowakowski	Accepted as poster #3556 Session Name: 626. Aggressive Lymphomas: Prospective Therapeutic Trials: Poster III Date: Monday, December 13, 2021 Presentation Time: 6:00 PM - 8:00 PM Location: Georgia World Congress Center, Hall B5
First-MIND MRD Analysis	Disease kinetics measured by ctDNA correlates with treatment response after tafasitamab in combination with R-CHOP with or without lenalidomide in first line treatment of DLBCL	Mouhamad Khouja, Anke Schillhabel, Michaela Kotrova, Nikos Darzentas, Christian Kuffer, Derek Blair, Monika Brüggemann, Christiane Pott	Accepted as poster with short presentation (collaboration with Univ. of Kiel) / #3498 Session Name: 621. Lymphomas: Translational—Molecular and Genetic: Poster III Date: Monday, December 13, 2021 Presentation Time: 6:00 PM - 8:00 PM Location: Georgia World Congress Center, Hall B5

About Tafasitamab
Tafasitamab is a humanized Fc-modified cytolytic CD19 targeting monoclonal antibody. In 2010, MorphoSys licensed exclusive worldwide rights to develop and commercialize tafasitamab from Xencor, Inc. Tafasitamab incorporates an XmAb® engineered Fc domain, which mediates B-cell lysis through apoptosis and immune effector mechanism including antibody-dependent cell-mediated cytotoxicity (ADCC) and antibody-dependent cellular phagocytosis (ADCP).

Monjuvi®(tafasitamab-cxix) is approved by the U.S. Food and Drug Administration in combination with lenalidomide for the treatment of adult patients with relapsed or refractory diffuse large B-cell lymphoma (DLBCL) not otherwise specified, including DLBCL arising from low grade lymphoma, and who are not eligible for autologous stem cell transplant (ASCT). This indication is approved under accelerated approval based on overall response rate. Continued

approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory trial(s).

In January 2020, MorphoSys and Incyte entered into a collaboration and licensing agreement to further develop and commercialize tafasitamab globally. Monjuvi® is being co-commercialized by Incyte and MorphoSys in the United States. Incyte has exclusive commercialization rights outside the United States.

In Europe, Minjuvi® (tafasitamab) received conditional approval, in combination with lenalidomide, followed by Minjuvi monotherapy, for the treatment of adult patients with relapsed or refractory diffuse large B-cell lymphoma (DLBCL) who are not eligible for autologous stem cell transplant (ASCT).

Tafasitamab is being clinically investigated as a therapeutic option in B-cell malignancies in several ongoing combination trials.

Minjuvi® and Monjuvi® are registered trademarks of MorphoSys AG. Tafasitamab is co-marketed by Incyte and MorphoSys under the brand name Monjuvi® in the U.S., and marketed by Incyte under the brand name Minjuvi® in the EU.

XmAb® is a registered trademark of Xencor, Inc.

About MANIFEST
MANIFEST is an open-label Phase 2 clinical trial of pelabresib (CPI-0610) in patients with myelofibrosis (MF), a rare cancer of the bone marrow that disrupts the body's normal production of blood cells. Constellation is evaluating pelabresib in combination with ruxolitinib in JAK-inhibitor-naïve MF patients (Arm 3), with a primary endpoint of the proportion of patients with a ≥35% spleen volume reduction from baseline (SVR35) after 24 weeks of treatment. Constellation Pharmaceuticals is also evaluating pelabresib either as a monotherapy in patients who are resistant to, intolerant of, or ineligible for ruxolitinib and no longer on the drug (Arm 1), or as add-on therapy in combination with ruxolitinib in patients with a sub-optimal response to ruxolitinib or MF progression (Arm 2). Patients in Arms 1 and 2 are being stratified based on transfusion dependent (TD) status. The primary endpoint for the patients in cohorts 1A and 2A, who were TD at baseline, is conversion to transfusion independence for 12 consecutive weeks. The primary endpoint for patients in cohorts 1B and 2B, who were not TD at baseline, is the proportion of patients with a ≥35% spleen volume reduction from baseline after 24 weeks of treatment.

About MorphoSys
MorphoSys (FSE & NASDAQ: MOR) is a biopharmaceutical company dedicated to the discovery, development and commercialization of innovative therapies for people living with cancer and autoimmune diseases. Based on its leading expertise in antibody and protein technologies, MorphoSys is advancing its own pipeline of new drug candidates and has created antibodies that are developed by partners in different areas of unmet medical need. In 2017, Tremfya® (guselkumab) - developed by Janssen Research & Development, LLC and marketed by Janssen Biotech, Inc. for the treatment of plaque psoriasis - became the first drug based on MorphoSys' antibody technology to receive regulatory approval. In July 2020, the U.S. Food and Drug Administration granted accelerated approval of the company's proprietary product Monjuvi® (tafasitamab-cxix) in combination with lenalidomide for patients with a certain type of lymphoma. Headquartered near Munich, Germany, the MorphoSys Group, including the fully owned U.S. subsidiaries MorphoSys US Inc. and Constellation Pharmaceuticals, Inc., has more than 750 employees. For more information visit www.morphosys.com or www.morphosys-us.com.
Monjuvi® is a registered trademark of MorphoSys AG.

Tremfya® is a registered trademark of Janssen Biotech, Inc.

MorphoSys Forward-Looking Statements
This communication contains certain forward-looking statements concerning the MorphoSys group of companies. The forward-looking statements contained herein represent the judgment of MorphoSys as of the date of this release and involve known and unknown risks and uncertainties, which might cause the actual results, financial condition and liquidity, performance or achievements of MorphoSys, or industry results, to be materially different from any historic or future results, financial conditions and liquidity, performance or achievements expressed or implied by such forward-looking statements. In addition, even if MorphoSys' results, performance, financial condition and liquidity, and the development of the industry in which it operates are consistent with such forward-looking statements, they may

not be predictive of results or developments in future periods. Among the factors that may result in differences are that MorphoSys' expectations may be incorrect, the inherent uncertainties associated with competitive developments, clinical trial and product development activities and regulatory approval requirements, MorphoSys' reliance on collaborations with third parties, estimating the commercial potential of its development programs and other risks indicated in the risk factors included in MorphoSys' Annual Report on Form 20-F and other filings with the U.S. Securities and Exchange Commission. Given these uncertainties, the reader is advised not to place any undue reliance on such forward-looking statements. These forward-looking statements speak only as of the date of publication of this document. MorphoSys expressly disclaims any obligation to update any such forward-looking statements in this document to reflect any change in its expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based or that may affect the likelihood that actual results will differ from those set forth in the forward-looking statements, unless specifically required by law or regulation.

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