ISRCTN55808957 https://doi.org/10.1186/ISRCTN55808957

# A phase II study in patients with hormone receptor positive breast cancer with bortezomib (Velcade®) in the reversal of endocrine resistance

**Submission date**
16/02/2011

**Registration date**
18/03/2011

**Last Edited**
18/03/2011

**Recruitment status**
No longer recruiting

**Overall study status**
Completed

**Condition category**
Cancer

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[_] Record updated in last year

**Plain English summary of protocol**
Not provided at time of registration

## Contact information

**Type(s)**
Scientific

**Contact name**
Dr Luc Dirix

**Contact details**
Oncology Centre
St. Augustinus Hospital
Oosterveldlaan 24
Antwerp
Belgium
2610
luc.dirix@gza.be

## Additional identifiers

**Protocol serial number**
Version V, October 26, 2006

## Study information

## Scientific Title
A open-label stratified phase II study in patients with hormone receptor positive breast cancer with bortezomib (Velcade®) in the reversal of endocrine resistance

## Acronym
HOBO

## Study objectives
In this study proposal, the question is asked whether inhibition of the proteasome by bortezomib (Velcade®) might lead to regained disease control in patients with either primary endocrine resistance or acquired endocrine resistance, either on a selective estrogen receptor modulators (SERM) or an aromatase inhibitor (AI).

## Ethics approval required
Old ethics approval format

## Ethics approval(s)
The study was approved by the Institutional Review Board/Ethical Committee of the St. Augustinus Hospital on 11th January 2007 (reference number 06/12/08)

## Primary study design
Interventional

## Study design
Open-label stratified phase II study

## Study type(s)
Treatment

## Health condition(s) or problem(s) studied
Breast cancer -metastatic, hormone receptor positive

## Interventions
Velcade® will be administered on days 1, 8, 15, 22 of a 5 week regimen at a dose of 1.6 mg/sq m on each treatment day.

## Intervention Type
Drug

## Phase
Phase II

## Drug/device/biological/vaccine name(s)
Bortezomib (Velcade®)

## Primary outcome(s)
To evaluate whether the addition of bortezomib (Velcade®) to a SERM or AI will show radiologically documented activity in patients with progressive disease on the identical endocrine agent. This endpoint will be evaluated by radiological evaluation according to RECIST criteria every treatment cycle.

### Key secondary outcome(s)
To elucidate the activity of the NF-kappa B transcription initiated pathway in tumors and blood samples (if available) of patients experiencing endocrine resistance and to demonstrate whether these activities are changed by the treatment with bortezomib. These will include plasma/serum levels of VEGF, IL6, IL8 and 20S proteasome activity in whole blood/available tumour samples.

### Completion date
01/09/2010

## Eligibility

### Key inclusion criteria
1. Female patients aged more than18 years with metastatic breast cancer
2. Postmenopausal status defined as either
2.1. Age more than 55 years
2.2. Bilateral ovariectomy
2.3. Age less than 55 years with menopausal follicle stimulating hormone (FSH) levels
2.4. Patients on luteinizing hormone-releasing hormone (LH-RH) agonists in combination with either SERM or AI must continue the LHRH agonist
3. ER and/or PgR + disease (at least 10% of nuclei in the initial are either ER or PgR positive) as defined in the participating institution
4. Measurable disease by Response Evaluation Criteria in Solid Tumours (RECIST)
5. All patients should have been treated either in the adjuvant or metastatic setting with tamoxifen and an AI
6. Radiologically documented disease progression of disease as defined by RECIST criteria after second line (if prior adjuvant endocrine treatment and relapse within 12 months of stopping this treatment, this can be considered a resistance to this agent) endocrine treatment for metastatic disease being either tamoxifen or any aromatase inhibitor (AI), with patients still considered to be suitable candidates for a third line endocrine treatment
7. Superficial measurable lesions will be included as measurable, provided it is photographed
8. Patients need to be on this endocrine treatment for at least three months in order to clearly document endocrine resistance and exclude as much as possible late responses
9. Disease progression has to documented on consecutive radiological examinations or photographs [excluding ultrasound and positron emission tomography (PET)]
10. Adequate bone marrow reserve white cell count (WCC) > 3.0x109/L, absolute neutrophil count (ANC) > 1.5x109/L, platelets (PLTs) > 100x109/L, haemoglobin (Hb) >10gr/dL
11. Normal liver function defined by a bilirubin < 1.25 x upper limit of normal (ULN) and transaminases < 3 x ULN,
12. Life expectancy > 6 months
13. One line of chemotherapy for metastatic disease is allowed provided this was not the last treatment received prior to study entry
14. No peripheral neuropathy > grade 1
15. No other life-threatening disease

### Participant type(s)
Patient

### Healthy volunteers allowed
No

### Age group

Adult

### Lower age limit
18 Years

### Sex
Female

### Key exclusion criteria
1. Non-measurable disease as sole disease sites as defined by RECIST
2. More than one line of chemotherapy for metastatic disease
3. Radiotherapy within two weeks prior to study entry
4. Surgery within two weeks prior to study entry
5. Other invasive cancer diagnosis within 5 years prior to study entry
6. Severe cardiovascular disease including myocardial infarction within 6 months of enrollment, New York Heart Association (NYHA) Class III or IV heart failure, uncontrolled angina, clinically significant pericardial disease or cardiac amyloidosis
7. Uncontrolled diabetes mellitus, (if receiving antidiabetic agents, subjects must be on a stable dose for at least 3 months before first dose of study drug)
8. Pregnant or breast feeding
9. Neuropathy > or = grade II
10. Has known or suspected hypersensitivity or intolerance to boron, mannitol or heparin, if an indwelling catheter is used
11. Serious medical or psychiatric conditions that precludes participation in this study

### Date of first enrolment
15/01/2007

### Date of final enrolment
01/09/2010

## Locations

### Countries of recruitment
Belgium

### Study participating centre
**Oncology Centre**
Antwerp
Belgium
2610

## Sponsor information

### Organisation

St. Augustinus Hospital, Oncology Centre (Belgium)

**ROR**
https://ror.org/00kss4e25

# Funder(s)

**Funder type**
Hospital/treatment centre

**Funder Name**
St. Augustinus Hospital (Belgium)

# Results and Publications

**Individual participant data (IPD) sharing plan**

**IPD sharing plan summary**
Not provided at time of registration