| Primer | Sequence 5′ → 3′ |
|--------|------------------|
| Stat3 F | ATCTTTGGGCAATCTGGGCA |
| Stat3 R | CTCTTGCTCTCAGGCCCATC |
| Cdk8 F | TTTCAGTTCAAGTAACGAAATAA |
| Cdk8 R | AGGCTGACCCTGGTGCTATC |
| Gsk3b F | AGGAAGGAAAGAGTGATTCAGA |
| Gsk3b R | TGCTGCACTTCTTATCTCTC |
| Nr1h3 F | CAGTAGGAAAGGACCCCTTGG |
| Nr1h3 R | AAGACACTGTCTCCTGGCCCTT |
| II18 F | TACAAGCTCCAGGCACACG |
| II18 R | CTGTAGTGAGGAGTGGGCA |
| II10rb F | CTTCTGGTGCCAGCAGTACG |
| II10rb R | CTTATTTGGGAAAGACAGGT |
| Socs3 F | AGCGGCTGCCAACACTCGG |
| Socs3 R | GCATCCCGGAGGACTAGT |
| Gapgh F | AGGGTTGCTCTCTGCGACTCA |
| Gapgh R | TACGCCATAACCCCACCA |
| STAT1 F | TCTGGGAGGAAAGGACCTTG |
| STAT1 R | AGGTACCGTGTGTCAAGCTG |
| MAPK14 F | TCTGCCGGAGAAACAGTTG |
| MAPK14 R | AGGTACCGTGTGTCAAGCTG |
| RUNX1 F | GGGTTGTCTCCTGCGACTT |
| RUNX1 R | AGCACTGTGCTGCAAGCTG |
| CSF1R F | TGCGGCCAGGCTAAAAGGG |
| CSF1R R | GTCGTATCCAGTGCGTGCTGGAGTCGGCAATTGCACTGGATACGACCTACCT |
| FOS F | GGGGCAAGGTGGAACAGTTA |
| FOS R | AGTTGGTCTGTCTCCGCTTG |
| SPI1 F | GCAGGCTGCTGCAAGCTG |
| SPI1 R | GCAGGCTGCTGCAAGCTG |
| IL18 F | AAGATGGCTGCTGCAAGCTG |
| IL18 R | AAGATGGCTGCTGCAAGCTG |
| IL10R F | GGCGCTGCCAGTAAAGG |
| IL10R R | CTCGCTGCCAGTAAAGG |
| SOCS3 F | GTCCTTTTGGGCAAGCTG |
| SOCS3 R | GTCCTTTTGGGCAAGCTG |
| ACTB F | GAGACCTGTGTTGGGCAACAG |
| ACTB R | GAGACCTGTGTTGGGCAACAG |
| miRNA | |
| mmu-miR-106a-5p F | CGCCGAGAAAGTGCTAACA |
| mmu-miR-106a-5p R | GTGTATCCAGTGCGTGCTGGGAGGCAATTGCACTGGGATACGACCTACTC |
| mmu-miR-155-5p F | CGCCAGATTTAAGCTGTAATTG |
| mmu-miR-155-5p R | GTGTATCCAGTGCGTGCGTTGGGAGGCAATTGCACTGGGATACGACCTACTC |
| hsa-miR-106a-5p F | CGCCGAGAAAGTGCTAACA |
| hsa-miR-106a-5p RT | GTGTATCCAGTGCGTGCGTTGGGAGGCAATTGCACTGGGATACGACCTACTC |
| hsa-miR-155-5p F | CGCCGAGATTTAAGCTGTAATTG |
| hsa-miR-155-5p R | GTGTATCCAGTGCGTGCGTTGGGAGGCAATTGCACTGGGATACGACCTACTC |
| U6 F | CTCGCTGCTGGAGCACAG |
| U6 RT | AAGCCTTTCAGATTTTGGCT |
| Universal R | CAGTGGTGTCGGGTGGAGT |
### Table S2 Sequencing data information of RNA-seq in PNA mice compared with the control mice

| Sample | Total clean reads | Mapped reads | Mapped ratio | Unique mapped reads | Unique mapped ratio |
|--------|------------------|--------------|--------------|---------------------|---------------------|
| P1     | 23501545         | 16529681     | 70.34%       | 15490986            | 65.91%              |
| P2     | 31747833         | 21611959     | 68.07%       | 20310150            | 63.97%              |
| P4     | 23361862         | 15079981     | 64.55%       | 14271278            | 61.09%              |
| P-mean | 26203747         | 17740540     | 67.65%       | 16690804.67         | 63.66%              |
| C1     | 30726196         | 21023286     | 68.42%       | 19933938            | 64.88%              |
| C4     | 18373080         | 13016258     | 70.84%       | 12263718            | 66.75%              |
| C-mean | 24549638         | 17019772     | 69.63%       | 16098828            | 65.82%              |

PNA, prenatally androgenized.

### Table S3 Sequencing data information of miRNA-seq in PNA mice compared with the control mice

| Sample | Total clean reads | Mapping ratio of mature miRNA | Mapped reads | Mapped ratio | Unique mapped reads | Unique mapped ratio |
|--------|------------------|--------------------------------|--------------|--------------|---------------------|---------------------|
| P1     | 15504772         | -1.63828883                   | 6573625      | 42.39%       | 2467580             | 15.91%              |
| P2     | 17271763         | -2.163505579                  | 6851502      | 39.66%       | 2503535             | 14.49%              |
| P3     | 10049532         | 1.487142721                   | 4886138      | 48.62%       | 154511              | 15.38%              |
| P4     | 14250703         | 1.4269193                     | 8664866      | 60.80%       | 3758167             | 26.37%              |
| P-mean | 14269193         | 1.353736584                   | 6744033      | 47.66%       | 2568673             | 20.54%              |
| C2     | 10273792         | 1.422733915                   | 5176801      | 50.38%       | 2617114             | 25.47%              |
| C3     | 13697931         | -1.791298309                  | 5313779      | 38.79%       | 2110534             | 15.41%              |
| C6     | 7447955          | -1.198140538                  | 5069099      | 26.13%       | 654476              | 8.45%               |
| C-mean | 11422218         | -1.63828883                   | 5575928      | 38.43%       | 1987699             | 16.44%              |

PNA, prenatally androgenized.

### Table S4 Differentially expressed miRNAs in PNA mice compared with the control mice

| miRNA    | logFC | logCPM  | LR        | P value  | FDR     |
|----------|-------|---------|-----------|----------|---------|
| mmu-miR-5100 | -5.365445964 | 0.262207305 | 15.62876477 | 0.000077073 | 0.017880982 |
| mmu-miR-184-3p | -2.163505579 | 3.971215579 | 10.10915882 | 0.001475343 | 0.228186364 |
| mmu-miR-486a-5p | 1.487138295 | 5.483623665 | 8.287379125 | 0.00992157 | 0.37344364 |
| mmu-miR-486b-3p | 1.487142721 | 5.483623665 | 8.272873274 | 0.00424177 | 0.37344364 |
| mmu-miR-5121 | -1.791298309 | 2.75279053 | 7.941968578 | 0.004830126 | 0.373529757 |
| mmu-miR-451a | 1.227733915 | 7.510176789 | 7.584771944 | 0.005886341 | 0.390180319 |
| mmu-miR-130a-3p | -1.353736584 | 9.231294641 | 7.053284482 | 0.007912004 | 0.440400025 |
| mmu-miR-677-5p | -1.63828883 | 3.677321457 | 6.857573796 | 0.008266332 | 0.440400025 |
| mmu-miR-127-3p | 1.988140538 | 11.55112459 | 6.727966668 | 0.00949138 | 0.440400025 |
| mmu-miR-155-5p | -1.148743107 | 4.171982512 | 5.962850066 | 0.014610364 | 0.508828416 |
| mmu-miR-106a-5p | -1.714259453 | 0.932564361 | 5.970271717 | 0.01499856 | 0.508828416 |
| mmu-miR-3068-3p | -1.119567509 | 4.824476871 | 5.875549382 | 0.015352582 | 0.508828416 |
| mmu-miR-425-3p | -1.677175406 | 3.286612848 | 5.736437283 | 0.016616464 | 0.51328298 |
| mmu-miR-467d-5p | 1.61993293 | 1.23981623 | 5.628187002 | 0.017694079 | 0.51328298 |
| mmu-miR-128-1-5p | 1.040296733 | 3.191999368 | 4.643657264 | 0.031165812 | 0.85071024 |
| mmu-miR-431-5p | 1.401225373 | 4.337566127 | 4.307541032 | 0.03794377 | 0.880295469 |

PNA, prenatally androgenized.