



May 2018

## BIOMARIN ACHONDROPLASIA CLINICAL DEVELOPMENT PROGRAMME

### An Update for Associations

BioMarin's investigational therapy for achondroplasia, known as vosoritide or BMN 111, is in phase 3 of the clinical trial process. The clinical trial approval process consists of several phases. Each phase has a different study objective which impacts the number of participants, and other specific characteristics.

Details of the BMN 111 programme can be found below but for the most up to date of information please visit [www.clinicaltrials.gov](http://www.clinicaltrials.gov) and type in the study code BMN111.

#### **BMN 111-901: Non-Interventional Natural History To collect baseline information**

Since April 2012, the observational study has been ongoing collecting growth measurements, health related quality of life scores and other details including associated symptoms, major illnesses and surgeries.

No investigational therapy is administered to any participant in this study as the study seeks to collect information to be used as a baseline compared to information from BioMarin trials that includes an investigational therapy (both for individual children and for all children in total).

The BMN 111-901 study is open to individuals aged between 0 – 18 years of age and aims to enrol an equal number of boys and girls.

This study is ongoing in Australia, Germany, Japan, Spain, Turkey, the United Kingdom and the United States.

For more detailed eligibility criteria and current information about the observational study sites, please visit: <https://clinicaltrials.gov/ct2/show/NCT01603095>

#### **BMN 111-202 and BMN 111-205: Phase 2 Studies to evaluate safety, tolerability, and efficacy**

BioMarin's BMN 111-202 phase 2 open label dose escalation investigational therapy study is now complete.

The term open label means that both the clinical team and participant know which treatment is being administered.

BMN 111-205 is termed an extension study to BMN 111-202. This means that after completion of the 111-202 study, participants can continue to receive treatment through the 111-205 study.



This trial is ongoing in Australia, France, the United Kingdom and the United States.

For additional information for 111-202, please visit:

<https://clinicaltrials.gov/ct2/show/NCT02055157>

For more information for 111-205, please visit:

<https://clinicaltrials.gov/show/NCT02724228>

### **BMN 111–206: Phase 2 Infant and Toddler Study To evaluate safety and efficacy**

This study will evaluate the effect of BMN 111 in approximately 70 infants and toddlers between the ages of 0 to 5. It is a randomised, placebo-controlled, double-blind multicentre study. This means that participants have an equal chance of receiving either placebo (an inactive treatment that looks the same as, and is given in the same way as, the investigational therapy) or the investigational product BMN 111. It is not known whether placebo or investigational therapy is being administered to prevent bias.

This trial is opening in Australia, Japan, the United Kingdom and the United States. Participants must remain a resident of the country they enrolled in throughout the trial period.

### **BMN 111-301 and BMN 111-302: Phase 3 Studies to evaluate the efficacy and safety**

Phase 3 is a randomised, placebo-controlled, double-blind multicentre study for children and teenagers aged between 5 and 18 years old. As explained above, this means that those participating have an equal chance of receiving either placebo or active drug. Neither the doctor nor participant will know whether placebo or active drug is being administered.

- Participants complete a minimum of 6 months in the observational trial (111-901) before they can be screened to participate in this Phase 3 (111-301) trial. This trial lasts for 52 weeks.
- Participants on placebo for one year in the 111-301 trial may be eligible to receive the active investigational therapy in the 111-302 extension trial.
- The primary outcome of the trial is to evaluate change in the rate of growth as measured by an annualised growth velocity calculation (AVG). Secondary outcomes include measurements of health through evaluating health related quality of life scores, other associated symptoms, sleep quality as well as major illnesses and surgeries.
- Participants must live in the country conducting the trial throughout the trial period.

The trial sites for this study are in Australia, Germany, Japan, Spain, Turkey, the United Kingdom and the United States.

For more information, please visit: <https://clinicaltrials.gov/show/NCT03197766>



### **BMN 111-501 The Lifetime Impact of Achondroplasia Study in Europe (LIAISE)**

The LIAISE study is an observational study looking at the clinical, socio-economic and psychosocial impact on individuals living with achondroplasia.

- Participation in this study is via the completion of a questionnaire.
- Participant must be aged between 5 and 70 years. Caregivers may complete the questionnaire if the individual living with achondroplasia is under 18 years of age.
- Physicians will review at least 5 years of historical clinical data of the participating individuals.

This study is recruiting up to 300 participants in Germany, Italy, Spain, Denmark and Sweden.

For more information, please visit: <https://clinicaltrials.gov/ct2/show/NCT03449368>

### **United States Advisory Committee Meeting**

On the 11th May 2018 the US Food and Drug Administration (FDA) hosted a joint Pediatric Advisory Committee (PAC) and Endocrinologic and Metabolic Drugs Advisory Committee (EMDAC) meeting to discuss drug development for the treatment of children with achondroplasia. Advisory committees provide FDA with independent advice from outside experts. In general, advisory committees include a chair, several members, plus a consumer, industry, and sometimes a patient representative. Additional experts with special knowledge may be added for individual committee meetings as needed. Although the committees provide advice to the agency, FDA makes the final decisions.

The PAC/EMDAC meeting for achondroplasia included a 5 hour open session where over 30 speakers from the public made personal statements. The meeting aimed to establish dose-response, approaches to study design, appropriate study duration, intended population, and clinically-meaningful endpoints in the clinical development of therapies for children with achondroplasia.

The FDA plans to post archived webcasts after the meeting and further information can be found here <https://www.fda.gov/AdvisoryCommittees/Calendar/ucm606028.htm>

*For inquiries from advocacy organisations, please contact [patientadvocacy@bmrn.com](mailto:patientadvocacy@bmrn.com). For further information on BioMarin clinical studies, please visit [www.clinicaltrials.gov](http://www.clinicaltrials.gov) or contact BioMarin Medical Information at [medinfoeu@bmrn.com](mailto:medinfoeu@bmrn.com) or by phone: Toll Free 0800 742 46627.*