

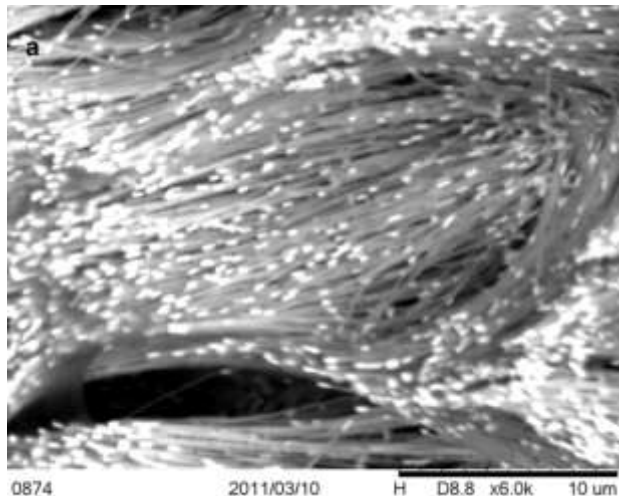
Cell Manipulation and Separation using Magnetic Barcode Nanowires

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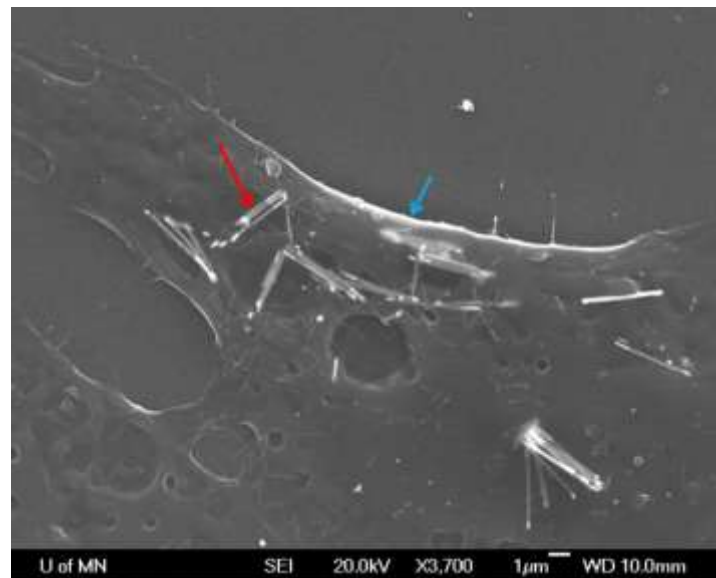
● This work focuses on:

- ◆ Fabrication of Gold/Nickel Multi-segmented magnetic “barcode” nanowires
- ◆ Non-specific uptake of barcode nanowires by Osteosarcoma cells (OSCA)
- ◆ Specific uptake of nanowires and cell separation from mixture of analytes



● Results and Observations:

- ◆ SEM and confocal microscopy images indicate non-specific uptake of nanowires by OSCA cells
- ◆ The nanowires appear to be non-cytotoxic from initial viability studies



SEM micrographs of (left) as-fabricated barcode nanowires and (above) nanowires (red arrow) uptaken by cancer cell (cell membrane-blue arrow)