

## Supplementary Materials: Profilings of MicroRNAs in the Liver of Common Carp (*Cyprinus carpio*) Infected with *Flavobacterium columnare*

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**Table S1.** Comparison among the known miRNAs in the liver, spleen, skeletal muscle and pooled 10 tissues of common carp. The ten tissues were: brain, skin, liver, muscle, spleen, head kidney, body kidney, intestine, gill and heart. 8 novel miRNA identified in the liver was marked with +. miRNA with \* represents lower expression level. Tissue specific miRNA was shown in bold. The number of specific miRNA detected in the liver, spleen and skeletal muscle was 8, 34, and 19, respectively.

| No. | Liver                 | Spleen              | Skeletal Muscle       | Pooled Tissues |
|-----|-----------------------|---------------------|-----------------------|----------------|
| 1   | ccr-let-7a            | ccr-let-7a          | cca-let-7a            | -              |
| 2   | -                     | -                   | -                     | let-7a *       |
| 3   | ccr-let-7b            | ccr-let-7b          | cca-let-7b            | let-7b         |
| 4   | -                     | -                   | -                     | let-7b *       |
| 4   | -                     | ccr-let-7c          | cca-let-7c            | -              |
| 6   | -                     | ccr-let-7d          | cca-let-7d            | -              |
| 7   | -                     | -                   | <b>cca-let-7e</b>     | -              |
| 8   | -                     | ccr-let-7f          | cca-let-7f            | -              |
| 9   | ccr-let-7g            | ccr-let-7g          | cca-let-7g            | -              |
| 10  | -                     | -                   | <b>cca-let-7h</b>     | -              |
| 11  | ccr-let-7i            | ccr-let-7i          | cca-let-7i            | -              |
| 12  | ccr-let-7j            | ccr-let-7j          | cca-let-7j            | -              |
| 13  | -                     | <b>ccr-let-7k</b>   | -                     | let-7k         |
| 14  | ccr-miR-1             | ccr-miR-1           | cca-miR-1             | -              |
| 15  | ccr-miR-100           | ccr-miR-100-3p      | -                     | -              |
| 16  | -                     | ccr-miR-100-5p      | cca-miR-100           | -              |
| 17  | ccr-miR-101a          | ccr-miR-101a        | cca-miR-101a          | -              |
| 18  | ccr-miR-101b          | ccr-miR-101b        | cca-miR-101b          | -              |
| 19  | ccr-miR-103           | -                   | cca-miR-103           | -              |
| 20  | ccr-miR-107           | ccr-miR-107         | cca-miR-107           | -              |
| 21  | -                     | ccr-miR-10a         | cca-miR-10a-5p        | -              |
| 22  | -                     | -                   | <b>cca-miR-10a-3p</b> | -              |
| 23  | ccr-miR-10b           | ccr-miR-10b         | cca-miR-10b           | -              |
| 24  | ccr-miR-10c           | ccr-miR-10c         | cca-miR-10c           | -              |
| 25  | ccr-miR-10d           | ccr-miR-10d         | cca-miR-10d           | -              |
| 26  | ccr-miR-122           | ccr-miR-122         | cca-miR-122           | -              |
| 27  | <b>ccr-miR-124a</b> + | -                   | -                     | -              |
| 28  | <b>ccr-miR-124b</b> + | -                   | -                     | -              |
| 29  | -                     | <b>ccr-miR-124c</b> | -                     | miR-124        |
| 30  | -                     | -                   | -                     | miR-124 *      |
| 31  | -                     | ccr-miR-125a        | cca-miR-125a          | -              |
| 32  | ccr-miR-125b          | ccr-miR-125b        | cca-miR-125b          | -              |
| 33  | ccr-miR-125c          | ccr-miR-125c        | cca-miR-125c          | -              |
| 34  | ccr-miR-126-3p        | ccr-miR-126-3p      | cca-miR-126-3p        | -              |
| 35  | ccr-miR-126-5p *      | ccr-miR-126-5p      | cca-miR-126-5p        | -              |
| 36  | ccr-miR-128           | ccr-miR-128         | cca-miR-128           | -              |
| 37  | ccr-miR-129           | ccr-miR-129-3p      | -                     | -              |

Table S1. Cont.

| No. | Liver                 | Spleen                 | Skeletal Muscle        | Pooled Tissues |
|-----|-----------------------|------------------------|------------------------|----------------|
| 38  | -                     | ccr-miR-129-5p         | cca-miR-129            | -              |
| 39  | ccr-miR-130a          | ccr-miR-130a           | cca-miR-130a           | -              |
| 40  | ccr-miR-130b          | ccr-miR-130b-3p        | cca-miR-130b           | -              |
| 41  | -                     | <b>ccr-miR-130b-5p</b> | -                      | -              |
| 42  | ccr-miR-130c          | ccr-miR-130c           | cca-miR-130c           | -              |
| 43  | ccr-miR-132a          | ccr-miR-132a-3p        | cca-miR-132            | miR-132        |
| 44  | -                     | <b>ccr-miR-132a-5p</b> | -                      | miR-132 *      |
| 45  | <b>ccr-miR-132b</b> + | -                      | -                      | -              |
| 46  | ccr-miR-133a-3p       | ccr-miR-133a-3p        | cca-miR-133a-3p        | -              |
| 47  | ccr-miR-133a-5p *     | ccr-miR-133a-5p        | cca-miR-133a-5p        | -              |
| 48  | -                     | -                      | <b>cca-miR-133b-5p</b> | -              |
| 49  | -                     | -                      | <b>cca-miR-133b-3p</b> | -              |
| 50  | -                     | -                      | <b>cca-miR-133c</b>    | -              |
| 51  | -                     | -                      | <b>cca-miR-135a</b>    | -              |
| 52  | -                     | ccr-miR-135b           | cca-miR-135b           | -              |
| 53  | ccr-miR-135c          | ccr-miR-135c           | cca-miR-135c           | -              |
| 54  | ccr-miR-137           | ccr-miR-137-3p         | cca-miR-137            | miR-137 *      |
| 55  | -                     | <b>ccr-miR-137-5p</b>  | -                      | miR-137        |
| 56  | ccr-miR-138           | ccr-miR-138            | cca-miR-138            | -              |
| 57  | ccr-miR-139           | ccr-miR-139            | cca-miR-139            | -              |
| 58  | -                     | <b>ccr-miR-1388-3p</b> | -                      | -              |
| 59  | -                     | <b>ccr-miR-1388-5p</b> | -                      | -              |
| 60  | ccr-miR-140-3p        | ccr-miR-140-3p         | cca-miR-140-3p         | miR-140 *      |
| 61  | ccr-miR-140-5p *      | ccr-miR-140-5p         | cca-miR-140-5p         | miR-140        |
| 62  | -                     | -                      | <b>cca-miR-141</b>     | -              |
| 63  | ccr-miR-142-3p +      | ccr-miR-142-3p         | cca-miR-142a-3p        | -              |
| 64  | ccr-miR-142-5p +      | ccr-miR-142-5p         | cca-miR-142a-5p        | -              |
| 65  | -                     | -                      | <b>cca-miR-142b-5p</b> | -              |
| 66  | ccr-miR-143           | ccr-miR-143            | cca-miR-143            | -              |
| 67  | ccr-miR-144           | ccr-miR-144-3p         | cca-miR-144            | -              |
| 68  | -                     | <b>ccr-miR-144-5p</b>  | -                      | -              |
| 69  | -                     | ccr-miR-145-5p         | cca-miR-145            | -              |
| 70  | -                     | <b>ccr-miR-145-3p</b>  | -                      | -              |
| 71  | ccr-miR-146a          | ccr-miR-146a           | cca-miR-146a           | miR-146a       |
| 72  | -                     | ccr-miR-146b           | cca-miR-146b           | -              |
| 73  | ccr-miR-148           | ccr-miR-148            | cca-miR-148            | -              |
| 74  | -                     | ccr-miR-150            | cca-miR-150            | miR-150        |
| 75  | -                     | -                      | -                      | miR-151-3p     |
| 76  | -                     | ccr-miR-152            | cca-miR-152            | -              |
| 77  | ccr-miR-153b          | ccr-miR-153b           | cca-miR-153b           | -              |
| 78  | ccr-miR-153c          | ccr-miR-153c           | cca-miR-153c           | -              |
| 79  | ccr-miR-155           | ccr-miR-155            | cca-miR-155            | -              |
| 80  | ccr-miR-15a           | ccr-miR-15a            | cca-miR-15a-5p         | -              |
| 81  | -                     | -                      | <b>cca-miR-15a-3p</b>  | -              |
| 82  | ccr-miR-15b           | ccr-miR-15b            | cca-miR-15b            | -              |
| 83  | ccr-miR-16a           | -                      | cca-miR-16a            | -              |
| 84  | ccr-miR-16b           | ccr-miR-16b            | cca-miR-16b            | -              |
| 85  | ccr-miR-16c           | ccr-miR-16c            | cca-miR-16c            | -              |

Table S1. Cont.

| No. | Liver             | Spleen                | Skeletal Muscle       | Pooled Tissues |
|-----|-------------------|-----------------------|-----------------------|----------------|
| 86  | ccr-miR-17-3p *   | ccr-miR-17-3p         | cca-miR-17-3p         | -              |
| 87  | ccr-miR-17-5p     | ccr-miR-17-5p         | cca-miR-17-5p         | -              |
| 88  | ccr-miR-181a      | ccr-miR-181a-3p       | cca-miR-181a-3p       | -              |
| 89  | -                 | ccr-miR-181a-5p       | cca-miR-181a-5p       | -              |
| 90  | ccr-miR-181b      | ccr-miR-181b          | cca-miR-181b          | -              |
| 91  | ccr-miR-181c      | ccr-miR-181c          | cca-miR-181c          | -              |
| 92  | -                 | <b>ccr-miR-181d</b>   | -                     | -              |
| 93  | -                 | -                     | <b>cca-miR-182-3p</b> | -              |
| 94  | ccr-miR-182-5p    | -                     | cca-miR-182-5p        | -              |
| 95  | ccr-miR-183       | -                     | cca-miR-183           | -              |
| 96  | ccr-miR-184       | ccr-miR-184           | cca-miR-184           | -              |
| 97  | ccr-miR-187       | ccr-miR-187           | cca-miR-187           | -              |
| 98  | ccr-miR-18a       | ccr-miR-18a           | cca-miR-18a           | -              |
| 99  | cca-miR-18b       | -                     | cca-miR-18b           | -              |
| 100 | ccr-miR-18c       | ccr-miR-18c           | cca-miR-18c           | -              |
| 101 | ccr-miR-190       | ccr-miR-190-3p        | -                     | -              |
| 102 | -                 | ccr-miR-190-5p        | cca-miR-190           | -              |
| 103 | ccr-miR-192       | ccr-miR-192           | cca-miR-192           | -              |
| 104 | ccr-miR-193a      | ccr-miR-193a          | cca-miR-193a          | -              |
| 105 | -                 | ccr-miR-193b          | cca-miR-193b          | -              |
| 106 | ccr-miR-194       | ccr-miR-194           | cca-miR-194           | -              |
| 107 | ccr-miR-196a      | ccr-miR-196a          | cca-miR-196a          | -              |
| 108 | ccr-miR-196b      | ccr-miR-196b          | cca-miR-196b          | -              |
| 109 | ccr-miR-199-3p    | ccr-miR-199-3p        | cca-miR-199-3p        | -              |
| 110 | ccr-miR-199-5p    | ccr-miR-199-5p        | cca-miR-199-5p        | -              |
| 111 | -                 | ccr-miR-19a           | cca-miR-19a           | -              |
| 112 | -                 | ccr-miR-19b           | cca-miR-19b-3p        | -              |
| 113 | -                 | -                     | <b>cca-miR-19b-5p</b> | -              |
| 114 | -                 | ccr-miR-19c           | cca-miR-19c           | -              |
| 115 | ccr-miR-19d       | ccr-miR-19d           | cca-miR-19d           | -              |
| 116 | ccr-miR-200a      | ccr-miR-200a          | cca-miR-200a          | -              |
| 117 | ccr-miR-200b      | ccr-miR-200b          | cca-miR-200b          | -              |
| 118 | -                 | ccr-miR-200c          | cca-miR-200c          | -              |
| 119 | -                 | ccr-miR-202           | cca-miR-202-5p        | -              |
| 120 | ccr-miR-203a      | ccr-miR-203a          | cca-miR-203a          | -              |
| 121 | ccr-miR-203b-3p   | -                     | cca-miR-203b-3p       | -              |
| 122 | ccr-miR-203b-5p * | -                     | cca-miR-203b-5p       | -              |
| 123 | -                 | ccr-miR-204           | cca-miR-204           | miR-204        |
| 124 | -                 | -                     | -                     | miR-204 *      |
| 125 | ccr-miR-205       | -                     | cca-miR-205           | -              |
| 126 | -                 | ccr-miR-206           | cca-miR-206           | -              |
| 127 | ccr-miR-20a-3p *  | ccr-miR-20a-3p        | cca-miR-20a-3p        | -              |
| 128 | ccr-miR-20a-5p    | ccr-miR-20a-5p        | cca-miR-20a-5p        | -              |
| 129 | -                 | ccr-miR-20b           | cca-miR-20b           | -              |
| 130 | ccr-miR-21        | ccr-miR-21            | cca-miR-21            | -              |
| 131 | ccr-miR-210       | ccr-miR-210-3p        | cca-miR-210-3p        | -              |
| 132 | -                 | ccr-miR-210-5p        | cca-miR-210-5p        | -              |
| 133 | -                 | <b>ccr-miR-212-5p</b> | -                     | miR-212-5p     |

Table S1. Cont.

| No. | Liver            | Spleen                 | Skeletal Muscle     | Pooled Tissues |
|-----|------------------|------------------------|---------------------|----------------|
| 134 | -                | -                      | -                   | miR-212-3p     |
| 135 | -                | -                      | -                   | miR-212a-5p    |
| 136 | ccr-miR-214      | ccr-miR-214            | cca-miR-214         | -              |
| 137 | -                | ccr-miR-216a           | cca-miR-216a        | -              |
| 138 | -                | ccr-miR-216b           | cca-miR-216b        | -              |
| 139 | ccr-miR-217      | ccr-miR-217            | cca-miR-217         | -              |
| 140 | -                | <b>ccr-miR-2184</b>    | -                   | -              |
| 142 | -                | <b>ccr-miR-2187-3p</b> | -                   | -              |
| 142 | -                | <b>ccr-miR-2187-5p</b> | -                   | -              |
| 143 | -                | <b>ccr-miR-2188-5p</b> | -                   | -              |
| 144 | -                | <b>ccr-miR-2188-3p</b> | -                   | -              |
| 145 | ccr-miR-218a     | ccr-miR-218a           | cca-miR-218a        | -              |
| 146 | ccr-miR-218b     | -                      | cca-miR-218b        | -              |
| 147 | ccr-miR-221      | ccr-miR-221-3p         | cca-miR-221         | -              |
| 148 | -                | <b>ccr-miR-221-5p</b>  | -                   | -              |
| 149 | ccr-miR-222      | ccr-miR-222-3p         | cca-miR-222         | -              |
| 150 | -                | <b>ccr-miR-222-5p</b>  | -                   | -              |
| 151 | -                | -                      | <b>cca-miR-223</b>  | miR-223        |
| 152 | ccr-miR-22a      | ccr-miR-22a-3p         | cca-miR-22a         | miR-22a        |
| 153 | -                | <b>ccr-miR-22a-5p</b>  | -                   | -              |
| 154 | ccr-miR-22b      | ccr-miR-22b            | cca-miR-22b         | miR-22         |
| 155 | ccr-miR-23a      | ccr-miR-23a            | cca-miR-23a         | -              |
| 156 | ccr-miR-23b      | ccr-miR-23b-3p         | cca-miR-23b         | -              |
| 157 | -                | <b>ccr-miR-23b-5p</b>  | -                   | -              |
| 158 | -                | -                      | -                   | miR-23c        |
| 159 | ccr-miR-24       | ccr-miR-24             | cca-miR-24          | -              |
| 160 | -                | <b>ccr-miR-24b-3p</b>  | -                   | -              |
| 161 | -                | <b>ccr-miR-24b-5p</b>  | -                   | -              |
| 162 | ccr-miR-25       | ccr-miR-25             | cca-miR-25          | -              |
| 163 | ccr-miR-26a      | ccr-miR-26a            | cca-miR-26a         | miR-26a        |
| 164 | -                | -                      | -                   | miR-26a-1 *    |
| 165 | -                | -                      | <b>cca-miR-26b</b>  | -              |
| 166 | -                | -                      | -                   | miR-26c        |
| 167 | ccr-miR-27a      | ccr-miR-27a            | cca-miR-27a         | -              |
| 168 | -                | ccr-miR-27b-3p         | cca-miR-27b         | -              |
| 169 | -                | <b>ccr-miR-27b-5p</b>  | -                   | -              |
| 170 | ccr-miR-27c-3p   | ccr-miR-27c-3p         | cca-miR-27c-3p      | -              |
| 171 | ccr-miR-27c-5p * | ccr-miR-27c-5p         | cca-miR-27c-5p      | -              |
| 172 | cca-miR-27d      | -                      | cca-miR-27d         | -              |
| 173 | -                | ccr-miR-27e            | cca-miR-27e         | -              |
| 174 | ccr-miR-29a      | ccr-miR-29a            | cca-miR-29a         | -              |
| 175 | ccr-miR-29b      | ccr-miR-29b            | cca-miR-29b         | -              |
| 176 | -                | <b>ccr-miR-29c</b>     | -                   | -              |
| 177 | ccr-miR-301a     | ccr-miR-301a-3p        | cca-miR-301a        | -              |
| 178 | -                | <b>ccr-miR-301a-5p</b> | -                   | -              |
| 179 | -                | ccr-miR-301b-3p        | cca-miR-301b        | -              |
| 180 | -                | <b>ccr-miR-301b-5p</b> | -                   | -              |
| 181 | -                | -                      | <b>cca-miR-301c</b> | -              |

Table S1. Cont.

| No. | Liver                 | Spleen              | Skeletal Muscle    | Pooled Tissues |
|-----|-----------------------|---------------------|--------------------|----------------|
| 182 | -                     | ccr-miR-30a         | cca-miR-30a        | -              |
| 183 | ccr-miR-30b           | ccr-miR-30b         | cca-miR-30b        | -              |
| 184 | -                     | ccr-miR-30c         | cca-miR-30c        | -              |
| 185 | ccr-miR-30d           | ccr-miR-30d         | cca-miR-30d        | -              |
| 186 | -                     | ccr-miR-30e-5p      | cca-miR-30e-5p     | -              |
| 187 | -                     | ccr-miR-30e-3p      | cca-miR-30e-3p     | -              |
| 188 | -                     | ccr-miR-31          | cca-miR-31         | -              |
| 189 | ccr-miR-338           | ccr-miR-338         | cca-miR-338        | miR-338-3p     |
| 190 | -                     | -                   | -                  | miR-338 *      |
| 191 | ccr-miR-34            | ccr-miR-34          | cca-miR-34         | -              |
| 192 | ccr-miR-363           | ccr-miR-363         | cca-miR-363        | -              |
| 193 | ccr-miR-365           | ccr-miR-365         | cca-miR-365        | -              |
| 194 | ccr-miR-375           | ccr-miR-375         | cca-miR-375        | -              |
| 195 | ccr-miR-429           | ccr-miR-429         | cca-miR-429        | -              |
| 196 | cca-miR-430           | -                   | cca-miR-430        | miR-430a       |
| 197 | -                     | -                   | -                  | miR-430b-1     |
| 198 | -                     | -                   | -                  | miR-430b-2     |
| 199 | -                     | -                   | -                  | miR-430c-1     |
| 200 | -                     | -                   | -                  | miR-430c-2     |
| 201 | -                     | -                   | <b>cca-miR-451</b> | -              |
| 202 | ccr-miR-454a          | ccr-miR-454a        | cca-miR-454a       | -              |
| 203 | ccr-miR-454b          | ccr-miR-454b        | cca-miR-454b       | -              |
| 204 | ccr-miR-455-3p        | ccr-miR-455-3p      | -                  | -              |
| 205 | -                     | ccr-miR-455-5p      | cca-miR-455        | -              |
| 206 | -                     | -                   | <b>cca-miR-456</b> | -              |
| 207 | ccr-miR-457a          | ccr-miR-457a        | cca-miR-457a       | -              |
| 208 | -                     | ccr-miR-457b-5p     | cca-miR-457b       | -              |
| 209 | ccr-miR-457b          | ccr-miR-457b-3p     | -                  | -              |
| 210 | -                     | ccr-miR-458a        | cca-miR-458        | -              |
| 211 | -                     | <b>ccr-miR-458b</b> | -                  | -              |
| 212 | cca-miR-459-3p        | -                   | cca-miR-459-3p     | -              |
| 213 | cca-miR-459-5p        | -                   | cca-miR-459-5p     | -              |
| 214 | cca-miR-460-3p        | -                   | cca-miR-460-3p     | -              |
| 215 | cca-miR-460-5p        | -                   | cca-miR-460-5p     | -              |
| 216 | -                     | -                   | -                  | miR-460b-3p    |
| 217 | -                     | -                   | -                  | miR-460b-5p    |
| 218 | -                     | ccr-miR-462         | cca-miR-462        | -              |
| 219 | ccr-miR-489           | ccr-miR-489         | cca-miR-489        | -              |
| 220 | ccr-miR-499           | ccr-miR-499         | cca-miR-499        | miR-499        |
| 221 | -                     | -                   | -                  | miR-499 *      |
| 222 | -                     | -                   | -                  | miR-499a-3p    |
| 223 | ccr-miR-551           | ccr-miR-551         | -                  | -              |
| 224 | ccr-miR-722           | ccr-miR-722         | cca-miR-722        | -              |
| 225 | <b>ccr-miR-7132</b> + | -                   | -                  | -              |
| 226 | <b>ccr-miR-7133</b> + | -                   | -                  | -              |
| 227 | <b>ccr-miR-722</b> +  | -                   | -                  | -              |
| 228 | -                     | <b>ccr-miR-723</b>  | -                  | miR-723 *      |
| 229 | ccr-miR-724           | ccr-miR-724         | cca-miR-724        | -              |

Table S1. Cont.

| No. | Liver                 | Spleen              | Skeletal Muscle    | Pooled Tissues |
|-----|-----------------------|---------------------|--------------------|----------------|
| 230 | cca-miR-725           | -                   | cca-miR-725        | -              |
| 231 | ccr-miR-726           | ccr-miR-726         | cca-miR-726        | -              |
| 232 | ccr-miR-727-3p        | ccr-miR-727-3p      | cca-miR-727-3p     | miR-727        |
| 233 | ccr-miR-727-5p        | ccr-miR-727-5p      | cca-miR-727-5p     | miR-727 *      |
| 234 | ccr-miR-729           | ccr-miR-729         | cca-miR-729        | -              |
| 235 | ccr-miR-730           | ccr-miR-730         | cca-miR-730        | -              |
| 236 | -                     | -                   | <b>cca-miR-731</b> | -              |
| 237 | ccr-miR-734           | ccr-miR-734         | cca-miR-734        | -              |
| 238 | -                     | <b>ccr-miR-737</b>  | -                  | -              |
| 239 | -                     | -                   | <b>cca-miR-738</b> | -              |
| 240 | ccr-miR-7a            | ccr-miR-7a          | cca-miR-7a         | miR-7          |
| 241 | -                     | -                   | -                  | miR-7 *        |
| 242 | -                     | -                   | -                  | miR-7a-2 *     |
| 243 | ccr-miR-7b            | ccr-miR-7b          | cca-miR-7b         | miR-7b         |
| 244 | -                     | ccr-miR-9-5p        | cca-miR-9-5p       | miR-9a-5p      |
| 245 | -                     | ccr-miR-9-3p        | cca-miR-9-3p       | miR-9 *        |
| 246 | -                     | -                   | -                  | miR-9b-5p      |
| 247 | ccr-miR-92a           | ccr-miR-92a         | cca-miR-92a        | -              |
| 248 | ccr-miR-92b           | ccr-miR-92b         | cca-miR-92b        | -              |
| 249 | ccr-miR-93            | ccr-miR-93          | cca-miR-93         | -              |
| 250 | <b>ccr-miR-9-3p</b> + | -                   | -                  | -              |
| 251 | <b>ccr-miR-9-5p</b> + | -                   | -                  | -              |
| 252 | ccr-miR-96            | -                   | cca-miR-96         | -              |
| 253 | ccr-miR-99            | ccr-miR-99          | cca-miR-99         | -              |
| 254 | -                     | <b>ccr-miR-3120</b> | -                  | -              |
| 255 | -                     | <b>ccr-miR-4837</b> | -                  | -              |
| 256 | -                     | <b>ccr-miR-5109</b> | -                  | -              |
| 257 | -                     | <b>ccr-miR-6651</b> | -                  | -              |
| 258 | -                     | <b>ccr-miR-696</b>  | -                  | -              |
| 259 | -                     | -                   | -                  | miR-1601       |
| 260 | -                     | -                   | -                  | miR-1623       |
| 261 | -                     | -                   | -                  | miR-1754       |
| 262 | -                     | -                   | -                  | miR-2130       |
| 263 | -                     | -                   | -                  | miR-297        |
| 264 | -                     | -                   | -                  | miR-3065-3p    |
| 265 | -                     | -                   | -                  | miR-3065-5p    |
| 266 | -                     | -                   | -                  | miR-306a *     |
| 267 | -                     | -                   | -                  | miR-306b       |
| 268 | -                     | -                   | -                  | miR-3112 *     |
| 269 | -                     | -                   | -                  | miR-3167       |
| 270 | -                     | -                   | -                  | miR-3217       |
| 271 | -                     | -                   | -                  | miR-3384       |
| 272 | -                     | -                   | -                  | miR-3529       |
| 273 | -                     | -                   | -                  | miR-3596       |
| 274 | -                     | -                   | -                  | miR-3597-3p    |
| 275 | -                     | -                   | -                  | miR-3597-5p    |
| 276 | -                     | -                   | -                  | miR-3600       |
| 277 | -                     | -                   | -                  | miR-3611       |

**Table S1.** *Cont.*

| <b>No.</b> | <b>Liver</b> | <b>Spleen</b> | <b>Skeletal Muscle</b> | <b>Pooled Tissues</b> |
|------------|--------------|---------------|------------------------|-----------------------|
| 278        | -            | -             | -                      | miR-3686              |
| 279        | -            | -             | -                      | miR-4072-3p           |
| 280        | -            | -             | -                      | miR-4143-5p           |
| 281        | -            | -             | -                      | miR-4204-3p           |
| 282        | -            | -             | -                      | miR-4453              |
| 283        | -            | -             | -                      | miR-4666-3p           |
| 284        | -            | -             | -                      | miR-4666-5p           |
| 285        | -            | -             | -                      | miR-466c *            |
| 286        | -            | -             | -                      | miR-5113              |
| 287        | -            | -             | -                      | miR-541               |
| 288        | -            | -             | -                      | miR-669               |
| 289        | -            | -             | -                      | miR-669n              |
| 290        | Total: 142   | Total: 193    | Total: 188             | Total: 80             |







Table S2. Cont.

| No. | miRNA Family   | cel | dme | ccr | dre | ipu | xtr | gga | mmu | hsa | ccr Read |
|-----|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| 96  | <b>miR-724</b> | 0   | 0   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 1054     |
| 97  | miR-137        | 0   | 0   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 51       |
| 98  | miR-726        | 0   | 0   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 36       |
| 99  | miR-727        | 0   | 0   | 2   | 0   | 0   | 0   | 0   | 0   | 0   | 35       |
| 100 | miR-729        | 0   | 0   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 1        |
| 101 | miR-734        | 0   | 0   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 1        |

The abbreviation of the animal names used for miRNA nomenclature. Worm (*Caenorhabditis elegans*, cel); Fly (*Drosophila melanogaster*, dme); Common carp (*Cyprinus carpio*, ccr); Zebrafish (*Danio rerio*, dre); Channel catfish (*Ictalurus punctatus*, ipu); Frog (*Xenopus tropicalis*, xtr); Mouse (*Mus musculus*, mmu); Chicken (*Gallus gallus*, gga); Human (*Homo sapiens*, hsa); miRNAs in bold represent high abundant expression ones.

**Table S3.** Comparison of the abundance of identified miRNA species from control and infected samples. 2 folds difference was set as significant differentially expressed. The differentially expressed miRNAs were shown in bold and marked with \*.

| No. | miRNA Species      | Control Read Count | Infected Read Count | Control TPM | Infected TPM | Infected/Control TPM |
|-----|--------------------|--------------------|---------------------|-------------|--------------|----------------------|
| 1   | <b>miR-301a</b>    | 5                  | 13                  | 0.76        | 2.72         | 3.58 *               |
| 2   | <b>miR-132b</b>    | 4                  | 8                   | 0.61        | 1.67         | 2.75 *               |
| 3   | <b>miR-133a-5p</b> | 2                  | 4                   | 0.30        | 0.84         | 2.75 *               |
| 4   | <b>miR-196b</b>    | 24                 | 48                  | 3.64        | 10.03        | 2.75 *               |
| 5   | <b>miR-365</b>     | 198                | 370                 | 30.03       | 77.28        | 2.57 *               |
| 6   | <b>miR-153b</b>    | 14                 | 23                  | 2.12        | 4.80         | 2.26 *               |
| 7   | miR-155            | 363                | 506                 | 55.05       | 105.68       | 1.92                 |
| 8   | miR-190            | 13                 | 18                  | 1.97        | 3.76         | 1.91                 |
| 9   | miR-153c           | 54                 | 73                  | 8.19        | 15.25        | 1.86                 |
| 10  | miR-1              | 943                | 1238                | 143.02      | 258.57       | 1.81                 |
| 11  | miR-133a-3p        | 96                 | 124                 | 14.56       | 25.90        | 1.78                 |
| 12  | miR-205            | 36                 | 46                  | 5.46        | 9.61         | 1.76                 |
| 13  | miR-182-5p         | 15                 | 19                  | 2.27        | 3.97         | 1.74                 |
| 14  | miR-146a           | 373,505            | 458,074             | 56,645.85   | 95,673.10    | 1.69                 |
| 15  | miR-21             | 197,102            | 234,054             | 29,892.53   | 48,884.40    | 1.64                 |
| 16  | miR-132a           | 23                 | 27                  | 3.49        | 5.64         | 1.62                 |
| 17  | miR-19d            | 347                | 401                 | 52.63       | 83.75        | 1.59                 |
| 18  | miR-727-3p         | 32                 | 35                  | 4.85        | 7.31         | 1.51                 |
| 19  | miR-7b             | 2305               | 2517                | 349.58      | 525.70       | 1.50                 |
| 20  | miR-7132           | 23                 | 25                  | 3.49        | 5.22         | 1.50                 |
| 21  | miR-93             | 2745               | 2902                | 416.31      | 606.11       | 1.46                 |
| 22  | miR-457a           | 614                | 633                 | 93.12       | 132.21       | 1.42                 |
| 23  | miR-7a             | 3384               | 3430                | 513.22      | 716.39       | 1.40                 |
| 24  | miR-183            | 16                 | 16                  | 2.43        | 3.34         | 1.38                 |
| 25  | miR-430            | 2                  | 2                   | 0.30        | 0.42         | 1.38                 |
| 26  | miR-734            | 1                  | 1                   | 0.15        | 0.21         | 1.38                 |
| 27  | miR-454a           | 213                | 209                 | 32.30       | 43.65        | 1.35                 |
| 28  | miR-10c            | 18,262             | 17,663              | 2769.62     | 3689.09      | 1.33                 |
| 29  | miR-138            | 11                 | 10                  | 1.67        | 2.09         | 1.25                 |
| 30  | miR-375            | 1846               | 1639                | 279.96      | 342.32       | 1.22                 |
| 31  | let-7i             | 26,758             | 23,339              | 4058.12     | 4874.57      | 1.20                 |
| 32  | miR-16b            | 13,533             | 11,784              | 2052.42     | 2461.20      | 1.20                 |
| 33  | miR-29a            | 696                | 604                 | 105.56      | 126.15       | 1.20                 |
| 34  | miR-27c-5p         | 85                 | 74                  | 12.89       | 15.46        | 1.20                 |
| 35  | miR-10b            | 30,202             | 25,771              | 4580.44     | 5382.52      | 1.18                 |
| 36  | miR-23b            | 822                | 705                 | 124.66      | 147.25       | 1.18                 |
| 37  | miR-23a            | 2504               | 2123                | 379.76      | 443.41       | 1.17                 |
| 38  | miR-222            | 6118               | 5142                | 927.86      | 1073.96      | 1.16                 |
| 39  | miR-724            | 1054               | 890                 | 159.85      | 185.88       | 1.16                 |

Table S3. Cont.

| No. | miRNA Species | Control Read Count | Infected Read Count | Control TPM | Infected TPM | Infected/Control TPM |
|-----|---------------|--------------------|---------------------|-------------|--------------|----------------------|
| 40  | miR-16c       | 2469               | 2066                | 374.45      | 431.50       | 1.15                 |
| 41  | miR-9-3p      | 74                 | 62                  | 11.22       | 12.95        | 1.15                 |
| 42  | miR-135c      | 36                 | 30                  | 5.46        | 6.27         | 1.15                 |
| 43  | miR-16a       | 2306               | 1915                | 349.73      | 399.97       | 1.14                 |
| 44  | miR-22b       | 160                | 132                 | 24.27       | 27.57        | 1.14                 |
| 45  | miR-20a-5p    | 37,757             | 30,938              | 5726.23     | 6461.69      | 1.13                 |
| 46  | miR-181b      | 3035               | 2488                | 460.29      | 519.64       | 1.13                 |
| 47  | miR-140-5p    | 1975               | 1619                | 299.53      | 338.14       | 1.13                 |
| 48  | miR-29b       | 519                | 427                 | 78.71       | 89.18        | 1.13                 |
| 49  | miR-203b-3p   | 134                | 109                 | 20.32       | 22.77        | 1.12                 |
| 50  | miR-454b      | 1678               | 1358                | 254.49      | 283.63       | 1.11                 |
| 51  | miR-15a       | 624                | 502                 | 94.64       | 104.85       | 1.11                 |
| 52  | miR-30b       | 2224               | 1778                | 337.29      | 371.35       | 1.10                 |
| 53  | miR-725       | 197                | 158                 | 29.88       | 33.00        | 1.10                 |
| 54  | miR-217       | 44,611             | 35,408              | 6765.71     | 7395.30      | 1.09                 |
| 55  | miR-218a      | 298                | 236                 | 45.19       | 49.29        | 1.09                 |
| 56  | let-7g        | 16,993             | 13,174              | 2577.16     | 2751.51      | 1.07                 |
| 57  | miR-92a       | 49,709             | 38,329              | 7538.88     | 8005.38      | 1.06                 |
| 58  | miR-221       | 15,841             | 12,131              | 2402.45     | 2533.67      | 1.05                 |
| 59  | miR-457b      | 634                | 484                 | 96.15       | 101.09       | 1.05                 |
| 60  | miR-199-5p    | 93,165             | 70,574              | 14,129.42   | 14,740.05    | 1.04                 |
| 61  | miR-10d       | 431                | 324                 | 65.37       | 67.67        | 1.04                 |
| 62  | miR-17-5p     | 10,617             | 7916                | 1610.18     | 1653.33      | 1.03                 |
| 63  | miR-27c-3p    | 1651               | 1230                | 250.39      | 256.90       | 1.03                 |
| 64  | miR-181c      | 122                | 91                  | 18.50       | 19.01        | 1.03                 |
| 65  | miR-455       | 617                | 456                 | 93.57       | 95.24        | 1.02                 |
| 66  | miR-722       | 60,888             | 44,697              | 9234.29     | 9335.39      | 1.01                 |
| 67  | miR-148       | 218,905            | 159,083             | 33,199.18   | 33,225.99    | 1.00                 |
| 68  | miR-30d       | 29,929             | 21,824              | 4539.04     | 4558.15      | 1.00                 |
| 69  | miR-107       | 5572               | 4052                | 845.05      | 846.30       | 1.00                 |
| 70  | miR-17-3p     | 58                 | 42                  | 8.80        | 8.77         | 1.00                 |
| 71  | miR-103       | 4281               | 3072                | 649.26      | 641.62       | 0.99                 |
| 72  | miR-125c      | 1543               | 1114                | 234.01      | 232.67       | 0.99                 |
| 73  | miR-203a      | 348                | 251                 | 52.78       | 52.42        | 0.99                 |
| 74  | miR-142-3p    | 926                | 662                 | 140.44      | 138.27       | 0.98                 |
| 75  | miR-499       | 21                 | 15                  | 3.18        | 3.13         | 0.98                 |
| 76  | miR-26a       | 142,777            | 100,747             | 21,653.59   | 21,041.97    | 0.97                 |
| 77  | miR-99        | 45,479             | 31,931              | 6897.36     | 6669.09      | 0.97                 |
| 78  | miR-130b      | 183                | 129                 | 27.75       | 26.94        | 0.97                 |
| 79  | miR-92b       | 108                | 76                  | 16.38       | 15.87        | 0.97                 |
| 80  | let-7a        | 117,306            | 81,643              | 17,790.65   | 17,051.91    | 0.96                 |
| 81  | miR-187       | 82                 | 57                  | 12.44       | 11.91        | 0.96                 |
| 82  | miR-140-3p    | 10,316             | 7150                | 1564.53     | 1493.35      | 0.95                 |
| 83  | miR-730       | 397                | 275                 | 60.21       | 57.44        | 0.95                 |
| 84  | let-7j        | 12,203             | 8361                | 1850.71     | 1746.27      | 0.94                 |
| 85  | miR-126-5p    | 1950               | 1326                | 295.74      | 276.95       | 0.94                 |
| 86  | miR-129       | 41                 | 28                  | 6.22        | 5.85         | 0.94                 |
| 87  | miR-126-3p    | 193,349            | 130,881             | 29,323.35   | 27,335.74    | 0.93                 |
| 88  | miR-101b      | 5993               | 4045                | 908.90      | 844.84       | 0.93                 |
| 89  | miR-196a      | 28                 | 19                  | 4.25        | 3.97         | 0.93                 |
| 90  | miR-192       | 259,866            | 173,991             | 39,411.33   | 36,339.67    | 0.92                 |
| 91  | miR-210       | 455                | 305                 | 69.01       | 63.70        | 0.92                 |
| 92  | miR-459-5p    | 3                  | 2                   | 0.46        | 0.42         | 0.92                 |
| 93  | miR-727-5p    | 3                  | 2                   | 0.46        | 0.42         | 0.92                 |
| 94  | let-7b        | 12,096             | 7994                | 1834.48     | 1669.62      | 0.91                 |
| 95  | miR-139       | 452                | 299                 | 68.55       | 62.45        | 0.91                 |
| 96  | miR-200b      | 11,950             | 7852                | 1812.34     | 1639.96      | 0.90                 |
| 97  | miR-18b       | 14                 | 9                   | 2.12        | 1.88         | 0.89                 |
| 98  | miR-199-3p    | 20,450             | 13,135              | 3101.45     | 2743.37      | 0.88                 |
| 99  | miR-25        | 5635               | 3568                | 854.61      | 745.21       | 0.87                 |

Table S3. Cont.

| No. | miRNA Species   | Control Read Count | Infected Read Count | Control TPM   | Infected TPM | Infected/Control TPM |
|-----|-----------------|--------------------|---------------------|---------------|--------------|----------------------|
| 100 | miR-22a         | 1,406,019          | 877,060             | 213,237.15    | 183,182.30   | 0.86                 |
| 101 | miR-181a        | 18,399             | 11,503              | 2790.40       | 2402.51      | 0.86                 |
| 102 | miR-137         | 51                 | 32                  | 7.73          | 6.68         | 0.86                 |
| 103 | miR-125b        | 12,371             | 7665                | 1876.19       | 1600.91      | 0.85                 |
| 104 | miR-18a         | 60                 | 37                  | 9.10          | 7.73         | 0.85                 |
| 105 | miR-363         | 8475               | 5087                | 1285.32       | 1062.47      | 0.83                 |
| 106 | miR-130c        | 294                | 178                 | 44.59         | 37.18        | 0.83                 |
| 107 | miR-194         | 31,383             | 18,480              | 4759.55       | 3859.72      | 0.81                 |
| 108 | miR-100         | 204,838            | 117,144             | 31,065.78     | 24,466.64    | 0.79                 |
| 109 | miR-130a        | 47                 | 27                  | 7.13          | 5.64         | 0.79                 |
| 110 | miR-193a        | 21                 | 12                  | 3.18          | 2.51         | 0.79                 |
| 111 | miR-7133        | 179                | 102                 | 27.15         | 21.30        | 0.78                 |
| 112 | miR-218b        | 23                 | 13                  | 3.49          | 2.72         | 0.78                 |
| 113 | miR-214         | 494                | 275                 | 74.92         | 57.44        | 0.77                 |
| 114 | miR-20a-3p      | 135                | 75                  | 20.47         | 15.66        | 0.77                 |
| 115 | miR-459-3p      | 9                  | 5                   | 1.36          | 1.04         | 0.77                 |
| 116 | miR-200a        | 28,563             | 15,772              | 4331.87       | 3294.13      | 0.76                 |
| 117 | miR-144         | 2131               | 1174                | 323.19        | 245.20       | 0.76                 |
| 118 | miR-24          | 1955               | 1079                | 296.50        | 225.36       | 0.76                 |
| 119 | miR-429         | 774                | 429                 | 117.39        | 89.60        | 0.76                 |
| 120 | miR-122         | 1,028,308          | 558,847             | 155,953.41    | 116,720.50   | 0.75                 |
| 121 | miR-34          | 305                | 164                 | 46.26         | 34.25        | 0.74                 |
| 122 | miR-128         | 9999               | 5291                | 1516.45       | 1105.08      | 0.73                 |
| 123 | miR-101a        | 115,634            | 60,318              | 17,537.08     | 12,597.99    | 0.72                 |
| 124 | miR-460-5p      | 63                 | 33                  | 9.55          | 6.89         | 0.72                 |
| 125 | miR-143         | 143,292            | 73,572              | 21,731.70     | 15,366.21    | 0.71                 |
| 126 | miR-338         | 399                | 206                 | 60.51         | 43.03        | 0.71                 |
| 127 | miR-551         | 26                 | 13                  | 3.94          | 2.72         | 0.69                 |
| 128 | miR-27a         | 517                | 251                 | 78.41         | 52.42        | 0.67                 |
| 129 | miR-18c         | 2525               | 1198                | 382.94        | 250.21       | 0.65                 |
| 130 | miR-142-5p      | 714                | 335                 | 108.29        | 69.97        | 0.65                 |
| 131 | miR-15b         | 55                 | 26                  | 8.34          | 5.43         | 0.65                 |
| 132 | miR-726         | 36                 | 16                  | 5.46          | 3.34         | 0.61                 |
| 133 | miR-489         | 26                 | 11                  | 3.94          | 2.30         | 0.58                 |
| 134 | miR-27d         | 690                | 258                 | 104.65        | 53.89        | 0.51                 |
| 135 | <b>miR-9-5p</b> | <b>3</b>           | <b>1</b>            | <b>0.46</b>   | <b>0.21</b>  | <b>0.46 *</b>        |
| 136 | <b>miR-184</b>  | <b>743</b>         | <b>218</b>          | <b>112.68</b> | <b>45.53</b> | <b>0.40 *</b>        |
| 137 | <b>miR-124b</b> | <b>4</b>           | <b>1</b>            | <b>0.61</b>   | <b>0.21</b>  | <b>0.34 *</b>        |
| 138 | <b>miR-124a</b> | <b>8</b>           | <b>1</b>            | <b>1.21</b>   | <b>0.21</b>  | <b>0.17 *</b>        |
| 139 | miR-96          | 2                  | 0                   | 0.30          | 0.00         | 0.00                 |
| 140 | miR-203b-5p     | 1                  | 0                   | 0.15          | 0.00         | 0.00                 |
| 141 | miR-460-3p      | 1                  | 0                   | 0.15          | 0.00         | 0.00                 |
| 142 | miR-729         | 1                  | 0                   | 0.15          | 0.00         | 0.00                 |

**Table S4.** Comparison of the miRNA family from infected and non-infected samples. The differentially expressed miRNA families were shown in bold and marked with \*. (2 folds difference was set as significant differentially expressed).

| No. | Family         | Control (TPM) | Infected (TPM) | Infected/Control |
|-----|----------------|---------------|----------------|------------------|
| 1   | <b>miR-365</b> | <b>30.03</b>  | <b>77.28</b>   | <b>2.57 *</b>    |
| 2   | miR-153        | 10.31         | 20.05          | 1.94             |
| 3   | miR-155        | 55.05         | 105.68         | 1.92             |
| 4   | miR-190        | 1.97          | 3.76           | 1.91             |
| 5   | miR-1          | 143.02        | 258.57         | 1.81             |
| 6   | miR-133        | 14.86         | 26.73          | 1.80             |
| 7   | miR-132        | 4.10          | 7.31           | 1.79             |
| 8   | miR-196        | 7.89          | 13.99          | 1.77             |
| 9   | miR-205        | 5.46          | 9.61           | 1.76             |
| 10  | miR-182        | 2.28          | 3.97           | 1.74             |
| 11  | miR-146        | 56,645.85     | 95,673.10      | 1.69             |
| 12  | miR-21         | 29,892.53     | 48,884.40      | 1.64             |
| 13  | miR-19         | 52.63         | 83.75          | 1.59             |
| 14  | miR-7132       | 3.49          | 5.22           | 1.50             |
| 15  | miR-727        | 5.31          | 7.73           | 1.46             |
| 16  | miR-7          | 862.80        | 1242.09        | 1.44             |
| 17  | miR-183        | 2.43          | 3.34           | 1.38             |
| 18  | miR-430        | 0.30          | 0.42           | 1.38             |
| 19  | miR-734        | 0.15          | 0.21           | 1.38             |
| 20  | miR-138        | 1.67          | 2.09           | 1.25             |
| 21  | miR-375        | 279.97        | 342.32         | 1.22             |
| 22  | miR-15         | 3068.85       | 3636.24        | 1.18             |
| 23  | miR-23         | 504.42        | 590.66         | 1.17             |
| 24  | miR-29         | 184.27        | 215.33         | 1.17             |
| 25  | miR-724        | 159.85        | 185.89         | 1.16             |
| 26  | miR-135        | 5.46          | 6.27           | 1.15             |
| 27  | miR-454        | 286.79        | 327.28         | 1.14             |
| 28  | miR-9          | 11.68         | 13.16          | 1.13             |
| 29  | miR-17         | 8176.15       | 9005.40        | 1.10             |
| 30  | miR-725        | 29.88         | 33.00          | 1.10             |
| 31  | miR-217        | 6765.71       | 7395.30        | 1.09             |
| 32  | miR-221        | 3330.31       | 3607.63        | 1.08             |
| 33  | miR-218        | 48.68         | 52.01          | 1.07             |
| 34  | miR-25         | 8409.86       | 8766.46        | 1.04             |
| 35  | miR-203        | 73.25         | 75.19          | 1.03             |
| 36  | miR-455        | 93.57         | 95.24          | 1.02             |
| 37  | miR-199        | 17,230.88     | 17,483.42      | 1.01             |
| 38  | miR-722        | 9234.29       | 9335.39        | 1.01             |
| 39  | miR-30         | 4876.33       | 4929.50        | 1.01             |
| 40  | miR-148        | 33,199.18     | 33,225.99      | 1.00             |
| 41  | let-7          | 28,111.13     | 28,093.90      | 1.00             |
| 42  | miR-103        | 1494.31       | 1487.92        | 1.00             |
| 43  | miR-140        | 1864.06       | 1831.49        | 0.98             |
| 44  | miR-499        | 3.19          | 3.13           | 0.98             |
| 45  | miR-26         | 21,653.59     | 21,041.97      | 0.97             |
| 46  | miR-187        | 12.44         | 11.91          | 0.96             |

Table S4. Cont.

| No. | Family         | Control (TPM) | Infected (TPM) | Infected/Control |
|-----|----------------|---------------|----------------|------------------|
| 47  | miR-129        | 6.22          | 5.85           | 0.94             |
| 48  | miR-126        | 29,619.09     | 27,612.69      | 0.93             |
| 49  | miR-192        | 39,411.33     | 36,339.67      | 0.92             |
| 50  | miR-460        | 69.92         | 64.33          | 0.92             |
| 51  | miR-210        | 69.01         | 63.70          | 0.92             |
| 52  | miR-139        | 68.55         | 62.45          | 0.91             |
| 53  | miR-181        | 3269.19       | 2941.16        | 0.90             |
| 54  | miR-130        | 80.23         | 72.47          | 0.90             |
| 55  | miR-10         | 47,488.76     | 42,108.58      | 0.89             |
| 56  | miR-22         | 213,261.41    | 183,209.87     | 0.86             |
| 57  | miR-137        | 7.74          | 6.68           | 0.86             |
| 58  | miR-27         | 446.34        | 378.66         | 0.85             |
| 59  | miR-142        | 248.72        | 208.23         | 0.84             |
| 60  | miR-363        | 1285.32       | 1062.47        | 0.83             |
| 61  | miR-194        | 4759.55       | 3859.72        | 0.81             |
| 62  | miR-8          | 6261.60       | 5023.70        | 0.80             |
| 63  | miR-459        | 1.82          | 1.46           | 0.80             |
| 64  | miR-193a       | 3.19          | 2.51           | 0.79             |
| 65  | miR-214        | 74.92         | 57.44          | 0.77             |
| 66  | miR-144        | 323.19        | 245.20         | 0.76             |
| 67  | miR-24         | 296.50        | 225.36         | 0.76             |
| 68  | miR-122        | 155,953.41    | 116,720.50     | 0.75             |
| 69  | miR-34         | 46.26         | 34.25          | 0.74             |
| 70  | miR-101        | 18,445.98     | 13,442.82      | 0.73             |
| 71  | miR-128        | 1516.45       | 1105.08        | 0.73             |
| 72  | miR-143        | 21,731.70     | 15,366.21      | 0.71             |
| 73  | miR-338        | 60.51         | 43.03          | 0.71             |
| 74  | miR-551        | 3.94          | 2.72           | 0.69             |
| 75  | miR-726        | 5.46          | 3.34           | 0.61             |
| 76  | miR-489        | 3.94          | 2.30           | 0.58             |
| 77  | <b>miR-184</b> | <b>112.68</b> | <b>45.53</b>   | <b>0.40 *</b>    |
| 78  | <b>miR-124</b> | <b>1.82</b>   | <b>0.42</b>    | <b>0.23 *</b>    |

$$\text{TPM} = \frac{\text{Readcount} \times 1,000,000}{\text{MappedReads}}$$

Table S5. Primers used for miRNA detection in this study.

| miRNA  | ID             | Primers (5'-3')           | Fold Changes by Deep Sequences |
|--------|----------------|---------------------------|--------------------------------|
| 1      | ccr-miR-365    | CGGTAATGCCCTAAAAATCCTTAT  | +2.57                          |
| 2      | ccr-miR-196b   | CGGTAGGTAGTTTCAAGTTGTTGGG | +2.75                          |
| 3      | ID_LG1_121431  | CGGTTAATGGCAACTGTCAACTGTT | +13.77                         |
| 4      | ID_LG9_186104  | CGGTGGAACCACTGACTTACATAG  | +3.37                          |
| 5      | ccr-miR-184    | TGGACGGAGAACTGATAAGGGC    | -2.47                          |
| 6      | ID_LG30_147265 | GCGGTTCTATGCATATACCTCTTT  | -4.18                          |
| 7      | ID_LG27_175722 | CGGAAGTCAGTGGAACTGAAACT   | -5.57                          |
| U6 RNA | U6 Forward     | CGCTTCGGCAGCACATATAC      | -                              |
|        | U6 Reverse     | TTCACGAATTGCGTGTC         | -                              |