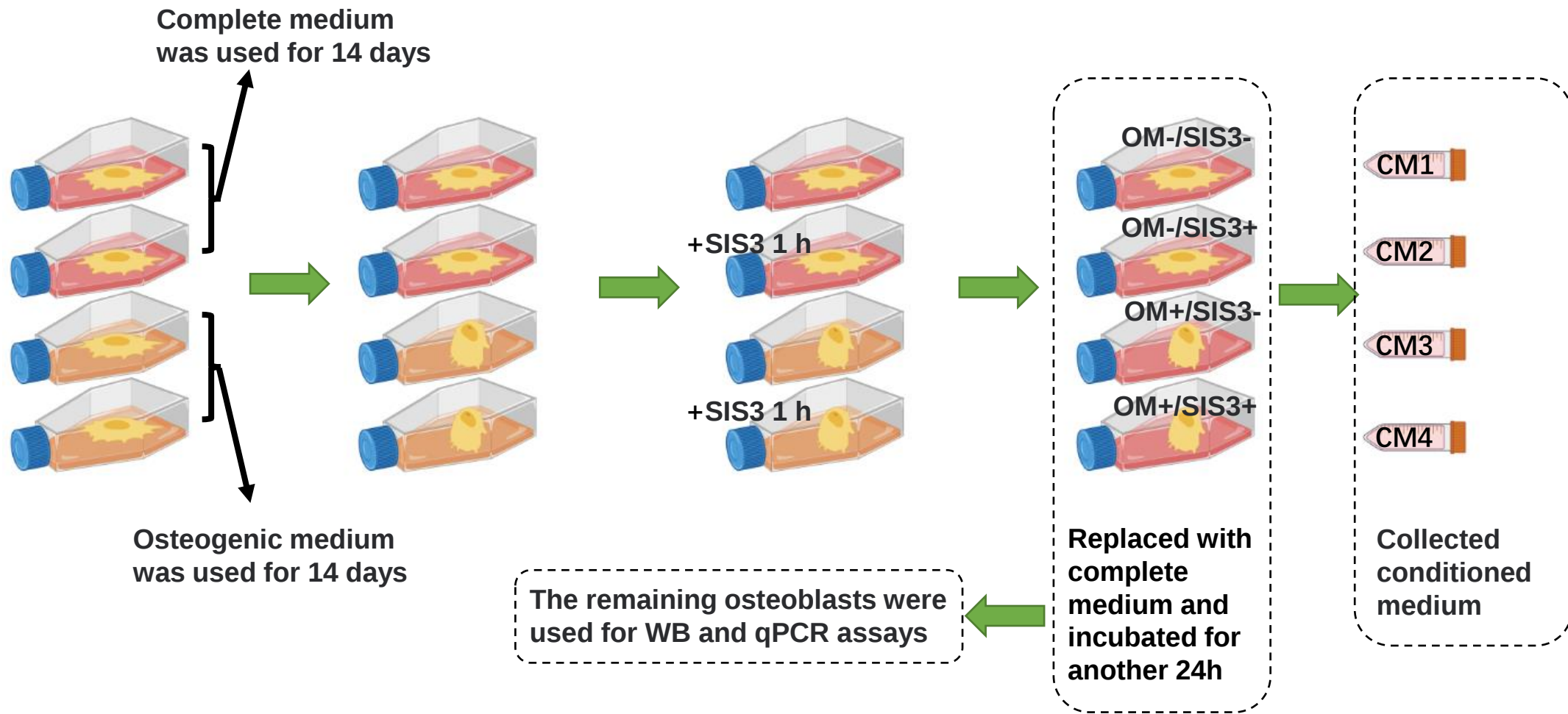
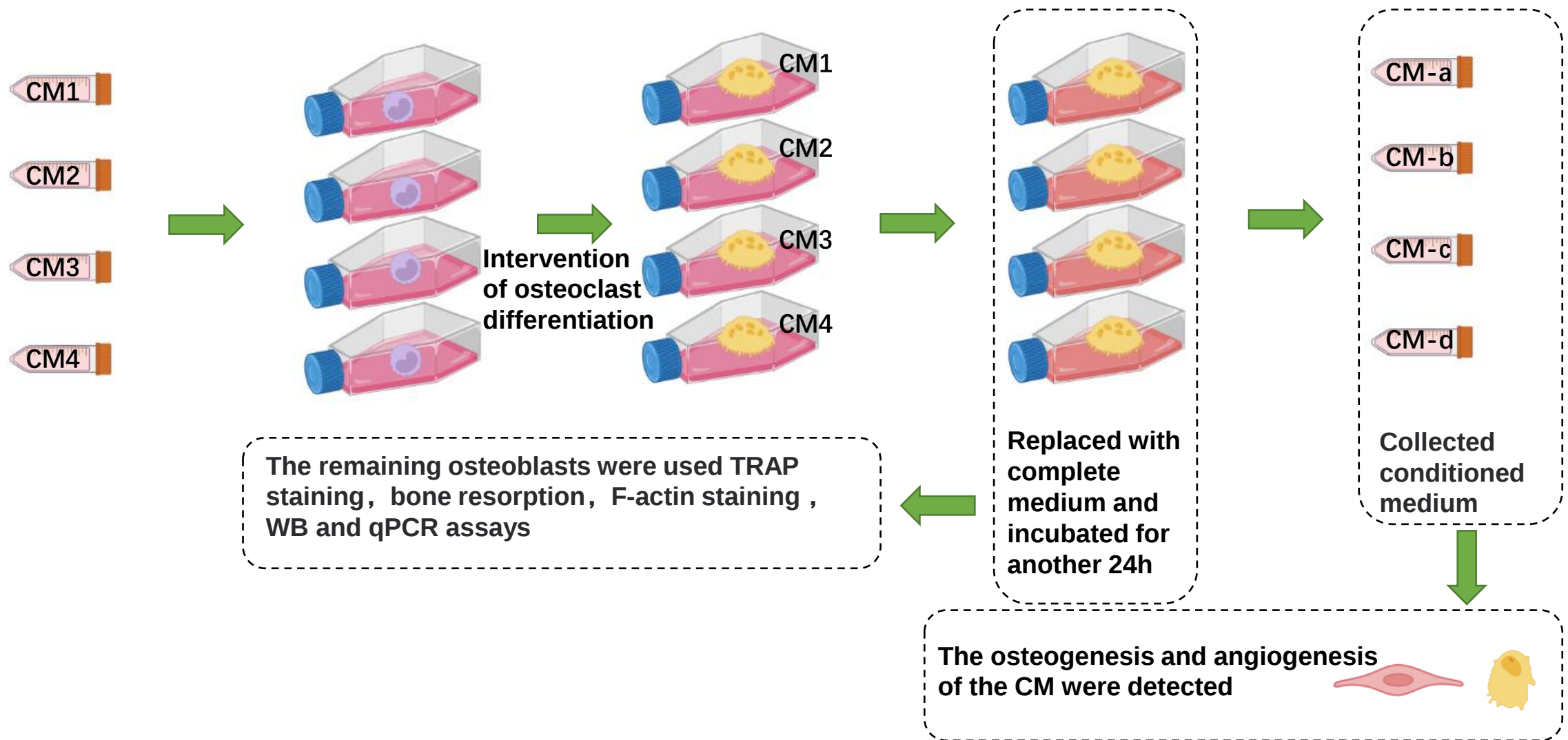
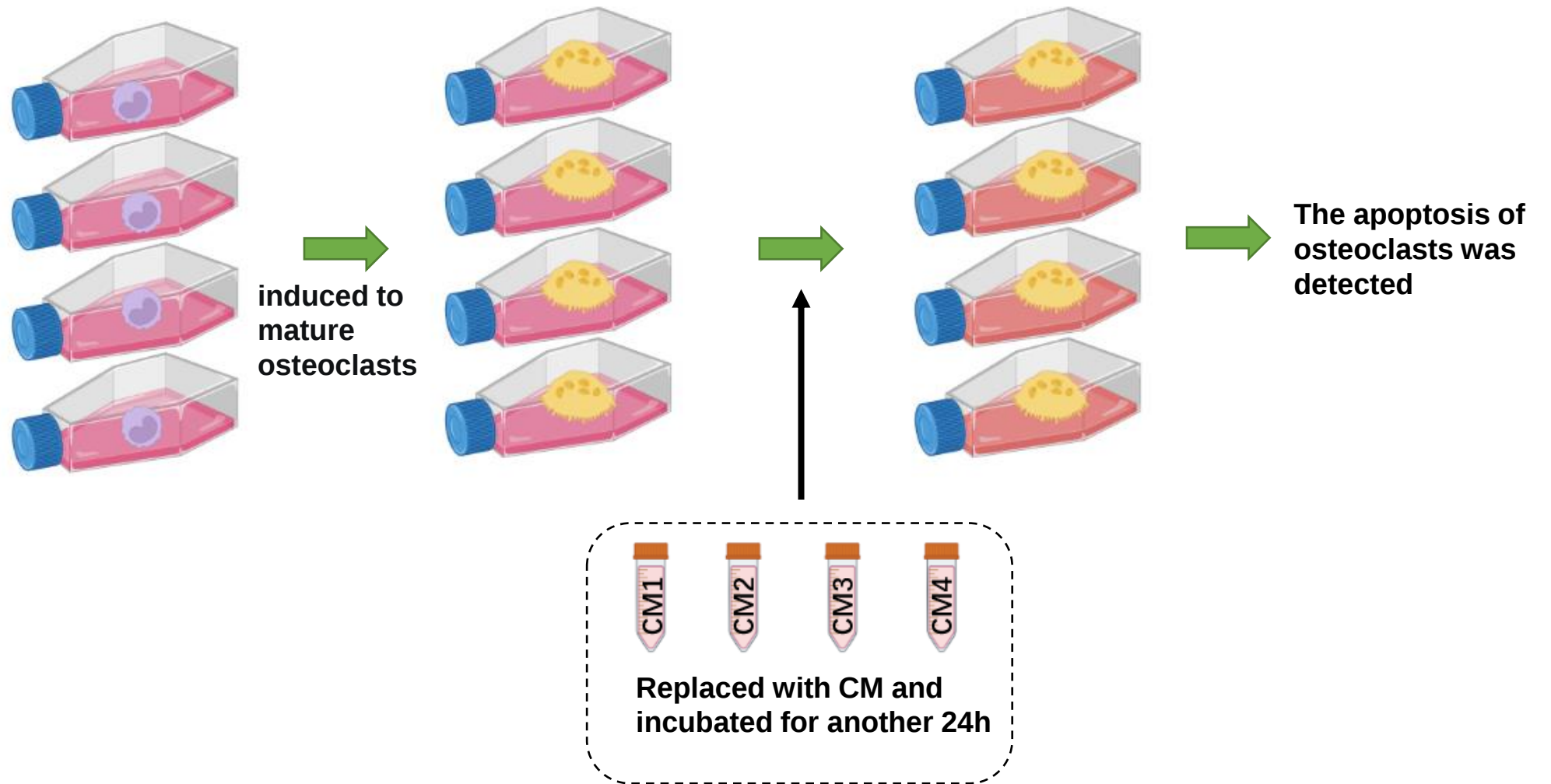




Supplementary Fig1 Collection of osteoblast-derived conditioned medium



**Supplementary Fig2 Effect of osteoblast-derived conditioned medium on osteoclast maturation**



**Supplementary Fig3 Effect of osteoblast-derived conditioned medium on osteoclast apoptosis**

| Table 1   |                         |
|-----------|-------------------------|
| GAPDH-f   | AGGTCGGTGTGAACGGATTG    |
| GAPDH-r   | TGTAGACCATGTAGTTGAGGTCA |
| OPG-f     | ATGCAACACATGACAACGTG    |
| OPG-r     | CCTCTCTACACTCTCGGCAT    |
| MCSF-f    | GGCTTGGCTTGGGATGATTCT   |
| MCSF-r    | GAGGGTCTGGCAGGTACTC     |
| CCN2-f    | GGGCCTCTTCTGCGATTTC     |
| CCN2-r    | ATCCAGGCAAGTGCATTGGTA   |
| MMP7-f    | TCGCAAGGAGAGATCATGGAG   |
| MMP7-r    | CTGCGTCCTCACCATCAGTC    |
| MMP3-f    | ACATGGAGACTTTGTCCCTTTTG |
| MMP3-r    | TTGGCTGAGTGGTAGAGTCCC   |
| SDF-1-f   | TCAACACTCCAACTGTGCC     |
| SDF-1-r   | TTGGGGCTGTTGTGCTTACT    |
| fasl-f    | CTGGGTTGTACTTCGTGTATTCC |
| fasl-r    | TGTCCAGTAGTGCAGTAGTTCAA |
| PDGF-BB-f | CATCCGCTCCTTTGATGATCTT  |
| PDGF-BB-r | GTGCTCGGGTCATGTTCAAGT   |

| Table 1    |                        |
|------------|------------------------|
| MCP-1-f    | TTTTTGTACCAAGCTCAAGAG  |
| MCP-1-r    | TTCTGATCTCATTTGGTTCCGA |
| Atp6v0d2-f | GCCAGTGTTCAAGTTGCTATCC |
| Atp6v0d2-r | GCTTTGCATCCTCGAACCAG   |
| Rank-f     | CTGAAAAGCACCTGACAAAAGA |
| Rank-r     | CTGTGTAGCCATCTGTTGAGTT |
| RANKL-f    | CAGCATCGCTCTGTTCTGTGA  |
| RANKL-r    | CTGCGTTTTTCATGGAGTCTCA |
| TRAP-f     | CAGCAGCCAAGGAGGACTAC   |
| TRAP-r     | GGCTAACAATGGTCGCAAGT   |
| Ctsk-f     | GGCCAACTCAAGAAGAAAAC   |
| CtsK-r     | GTGCTTGCTTCCCTTCTGG    |
| Mmp9-f     | GCCCTGGAACTCACACGACA   |
| Mmp9-r     | TTGGAAACTCACACGCCAGAAG |
| Bmp6-f     | AAGGCTACGCTGCCAACTACT  |
| Bmp6-r     | AGCATGGTTTGGGGACGTACT  |
| wnt10B-f   | GGGACCTCGGGTGACAATAA   |
| wnt10B-r   | CCTCTGTCCTTTTCCAACCG   |

**Table2 Antibody Information**

| Name of antibody              | Proportion of dilution | The manufacturer              |
|-------------------------------|------------------------|-------------------------------|
| p-smad3                       | 1:1000                 | ET1609-41, Huabio,China       |
| smad3                         | 1:1000                 | ET1607-41, Huabio,China       |
| Ctsk                          | 1:1000                 | ab187647, Abcam,USA           |
| mmp9                          | 1:1000                 | ab228402, Abcam,USA           |
| NFATc1                        | 1:2000                 | YT5381, Immunoway,USA         |
| Cleaved-caspase3              | 1:500                  | YM3431, Immunoway,USA         |
| Cleaved-caspase8              | 1:2000                 | YC0011, Immunoway,USA         |
| BAX                           | 1:1000                 | 60267-1-Ig, Proteintech,China |
| GAPDH                         | 1:10000                | 10494-1-AP, Proteintech,China |
| Goat Anti-Rabbit IgG(H+L) HRP | 1:10000                | RS0002, Immunoway,USA         |
| Goat Anti-Mouse IgG (H+L) HRP | 1:10000                | S0002, Affinity,China         |