Supplementary Figure S2. Clinical history of patient 1

**Patient 1**
65 y.o.
Bilateral IDC

### Diagnosis

- **Pre-treatment**
  - **Diagnostic Biopsies**
  - **6-21mo Stable disease** (dormancy)

### Time Points

- **21 months**
  - Letrozole (No surgery)
  - Surgery Followed by Letrozole + AZD4547 (FGFRi)

- **57 months**
  - Surgery
  - Local Relapse

### Tumor Size

- **Pre-treatment**:
  - D1R: 50.9 mm x 29.9 mm
  - D1L: 62.7 mm x 58.5 mm

- **6 months Partial Response**:
  - S1R: 30 mm x 24 mm
  - S1L: 49 mm x 24 mm

- **Progression** (awakening):
  - R1R: MAX 32 mm
  - S1R: MAX 62 mm

### Radiological Examination

- **Feb 2013**: Initial diagnostic imaging
- **Sep 2013**: Decrease in both breast tumours after 6 months of letrozole
- **Nov 2014**: Disease progression

- **June 2014**: Stable disease

- **Surgery**:
  - MAX 15 mm

**Notes**:
- **ERα** and **PR** staining in IHC images.
- **10X, 20X, 40X** magnification.
Supplementary Figure S2. Clinical history of patient 1. a) Clinical history of patient 1. IDC=Invasive Ductal Carcinoma, D: diagnostic, S: surgery, R: right, L: left, R1R: relapse in the right breast. b) Representative images of H&E and immunohistochemical (IHC) staining of tumours from patient 1 at diagnostic (upper panel) and surgical biopsies (lower panel) (D: diagnostic, S: surgery, R: right, L: left). c) Ultrasound scan of patient 1 at diagnosis and after 6 months of ET (tamoxifen) (A) (February 2013) Ultrasound scan showing the right breast lesion measuring 50.9 mm in maximal diameter. (B) Ultrasound scan showing the fungating left breast lesion measuring 62.7 mm x 58.5 mm. (C) Axial section of an intravenous (I.V.) contrast phase computer tomography (CT) scan of the thorax showing right (52 mm x 41 mm) and left (82 mm x 63 mm) breast tumours. (D) Axial section of an I.V. contrast phase CT scan of the liver showing liver metastases highlighted by the yellow circles. (E) Axial section of an I.V. contrast phase CT scan of the thorax showing bilateral lung nodules suggesting lung metastases. (F) A nuclear medicine whole body bone scan showing uptake of radioactive tracer in the right iliac crest on early and late phase imaging indicative of a solitary sclerotic bone metastatic lesion. The patient was commenced on neoadjuvant letrozole, and a 6 month repeat CT scan (G) revealed disease response with the left tumour now measuring 49 mm x 24 mm and the right tumour 30 mm x 24 mm (September 2013). (H) A follow-up CT scan in June 2014 showed stable disease with minimal shrinkage of both left and right breast tumours. In December 2014 a further I.V. contrast CT scan revealed evidence of disease progression with the left tumour now measuring 62 mm (S1L) and the right 33 mm (S1R) in maximal diameter. The patient was then placed on the RADICAL trial with the addition of an FGFR inhibitor. She was then scheduled for a mastectomy and wide local excision for the left and right breast tumours, respectively.