

## **Nerviano Medical Sciences Selected as AACR 2023 Plenary Session highlights for its NMS-03592088 Phase 1 Clinical Trial Data in Patients with FLT3 positive Relapsed or Refractory Acute Myeloid Leukemia**

*Nerviano 21 April 2023*, Nerviano Medical Sciences Srl, a member of NMS Group and a clinical stage company discovering and developing innovative therapies for the treatment of cancer, is delighted to be selected as Plenary Session highlights of the AACR (American Association for Cancer Research) Annual Meeting 2023 for the data from the First-In-Human study of NMS-03592088 - a novel, potent inhibitor of FLT3, KIT and CSF1R. The Phase 1 clinical trial data were presented during an oral scientific session on 16 April.

NMS-03592088 is an orally available compound that showed superior preclinical activity with respect to first and second generation FLT3 inhibitors and demonstrated a good potency on resistance mutation F691L identified as cause of relapse in patients treated with selective FLT3 inhibitors. NMS-03592088 is currently being explored in MKIA-088-001 trial, a multi-center Phase 1/2 study to evaluate safety, tolerability and efficacy in patients with relapsed or refractory (R/R) acute myeloid leukemia (AML) or chronic myelomonocytic leukemia (CMML). The Phase 1 portion of the study was a 3+3 design dose escalation with NMS-03592088 administered daily for 21 of 28 days (schedule A) or continuously (schedule B). As of January 26, 44 R/R AML or CMML patients were treated across doses from 20 to 360 mg/day in schedule A or from 120 to 250 mg/day in schedule B. 41 patients had AML and 3 patients had CMML. 24 AML patients were FLT3 positive with FLT3-ITD mutations representing the most common genetic alteration and the majority of them had received at least one prior FLT3 inhibitor (87.5%).

NMS-03592088 showed manageable safety with no maximum tolerated dose characterized. Overall, the most frequent treatment-emergent related adverse events were nausea (any grade, 20.5%), vomiting (13.6%), asthenia (11.4%). A dose-dependent trend of reversible myasthenic syndrome was also characterized. In terms of clinical benefit, the data showed a dose-dependent trend for response. 5 out of 12 evaluable patients with FLT3 positive AML treated at dose  $\geq$  300 mg achieved an investigator-assessed response. All these patients had received prior midostaurin and 2 had received prior midostaurin and prior gilteritinib. Two patients with response were able to withdraw from study to receive HSCT. Overall, the duration of response ranged from 1.3-7.9 months.

In summary, NMS-03592088 showed clinical efficacy in patients with FLT3 positive R/R AML, including patients who have failed prior FLT3 inhibitors. These results, together with the manageable safety observed, warrant further development which is now being explored in Phase 2 trial.

*"We are pleased to see that NMS-03592088 demonstrates antileukemic activity in FLT3 positive AML patients since these patients are at high risk for poor outcomes" was noted by Lisa Mahnke, MD, PhD, Chief Medical Officer for Nerviano Medical Sciences.*

*"We believe that despite availability of FLT3 targeted agents there is still need for more effective treatments, including those for patients that have failed current FLT3 inhibitors" according to Hugues Dolgos, PharmD, CEO, Nerviano Medical Sciences.*

A copy of today's presentation "NMS-03592088, a novel, potent FLT3, KIT and CSF1R inhibitor with activity in FLT3 positive acute myeloid leukemia patients with prior FLT3 inhibitor experience" is available at this link: [https://www.nmsgroup.it/wp-content/uploads/2023/04/NMS03592088\\_AACR-2023\\_CURTI.pdf](https://www.nmsgroup.it/wp-content/uploads/2023/04/NMS03592088_AACR-2023_CURTI.pdf)

# NERVIANO MEDICAL SCIENCES

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## About Acute Myeloid Leukemia

Acute Myeloid Leukemia (AML) is a rapidly progressing hematologic malignancy that most frequently develops in older adults. FLT3 mutations occur in approximately 30% of AML patients and are associated with aggressive disease, higher relapse rates and worse survival. Despite the approval of FLT3 inhibitors midostaurin and gilteritinib the prognosis of patients with relapsed or refractory disease is poor.

## About NMS-03592088

NMS-03592088 is a novel, potent inhibitor of FLT3, KIT and CSF1R, all relevant targets in AML. NMS-03592088 showed superior preclinical activity compared with approved FLT3 inhibitors in different FLT3-driven models. In addition, NMS-03592088 is active on FLT3 gatekeeper mutation F691L causing resistance to first generation FLT3 inhibitors. NMS-03592088 is being developed in AML with two studies currently recruiting ([MKIA-088-001](#) and [MKIA-088-002](#))

## About Nerviano Medical Sciences

[Nerviano Medical Sciences](#) S.r.l. (NMS) is focused on discovery and clinical development of small molecule NCEs for oncology. We take innovative approaches on novel mechanisms of action and drug targets to bring first- and best-in-class personalized medicines to cancer patients. Our current pipeline consists of NCEs, which originate from our industrially renowned kinase inhibitor drug discovery platform which comprises an ever-evolving chemical collection with broad intellectual property coverage, discovery know-how and technologies. Our kinase platform has enabled us to out-license IP rights on approved innovative medicines such as encorafenib and entrectinib and currently includes preclinical to clinical stage products, which are being developed both in house and with partners, including four proprietary clinical assets in Phase I/II studies. Moreover, the development of our payload linker platform allows an extension of our pipeline with innovative payload linkers for next generation ADC production.

NMS combines the flexibility of a biotech with the quality of a big pharma. Here, an experienced management team leads a highly skilled staff of professionals with a global vision and a broad range of expertise in drug discovery and development. We collaborate with academia and clinical investigators as well as industrial partners worldwide to advance our programs from early discovery to clinical development of new drugs. The recently signed collaboration agreement with licensing option with Merck Healthcare KGaA for the next-generation highly selective and brain penetrant PARP1 inhibitor NMS-293.

We seek further strategic collaborations to develop and commercialize our products in different territories as well as in-licensing opportunities of promising pre-clinical assets.

## About NMS Group

[NMS Group](#) S.p.A. (NMS Group) is the largest R&D company in Italy committed to the discovery and development of novel oncological therapies and through its three subsidiaries is the only institution able to manage the entire integrated R&D chain: from the first steps of the pre-clinical phase to the packaging of the finished product with more than 400 employees of whom more than half are highly educated individuals dedicated to innovative research, development and manufacturing.

NMS Group's three subsidiaries are: NMS S.r.l., focused on discovery and clinical development of new drugs for oncology at Nerviano (Italy) and Boston (US) sites, Accelera S.r.l., one of the few Italian CROs capable of providing support through all phases of drug research and development, and NerPharMa S.r.l., a CDMO owing a wide and cutting edge organizational structure able to manage and handle highly active compounds, and to ensure the full development and production of active principles and finished products.

Media contact: Sidney Dung [Sidney.dung@nmsgroup.it](mailto:Sidney.dung@nmsgroup.it)