**Supplementary Tables**

**Table S1. miRNA inhibitors or mimics**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Manufacturer | Catalogue no. | Assay ID |
| Inhibitor control (Scr-2) | Ambion | AM17010 | CM00200 |
| hsa-miR-31 inhibitor | Ambion | AM17000 | AM11465 |
| Mimic control (Scr-1) | Ambion | AM17110 |  |
| hsa-miR-21 mimic | Ambion | 4464066 | MC10206 |
| hsa-miR-31 mimic | Ambion | 4464066 | MC11465 |
| hsa-miR-146a mimic | Ambion | 4464066 | MC10722 |
| hsa-miR-211 mimic | Ambion | 4464066 | MC10168 |

**Table S2. TaqMan probes**

|  |  |  |
| --- | --- | --- |
|  | Manufacturer | Catalogue no. |
| RNU6B | Thermo Fisher Scientific | 001903 |
| hsa-miR-21 | Thermo Fisher Scientific | 000397 |
| hsa-miR-31 | Thermo Fisher Scientific | 002279 |
| hsa-miR-125b | Thermo Fisher Scientific | 000449 |
| hsa-miR-134 | Thermo Fisher Scientific | 000459 |
| hsa-miR-146a | Thermo Fisher Scientific | 000468 |
| hsa-miR-187 | Thermo Fisher Scientific | 001193 |
| hsa-miR-211 | Thermo Fisher Scientific | 000514 |

**Table S3 Antibodies**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Antibody | Manufacturer | Catalogue no. | Reactivity | Dilution |
| t-AKT (B-1) | Santa Cruz Biotech | sc-5298 | Mouse | 1:1000 |
| pAKT (4051) | Cell signaling | 4051 | Mouse | 1:1000 |
| t-ERK (K-23) | Santa Cruz Biotech | sc-94 | Rabbit | 1:1000 |
| pERK | Cell signaling | 9101 | Rabbit | 1:1000 |
| GAPDH | Santa Cruz Biotech | sc-32233 | Mouse | 1:10000 |

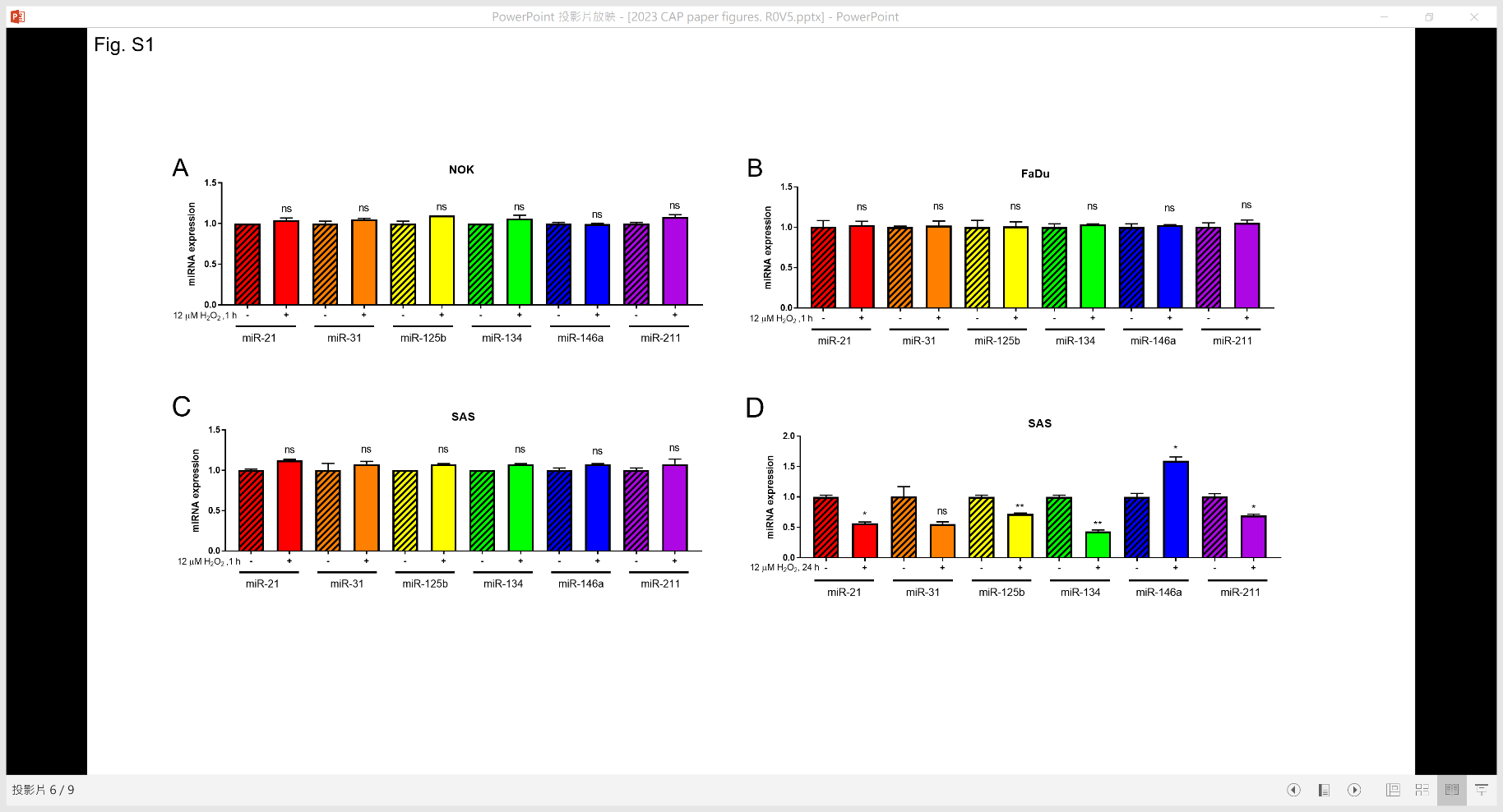
**Supplementary figures**

Fig. S1. H2O2 tretament and miRNA expression. (A) NOK, (B) FaDu, (C, D) SAS. Cells are tretaed with 12.5 µM H2O2 for 1 h. (A - C) Culture medium is change, and the miRNA expression is assayed 24 h later. (D) The miRNA expression in cell is assayed 24 h later without changing the culture medium.

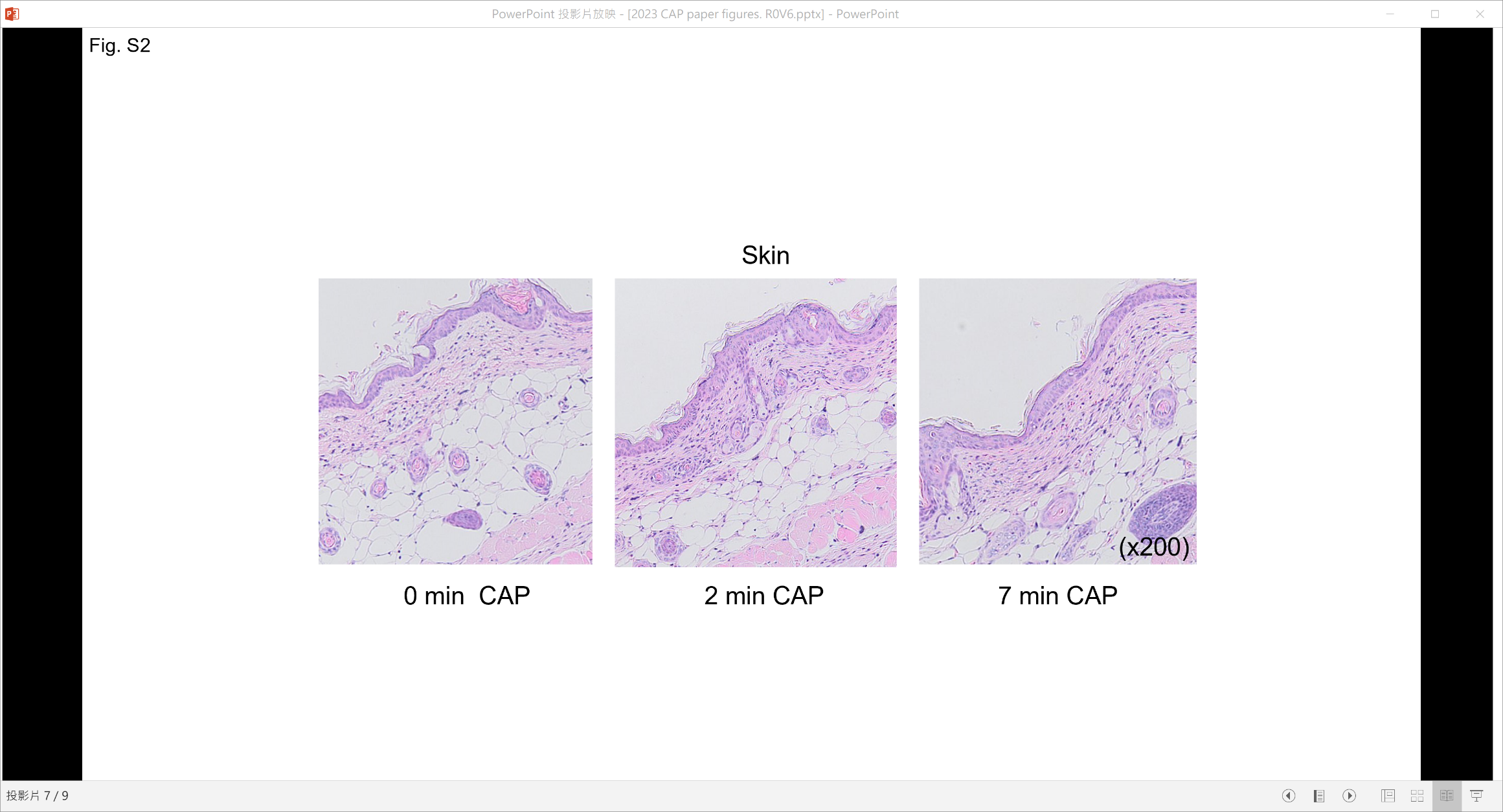


Fig. S2. HE-stained skin tissue sections from control, and those receiving 2 min or 7 min CAP treatment. No injury is noted in epidermis, dermis and hypodermis tissues.

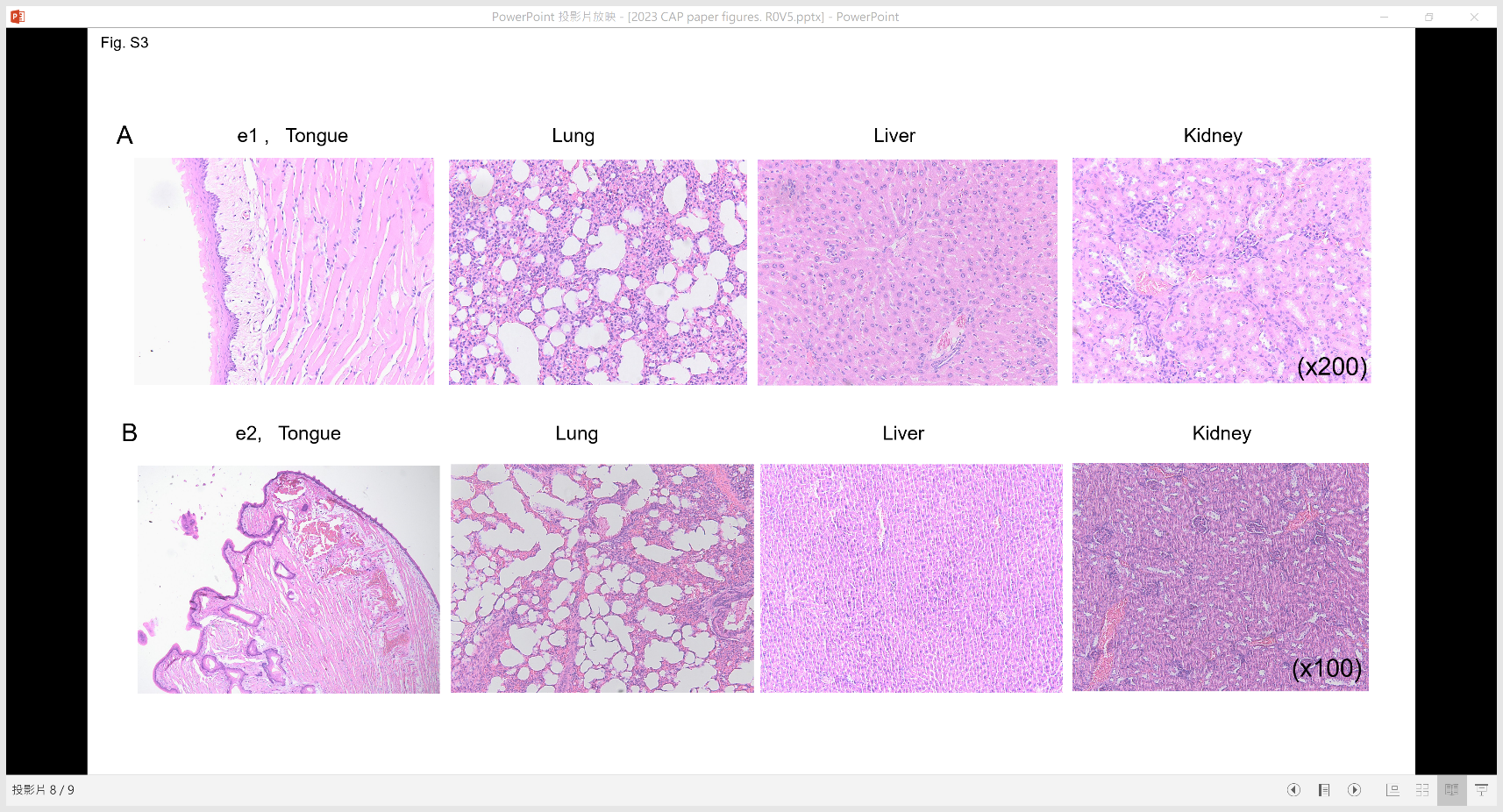


Fig. S3. HE-stained sections of tongue, lung, liver and kidney tissues harvested from mice receiving two-shot of 14 min CAP treatment. (A) e1 (B) e2. Number, magnification fold.

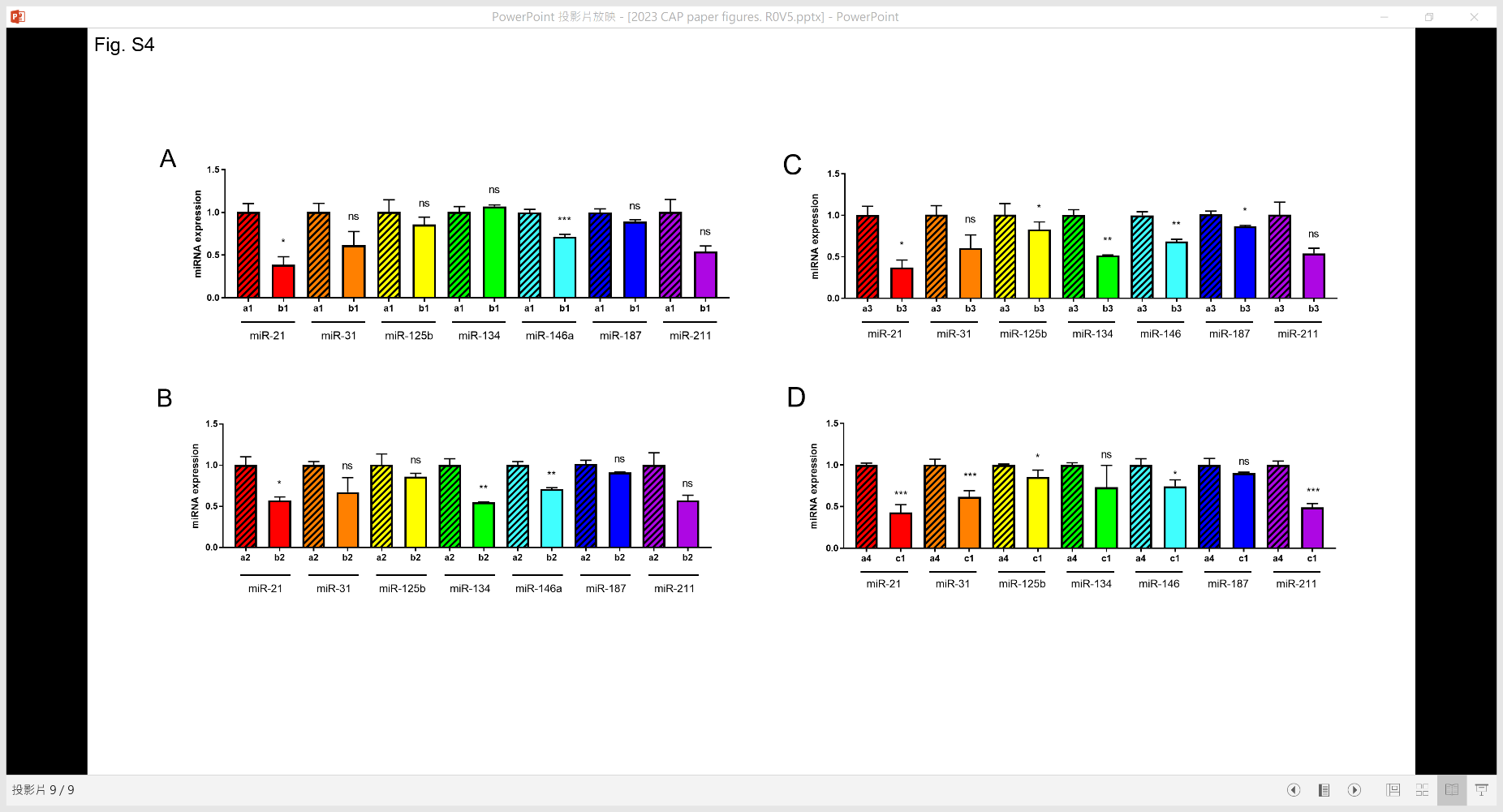


Fig. S4. miRNA expression in four control tumors (a1- a4), three tumors receiving 10 min CAP treatment (b1 – b3 in A – C) and one tumor receiving 14 min CAP treatment (c1 in D). The data are organized in Fig. 5F.