

# A randomised, double-blind, placebo-controlled, dose-escalation study of multiple doses of BIIB014 administered orally in subjects with early Parkinson's disease

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| <b>Submission date</b><br>19/03/2007   | <b>Recruitment status</b><br>No longer recruiting    | <input type="checkbox"/> Prospectively registered    |
| <b>Registration date</b><br>30/08/2007 | <b>Overall study status</b><br>Completed             | <input type="checkbox"/> Protocol                    |
| <b>Last Edited</b><br>01/02/2019       | <b>Condition category</b><br>Nervous System Diseases | <input type="checkbox"/> Statistical analysis plan   |
|  |  | <input type="checkbox"/> Results                     |
|  |  | <input type="checkbox"/> Individual participant data |
|  |  | <input type="checkbox"/> Record updated in last year |

## Plain English summary of protocol

Not provided at time of registration

## Contact information

### Type(s)

Scientific

### Contact name

Mr Stefan Gagaouzov

### Contact details

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Cambridge  
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## Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number  
NCT00442780

Secondary identifying numbers

## Study information

### Scientific Title

A randomised, double-blind, placebo-controlled, dose-escalation study of multiple doses of BIIB014 administered orally in subjects with early Parkinson's disease

### Acronym

MOBILE

### Study objectives

To establish a safe and tolerable dose range for future studies of BIIB014 in subjects with early-stage Parkinson's Disease (PD).

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

Approvals pending from the following ethics committees as of 10/08/2007:

1. Czech Republic: Multicentric Ethic Committee (MEC)
2. Israel:
  - 2.1. Ethics Committee of Tel-Aviv Sourasky Medical Centre
  - 2.2. Ethics Committee of Sheba Medical Centre
  - 2.3. Ethics Committee of Rabin Medical Centre
3. Poland: Bioethic Committee at Okregowa Izba Lekarska in Krakow
4. Serbia:
  - 4.1. Ethics Committee of Clinical Centre of Serbia
  - 4.2. Ethics Committee of Military Medical Academy

### Study design

Randomised, double-blind, placebo-controlled, multicentre, dose escalation, multiple dose study.

### Primary study design

Interventional

### Secondary study design

Randomised controlled trial

### Study setting(s)

Not specified

### Study type(s)

Treatment

### Participant information sheet

### Health condition(s) or problem(s) studied

Early stage Parkinson's disease

## **Interventions**

Subjects will be randomised to receive either BIIB014 or placebo orally in one of the following sequentially enrolled cohorts:

Cohort 1: 8 subjects receive 10 mg BIIB014 and 2 subjects receive placebo for a total of 8 weeks

Cohort 2: 8 subjects receive 30 mg BIIB014 and 2 subjects receive placebo for a total of 8 weeks

Cohort 3: 8 subjects receive 30 mg BIIB014 for 1 week, followed by 100 mg of BIIB014 for 7 weeks; 2 subjects receive placebo

Cohort 4: 8 subjects receive 100 mg BIIB014 and 2 subjects receive placebo for a total of 8 weeks

No maximum tolerated dose was identified in Phase 1. An alternative 50 mg BIIB014 dose may be explored if 100 mg BIIB014 in Cohort 3 is not tolerated.

## **Intervention Type**

Drug

## **Phase**

Not Specified

## **Drug/device/biological/vaccine name(s)**

BIIB014

## **Primary outcome measure**

To assess the preliminary safety and tolerability of multiple oral doses of BIIB014 when administered to subjects with early-stage PD, carried out throughout the study.

## **Secondary outcome measures**

1.To estimate pharmacokinetic (PK) parameters of BIIB014 and its N-acetyl metabolite in subjects with early-stage PD, carried out throughout the study

2.To explore the activity of BIIB014 when administered to subjects with early-stage PD. This will be assessed by the Unified Parkinson's Disease Rating Scale (UPDRS) throughout the study, and the Hoehn and Yahr staging at days 8, 15, 29, 43, 57 and 71 and the Clinical Global Impression scale (CGI) at days 29, 57 and 71.

## **Overall study start date**

01/06/2007

## **Completion date**

01/04/2008

# **Eligibility**

## **Key inclusion criteria**

1. Must give written informed consent and any authorisations required by local law
2. Must be 30 years or older at the time of informed consent
3. Must carry a diagnosis of idiopathic Parkinsons disease, without any other known or suspected cause of parkinsonism, according to the UK Parkinsons Disease Society Brain Bank Clinical Diagnostic Criteria. Initial diagnosis of PD must have been made within the 5 years prior to Screening with at least two or more of the following cardinal signs being present: bradykinesia, resting tremor, rigidity, and postural instability.
4. Must be Modified Hoehn and Yahr Stage 1 to 2.5 inclusive

5. Must have a Unified Parkinson's Disease Rating Scale (UPDRS) motor score (Part III) of greater or equal to 10
6. For subjects receiving an anticholinergic agent and/or MAO-B inhibitor, must have been on a stable dose of that medication for at least 4 weeks prior to Day 1. Subjects must be willing and able to maintain this dosing regimen throughout their participation in the study and must be willing and able to refrain from any other PD medication throughout their participation in the study.
7. Male and female subjects of child-bearing potential must be willing to practice effective birth control for the duration of the study. Female subjects must be one of the following:
  - 7.1. Postmenopausal for at least 12 months, as confirmed by the patient's Obstetrician/Gynecologist (OB/GYN) or medical records
  - 7.2. Surgically sterile (i.e., no uterus or no ovaries; females who have tubal ligation [tubes tied or cut] are not considered surgically sterile)
  - 7.3. Willing to use 2 acceptable forms of birth control (i.e., barrier and spermicide, intrauterine device and barrier or spermicide, or birth control pill and barrier or spermicide). Male subjects with partners of child-bearing potential must use barrier contraception in addition to a second method of contraception used by their female partners. Male subjects should be advised to abstain from sexual intercourse with pregnant women or use condoms. Male and female subjects must be willing and able to continue contraception for 2 months after their last dose of study treatment. Female subjects of childbearing potential must have a negative pregnancy test result at both the Screening Visit and the Day 1 Visit.

**Participant type(s)**

Patient

**Age group**

Adult

**Sex**

Both

**Target number of participants**

40

**Key exclusion criteria**

1. Has a Mini Mental State Examination (MMSE) score less than 26 (the MMSE is provided in the Study Reference Manual)
2. History or clinical features (such as impaired downward gaze, prominent axial rigidity, gait initiation failure, autonomic dysfunction, etc.) consistent with an atypical parkinsonian syndrome
3. Any significant non-PD central nervous system disorder, including history of cerebrovascular disease, epilepsy, mass brain lesion, chronic inflammatory brain disease, or other neurological condition
4. Any significant AXIS I psychiatric disease as defined by the Diagnostic and Statistical Manual of Mental Disorders, 4th edition-Revised (DSM IV-TR, American Psychiatric Association, 2000)
5. History of cognitive (e.g., cognitive slowing, bradyphrenia) or neuropsychiatric conditions.
6. History of surgical intervention for PD (pallidotomy, thalamotomy, deep brain stimulation, etc.)
7. History of L-DOPA-induced motor or non-motor complication
8. History of malignancy
9. History of severe allergic or anaphylactic reactions to any drug
10. History of human immunodeficiency virus (HIV)

11. Positive for hepatitis C antibody and/or positive for hepatitis B surface antigen (HBsAg)
12. Serious infection (e.g., pneumonia, septicaemia) within 4 weeks prior to Day 1
13. Clinically significant renal dysfunction (serum creatinine greater than 2.0 mg/dL [greater than 178 mmol/L])
14. Abnormal laboratory results as follows:
  - 14.1. Aspartate aminotransferase (AST), alanine aminotransferase (ALT), total bilirubin, gamma-glutamyl transferase (GGT) levels greater than 1.5 x upper limit of normal (ULN)
  - 14.2. Serum lipase greater than ULN
  - 14.3. White blood cell count (WBC) less than 4,000 cells/mm<sup>3</sup>
  - 14.4. Haemoglobin less than 10 g/dL, or any other abnormal laboratory value that could interfere with the assessment of safety
15. HbA1c greater than 7.0%
16. A positive G6PD assay. Subjects with a family history of G6PD (including immediate family members [first degree relatives] diagnosed with sickle cell anaemia or deaths due to neonatal jaundice) and subjects with a history of haemolytic anaemia or severe hemolysis are also to be excluded from the study.
17. Clinically significant (as determined by the Investigator) electrocardiogram (ECG) (12-lead) abnormalities including QTc interval greater than 500 Msec for males and greater than 450 Msec for females
18. Supine (measured at least 5 minutes after resting) or standing (measured 2 minutes after changing from a supine to a standing position) blood pressure (BP) of greater than 140 or less than 90 mmHg systolic or greater than 90 or less than 40 mmHg diastolic on two consecutive occasions at least 15 minutes apart
19. Orthostatic hypotension as defined by a decrease in systolic BP of greater than 20 mmHg or in diastolic BP of greater than 10 mmHg measured 2 minutes after changing from a supine to standing position (the mean of three independent sets of vital signs, taken at least 15 minutes apart at the screening visit, will determine eligibility)
20. Clinically significant hypertension, cardiac, gastrointestinal, renal, pulmonary, haematopoietic (including drug-induced haemolytic anaemia), endocrine, hepatic, immunologic, metabolic, urologic, pulmonary, dermatologic, and/or other major disease (as determined by the Investigator)

#### Treatment History

21. Treatment with L-DOPA/carbidopa or L-DOPA/benserazide for more than 6 cumulative months at any time since subject's initial diagnosis of PD
22. Treatment with any of the following within the 3 months prior to day 1: antipsychotics, reserpine, flunarizine, cinnarizine, MAO-A inhibitors, anticonvulsants, or alpha methyl dopa
23. For subjects receiving treatment with non-centrally acting anti-hypertensive agents (e.g., beta blockers, angiotensin converting enzyme [ACE] inhibitors, calcium channel blockers, or diuretics), any change in dosing (i.e., start or discontinuation of treatment, or change in dose and/or frequency) within the 3 months prior to day 1
24. Participation in any other investigational drug study within the 4 weeks prior to screening or within 5 half-lives of the investigational treatment, whichever is longer
25. Treatment with any of the following within the 4 weeks prior to day 1:
  - 25.1. L-DOPA/carbidopa or L-DOPA/benserazide
  - 25.2. Any dopamine agonist
  - 25.3. Any centrally-acting dopamine antagonists including, quetiapine, clozapine, and risperidol
  - 25.4. Amantadine
  - 25.5. Methylphenidate
  - 25.6. Amphetamines
  - 25.7. Norepinephrine reuptake inhibitors, and/or
  - 25.8. COMT inhibitors

26. For subjects receiving central nervous system (CNS) active therapy (e.g., sedatives, hypnotics, antidepressants, anxiolytics), any change in dosing (i.e., start or discontinuation of treatment, or change in dose and/or frequency) within the 4 weeks prior to day 1
27. Use of oestrogen-containing depot or intrauterine contraceptives or second-generation oestrogen-containing oral contraceptives within the 4 weeks prior to day 1
28. Any change in dosing (i.e., start or discontinuation of treatment, or change in dose and/or frequency) within the 4 weeks prior to day 1 for any of the following:
- 28.1. Maintenance or prophylactic therapy for stable medical conditions
  - 28.2. Approved contraceptives
  - 28.3. Approved over-the-counter medications
  - 28.4. Approved alternative health preparations and procedures

Miscellaneous:

29. Female subjects who are pregnant or are planning to become pregnant within the 6 months following study entry, or who are currently breastfeeding
30. History of drug or alcohol abuse as defined by the DSM IV-TR (American Psychiatric Association, 2000) within 1 year prior to day 1
31. Donation of blood or plasma in excess of 500 mL within 3 months of day 1
32. Caffeine intake within the 24 hours prior to day 1
33. Unwillingness or inability to comply with the requirements of the protocol including the presence of any condition (physical, mental, or social) that is likely to affect the subject's ability to comply with the protocol
34. Any other reasons that, in the opinion of the Investigator and/or the Sponsor, the subject is determined to be unsuitable for enrolment in this study

**Date of first enrolment**

01/06/2007

**Date of final enrolment**

01/04/2008

## **Locations**

**Countries of recruitment**

Czech Republic

Israel

Poland

Serbia

United States of America

**Study participating centre**

**Gilmore O'Neill**

Cambridge

United States of America

02142

# Sponsor information

## Organisation

Biogen Idec Ltd (USA)

## Sponsor details

14 Cambridge Center  
Cambridge  
United States of America  
02142

## Sponsor type

Industry

## ROR

<https://ror.org/02jqkb192>

# Funder(s)

## Funder type

Industry

## Funder Name

Biogen Idec Ltd (USA)

# Results and Publications

## Publication and dissemination plan

Not provided at time of registration

## Intention to publish date

## Individual participant data (IPD) sharing plan

## IPD sharing plan summary

Not provided at time of registration