

## Floating cells with stem cell properties in gastric cell line SGC-7901

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### ABSTRACT

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**Aims.** To obtain floating spheres from the adherent gastric cancer cell line SGC-7901 and to analyze the properties of the spheres.

**Methods.** Serum-free medium was applied to cultured SGC-7901 cells. Limiting dilution assay, tumor formation assay, microarray analysis, and real-time fluorescent quantitative PCR were used to test the stem cell properties of the spheres.

**Results.** A subpopulation of SGC-7901 cells formed floating spheres in serum-free medium. These cells showed enhanced tumorigenic ability and also highly expressed certain stem-cell-associated proteins.

**Conclusions.** We successfully propagated floating spheres with stem cell properties in the SGC-7901 gastric cell line.

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**Key words:** gastric cancer stem cells, floating spheres, limiting dilution assay, microarray.

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