Chondrosarcoma is the second most common primary sarcoma of bone. High-grade conventional chondrosarcoma and dedifferentiated chondrosarcoma have a poor outcome. In clinical research for novel treatment, chondrosarcoma cell lines and model systems is needed, but only several cell lines is available.

The author have established 3 cell lines with characteristics of chondrosarcoma from patients, the three cell lines have distinct migrative properties, L2975 had the highest migration rate and showed tumorigenic potential in mice. All cell lines showed chromosomal rearrangements with complex karyotypes and genotypic aberrations were conserved throughout late passaging of the cell lines. All cell lines showed loss of CDKN2A, while TP53 was wild type for exons 5-8. L835 has an IDH1 R132C mutation, L2975 an IDH2 R172W mutation and L3252 is IDH wild type.

These 3 cell lines should provide useful functional models to further characterize chondrosarcoma and to evaluate new treatment strategies, and provide a valuable addition to the current panel of chondrosarcoma cell lines.

The Questions

1 Results
Establishment of cell lines and transmission light microscopy
Line 15,in the last sentence, “ColII, ColIII” might be wrong, please correct it.

2 Results
Transplantation into nude mice
"L2975 cells were subcutaneously transplanted into nude mice and a tumor of 4mm in diameter was observed in 1 out of 3 mice after 3 months. A fragment of the resulting tumor was subsequently subcutaneously transplanted into 2 nude mice and a tumor of 20mm in diameter was observed in 2 out of 2 mice. Morphologically, tumor cells of both the first and second xenograft showed a more epithelioid morphology (figure 3A, B) while no deposition of cartilaginous matrix was observed at H&E or Toluidine Blue staining (results not shown). Xenografting of L835 and L3252 did not result in tumors in 8 months”.

As described in the results, 3 cell lines were were subcutaneously transplanted
into nude mice, only L2975 could form tumors in nude mice, L835 and L3252 did not result in tumors, the possible reason: 1) the cells were not malignant enough, 2) the nude mice 3) the cell numbers was not large.

If possible, I recommend the authors to increase the cells numbers from 2,000,000 cells to 10000000-20000000, and inoculate 5-8 nude mice for each cell lines of L835 and L3252.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.