Media Release
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MorphoSys Presents Updated Clinical Data for Anti-CD38 Antibody MOR202 in Multiple Myeloma at EHA 2018

MorphoSys AG (FSE: MOR; Prime Standard Segment, TecDAX; Nasdaq: MOR) today presented updated data from the ongoing phase 1/2a study of the anti-CD38 antibody MOR202 in relapsed/refractory multiple myeloma at the European Hematology Association (EHA) Annual Meeting 2018 in Stockholm. The dose escalation trial comprises three arms: MOR202, MOR202 in combination with the immunomodulatory drug (IMiD) lenalidomide (LEN), and MOR202 in combination with the IMiD pomalidomide (POM), in each case with low-dose dexamethasone (DEX).

“We are optimistic about the responses seen in patients with multiple myeloma treated with MOR202 plus LEN/DEX and POM/DEX based on matured data as well as about the low proportion of patients experiencing infusion-related reactions,” commented Dr. Malte Peters, Chief Development Officer of MorphoSys AG. “There is a medical need for new treatment options in multiple myeloma and we look forward to further maturing data from this ongoing trial.”

In total, 56 patients were evaluable for safety and efficacy analysis in the clinically relevant dose cohorts of MOR202 (4 mg/kg, 8 mg/kg, 16 mg/kg) by the time of the data cut-off at December 31, 2017. At data cut-off, 16 patients remained in the study. Of the 56 evaluable patients, 18 had received MOR202 plus DEX, 21 received the combination of MOR202 and POM/DEX and 17 received MOR202 plus LEN/DEX.

MOR202 was given as a two-hour infusion up to the highest dose of 16 mg/kg. Infusion-related reactions (IRRs) occurred in 11% of patients in the clinically relevant dose cohorts of MOR202 and were limited to grade 1 or 2. Further, infusion time could be shortened to 30 minutes in the majority of the 16 patients remaining on study as per the data cut-off date.

The most frequent adverse events of grade 3 or higher were neutropenia, lymphopenia, and leukopenia in 52%, 48%, and 39% of patients, respectively. No unexpected safety signals were observed.

Patients treated with MOR202 in combination with LEN/DEX had a median of two prior treatment lines, 59% being refractory to at least one prior therapy. Median progression-free survival (PFS) was not yet reached. With six of the 17 patients in this cohort still on study at data cut-off, the median follow-up was 16.6 months. An objective response was observed in eleven out of 17 patients (65%), with two complete responses (CR), three very good partial responses (VGPR) and seven partial responses (PR).

Patients receiving MOR202 with POM/DEX, had a median of three prior treatment lines, all being refractory to the last prior therapy. Median PFS was 17.5 months. With ten out of 21 patients in this cohort still on study at data cut-off, the median follow-up was 6.5 months. An objective response was observed in ten out of 21 patients (48%), with two patients achieving a complete response (CR), four patients with a very good partial response (VGPR) and four partial responses (PR).

Patients treated with MOR202 plus DEX had a median of three prior treatment regimens, with 67% being refractory to any prior therapy. Median PFS in this cohort was 8.4 months. All patients had discontinued the study before data cut-off, i.e., follow-up for this cohort is completed. An objective response was observed in five out of 18 patients (28%).

Details of the MOR202 presentation at EHA 2018

Abstract Code: S848

MOR202 with low-dose dexamethasone (DEX) or pomalidomide/DEX or lenalidomide/DEX in relapsed or refractory multiple myeloma (r/r MM): A phase I/IIa, multicenter, dose-escalation study

The oral presentation will be given during the session "New therapeutic strategies to improve the outcome of relapse/refractory plasma cell disorders" on Saturday, June 16, 2018, from 4:15-4:30pm CEST (10:15-10:30am EDT), in Room A1 at the Stockholmsmässan in Stockholm.

Additional information can be found at www.ehaweb.org, including the abstracts.

About MorphoSys

MorphoSys is a late-stage, biopharmaceutical company devoted to the development of innovative and differentiated therapies for patients suffering from serious diseases. Based on its technological leadership in generating antibodies, MorphoSys, together with its partners, has developed and contributed to the development of more than 100 product candidates, of which 28 are currently in clinical development. This broad pipeline spans MorphoSys's two business segments: Proprietary Development, in which MorphoSys invests in product candidates for its own account, and Partnered Discovery, in which product candidates are developed exclusively for a variety of Pharma and Biotech partners. In 2017, Tremfya® (guselkumab), marketed by Janssen, became the first therapeutic antibody based on MorphoSys's proprietary technology to receive marketing approval for the treatment of moderate-to-severe plaque psoriasis in the United States, the European Union and Canada. MorphoSys is listed on the Frankfurt Stock Exchange and on the U.S. stock exchange Nasdaq, under the symbol MOR. For regular updates about MorphoSys, visit http://www.morphosys.com.

MorphoSys forward looking statements

This communication contains certain forward-looking statements concerning the MorphoSys group of companies, including the progression of and upcoming data presentations in connection with MOR202 and pomalidomide and lenalidomide each combined with dexamethasone and the development in the phase 1/2a clinical trial in multiple myeloma. 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 the inherent uncertainties associated with competitive developments, clinical trial and product development activities and regulatory approval requirements, MorphoSys' reliance on collaborations with third parties and other risks indicated in the risk factors included in MorphoSys's Registration Statement on Form F-1 and other filings with the US 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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