

## 1 SUPPLEMENTARY INFORMATION

### 2 Eligibility criteria

#### 3 Inclusion criteria

- 4 • Signed written, informed consent form before any study-related procedure is  
5 undertaken that is not part of the standard patient management.
- 6 • Male or female patients  $\geq 18$  years of age.
- 7 • Histologically or cytologically proven advanced or metastatic solid  
8 malignancies for which no effective standard therapy exists or has failed, or  
9 patients who are intolerant to established therapy known to provide clinical  
10 benefit for their condition.
- 11 • Eastern Cooperative Oncology Group performance status of 0 or 1 at  
12 Screening.
- 13 • Patients who have been treated previously with a checkpoint inhibitor may  
14 enroll.
- 15 • Adequate hematologic function as defined below:
  - 16 a) Absolute neutrophil count  $\geq 1500/\text{mm}^3$  or  $\geq 1.5 \times 10^9/\text{L}$
  - 17 b) Platelet count  $\geq 100,000/\text{mm}^3$  or  $\geq 100 \times 10^9/\text{L}$
  - 18 c) Hemoglobin  $\geq 9$  g/dL.

- 19 • Adequate hepatic function, defined by a total bilirubin level  $\leq 1.5 \times$  upper limit  
20 of normal (ULN), an aspartate aminotransferase (AST) level  $\leq 2.5 \times$  ULN, and  
21 an alanine aminotransferase (ALT) level  $\leq 2.5 \times$  ULN.
- 22 a) Patients with documented Gilbert's syndrome are allowed if total  
23 bilirubin  $> 1.5 \times$  ULN but  $< 3 \times$  ULN
- 24 b) Patients with tumor involvement in their liver: AST  $< 3.0 \times$  ULN, ALT  $<$   
25  $3.0 \times$  ULN, with normal bilirubin  $\leq 1.5 \times$  ULN and international  
26 normalized ratio  $< 1.5$ .
- 27 • Adequate renal function, defined by an estimated glomerular filtration rate  
28  $> 50$  mL/min.
- 29 • Male participants must agree to use and to have their female partners use a  
30 highly effective contraception method (i.e., with a failure rate of  $< 1\%$  per year)  
31 for 30 days before the first dose of study treatment (as appropriate), during  
32 the treatment period, and for at least 60 days after the last dose of study  
33 treatment of M4112, and must refrain from donating sperm during this period.
- 34 • A female participant is eligible to participate if she is not pregnant, not  
35 breastfeeding, and at least one of the following conditions applies:
- 36 a) Not a woman of childbearing potential (WOCBP)
- 37 OR
- 38 b) A WOCBP who agrees to use a highly effective contraception method  
39 (i.e., with a failure rate of  $< 1\%$  per year) for 30 days before the first  
40 dose of study treatment (as appropriate), during the treatment period,

41 and for at least 60 days after the last dose of study treatment of  
42 M4112. Since the effect of the potential of M4112 to induce or inhibit  
43 cytochrome P450 3A4 (CYP3A4) is unknown at this time, WOCBP that  
44 are currently using hormonal contraception that is a substrate for  
45 CYP3A4 should also use double barrier contraception.

- 46 • WOCBP must have a negative plasma pregnancy test at the Screening Visit  
47 and a negative urine pregnancy test on day 1 before enrollment and dosing.

#### 48 *Exclusion Criteria*

- 49 • Persisting toxicity related to prior therapy grade >1 National Cancer Institute  
50 Common Terminology Criteria for Adverse Events version 4.03; however,  
51 sensory neuropathy grade ≤2 is acceptable and alopecia is acceptable.
- 52 • Prior organ transplantation, including allogeneic stem-cell transplantation.
- 53 • All patients with known brain metastases, except those meeting the following  
54 criteria:
  - 55 a) Brain metastases that have been treated locally and are clinically  
56 stable for at least 4 weeks prior to the start of treatment
  - 57 b) No ongoing neurologic symptoms that are related to the brain  
58 localization of the disease (sequelae that are a consequence of the  
59 treatment of the brain metastases are acceptable).
  - 60 c) Patients must be either off steroids or on a stable or decreasing dose  
61 of <10 mg daily prednisone (or equivalent).

- 62 • Concurrent treatment with a nonpermitted drug/intervention:
- 63 a) Strong inhibitors or inducers of CYP3A4, and drugs with a narrow
- 64 therapeutic index that are predominantly metabolized by CYP3A4,
- 65 should be discontinued 7 days prior to treatment and avoided during
- 66 treatment
- 67 b) Drugs known to have a high risk of prolonging QT interval as per label
- 68 c) Drugs that are known to increase gastric pH should be stopped at least
- 69 1 week before the start of study treatment
- 70 d) Anticancer treatment (e.g., cytoreductive therapy, radiotherapy,
- 71 immune therapy, cytokine therapy, monoclonal antibody therapy,
- 72 targeted small molecule therapy) or any investigational drug within 4
- 73 weeks prior to the start of study treatment, or not recovered from
- 74 adverse events related to such therapies, with the following exceptions:
- 75 i. Palliative bone-directed radiotherapy is permitted (concurrently
- 76 or within pretreatment period)
- 77 ii. Hormonal therapies acting on the hypothalamic–pituitary–
- 78 gonadal axis are permitted (i.e., luteinizing hormone–releasing
- 79 hormone agonist/antagonists). No other hormonal anticancer
- 80 therapy is permitted.
- 81 e) Major surgery (as deemed by the Investigator) for any reason, except
- 82 diagnostic biopsy, within 4 weeks of the study treatment and/or if the

83 patient has not fully recovered from the surgery within 4 weeks of the  
84 study treatment.

85 f) Patients receiving immunosuppressive agents (such as steroids), for  
86 any reason, should be tapered off these drugs before start of study  
87 treatment, with the following exceptions:

88 i. Patients with adrenal insufficiency may continue corticosteroids  
89 at physiologic replacement dose, equivalent to <10 mg  
90 prednisone daily

91 ii. Administration of steroids through a route known to result in a  
92 minimal systemic exposure (topical, intranasal, intro-ocular, or  
93 inhalation)

94 iii. Previous or ongoing administration of systemic steroids for the  
95 management of an acute allergic phenomenon is acceptable as  
96 long as it is anticipated that the administration of steroids will be  
97 completed in 14 days, or that the dose after 14 days will be  
98 equivalent to  $\leq 10$  mg prednisone daily.

99 g) Warfarin or other vitamin K antagonists.

100 • Current significant cardiac conduction abnormalities, including corrected QT  
101 interval (QTc) prolongation of >450 ms or impaired cardiovascular function,  
102 ventricular tachycardia, hypokalemia, or a history of paroxysmal atrial  
103 fibrillation, serious cardiac arrhythmia, and family history of sudden death or  
104 long QT syndrome.

- 105 • A history of cardiovascular/cerebrovascular disease as follows: cerebral  
106 vascular accident/stroke (<6 months prior to enrollment), myocardial infarction  
107 (<6 months prior to enrollment), and unstable angina or congestive heart  
108 failure (New York Heart Association Classification Class  $\geq$ II).
- 109 • Active autoimmune disease that might deteriorate when receiving an  
110 immunostimulatory agent:
- 111 a) Patients with diabetes type I, vitiligo, psoriasis, hypo- or hyperthyroid  
112 disease not requiring immunosuppressive treatment are eligible
- 113 b) Autoimmune diseases: e.g., inflammatory bowel diseases, interstitial  
114 lung disease or pulmonary fibrosis.
- 115 • Pneumonitis and history of pneumonitis.
- 116 • A history of difficulty of swallowing, gastric or small bowel surgery with history  
117 of malabsorption, or other chronic gastrointestinal disease or conditions that  
118 may hamper compliance and/or absorption of M4112.
- 119 • Any psychiatric condition that would prohibit the understanding or rendering of  
120 Informed Consent or interfere with compliance to study requirements and  
121 procedures in the opinion of Investigator and/or Sponsor.
- 122 • Known current alcohol and drug abuse as determined by the Investigator.
- 123 • Hepatocellular carcinoma.
- 124 • Legal incapacity or limited legal capacity if no consent by legal representative.

- 125       • Significant acute or chronic infections requiring systemic therapy including,  
126       among others:
- 127           a) History of testing positive for human immunodeficiency virus (HIV) or  
128           known acquired immunodeficiency syndrome
- 129           b) Hepatitis B virus (HBV) or hepatitis C virus (HCV) infection (defined as  
130           HBV surface antigen positive and HBV core antibody positive with  
131           reflex to positive HBV DNA, or HBV core antibody positive alone with  
132           reflex to positive HBV DNA, or positive HCV antibody with reflex to  
133           positive HCV RNA). Patients with a history of infection must have  
134           polymerase chain reaction documentation that infection has cleared
- 135           c) Active tuberculosis (history of exposure or history of positive  
136           tuberculosis test with presence of clinical symptoms, physical, or  
137           radiographic findings).
- 138       • Known hypersensitivity to the investigation medicinal products or to one or  
139       more of the excipients of M4112.
- 140       • Administration of a live vaccine within 28 days prior to study entry.

141 **Supplementary figure 1** Schedule of pharmacokinetic and pharmacodynamic  
 142 assessments in cycle 1 and day 1 of cycle 2

	Treatment cycle 1															Treatment cycle 2					
Study day	1															8		15		1	
Time postdose (hours)	Pre-dose	0.5	1	2	3	4	6	8	Pre-dose	Pre-dose	0.5	1	2	3	4	6	8	Pre-dose	2		
PK sampling*	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲		
PD sampling†	●		●	●		●	●		●	●		●	●		●	●		●	●		

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144 \*PK sampling also included an optional metabolite analysis.

145 †Plasma samples were also taken at screening and on day 1 of cycle 3, day 1 of cycle 5 and at the

146 end of treatment.