DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration
Silver Spring MD 20993

IND 070663

GRANT –
BREAKTHROUGH THERAPY DESIGNATION

Molecular Insight Pharmaceuticals, Inc.
Attention: Ann Marie Assumma, M.S.
777 Old Saw Mill River Road
Tarrytown, NY 10591

Dear Ms. Assumma:

Please refer to your Investigational New Drug Application (IND) submitted under section 505(i) of the Federal Food, Drug, and Cosmetic Act for "Ultratrace Iobenguane I^{131}."

We also refer to your June 4, 2015, request for Breakthrough Therapy designation. We have reviewed your request and have determined that "Ultratrace Iobenguane I^{131}" for the treatment of patients with iobenguane-avid metastatic or recurrent pheochromocytoma or paraganglioma (PPGL) meets the criteria for Breakthrough Therapy designation. Therefore, we are granting your request for Breakthrough Therapy designation. Please note that if the clinical development program does not continue to meet the criteria for Breakthrough Therapy designation, we may rescind the designation.

FDA will work closely with you to provide guidance on subsequent development of "Ultratrace Iobenguane I^{131}" for the treatment of patients with iobenguane-avid metastatic or recurrent pheochromocytoma or paraganglioma (PPGL) to help you design and conduct a development program as efficiently as possible. For further information regarding Breakthrough Therapy designation and FDA actions to expedite development of a designated product, please refer to section 902 of the Food and Drug Administration Safety and Innovation Act (FDASIA) and the *Guidance for Industry: Expedited Programs for Serious Conditions – Drugs and Biologics.*[1]

In terms of next steps, please submit a Type B meeting request. This meeting will be for a multidisciplinary comprehensive discussion of your drug development program, including planned clinical trials and plans for expediting the manufacturing development strategy. Please refer to MAPP 6025.6 - *Good Review Practice: Management of Breakthrough Therapy-Designated Drugs and Biologics,* Attachment 1, for potential topics for discussion at this initial breakthrough therapy meeting[2]. Please refer to the *Guidance for Industry: Formal Meetings*

[1] http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM358301.pdf
[2] http://www.fda.gov/AboutFDA/CentersOffices/OfficeofMedicalProductsandTobacco/CDER/ManualofPoliciesProcedures/default.htm
[3] http://www.fda.gov/ucm/groups/fdagov-public/@fdagov-drugs-gen/documents/document/ucm437431.pdf

between FDA or Sponsors and Applicants[3] for procedures on requesting a meeting. If you feel that submitting a meeting request for such a meeting at this point is pre-mature or if you have recently held a major milestone meeting, please contact the Regulatory Health Project manager noted below to discuss the timing of this meeting.

If the breakthrough therapy designation for Ultratrace Iobenguane I^{131} for the treatment of patients with iobenguane-avid metastatic or recurrent pheochromocytoma or paraganglioma (PPGL) is rescinded, submission of portions of the NDA will not be permitted under this program. However, if you have Fast Track designation you will be able to submit portions of your application under the Fast Track program.

If you have any questions, please call Tina Ennis, M.S., Regulatory Project Manager, at (301) 796-5890.

Sincerely,

{See appended electronic signature page}

Patricia Keegan, M.D.
Director
Division of Oncology Products 2
Office of Hematology and Oncology Products
Center for Drug Evaluation and Research

This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.

/s/

PATRICIA KEEGAN
07/26/2015