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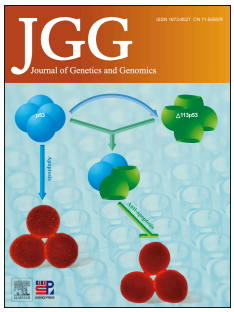

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HCSGD: an integrated database of human cellular senescence genes

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Abstract

Cellular senescence is an irreversible cell cycle arrest program in response to various exogenous and endogenous stimuli like telomere dysfunction and DNA damage. It has been widely accepted as an anti-tumor program and is also found closely related to embryo development, tissue repair, organismal aging and age-related degenerative diseases. In the past decades, numerous efforts have been made to uncover the gene regulatory mechanisms of cellular senescence. There is a strong demand to integrate these data from various resources into one open platform. To facilitate researchers on cellular senescence, we have developed Human Cellular Senescence Gene Database (HCSGD) by integrating multiple online published data sources into a comprehensive senescence gene annotation platform (http://bioinfo.au.tsinghua.edu.cn/member/xwwang/HCSGD). Potential Human Cellular Senescence Genes (HCSGS) were collected by combining