

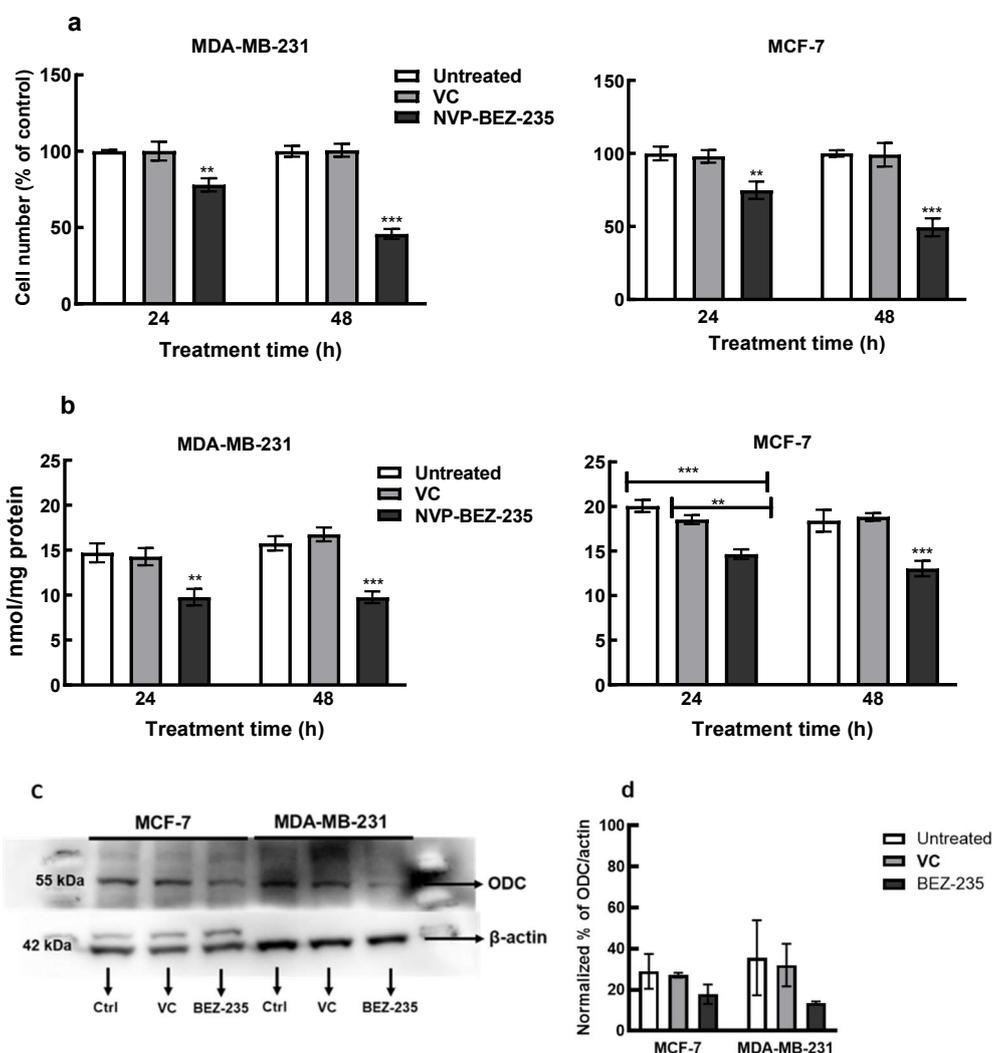
# Understanding the Polyamine and mTOR Pathway Interaction in Breast Cancer Cell Growth

Oluwaseun Akinyele <sup>1,2</sup> and Heather M. Wallace <sup>1,\*</sup>

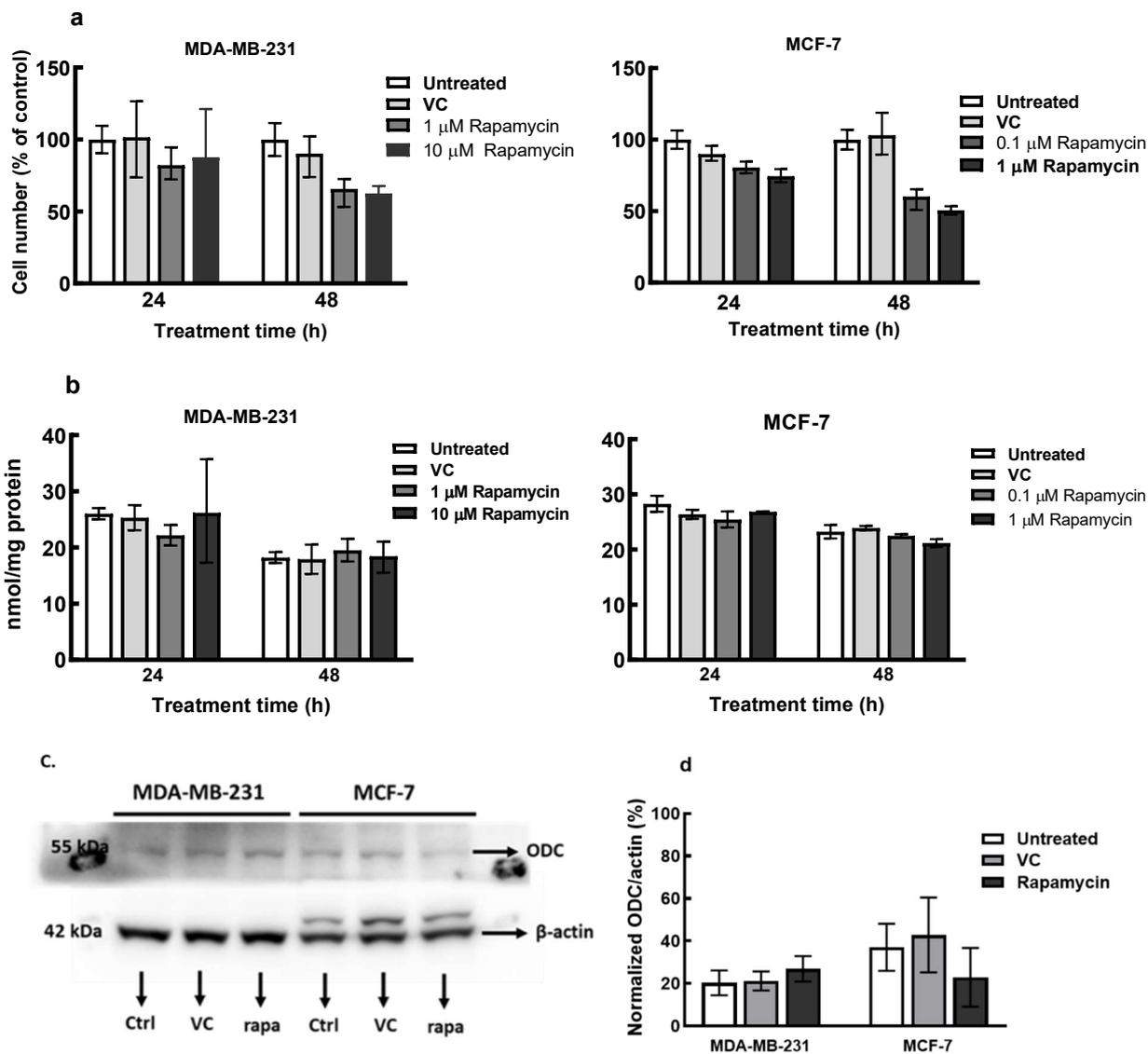
<sup>1</sup> Institute of Medical Sciences, School of Medicine, Medical Sciences and Nutrition, University of Aberdeen, Aberdeen, AB25 2ZD, Scotland, UK

<sup>2</sup> Div. of Genetics and Genomic Medicine, Dept. of Pediatrics, University of Pittsburgh School of Medicine, Pittsburgh, PA, 15260, USA

\* Correspondence: h.m.wallace@abdn.ac.uk



**Figure S1.** Effect of NVP-BEZ-235 on the growth, polyamine content and ODC protein expression in the breast cancer cells. Cells were seeded for 24 h. Thereafter, MDA-MB-231 and MCF-7 cells were treated with 10  $\mu$ M and 1  $\mu$ M NVP-BEZ-235 respectively and DMF as vehicle control, VC. (a) Cell number was determined by trypan-blue exclusion assay. (b) Total polyamine content was determined by LC-MS. (c) ODC expression was determined by Western blot. (d) Densitometry of ODC and  $\beta$ -actin from western blot images. Results shown are mean  $\pm$  S.E.M for three independent experiments and two replicates per treatments or mean  $\pm$  range for two independent experiments. Results were analysed using ANOVA and Dunnett post-test where \*\* $P < 0.01$ , \*\*\* $P < 0.001$  and were considered statistically significant. **Note:** BEZ-235 in c and d represents NVP-BEZ-235 in a and b.



**Figure S2.** Effect of rapamycin on the growth, polyamine content and ODC protein expression in the breast cancer cells. MDA-MB-231 and MCF-7 cells were seeded for 24 h. Thereafter cells were treated with respective concentrations of rapamycin, DMSO was used as vehicle control, VC. (a) Cell number was determined by trypan-blue exclusion assay. (b) Total polyamine content was determined by LC-MS. (c) ODC expression was determined after 48 h exposure of MDA-MB-231 and MCF-7 to 10  $\mu$ M and 1  $\mu$ M Rapamycin respectively. (d) Densitometry of ODC and  $\beta$ -actin from western blot image. Results shown are mean  $\pm$  range for two independent experiments. **Note:** rapa in c represents rapamycin in a, b and d.