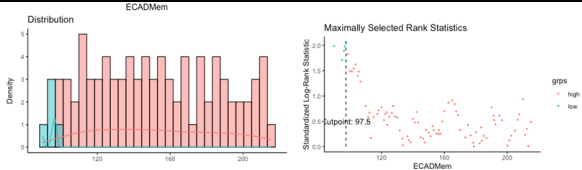
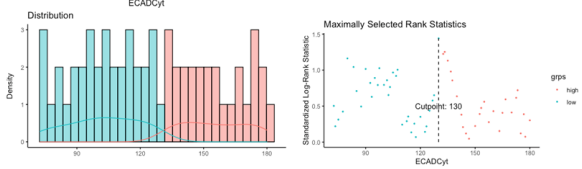
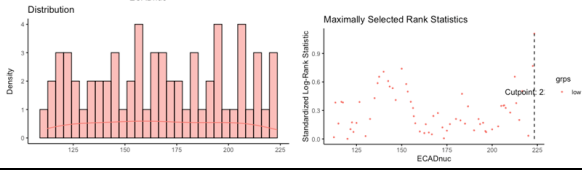
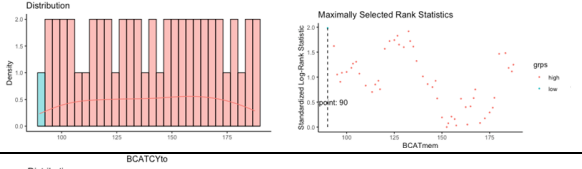
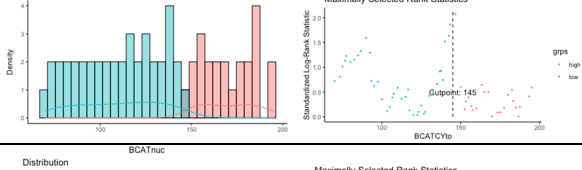
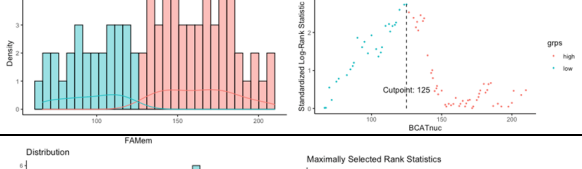
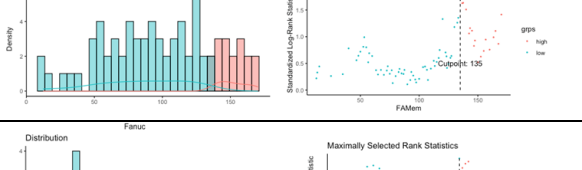
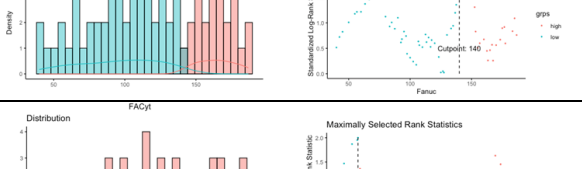
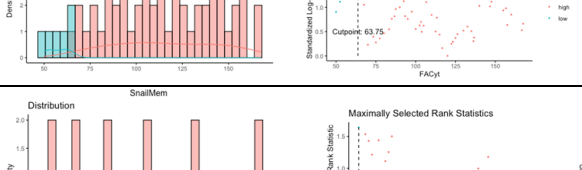
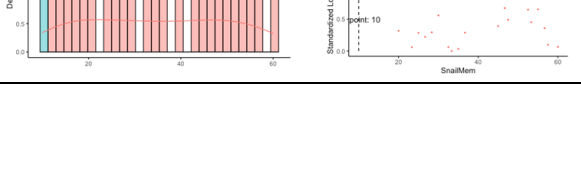
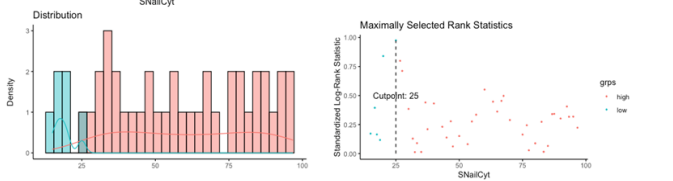
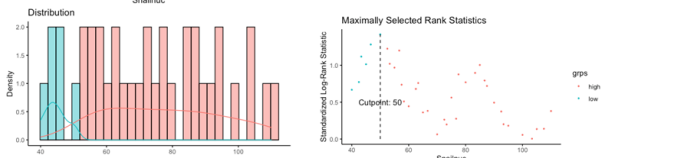
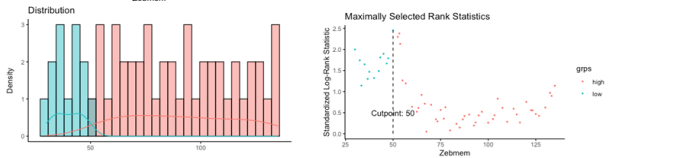
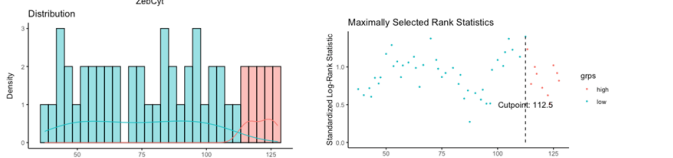
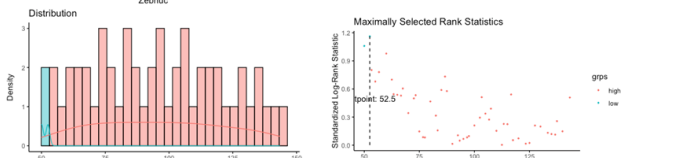


**Supplementary table S1. Median, Data-driven cutoff with graphs, range and number of tumours with high vs low expression for each EMT marker and cellular location.**

| Marker Locus                  | Median | Data-driven cutoff | R-derived cutoff graphs  | Range     | High, <i>N</i> (%) | Low <i>N</i> (%) |
|-------------------------------|--------|--------------------|--|-----------|--------------------|------------------|
| <b>E-cadherin</b><br>Membrane | 151.88 | 97.50              |    | 0 – 280   | 28 (12)            | 210 (88)         |
| Cytoplasm                     | 120.00 | 130.00             |    | 0 – 252.5 | 140 (59)           | 98 (41)          |
| Nucleus                       | 176.67 | 223.33             |    | 0 – 300   | 220 (92)           | 19 (8)           |
| <b>B-catenin</b><br>Membrane  | 132.50 | 90.00              |    | 20 – 240  | 28 (12)            | 210 (88)         |
| Cytoplasm                     | 130.00 | 145.00             |  | 20 – 280  | 146 (61)           | 92 (39)          |
| Nucleus                       | 137.50 | 125.00             |  | 0 – 300   | 96 (40)            | 142 (60)         |
| <b>Fascin</b><br>Membrane     | 100.00 | 135.00             |  | 0 – 300   | 171 (72)           | 67 (28)          |
| Cytoplasm                     | 110.00 | 63.75              |  | 0 – 300   | 31 (13)            | 207 (87)         |
| Nucleus                       | 120.00 | 140.00             |  | 0 – 300   | 159 (67)           | 79 (33)          |
| <b>Snail</b><br>Membrane      | 25.00  | 10.00              |  | 0 – 187.5 | 46 (19)            | 192 (81)         |

|                          |       |        |  |          |          |          |
|--------------------------|-------|--------|--|----------|----------|----------|
| Cytoplasm                | 47.50 | 25.00  |  | 0 – 160  | 56 (24)  | 182 (76) |
| Nucleus                  | 70.00 | 50.00  |  | 0 – 200  | 55 (23)  | 183 (77) |
| <b>Zeb-1</b><br>Membrane | 70.00 | 50.00  |  | 10 – 235 | 74 (31)  | 164 (69) |
| Cytoplasm                | 80.00 | 112.50 |  | 10 – 210 | 195 (82) | 43 (18)  |
| Nucleus                  | 90.00 | 52.50  |  | 0 – 200  | 26 (11)  | 212 (89) |

**Supplementary Table S2. Clinicopathological data for patients with valid GMS and EMT scores in TNM II-III disease (N=238) vs those without valid scores available (N=264)**

| Clinicopathological characteristics | All scores available | Scores missing     | Chi Squared (P) |
|-------------------------------------|----------------------|--------------------|-----------------|
|                                     | N (%) <sup>a</sup>   | N (%) <sup>a</sup> |                 |
| Age                                 |                      |                    |                 |
| ≤64                                 | 60 (25)              | 72 (27)            | 0.41            |
| 65-74                               | 76 (32)              | 89 (34)            |                 |
| ≥75                                 | 102 (43)             | 264 (39)           |                 |
| Gender                              |                      |                    |                 |
| Female                              | 127 (53)             | 126 (48)           | 0.21            |
| Male                                | 111 (47)             | 138 (52)           |                 |
| Presentation                        |                      |                    |                 |
| Elective                            | 168 (71)             | 180 (68)           | 0.56            |
| Emergency                           | 70 (29)              | 84 (32)            |                 |
| TNM                                 |                      |                    |                 |
| I-II (low risk)                     | 127 (53)             | 128 (49)           | 0.28            |
| II-III (high risk)                  | 111 (47)             | 136 (51)           |                 |
| T-stage                             |                      |                    |                 |
| I                                   | 1 (1)                | 3 (1)              | 0.37            |
| II                                  | 8 (3)                | 4 (4)              |                 |
| III                                 | 159 (67)             | 169 (64)           |                 |
| IV                                  | 70 (29)              | 88 (33)            |                 |
| N-stage                             |                      |                    |                 |
| 0                                   | 147 (62)             | 156 (59)           | 0.85            |
| I                                   | 60 (25)              | 76 (29)            |                 |
| II                                  | 31 (13)              | 31 (12)            |                 |
| Site                                |                      |                    |                 |
| Colon                               | 201 (85)             | 223 (85)           | 0.99            |
| Rectum                              | 37 (15)              | 41 (15)            |                 |
| Differentiation                     |                      |                    |                 |
| Well/mod                            | 206 (87)             | 239 (91)           | 0.16            |
| Poor                                | 32 (13)              | 25 (9)             |                 |
| Venous invasion                     |                      |                    |                 |
| Absent                              | 156 (66)             | 175 (66)           | 0.86            |
| Present                             | 82 (34)              | 89 (34)            |                 |
| Tumour budding                      |                      |                    |                 |
| Present                             | 173 (73)             | 203 (77)           | 0.28            |
| Absent                              | 65 (27)              | 61 (23)            |                 |
| MMR                                 |                      |                    |                 |
| Proficient                          | 192 (81)             | 211 (81)           | 0.96            |
| Deficient                           | 46 (19)              | 50 (19)            |                 |
| Tumour perforation                  |                      |                    |                 |
| No                                  | 221 (93)             | 245 (93)           | 0.98            |
| Yes                                 | 17 (7)               | 19 (7)             |                 |
| Peritoneal involvement              |                      |                    |                 |
| No                                  | 167 (70)             | 184 (70)           | 0.91            |
| Yes                                 | 71 (30)              | 80 (30)            |                 |
| GMS                                 |                      |                    |                 |
| 0                                   | 61 (26)              | 82 (31)            | 0.07            |
| 1                                   | 133 (56)             | 147 (56)           |                 |
| 2                                   | 44 (18)              | 35 (13)            |                 |
| Modified GPS                        |                      |                    |                 |
| 0                                   | 83 (53)              | 100 (46)           | 0.51            |
| 1                                   | 37 (24)              | 71 (33)            |                 |
| 2                                   | 35 (23)              | 45 (21)            |                 |

<sup>a</sup>percentages rounded to nearest whole number and may not total 100% **Bold** indicates significant result

**Supplementary Table S3a. Associations of clinicopathological variables with EMT marker E-cadherin in stage II-III colorectal cancer (N=238)**

| Clinicopathological characteristics | Membrane <sup>m</sup> E-cadherin |                       | Cytoplasmic <sup>c</sup> E-cadherin |                      | Nuclear <sup>n</sup> E-cadherin |                      | Pears on X <sup>2</sup> |                   |
|-------------------------------------|----------------------------------|-----------------------|-------------------------------------|----------------------|---------------------------------|----------------------|-------------------------|-------------------|
|                                     | Low (n=28)<br>N (%) <sup>a</sup> | High (n=210)<br>N (%) | Low (n=140)<br>N (%) <sup>a</sup>   | High (n=98)<br>N (%) | Low (n=220)<br>N (%)            | High (n=18)<br>N (%) |                         |                   |
| Age                                 |                                  |                       |                                     |                      |                                 |                      |                         |                   |
| ≤64                                 | 60 (25)                          | 6 (21)                | 54 (26)                             | 31 (22)              | 29 (30)                         | 55 (25)              | 5 (28)                  | 0.82 <sup>m</sup> |
| 65-74                               | 76 (32)                          | 12 (43)               | 64 (31)                             | 48 (34)              | 28 (29)                         | 70 (32)              | 6 (33)                  | 0.39 <sup>c</sup> |
| ≥75                                 | 102 (43)                         | 10 (36)               | 92 (44)                             | 61 (44)              | 41 (42)                         | 95 (43)              | 7 (39)                  | . <sub>bn</sub>   |
| Gender                              |                                  |                       |                                     |                      |                                 |                      |                         |                   |
| Female                              | 127 (53)                         | 18 (64)               | 109 (52)                            | 75 (54)              | 52 (53)                         | 119 (54)             | 8 (44)                  | 0.21 <sup>m</sup> |
| Male                                | 111 (47)                         | 10 (36)               | 101 (48)                            | 65 (46)              | 46 (47)                         | 101 (46)             | 10 (56)                 | 0.94 <sup>c</sup> |
| Presentation                        |                                  |                       |                                     |                      |                                 |                      |                         | 0.43 <sup>n</sup> |
| Elective                            | 168 (71)                         | 22 (79)               | 146 (70)                            | 101 (72)             | 67 (68)                         | 156 (71)             | 12 (67)                 | 0.32 <sup>m</sup> |
| Emergency                           | 70 (29)                          | 6 (21)                | 64 (31)                             | 39 (28)              | 31 (32)                         | 64 (29)              | 6 (33)                  | 0.53 <sup>c</sup> |
| TNM                                 |                                  |                       |                                     |                      |                                 |                      |                         | 0.70 <sup>n</sup> |
| I-II (low risk)                     | 127 (53)                         | 17 (61)               | 110 (52)                            | 79 (56)              | 48 (49)                         | 114 (52)             | 13 (72)                 | 0.41 <sup>m</sup> |
| II-III (high risk)                  | 111 (47)                         | 11 (39)               | 100 (48)                            | 61 (44)              | 50 (51)                         | 106 (48)             | 5 (18)                  | 0.25 <sup>c</sup> |
| T-stage                             |                                  |                       |                                     |                      |                                 |                      |                         | . <sub>bn</sub>   |
| I                                   | 1 (1)                            | 0 (0)                 | 1 (1)                               | 1 (1)                | 0 (0)                           | 1 (1)                | 0 (0)                   | . <sub>bm</sub>   |
| II                                  | 8 (3)                            | 0 (0)                 | 8 (4)                               | 4 (3)                | 4 (4)                           | 8 (4)                | 0 (0)                   | . <sub>bc</sub>   |
| III                                 | 159 (67)                         | 16 (57)               | 143 (68)                            | 90 (64)              | 69 (70)                         | 149 (68)             | 10 (56)                 | . <sub>bn</sub>   |
| IV                                  | 70 (29)                          | 12 (43)               | 58 (28)                             | 45 (32)              | 25 (26)                         | 62 (28)              | 8 (44)                  |                   |
| N-stage                             |                                  |                       |                                     |                      |                                 |                      |                         | 0.70 <sup>m</sup> |
| 0                                   | 147 (62)                         | 19 (68)               | 128 (61)                            | 88 (63)              | 59 (60)                         | 132 (60)             | 15 (83)                 | 0.61 <sup>c</sup> |
| I                                   | 60 (25)                          | 5 (18)                | 55 (26)                             | 35 (25)              | 25 (26)                         | 57 (26)              | 3 (17)                  | . <sub>bn</sub>   |
| II                                  | 31 (13)                          | 4 (14)                | 27 (13)                             | 17 (12)              | 14 (14)                         | 31 (14)              | 0 (0)                   |                   |
| Site                                |                                  |                       |                                     |                      |                                 |                      |                         | . <sub>bm</sub>   |
| Colon                               | 201 (85)                         | 23 (82)               | 178 (85)                            | 125 (89)             | 76 (78)                         | 185 (84)             | 16 (89)                 | 0.14 <sup>c</sup> |
| Rectum                              | 37 (15)                          | 5 (18)                | 32 (15)                             | 15 (11)              | 22 (22)                         | 35 (16)              | 2 (11)                  | . <sub>bn</sub>   |
| Differentiation                     |                                  |                       |                                     |                      |                                 |                      |                         | 0.12 <sup>m</sup> |
| Well/mod                            | 206 (87)                         | 20 (71)               | 186 (89)                            | 117 (84)             | 89 (91)                         | 188 (86)             | 18 (100)                | 0.11 <sup>c</sup> |
| Poor                                | 32 (13)                          | 8 (29)                | 24 (11)                             | 23 (16)              | 9 (9)                           | 32 (15)              | 0 (0)                   | . <sub>bn</sub>   |
| Venous invasion                     |                                  |                       |                                     |                      |                                 |                      |                         | 0.56 <sup>m</sup> |
| Absent                              | 156 (66)                         | 17 (61)               | 139 (66)                            | 96 (69)              | 60 (61)                         | 143 (65)             | 13 (72)                 | 0.24 <sup>c</sup> |
| Present                             | 82 (34)                          | 11 (39)               | 71 (34)                             | 44 (31)              | 38 (39)                         | 77 (35)              | 5 (28)                  | . <sub>bn</sub>   |
| Tumour budding                      |                                  |                       |                                     |                      |                                 |                      |                         | 0.87 <sup>m</sup> |
| Present                             | 173 (73)                         | 20 (71)               | 153 (73)                            | 106 (76)             | 67 (68)                         | 160 (73)             | 13 (72)                 | 0.21 <sup>c</sup> |
| Absent                              | 65 (27)                          | 8 (29)                | 27 (27)                             | 34 (24)              | 31 (32)                         | 60 (27)              | 5 (28)                  | . <sub>bn</sub>   |
| MMR                                 |                                  |                       |                                     |                      |                                 |                      |                         | 0.19 <sup>m</sup> |
| Proficient                          | 192 (81)                         | 18 (64)               | 174 (83)                            | 106 (76)             | 86 (76)                         | 177 (81)             | 15 (83)                 | 0.21 <sup>c</sup> |
| Deficient                           | 46 (19)                          | 10 (36)               | 36 (17)                             | 34 (24)              | 12 (24)                         | 43 (19)              | 3 (17)                  | . <sub>bn</sub>   |
| Tumour perforation                  |                                  |                       |                                     |                      |                                 |                      |                         | . <sub>bm</sub>   |
| No                                  | 221 (93)                         | 26 (93)               | 195 (93)                            | 133 (95)             | 88 (90)                         | 206 (94)             | 15 (83)                 | 0.46 <sup>c</sup> |
| Yes                                 | 17 (7)                           | 2 (7)                 | 15 (7)                              | 7 (5)                | 10 (10)                         | 14 (6)               | 3 (17)                  | . <sub>bn</sub>   |
| Peritoneal involvement              |                                  |                       |                                     |                      |                                 |                      |                         | 0.10 <sup>m</sup> |
| No                                  | 167 (70)                         | 16 (57)               | 151 (72)                            | 95 (68)              | 72 (74)                         | 157 (71)             | 10 (56)                 | 0.35 <sup>c</sup> |
| Yes                                 | 71 (30)                          | 12 (43)               | 59 (28)                             | 45 (32)              | 26 (27)                         | 63 (29)              | 8 (44)                  |                   |
| GMS                                 |                                  |                       |                                     |                      |                                 |                      |                         | 0.16 <sup>n</sup> |
| 0                                   | 61 (26)                          | 9 (32)                | 52 (25)                             | 38 (27)              | 23 (24)                         | 55 (25)              | 6 (33)                  | 0.33 <sup>m</sup> |
| 1                                   | 133 (56)                         | 12 (43)               | 121 (58)                            | 76 (54)              | 57 (58)                         | 122 (56)             | 11 (61)                 | 0.80 <sup>c</sup> |
| 2                                   | 44 (18)                          | 7 (25)                | 18 (18)                             | 26 (19)              | 18 (19)                         | 43 (20)              | 1 (6)                   | . <sub>bn</sub>   |
| Modified GPS                        |                                  |                       |                                     |                      |                                 |                      |                         | . <sub>bm</sub>   |
| 0                                   | 83 (53)                          | 10 (56)               | 73 (53)                             | 45 (50)              | 38 (59)                         | 77 (53)              | 6 (67)                  | 0.45 <sup>c</sup> |
| 1                                   | 37 (24)                          | 6 (33)                | 31 (23)                             | 23 (25)              | 14 (22)                         | 35 (24)              | 2 (22)                  | . <sub>bn</sub>   |
| 2                                   | 35 (23)                          | 2 (11)                | 33 (24)                             | 23 (25)              | 12 (19)                         | 34 (23)              | 1 (11)                  |                   |

<sup>a</sup>percentages rounded to nearest whole number and may not total 100%; <sup>b</sup>for cells where n<6, *Pearson X<sup>2</sup>* analysis was not performed; **Bold** indicates significant result; <sup>m</sup>membrane locus; <sup>c</sup>cytoplasmic locus; <sup>n</sup>nuclear locus

**Supplementary Table S3b. Associations of clinicopathological variables with EMT marker B-catenin in stage II-III colorectal cancer (N=238)**

| Clinicopathological characteristics | Membrane <sup>m</sup> B-catenin  |                       | Cytoplasmic <sup>c</sup> B-catenin |                      | Nuclear <sup>n</sup> B-catenin |                       | Pearson $\chi^2$ |                              |
|-------------------------------------|----------------------------------|-----------------------|------------------------------------|----------------------|--------------------------------|-----------------------|------------------|------------------------------|
|                                     | Low (n=28)<br>N (%) <sup>a</sup> | High (n=210)<br>N (%) | Low (n=146)<br>N (%) <sup>a</sup>  | High (n=92)<br>N (%) | Low (n=96)<br>N (%)            | High (n=142)<br>N (%) |                  |                              |
| Age                                 |                                  |                       |                                    |                      |                                |                       |                  |                              |
| ≤64                                 | 60 (25)                          | 5 (18)                | 55 (26)                            | 41 (28)              | 19 (21)                        | 26 (27)               | 34 (24)          | 0.61 <sup>m</sup>            |
| 65-74                               | 76 (32)                          | 11 (39)               | 65 (31)                            | 50 (34)              | 26 (28)                        | 30 (31)               | 46 (32)          | 0.05 <sup>c</sup>            |
| ≥75                                 | 102 (43)                         | 12 (43)               | 90 (43)                            | 55 (38)              | 47 (51)                        | 40 (42)               | 62 (44)          | 0.63 <sup>n</sup>            |
| Gender                              |                                  |                       |                                    |                      |                                |                       |                  |                              |
| Female                              | 127 (53)                         | 17 (61)               | 110 (52)                           | 84 (58)              | 43 (47)                        | 58 (60)               | 69 (49)          | 0.41 <sup>m</sup>            |
| Male                                | 111 (47)                         | 11 (39)               | 100 (48)                           | 62 (42)              | 49 (53)                        | 38 (40)               | 73 (51)          | 0.10 <sup>c</sup>            |
| Presentation                        |                                  |                       |                                    |                      |                                |                       |                  | 0.07 <sup>n</sup>            |
| Elective                            | 168 (71)                         | 20 (71)               | 148 (71)                           | 103 (71)             | 65 (71)                        | 70 (73)               | 98 (69)          | 0.92 <sup>m</sup>            |
| Emergency                           | 70 (29)                          | 8 (29)                | 62 (30)                            | 43 (30)              | 27 (29)                        | 26 (27)               | 44 (31)          | 0.99 <sup>c</sup>            |
| TNM                                 |                                  |                       |                                    |                      |                                |                       |                  | 0.52 <sup>n</sup>            |
| I-II (low risk)                     | 127 (53)                         | 19 (68)               | 108 (51)                           | 81 (56)              | 46 (50)                        | 53 (55)               | 74 (52)          | 0.10 <sup>m</sup>            |
| II-III (high risk)                  | 111 (47)                         | 9 (32)                | 102 (49)                           | 65 (44)              | 46 (50)                        | 43 (45)               | 68 (48)          | 0.41 <sup>c</sup>            |
| T-stage                             |                                  |                       |                                    |                      |                                |                       |                  | 0.64 <sup>n</sup>            |
| I                                   | 1 (1)                            | 0 (0)                 | 1 (1)                              | 1 (1)                | 0 (0)                          | 1 (1)                 | 0 (0)            | . <sup>b m</sup>             |
| II                                  | 8 (3)                            | 0 (0)                 | 8 (4)                              | 3 (2)                | 5 (5)                          | 3 (3)                 | 5 (4)            | . <sup>b c</sup>             |
| III                                 | 159 (67)                         | 15 (54)               | 144 (69)                           | 99 (68)              | 60 (65)                        | 66 (69)               | 93 (66)          | . <sup>b n</sup>             |
| IV                                  | 70 (29)                          | 13 (46)               | 57 (27)                            | 43 (30)              | 27 (29)                        | 26 (27)               | 44 (31)          |                              |
| N-stage                             |                                  |                       |                                    |                      |                                |                       |                  |                              |
| 0                                   | 147 (62)                         | 22 (79)               | 125 (60)                           | 93 (64)              | 54 (59)                        | 58 (60)               | 89 (63)          | . <sup>b m</sup>             |
| I                                   | 60 (25)                          | 3 (11)                | 57 (27)                            | 34 (23)              | 26 (28)                        | 25 (26)               | 35 (25)          | 0.60 <sup>c</sup>            |
| II                                  | 31 (13)                          | 3 (11)                | 28 (13)                            | 19 (13)              | 12 (13)                        | 13 (14)               | 18 (13)          | 0.74 <sup>n</sup>            |
| Site                                |                                  |                       |                                    |                      |                                |                       |                  |                              |
| Colon                               | 201 (85)                         | 24 (86)               | 177 (84)                           | 126 (86)             | 75 (82)                        | 87 (91)               | 114 (80)         | . <sup>b m</sup>             |
| Rectum                              | 37 (15)                          | 4 (14)                | 33 (16)                            | 20 (14)              | 17 (19)                        | 9 (9)                 | 28 (20)          | 0.32 <sup>c</sup>            |
| Differentiation                     |                                  |                       |                                    |                      |                                |                       |                  | <b>0.03<sup>n</sup></b>      |
| Well/mod                            | 206 (87)                         | 22 (79)               | 184 (88)                           | 121 (83)             | 85 (92)                        | 76 (79)               | 130 (92)         | 0.19 <sup>m</sup>            |
| Poor                                | 32 (13)                          | 6 (21)                | 26 (12)                            | 25 (17)              | 7 (8)                          | 20 (21)               | 12 (9)           | <b>0.03<sup>c</sup></b>      |
| Venous invasion                     |                                  |                       |                                    |                      |                                |                       |                  | <b>&lt;0.01<sup>n</sup></b>  |
| Absent                              | 156 (66)                         | 21 (75)               | 135 (64)                           | 95 (65)              | 61 (66)                        | 63 (66)               | 93 (66)          | 0.26 <sup>m</sup>            |
| Present                             | 82 (34)                          | 7 (25)                | 75 (26)                            | 51 (35)              | 31 (34)                        | 33 (34)               | 49 (35)          | 0.85 <sup>c</sup>            |
| Tumour budding                      |                                  |                       |                                    |                      |                                |                       |                  | 0.98 <sup>n</sup>            |
| Present                             | 173 (73)                         | 17 (61)               | 156 (74)                           | 107 (73)             | 66 (72)                        | 71 (74)               | 102 (72)         | 0.13 <sup>m</sup>            |
| Absent                              | 65 (27)                          | 11 (39)               | 54 (26)                            | 39 (27)              | 26 (28)                        | 25 (26)               | 40 (28)          | 0.79 <sup>c</sup>            |
| MMR                                 |                                  |                       |                                    |                      |                                |                       |                  | 0.72 <sup>n</sup>            |
| Proficient                          | 192 (81)                         | 16 (57)               | 176 (84)                           | 107 (73)             | 85 (92)                        | 61 (64)               | 131 (92)         | <b>&lt;0.001<sup>m</sup></b> |
| Deficient                           | 46 (19)                          | 12 (43)               | 34 (16)                            | 39 (27)              | 7 (8)                          | 35 (36)               | 11 (8)           | <b>&lt;0.001<sup>c</sup></b> |
| Tumour perforation                  |                                  |                       |                                    |                      |                                |                       |                  | <b>&lt;0.001<sup>n</sup></b> |
| No                                  | 221 (93)                         | 25 (89)               | 196 (93)                           | 137 (94)             | 84 (91)                        | 91 (95)               | 130 (92)         | . <sup>b m</sup>             |
| Yes                                 | 17 (7)                           | 3 (11)                | 14 (7)                             | 9 (6)                | 8 (9)                          | 5 (5)                 | 12 (8)           | 0.46 <sup>c</sup>            |
| Peritoneal involvement              |                                  |                       |                                    |                      |                                |                       |                  | . <sup>b n</sup>             |
| No                                  | 167 (70)                         | 15 (54)               | 152 (72)                           | 101 (69)             | 66 (72)                        | 70 (73)               | 97 (68)          | <b>0.04<sup>m</sup></b>      |
| Yes                                 | 71 (30)                          | 13 (46)               | 58 (28)                            | 45 (31)              | 26 (28)                        | 26 (27)               | 45 (32)          | 0.67 <sup>c</sup>            |
| GMS                                 |                                  |                       |                                    |                      |                                |                       |                  | 0.45 <sup>n</sup>            |
| 0                                   | 61 (26)                          | 12 (43)               | 49 (23)                            | 36 (25)              | 25 (27)                        | 32 (33)               | 29 (20)          | 0.22 <sup>m</sup>            |
| 1                                   | 133 (56)                         | 10 (36)               | 123 (59)                           | 81 (56)              | 52 (57)                        | 50 (52)               | 83 (59)          | 0.49 <sup>c</sup>            |
| 2                                   | 44 (18)                          | 6 (21)                | 38 (18)                            | 29 (20)              | 15 (16)                        | 14 (15)               | 30 (21)          | <b>0.03<sup>n</sup></b>      |
| Modified GPS                        |                                  |                       |                                    |                      |                                |                       |                  |                              |
| 0                                   | 83 (53)                          | 6 (32)                | 77 (57)                            | 49 (49)              | 34 (62)                        | 32 (47)               | 51 (59)          | . <sup>b m</sup>             |
| 1                                   | 37 (24)                          | 10 (53)               | 27 (20)                            | 25 (25)              | 12 (22)                        | 19 (28)               | 18 (21)          | 0.10 <sup>c</sup>            |
| 2                                   | 35 (23)                          | 3 (16)                | 32 (24)                            | 26 (26)              | 9 (16)                         | 17 (25)               | 18 (21)          | 0.23 <sup>n</sup>            |

<sup>a</sup>percentages rounded to nearest whole number and may not total 100%; <sup>b</sup>for cells where n<6, Pearson  $\chi^2$  analysis was not performed; **Bold** indicates significant result; <sup>m</sup>membrane locus; <sup>c</sup>cytoplasmic locus; <sup>n</sup>nuclear locus

**Supplementary Table S3c. Associations of clinicopathological variables with EMT marker Fascin in stage II-III colorectal cancer (N=238)**

| Clinicopathological characteristics |          | Membrane <sup>m</sup> Fascin      |         |                      |          | Cytoplasmic <sup>c</sup> Fascin  |         |                         |  | Nuclear <sup>n</sup> Fascin |  |                      |  | Pears on X <sup>2</sup> |
|-------------------------------------|----------|-----------------------------------|---------|----------------------|----------|----------------------------------|---------|-------------------------|--|-----------------------------|--|----------------------|--|-------------------------|
|                                     |          | Low (n=171)<br>N (%) <sup>a</sup> |         | High (n=67)<br>N (%) |          | Low (n=31)<br>N (%) <sup>a</sup> |         | High (n=207)<br>N (%)   |  | Low (n=159)<br>N (%)        |  | High (n=79)<br>N (%) |  |                         |
| Age                                 |          |                                   |         |                      |          |                                  |         |                         |  |                             |  |                      |  |                         |
| ≤64                                 | 60 (25)  | 47 (28)                           | 13 (19) | 5 (16)               | 55 (27)  | 44 (28)                          | 16 (20) | 0.15 <sup>m</sup>       |  |                             |  |                      |  |                         |
| 65-74                               | 76 (32)  | 55 (32)                           | 21 (31) | 9 (29)               | 67 (32)  | 51 (32)                          | 25 (32) | .b c                    |  |                             |  |                      |  |                         |
| ≥75                                 | 102 (43) | 69 (40)                           | 33 (49) | 17 (55)              | 85 (41)  | 64 (40)                          | 38 (48) | 0.17 <sup>n</sup>       |  |                             |  |                      |  |                         |
| Gender                              |          |                                   |         |                      |          |                                  |         |                         |  |                             |  |                      |  |                         |
| Female                              | 127 (53) | 89 (52)                           | 38 (57) | 17 (55)              | 110 (53) | 81 (51)                          | 46 (58) | 0.52 <sup>m</sup>       |  |                             |  |                      |  |                         |
| Male                                | 111 (47) | 82 (48)                           | 29 (43) | 14 (45)              | 97 (47)  | 78 (49)                          | 33 (42) | 0.86 <sup>c</sup>       |  |                             |  |                      |  |                         |
| Presentation                        |          |                                   |         |                      |          |                                  |         |                         |  |                             |  |                      |  |                         |
| Elective                            | 168 (71) | 121 (71)                          | 47 (70) | 20 (65)              | 148 (72) | 112 (70)                         | 56 (71) | 0.93 <sup>m</sup>       |  |                             |  |                      |  |                         |
| Emergency                           | 70 (29)  | 50 (29)                           | 20 (30) | 11 (36)              | 59 (29)  | 47 (30)                          | 23 (29) | 0.43 <sup>c</sup>       |  |                             |  |                      |  |                         |
| TNM                                 |          |                                   |         |                      |          |                                  |         |                         |  |                             |  |                      |  |                         |
| I-II (low risk)                     | 127 (53) | 94 (55)                           | 33 (55) | 17 (55)              | 110 (53) | 90 (57)                          | 37 (47) | 0.94 <sup>n</sup>       |  |                             |  |                      |  |                         |
| II-III (high risk)                  | 111 (47) | 77 (45)                           | 34 (45) | 14 (45)              | 97 (47)  | 69 (43)                          | 42 (53) | 0.43 <sup>m</sup>       |  |                             |  |                      |  |                         |
| T-stage                             |          |                                   |         |                      |          |                                  |         |                         |  |                             |  |                      |  |                         |
| I                                   | 1 (1)    | 1 (1)                             | 0 (0)   | 0 (0)                | 1 (1)    | 1 (1)                            | 0 (0)   | .b m                    |  |                             |  |                      |  |                         |
| II                                  | 8 (3)    | 5 (3)                             | 3 (3)   | 1 (3)                | 7 (3)    | 5 (3)                            | 3 (4)   | .b c                    |  |                             |  |                      |  |                         |
| III                                 | 159 (67) | 121 (71)                          | 38 (57) | 20 (65)              | 139 (67) | 112 (70)                         | 47 (60) | .b n                    |  |                             |  |                      |  |                         |
| IV                                  | 70 (29)  | 44 (26)                           | 26 (39) | 10 (32)              | 60 (29)  | 41 (26)                          | 29 (37) | 0.16 <sup>n</sup>       |  |                             |  |                      |  |                         |
| N-stage                             |          |                                   |         |                      |          |                                  |         |                         |  |                             |  |                      |  |                         |
| 0                                   | 147 (62) | 107 (63)                          | 40 (60) | 18 (58)              | 129 (62) | 104 (65)                         | 43 (54) | 0.35 <sup>m</sup>       |  |                             |  |                      |  |                         |
| I                                   | 60 (25)  | 45 (26)                           | 15 (22) | 11 (36)              | 49 (24)  | 38 (24)                          | 22 (28) | .b c                    |  |                             |  |                      |  |                         |
| II                                  | 31 (13)  | 19 (11)                           | 12 (18) | 2 (7)                | 29 (14)  | 17 (11)                          | 14 (18) | 0.07 <sup>n</sup>       |  |                             |  |                      |  |                         |
| Site                                |          |                                   |         |                      |          |                                  |         |                         |  |                             |  |                      |  |                         |
| Colon                               | 201 (85) | 147 (86)                          | 54 (81) | 26 (84)              | 175 (85) | 137 (86)                         | 64 (81) | 0.30 <sup>m</sup>       |  |                             |  |                      |  |                         |
| Rectum                              | 37 (15)  | 24 (14)                           | 13 (19) | 5 (16)               | 32 (16)  | 22 (14)                          | 15 (19) | .b c                    |  |                             |  |                      |  |                         |
| Differentiation                     |          |                                   |         |                      |          |                                  |         |                         |  |                             |  |                      |  |                         |
| Well/mod                            | 206 (87) | 151 (88)                          | 55 (82) | 31 (100)             | 175 (85) | 143 (90)                         | 63 (80) | 0.30 <sup>n</sup>       |  |                             |  |                      |  |                         |
| Poor                                | 32 (13)  | 20 (12)                           | 12 (18) | 0 (0)                | 32 (16)  | 16 (10)                          | 16 (20) | 0.21 <sup>m</sup>       |  |                             |  |                      |  |                         |
| Venous invasion                     |          |                                   |         |                      |          |                                  |         |                         |  |                             |  |                      |  |                         |
| Absent                              | 156 (66) | 109 (64)                          | 47 (70) | 23 (74)              | 133 (64) | 100 (63)                         | 56 (71) | <b>0.03<sup>n</sup></b> |  |                             |  |                      |  |                         |
| Present                             | 82 (34)  | 62 (36)                           | 20 (30) | 8 (26)               | 74 (36)  | 59 (37)                          | 23 (29) | 0.35 <sup>m</sup>       |  |                             |  |                      |  |                         |
| Tumour budding                      |          |                                   |         |                      |          |                                  |         |                         |  |                             |  |                      |  |                         |
| Present                             | 173 (73) | 125 (73)                          | 48 (72) | 20 (65)              | 153 (74) | 118 (74)                         | 55 (70) | 0.28 <sup>c</sup>       |  |                             |  |                      |  |                         |
| Absent                              | 65 (27)  | 46 (27)                           | 19 (28) | 11 (36)              | 54 (26)  | 41 (26)                          | 24 (30) | 0.22 <sup>n</sup>       |  |                             |  |                      |  |                         |
| MMR                                 |          |                                   |         |                      |          |                                  |         |                         |  |                             |  |                      |  |                         |
| Proficient                          | 192 (81) | 139 (81)                          | 53 (79) | 24 (77)              | 168 (81) | 129 (81)                         | 63 (80) | 0.82 <sup>m</sup>       |  |                             |  |                      |  |                         |
| Deficient                           | 46 (19)  | 32 (19)                           | 14 (21) | 7 (23)               | 39 (19)  | 30 (19)                          | 16 (20) | 0.27 <sup>c</sup>       |  |                             |  |                      |  |                         |
| Tumour perforation                  |          |                                   |         |                      |          |                                  |         |                         |  |                             |  |                      |  |                         |
| No                                  | 221 (93) | 160 (94)                          | 61 (91) | 30 (97)              | 191 (92) | 150 (94)                         | 71 (90) | 0.45 <sup>n</sup>       |  |                             |  |                      |  |                         |
| Yes                                 | 17 (7)   | 11 (6)                            | 6 (9)   | 1 (3)                | 16 (8)   | 9 (6)                            | 8 (10)  | 0.70 <sup>m</sup>       |  |                             |  |                      |  |                         |
| Peritoneal involvement              |          |                                   |         |                      |          |                                  |         |                         |  |                             |  |                      |  |                         |
| No                                  | 167 (70) | 127 (74)                          | 40 (60) | 21 (68)              | 146 (71) | 117 (74)                         | 50 (63) | 0.50 <sup>m</sup>       |  |                             |  |                      |  |                         |
| Yes                                 | 71 (30)  | 44 (26)                           | 27 (40) | 10 (32)              | 61 (30)  | 42 (26)                          | 29 (37) | .b c                    |  |                             |  |                      |  |                         |
| GMS                                 |          |                                   |         |                      |          |                                  |         |                         |  |                             |  |                      |  |                         |
| 0                                   | 61 (26)  | 50 (29)                           | 11 (16) | 10 (32)              | 51 (25)  | 43 (27)                          | 18 (23) | 0.21 <sup>m</sup>       |  |                             |  |                      |  |                         |
| 1                                   | 133 (56) | 89 (52)                           | 44 (66) | 12 (39)              | 121 (59) | 87 (55)                          | 46 (58) | 0.72 <sup>c</sup>       |  |                             |  |                      |  |                         |
| 2                                   | 44 (18)  | 32 (19)                           | 12 (18) | 9 (29)               | 35 (17)  | 29 (18)                          | 15 (19) | 0.58 <sup>n</sup>       |  |                             |  |                      |  |                         |
| Modified GPS                        |          |                                   |         |                      |          |                                  |         |                         |  |                             |  |                      |  |                         |
| 0                                   | 83 (53)  | 65 (56)                           | 18 (47) | 9 (39)               | 74 (56)  | 59 (54)                          | 24 (53) | 0.44 <sup>m</sup>       |  |                             |  |                      |  |                         |
| 1                                   | 37 (24)  | 25 (21)                           | 12 (32) | 10 (44)              | 27 (21)  | 26 (24)                          | 11 (24) | 0.56 <sup>c</sup>       |  |                             |  |                      |  |                         |
| 2                                   | 35 (23)  | 27 (23)                           | 8 (21)  | 4 (17)               | 31 (24)  | 25 (22)                          | 10 (22) | 0.99 <sup>n</sup>       |  |                             |  |                      |  |                         |

<sup>a</sup>percentages rounded to nearest whole number and may not total 100%; <sup>b</sup>for cells where n<6, Pearson X<sup>2</sup> analysis was not performed; **Bold** indicates significant result; <sup>m</sup>membrane locus; <sup>c</sup>cytoplasmic locus; <sup>n</sup>nuclear locus

**Supplementary Table S3d. Associations of clinicopathological variables with EMT marker SNAIL in stage II-III colorectal cancer (N=238)**

| Clinicopathological characteristics | Membrane <sup>m</sup> SNAIL      |                       | Cytoplasmic <sup>c</sup> SNAIL   |                       |                     |                       | Nuclear <sup>n</sup> SNAIL |                   | Pears on X <sup>2</sup> |
|-------------------------------------|----------------------------------|-----------------------|----------------------------------|-----------------------|---------------------|-----------------------|----------------------------|-------------------|-------------------------|
|                                     | Low (n=46)<br>N (%) <sup>a</sup> | High (n=192)<br>N (%) | Low (n=56)<br>N (%) <sup>a</sup> | High (n=182)<br>N (%) | Low (n=55)<br>N (%) | High (n=183)<br>N (%) |                            |                   |                         |
| Age                                 |                                  |                       |                                  |                       |                     |                       |                            |                   |                         |
| ≤64                                 | 60 (25)                          | 8 (17)                | 52 (27)                          | 16 (29)               | 44 (24)             | 13 (24)               | 47 (26)                    | 0.07 <sup>m</sup> |                         |
| 65-74                               | 76 (32)                          | 13 (28)               | 63 (33)                          | 13 (23)               | 63 (35)             | 19 (35)               | 57 (31)                    | 0.83 <sup>c</sup> |                         |
| ≥75                                 | 102 (43)                         | 25 (54)               | 77 (40)                          | 27 (48)               | 75 (41)             | 23 (42)               | 79 (43)                    | 0.96 <sup>n</sup> |                         |
| Gender                              |                                  |                       |                                  |                       |                     |                       |                            |                   |                         |
| Female                              | 127 (53)                         | 24 (52)               | 103 (54)                         | 33 (59)               | 94 (52)             | 26 (47)               | 101 (55)                   | 0.86 <sup>m</sup> |                         |
| Male                                | 111 (47)                         | 22 (48)               | 89 (46)                          | 23 (41)               | 88 (48)             | 29 (53)               | 82 (45)                    | 0.34 <sup>c</sup> |                         |
| Presentation                        |                                  |                       |                                  |                       |                     |                       |                            |                   |                         |
| Elective                            | 168 (71)                         | 30 (65)               | 138 (72)                         | 39 (70)               | 129 (71)            | 38 (69)               | 130 (71)                   | 0.37 <sup>m</sup> |                         |
| Emergency                           | 70 (29)                          | 16 (35)               | 54 (28)                          | 17 (30)               | 53 (29)             | 17 (31)               | 53 (29)                    | 0.86 <sup>c</sup> |                         |
| TNM                                 |                                  |                       |                                  |                       |                     |                       |                            |                   |                         |
| I-II (low risk)                     | 127 (53)                         | 22 (48)               | 105 (55)                         | 32 (57)               | 95 (52)             | 30 (55)               | 97 (53)                    | 0.40 <sup>m</sup> |                         |
| II-III (high risk)                  | 111 (47)                         | 24 (52)               | 87 (45)                          | 24 (43)               | 87 (48)             | 25 (45)               | 86 (47)                    | 0.52 <sup>c</sup> |                         |
| T-stage                             |                                  |                       |                                  |                       |                     |                       |                            | 0.84 <sup>n</sup> |                         |
| I                                   | 1 (1)                            | 0 (0)                 | 1 (1)                            | 0 (0)                 | 1 (1)               | 0 (0)                 | 1 (1)                      | . <sub>b</sub> m  |                         |
| II                                  | 8 (3)                            | 0 (0)                 | 8 (4)                            | 1 (2)                 | 7 (4)               | 1 (2)                 | 7 (4)                      | . <sub>b</sub> c  |                         |
| III                                 | 159 (67)                         | 28 (57)               | 131 (68)                         | 38 (68)               | 121 (67)            | 33 (60)               | 126 (69)                   | . <sub>b</sub> n  |                         |
| IV                                  | 70 (29)                          | 18 (43)               | 52 (27)                          | 17 (30)               | 53 (29)             | 21 (38)               | 49 (27)                    |                   |                         |
| N-stage                             |                                  |                       |                                  |                       |                     |                       |                            |                   |                         |
| 0                                   | 147 (62)                         | 27 (59)               | 120 (63)                         | 35 (63)               | 112 (62)            | 36 (66)               | 111 (61)                   | 0.31 <sup>m</sup> |                         |
| I                                   | 60 (25)                          | 10 (22)               | 50 (26)                          | 15 (27)               | 45 (25)             | 11 (20)               | 27 (27)                    | 0.72 <sup>c</sup> |                         |
| II                                  | 31 (13)                          | 9 (20)                | 22 (12)                          | 6 (11)                | 25 (14)             | 8 (15)                | 13 (13)                    | 0.80 <sup>n</sup> |                         |
| Site                                |                                  |                       |                                  |                       |                     |                       |                            |                   |                         |
| Colon                               | 201 (85)                         | 43 (91)               | 159 (83)                         | 46 (82)               | 155 (85)            | 47 (86)               | 154 (84)                   | . <sub>b</sub> m  |                         |
| Rectum                              | 37 (15)                          | 4 (9)                 | 33 (17)                          | 10 (18)               | 27 (15)             | 8 (15)                | 29 (16)                    | 0.59 <sup>c</sup> |                         |
| Differentiation                     |                                  |                       |                                  |                       |                     |                       |                            | 0.81 <sup>n</sup> |                         |
| Well/mod                            | 206 (87)                         | 41 (89)               | 165 (86)                         | 51 (91)               | 155 (85)            | 46 (84)               | 160 (87)                   | . <sub>b</sub> m  |                         |
| Poor                                | 32 (13)                          | 5 (11)                | 27 (14)                          | 5 (9)                 | 27 (27)             | 9 (16)                | 12 (13)                    | . <sub>b</sub> c  |                         |
| Venous invasion                     |                                  |                       |                                  |                       |                     |                       |                            | 0.47 <sup>n</sup> |                         |
| Absent                              | 156 (66)                         | 30 (65)               | 126 (66)                         | 37 (66)               | 119 (65)            | 40 (73)               | 116 (63)                   | 0.96 <sup>m</sup> |                         |
| Present                             | 82 (34)                          | 16 (35)               | 66 (34)                          | 19 (34)               | 63 (35)             | 15 (27)               | 67 (37)                    | 0.93 <sup>c</sup> |                         |
| Tumour budding                      |                                  |                       |                                  |                       |                     |                       |                            | 0.20 <sup>n</sup> |                         |
| Present                             | 173 (73)                         | 32 (70)               | 141 (73)                         | 36 (64)               | 137 (75)            | 36 (66)               | 137 (75)                   | 0.60 <sup>m</sup> |                         |
| Absent                              | 65 (27)                          | 14 (30)               | 51 (27)                          | 20 (36)               | 45 (25)             | 19 (35)               | 46 (25)                    | 0.11 <sup>c</sup> |                         |
| MMR                                 |                                  |                       |                                  |                       |                     |                       |                            | 0.17 <sup>n</sup> |                         |
| Proficient                          | 192 (81)                         | 39 (85)               | 153 (80)                         | 45 (80)               | 147 (81)            | 44 (80)               | 148 (81)                   | 0.43 <sup>m</sup> |                         |
| Deficient                           | 46 (19)                          | 7 (15)                | 39 (20)                          | 11 (20)               | 35 (19)             | 11 (20)               | 35 (19)                    | 0.95 <sup>c</sup> |                         |
| Tumour perforation                  |                                  |                       |                                  |                       |                     |                       |                            | 0.89 <sup>n</sup> |                         |
| No                                  | 221 (93)                         | 42 (91)               | 179 (93)                         | 53 (95)               | 168 (92)            | 50 (91)               | 171 (93)                   | . <sub>b</sub> m  |                         |
| Yes                                 | 17 (7)                           | 4 (9)                 | 13 (7)                           | 3 (5)                 | 14 (8)              | 5 (9)                 | 12 (7)                     | . <sub>b</sub> c  |                         |
| Peritoneal involvement              |                                  |                       |                                  |                       |                     |                       |                            | . <sub>b</sub> n  |                         |
| No                                  | 167 (70)                         | 28 (61)               | 139 (72)                         | 39 (70)               | 128 (70)            | 34 (62)               | 133 (73)                   | 0.13 <sup>m</sup> |                         |
| Yes                                 | 71 (30)                          | 18 (39)               | 53 (28)                          | 17 (30)               | 54 (30)             | 21 (38)               | 50 (27)                    | 0.92 <sup>c</sup> |                         |
| GMS                                 |                                  |                       |                                  |                       |                     |                       |                            | 0.12 <sup>n</sup> |                         |
| 0                                   | 61 (26)                          | 11 (24)               | 50 (26)                          | 17 (30)               | 44 (24)             | 13 (24)               | 48 (26)                    | 0.29 <sup>m</sup> |                         |
| 1                                   | 133 (56)                         | 23 (50)               | 110 (57)                         | 27 (48)               | 106 (58)            | 28 (51)               | 105 (57)                   | 0.82 <sup>c</sup> |                         |
| 2                                   | 44 (18)                          | 12 (26)               | 32 (17)                          | 12 (21)               | 32 (18)             | 14 (26)               | 30 (16)                    | 0.25 <sup>n</sup> |                         |
| Modified GPS                        |                                  |                       |                                  |                       |                     |                       |                            |                   |                         |
| 0                                   | 83 (53)                          | 17 (49)               | 66 (55)                          | 26 (54)               | 57 (53)             | 21 (50)               | 62 (55)                    | 0.84 <sup>m</sup> |                         |
| 1                                   | 37 (24)                          | 11 (31)               | 26 (22)                          | 15 (31)               | 22 (21)             | 13 (31)               | 24 (21)                    | 0.38 <sup>c</sup> |                         |
| 2                                   | 35 (23)                          | 7 (20)                | 28 (23)                          | 17 (31)               | 28 (26)             | 8 (19)                | 24 (24)                    | 0.99 <sup>n</sup> |                         |

<sup>a</sup>percentages rounded to nearest whole number and may not total 100%; <sup>b</sup>for cells where n<6, Pearson X<sup>2</sup> analysis was not performed; **Bold** indicates significant result; <sup>m</sup>membrane locus; <sup>c</sup>cytoplasmic locus; <sup>n</sup>nuclear locus

**Supplementary Table S3e. Associations of clinicopathological variables with EMT marker Zeb1 in stage II-III colorectal cancer (N=238)**

| Clinicopathological characteristics | Membrane <sup>m</sup> Zeb1       |         |                       |          | Cytoplasmic <sup>c</sup> Zeb1     |         |                      |                          | Nuclear <sup>n</sup> Zeb1 |  |                       |  | Pears on X <sup>2</sup> |  |
|-------------------------------------|----------------------------------|---------|-----------------------|----------|-----------------------------------|---------|----------------------|--------------------------|---------------------------|--|-----------------------|--|-------------------------|--|
|                                     | Low (n=74)<br>N (%) <sup>a</sup> |         | High (n=164)<br>N (%) |          | Low (n=195)<br>N (%) <sup>a</sup> |         | High (n=43)<br>N (%) |                          | Low (n=26)<br>N (%)       |  | High (n=212)<br>N (%) |  |                         |  |
| Age                                 |                                  |         |                       |          |                                   |         |                      |                          |                           |  |                       |  |                         |  |
| ≤64                                 | 60 (25)                          | 12 (16) | 48 (29)               | 47 (24)  | 13 (30)                           | 8 (31)  | 52 (25)              | 0.12 <sup>m</sup>        |                           |  |                       |  |                         |  |
| 65-74                               | 76 (32)                          | 28 (28) | 48 (29)               | 62 (32)  | 14 (33)                           | 8 (31)  | 68 (32)              | 0.34 <sup>c</sup>        |                           |  |                       |  |                         |  |
| ≥75                                 | 102 (43)                         | 34 (46) | 68 (42)               | 86 (44)  | 16 (37)                           | 10 (39) | 92 (43)              | 0.51 <sup>n</sup>        |                           |  |                       |  |                         |  |
| Gender                              |                                  |         |                       |          |                                   |         |                      |                          |                           |  |                       |  |                         |  |
| Female                              | 127 (53)                         | 43 (58) | 84 (51)               | 104 (53) | 23 (54)                           | 18 (69) | 109 (51)             | 0.32 <sup>m</sup>        |                           |  |                       |  |                         |  |
| Male                                | 111 (47)                         | 31 (42) | 80 (49)               | 91 (47)  | 20 (47)                           | 8 (31)  | 49 (49)              | 0.99 <sup>c</sup>        |                           |  |                       |  |                         |  |
| Presentation                        |                                  |         |                       |          |                                   |         |                      |                          |                           |  |                       |  |                         |  |
| Elective                            | 168 (71)                         | 58 (78) | 110 (67)              | 139 (71) | 29 (67)                           | 20 (77) | 148 (70)             | 0.08 <sup>m</sup>        |                           |  |                       |  |                         |  |
| Emergency                           | 70 (29)                          | 16 (32) | 54 (33)               | 56 (29)  | 14 (33)                           | 6 (33)  | 64 (30)              | 0.62 <sup>c</sup>        |                           |  |                       |  |                         |  |
| TNM                                 |                                  |         |                       |          |                                   |         |                      |                          |                           |  |                       |  |                         |  |
| I-II (low risk)                     | 127 (53)                         | 43 (58) | 84 (51)               | 99 (51)  | 28 (65)                           | 13 (50) | 114 (54)             | 0.32 <sup>m</sup>        |                           |  |                       |  |                         |  |
| II-III (high risk)                  | 111 (47)                         | 31 (42) | 80 (49)               | 96 (49)  | 15 (35)                           | 13 (50) | 98 (46)              | 0.09 <sup>c</sup>        |                           |  |                       |  |                         |  |
| T-stage                             |                                  |         |                       |          |                                   |         |                      |                          |                           |  |                       |  |                         |  |
| I                                   | 1 (1)                            | 1 (1)   | 0 (0)                 | 1 (1)    | 0 (0)                             | 1 (4)   | 0 (0)                | . <sub>b</sub> m         |                           |  |                       |  |                         |  |
| II                                  | 8 (3)                            | 1 (1)   | 7 (4)                 | 6 (3)    | 2 (5)                             | 0 (0)   | 8 (4)                | . <sub>b</sub> c         |                           |  |                       |  |                         |  |
| III                                 | 159 (67)                         | 48 (65) | 111 (68)              | 128 (66) | 31 (72)                           | 16 (62) | 143 (68)             | . <sub>b</sub> n         |                           |  |                       |  |                         |  |
| IV                                  | 70 (29)                          | 24 (32) | 46 (28)               | 60 (31)  | 10 (23)                           | 9 (35)  | 31 (29)              |                          |                           |  |                       |  |                         |  |
| N-stage                             |                                  |         |                       |          |                                   |         |                      |                          |                           |  |                       |  |                         |  |
| 0                                   | 147 (62)                         | 50 (68) | 97 (59)               | 118 (61) | 29 (67)                           | 16 (62) | 131 (62)             | 0.18 <sup>m</sup>        |                           |  |                       |  |                         |  |
| I                                   | 60 (25)                          | 17 (23) | 43 (26)               | 48 (25)  | 12 (28)                           | 10 (39) | 50 (24)              | . <sub>b</sub> c         |                           |  |                       |  |                         |  |
| II                                  | 31 (13)                          | 7 (10)  | 24 (15)               | 29 (15)  | 2 (5)                             | 0 (0)   | 31 (15)              | . <sub>b</sub> n         |                           |  |                       |  |                         |  |
| Site                                |                                  |         |                       |          |                                   |         |                      |                          |                           |  |                       |  |                         |  |
| Colon                               | 201 (85)                         | 63 (85) | 138 (84)              | 165 (85) | 36 (84)                           | 23 (89) | 178 (84)             | 0.85 <sup>m</sup>        |                           |  |                       |  |                         |  |
| Rectum                              | 37 (15)                          | 11 (15) | 26 (16)               | 30 (15)  | 7 (16)                            | 3 (11)  | 34 (16)              | 0.88 <sup>c</sup>        |                           |  |                       |  |                         |  |
| Differentiation                     |                                  |         |                       |          |                                   |         |                      |                          |                           |  |                       |  |                         |  |
| Well/mod                            | 206 (87)                         | 63 (85) | 143 (87)              | 166 (85) | 40 (93)                           | 21 (81) | 185 (87)             | 0.67 <sup>m</sup>        |                           |  |                       |  |                         |  |
| Poor                                | 32 (13)                          | 11 (15) | 21 (13)               | 29 (15)  | 3 (7)                             | 5 (19)  | 27 (13)              | . <sub>b</sub> c         |                           |  |                       |  |                         |  |
| Venous invasion                     |                                  |         |                       |          |                                   |         |                      |                          |                           |  |                       |  |                         |  |
| Absent                              | 156 (66)                         | 49 (66) | 107 (65)              | 122 (63) | 34 (79)                           | 17 (65) | 139 (66)             | 0.88 <sup>m</sup>        |                           |  |                       |  |                         |  |
| Present                             | 82 (34)                          | 25 (34) | 57 (35)               | 73 (37)  | 9 (21)                            | 9 (35)  | 73 (34)              | <b>0.04</b> <sup>c</sup> |                           |  |                       |  |                         |  |
| Tumour budding                      |                                  |         |                       |          |                                   |         |                      |                          |                           |  |                       |  |                         |  |
| Present                             | 173 (73)                         | 54 (73) | 119 (73)              | 140 (72) | 33 (77)                           | 15 (58) | 158 (75)             | 0.95 <sup>m</sup>        |                           |  |                       |  |                         |  |
| Absent                              | 65 (27)                          | 20 (27) | 45 (27)               | 55 (28)  | 10 (23)                           | 11 (42) | 54 (25)              | 0.51 <sup>c</sup>        |                           |  |                       |  |                         |  |
| MMR                                 |                                  |         |                       |          |                                   |         |                      |                          |                           |  |                       |  |                         |  |
| Proficient                          | 192 (81)                         | 57 (77) | 135 (82)              | 157 (81) | 35 (81)                           | 19 (73) | 173 (82)             | 0.34 <sup>m</sup>        |                           |  |                       |  |                         |  |
| Deficient                           | 46 (19)                          | 17 (23) | 29 (18)               | 38 (20)  | 8 (19)                            | 7 (27)  | 39 (18)              | 0.89 <sup>c</sup>        |                           |  |                       |  |                         |  |
| Tumour perforation                  |                                  |         |                       |          |                                   |         |                      |                          |                           |  |                       |  |                         |  |
| No                                  | 221 (93)                         | 71 (96) | 150 (92)              | 180 (92) | 41 (95)                           | 24 (92) | 197 (93)             | 0.30 <sup>n</sup>        |                           |  |                       |  |                         |  |
| Yes                                 | 17 (7)                           | 3 (4)   | 14 (9)                | 15 (8)   | 2 (5)                             | 2 (8)   | 15 (7)               | . <sub>b</sub> c         |                           |  |                       |  |                         |  |
| Peritoneal involvement              |                                  |         |                       |          |                                   |         |                      |                          |                           |  |                       |  |                         |  |
| No                                  | 167 (70)                         | 50 (68) | 117 (71)              | 133 (68) | 34 (79)                           | 17 (65) | 150 (71)             | 0.56 <sup>m</sup>        |                           |  |                       |  |                         |  |
| Yes                                 | 71 (30)                          | 24 (32) | 47 (29)               | 62 (32)  | 9 (21)                            | 9 (35)  | 62 (29)              | 0.16 <sup>c</sup>        |                           |  |                       |  |                         |  |
| GMS                                 |                                  |         |                       |          |                                   |         |                      |                          |                           |  |                       |  |                         |  |
| 0                                   | 61 (26)                          | 17 (23) | 44 (27)               | 47 (24)  | 14 (33)                           | 9 (35)  | 52 (25)              | 0.82 <sup>m</sup>        |                           |  |                       |  |                         |  |
| 1                                   | 133 (56)                         | 43 (58) | 90 (55)               | 109 (56) | 24 (56)                           | 14 (54) | 119 (56)             | . <sub>b</sub> c         |                           |  |                       |  |                         |  |
| 2                                   | 44 (18)                          | 15 (19) | 30 (18)               | 39 (20)  | 5 (12)                            | 3 (12)  | 41 (19)              | . <sub>b</sub> n         |                           |  |                       |  |                         |  |
| Modified GPS                        |                                  |         |                       |          |                                   |         |                      |                          |                           |  |                       |  |                         |  |
| 0                                   | 83 (53)                          | 31 (56) | 52 (52)               | 67 (53)  | 16 (57)                           | 11 (52) | 72 (54)              | 0.42 <sup>m</sup>        |                           |  |                       |  |                         |  |
| 1                                   | 37 (24)                          | 14 (26) | 23 (23)               | 32 (25)  | 5 (18)                            | 7 (33)  | 30 (22)              | . <sub>b</sub> c         |                           |  |                       |  |                         |  |
| 2                                   | 35 (23)                          | 10 (18) | 25 (25)               | 28 (22)  | 7 (25)                            | 3 (14)  | 32 (24)              | . <sub>b</sub> n         |                           |  |                       |  |                         |  |

<sup>a</sup>percentages rounded to nearest whole number and may not total 100%; <sup>b</sup>for cells where n<6, Pearson X<sup>2</sup> analysis was not performed; **Bold** indicates significant result; <sup>m</sup>membrane locus; <sup>c</sup>cytoplasmic locus; <sup>n</sup>nuclear locus