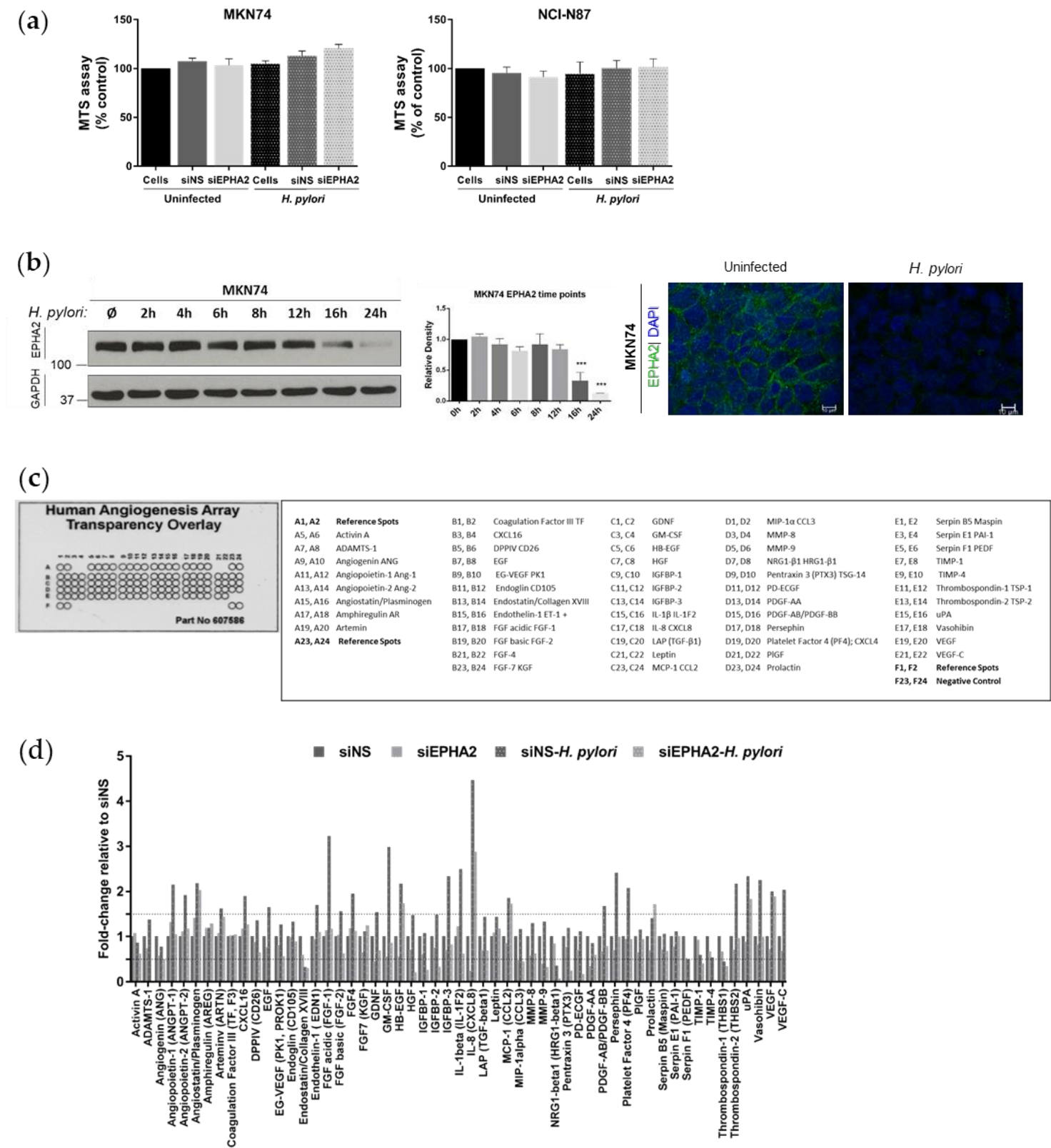


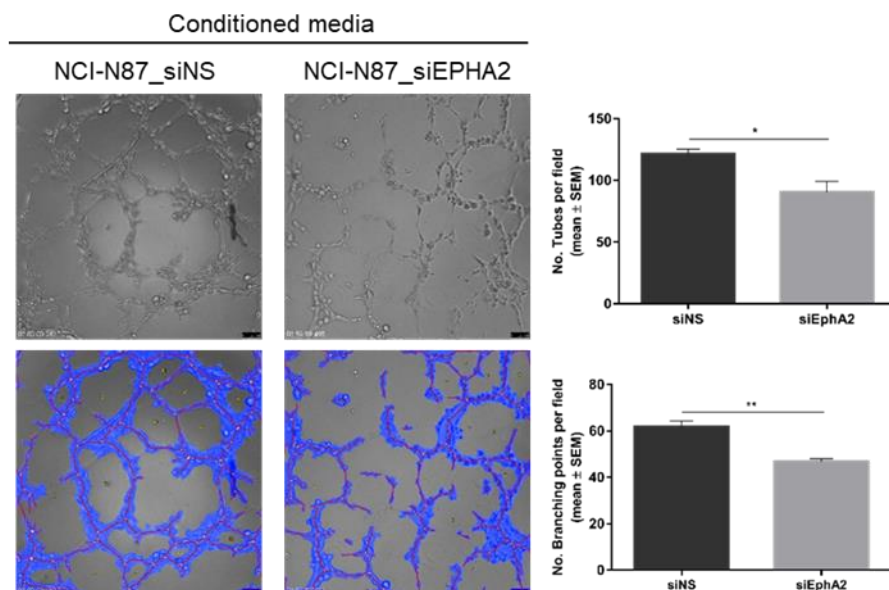
Supplementary Materials

Leite *et al.* *H. pylori* targets the EPHA2 receptor tyrosine kinase in gastric cells modulating key cellular functions

Supplementary Figure S1.



(e)



**Supplementary Figure S1.** (a) Cell viability of MKN74 and NCI-N87 cell lines evaluated by the CellTiter 96® AQueous One Solution Cell Proliferation Assay, in cells at confluence for 5 days in 96-well plates, uninfected or *H. pylori*-infected at MOI100 for 24 hrs (n=8). (b) Time-course experiment of *H. pylori* 26695 effect on EPHA2 protein expression in MKN74 cells by western blot and its densitometric quantification; immunofluorescence of EPHA2 (green) expression in MKN74 upon 16 h post-infection at MOI100 with *H. pylori* 26695 counterstained with DAPI for nuclei staining (blue) (scale bar: 10  $\mu$ m; 63x original magnification). (c) Map of the Human Angiogenesis Array Proteome Profiler™ Array depicting the position of the duplicated spots for each of the fifty-five angiogenic-related factor used in this array and the corresponding name list (R&D Systems). (d) Relative expression in fold-change calculated from the siNS-normalized average pixel density of the duplicated spots for each angiogenic-related protein in the array. (e) Representative micrographs of the *in vitro* capillary-like structures formed by Human Umbilical Vein Endothelial Cells (HUVECs) upon treatment with conditioned medium from NCI-N87 cells transfected with a non-silencing siRNA (siNS) or with a siRNA for EPHA2 (siEPhA2), 5 h post-seeding in Matrigel coated wells, and corresponding automatically analysis using the WimTube software (scale bar: 100  $\mu$ m; original magnification,  $\times$ 100). Quantification of the number of tubes and branching points per microscopic field from three independent experiments, using the WimTube software. Data is presented as mean  $\pm$  SEM (n=3). Unpaired Student's t-test; \*  $p < 0.01$ ; \*\* $p < 0.001$ .

**Supplementary Table 1**

|                                          | NS_U          | siEphA2_U     | NS_I          | siEphA2_I     |
|------------------------------------------|---------------|---------------|---------------|---------------|
| Activin A (A5, A6)                       | 8.187.095,90  | 8.737.071,04  | 7.017.784,62  | 4.974.678,98  |
| ADAMTS-1 (A7, A8)                        | 437.201,63    | 321.170,49    | 597.530,86    | -113.026,52   |
| Angiogenin ANG (A9, A10)                 | 2.113.315,07  | 1.202.032,99  | 1.634.430,70  | 1.031.402,25  |
| Angiopoietin-1 Ang-1 (A11, A12)          | 654.602,40    | 856.003,35    | 1.401.673,61  | 680.255,12    |
| Angiopoietin-2 Ang-2 (A13, A14)          | 942.470,01    | 1.046.800,32  | 1.799.658,10  | 1.099.420,38  |
| Angiostatin/Plasminogen (A15, A16)       | 458.126,67    | 645.205,39    | 993.879,27    | 927.190,24    |
| Amphiregulin AR (A17, A18)               | 20.880.917,09 | 24.857.954,52 | 24.784.044,66 | 26.652.958,49 |
| Artemin (A19, A20)                       | 1.000.051,07  | 1.065.667,28  | 1.614.306,31  | 1.429.644,96  |
| Coagulation Factor III TF (B1, B2)       | 29.381.783,48 | 29.795.737,35 | 29.779.342,92 | 30.565.884,87 |
| CXCL16 (B3, B4)                          | 3.087.081,59  | 3.617.902,14  | 5.840.676,00  | 3.875.783,16  |
| DPPIV CD26 (B5, B6)                      | 6.248.764,44  | 5.419.084,42  | 8.452.216,42  | 3.993.031,10  |
| EGF (B7, B8)                             | 696.217,48    | 524.995,92    | 1.142.964,20  | -1.135,95     |
| EG-VEGF PK1 (B9, B10)                    | 3.380.264,38  | 2.697.811,67  | 4.263.416,61  | 1.886.494,94  |
| Endoglin CD105 (B11, B12)                | 15.492.317,65 | 15.124.075,76 | 20.475.162,18 | 13.736.796,09 |
| Endostatin/Collagen XVIII (B13, B14)     | 15.945.835,13 | 9.368.321,59  | 5.084.219,80  | 4.771.137,23  |
| Endothelin-1 ET-1 (B15, B16)             | 1.390.695,04  | 1.312.234,40  | 2.356.349,52  | 1.512.148,00  |
| FGF acidic FGF-1 (B17, B18)              | 891.442,24    | 1.003.474,17  | 2.867.554,53  | 1.043.172,51  |
| FGF basic FGF-2 (B19, B20)               | 699.520,99    | 720.444,23    | 1.082.565,82  | 431.400,41    |
| FGF-4 (B21, B22)                         | 687.514,41    | 810.406,53    | 1.332.842,46  | 772.308,59    |
| FGF-7 KGF (B23, B24)                     | 1.017.852,56  | 653.467,60    | 1.134.399,52  | 1.260.133,63  |
| GDNF (C1, C2)                            | 4.013.087,43  | 1.783.469,41  | 6.154.817,23  | 2.734.080,98  |
| GM-CSF (C3, C4)                          | 1.215.456,32  | 667.379,58    | 3.625.684,79  | 1.044.174,94  |
| HB-EGF (C5, C6)                          | 11.850.745,10 | 6.551.723,77  | 25.619.231,49 | 20.462.726,56 |
| HGF (C7, C8)                             | 897.753,94    | 631.435,05    | 1.319.480,93  | 182.140,99    |
| IGFBP-1 (C9, C10)                        | 2.113.314,25  | 1.277.835,91  | 2.256.326,33  | 557.735,09    |
| IGFBP-2 (C11, C12)                       | 1.158.010,05  | 860.743,03    | 1.711.857,44  | 382.182,88    |
| IGFBP-3 (C13, C14)                       | 1.356.566,83  | 942.466,27    | 3.158.924,58  | 1.118.062,55  |
| IL-1 $\beta$ IL-1F2 (C15, C16)           | 478.491,08    | 584.584,25    | 1.190.383,31  | 290.768,12    |
| IL-8 CXCL8 (c17, C18)                    | 6.797.899,02  | 1.557.136,17  | 30.332.921,74 | 19.488.293,91 |
| LAP (TGF- $\beta$ 1) (C19, C20)          | 2.561.975,17  | 1.758.885,69  | 3.651.708,26  | 1.743.194,87  |
| Leptin (C21, C22)                        | 478.594,24    | 517.694,81    | 682.117,04    | 561.170,78    |
| MCP-1 CCL2 (C23, C24)                    | 638.179,60    | 544.673,38    | 1.180.010,42  | 1.095.265,37  |
| MIP-1 $\alpha$ CCL3 (D1, D2)             | 1.396.011,87  | 661.535,05    | 1.624.155,02  | 607.720,18    |
| MMP-8 (D3, D4)                           | 1.065.482,06  | 606.150,02    | 1.376.621,67  | 657.249,02    |
| MMP-9 (D5, D6)                           | 2.295.606,26  | 894.471,66    | 3.031.112,19  | 744.640,39    |
| NRG1- $\beta$ 1 HRG1- $\beta$ 1 (D7, D8) | 3.916.623,61  | 3.303.729,11  | 1.380.935,09  | 238.515,63    |
| Pentraxin 3 (PTX3) TSG-14 (D9, D10)      | 1.430.358,44  | 1.088.567,87  | 1.703.231,29  | 347.911,71    |
| PD-ECGF (D11, D12)                       | 1.779.054,10  | 1.223.574,97  | 1.968.520,73  | 286.900,91    |
| PDGF-AA (D13, D14)                       | 5.256.720,34  | 1.781.223,19  | 4.476.620,96  | 3.096.039,70  |
| PDGF-AB/PDGF-BB (D15, D16)               | 960.909,09    | 634.648,89    | 1.607.186,05  | 752.587,89    |
| Persephin (D17, D18)                     | 1.583.759,81  | 1.092.199,28  | 3.813.362,41  | 1.570.338,81  |
| Platelet Factor 4 (PF4) CXCL4 (D19, D20) | 817.015,17    | 764.431,11    | 1.687.707,27  | 771.765,35    |

|                                   |               |               |               |               |
|-----------------------------------|---------------|---------------|---------------|---------------|
| PlGF (D21, D22)                   | 1.163.110,34  | 746.933,20    | 1.334.423,97  | 1.092.976,35  |
| Prolactin (D23, D24)              | 427.760,60    | 291.471,10    | 597.222,50    | 730.302,31    |
| Serpin B5 Maspin (E1, E2)         | 7.851.022,86  | 5.529.969,14  | 8.243.269,11  | 5.262.309,71  |
| Serpin E1 PAI-1 (E3, E4)          | 15.686.962,65 | 12.082.501,21 | 17.427.182,02 | 15.737.388,30 |
| Serpin F1 PEDF (E5, E6)           | 1.734.182,81  | 898.055,31    | 853.768,38    | 40.822,08     |
| TIMP-1 (E7, E8)                   | 29.940.067,90 | 27.744.039,70 | 17.522.035,78 | 11.851.236,65 |
| TIMP-4 (E9, E10)                  | 2.860.408,71  | 1.891.964,55  | 1.521.908,04  | 78.152,44     |
| Thrombospondin-1 TSP-1 (E11, E12) | 23.454.225,98 | 15.462.898,67 | 10.431.803,76 | 8.063.253,37  |
| Thrombospondin-2 TSP-2 (E13, E14) | 1.026.021,53  | 719.349,32    | 2.212.276,74  | 981.185,23    |
| Upa (E15, E16)                    | 636.404,74    | 557.835,48    | 1.481.878,18  | 1.161.956,96  |
| Vasohibin (E17, E18)              | 719.005,38    | 591.530,70    | 1.611.468,05  | 709.979,56    |
| VEGF (E19, E20)                   | 10.985.846,97 | 7.771.303,40  | 21.879.697,36 | 20.620.272,89 |
| VEGF-C (E21, E22)                 | 465.069,39    | 312.957,18    | 945.938,40    | 411.634,91    |