**Supplementary Materials**

Figure S1.Platinum distribution detection by Electron Probe Micro Analyzer (EPMA).

Adenocarcinomas soaked in Cisplatin were observed by scanning electron microscopy with EPMA, which showed Pt distribution on the nuclei.



Figure S2. SAM images of ovarian adenocarcinoma cells incubated in different concentrations of acetic acid.

SOS and AOS increased according to higher concentration, while thickness gradually reduced.

The corresponding LM image in Papanicolaou stain showed three-dimensional to a flat image after 40% acetic acid incubation. The scale bars represent 40 µm.



Figure S3. SMA value alteration among a different concentration of acetic acid.

SOS and AOS increased according to higher concentration, while thickness gradually reduced. \*\**p*<0.01, \**p*<0.05.



Table S1. SAM value alteration after acetic acid treatment

|  |  |  |  |
| --- | --- | --- | --- |
| SOS m/s | n | average | SD |
| 0% | 15 | 1673.2 | 54.1 |
| 1% | 15 | 1721.6 | 27.9 |
| 5% | 15 | 1747.2 | 42.1 |
| 10% | 15 | 1775.7 | 29.1 |
| 20% | 15 | 1775.6 | 37.0 |
| 40% | 15 | 1771.6 | 33.1 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| AOS dB/mm | n | average | SD |
| 0% | 15 | 5.15 | 1.26 |
| 1% | 15 | 5.82 | 0.84 |
| 5% | 15 | 7.02 | 0.78 |
| 10% | 16 | 7.44 | 1.37 |
| 20% | 15 | 7.61 | 1.30 |
| 40% | 15 | 8.58 | 2.17 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Thick µm | n | average | SD |
| 0% | 15 | 11.47 | 2.29 |
| 1% | 15 | 11.29 | 1.68 |
| 5% | 15 | 11.21 | 1.95 |
| 10% | 15 | 11.09 | 1.52 |
| 20% | 15 | 10.82 | 1.49 |
| 40% | 15 | 10.03 | 1.41 |