







Tumor suppressor activity of the ERK/MAPK pathway by promoting selective protein degradation

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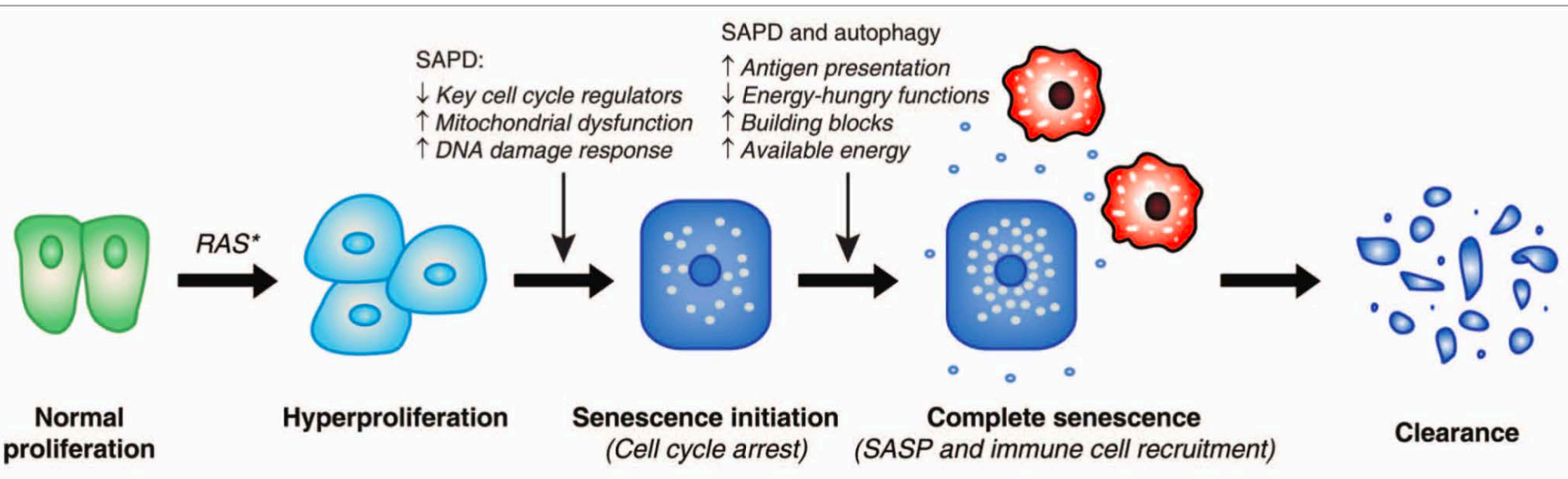
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Cellular senescence and protein degradation

Breaking down cancer

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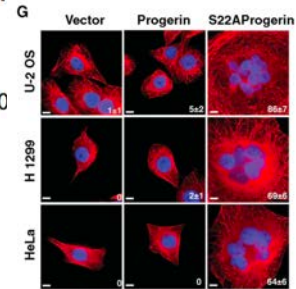




Mutant lamin A links prophase to a p53 independent senescence program

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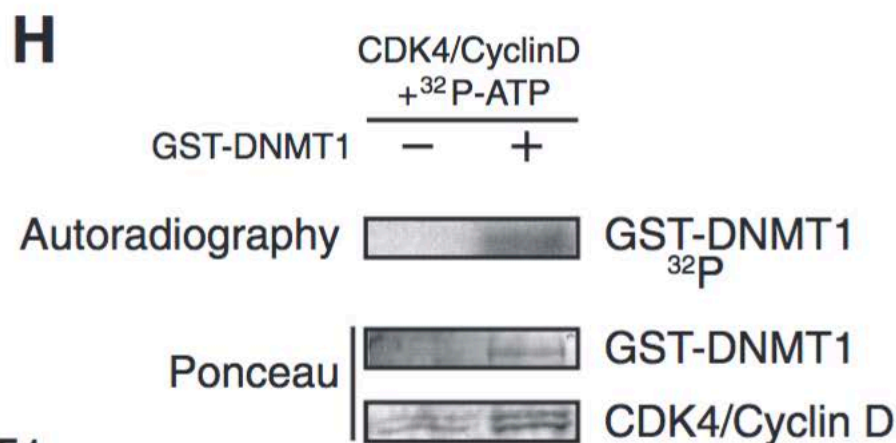
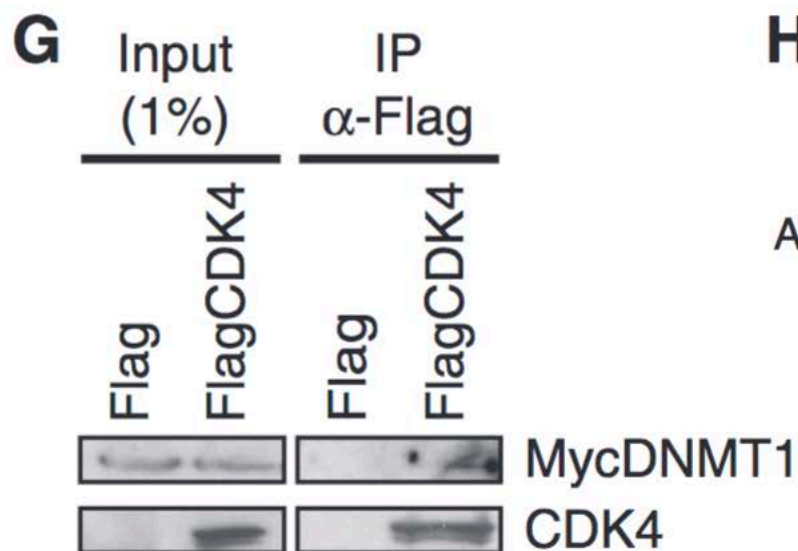
Permanent farnesylation of lamin A mutants linked to progeria impairs its phosphorylation at serine 22 during interphase

Olga Moiseeva^{1*}, Stéphane Lopes-Paciencia¹, Geneviève Huot¹, Frédéric Lessard¹, and Gerardo Ferbeyre¹

A CDK4/6-Dependent Epigenetic Mechanism Protects Cancer Cells from PML-induced Senescence

Mariana Acevedo, Mathieu Vernier, Lian Mignacca, Frédéric Lessard, Geneviève Huot, Olga Moiseeva, Véronique Bourdeau, and Gerardo Ferbeyre

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Defective ribosome biogenesis in senescence reveals a novel checkpoint pathway to control cyclin-dependent kinases
 Frédéric Lessard, Sebastian Igelmann, Geneviève Huot, Benjamin Le Calvé, Mariève Montero, Emmanuelle St-Germain, Liam Mignacca, Xavier Deschênes-Simard, Olga Moiseeva, Cornelia E Zorca, Daniel Zenklusen, Léa Brakier-Gingras, Véronique Bourdeau and Gerardo Ferbeyre.
 Faculty of Medicine, Department of Biochemistry and Molecular Medicine, University of Montreal, Pavillon Roger-Gaudry, C.P. 6128, succursale Centre-ville, Montreal, QC, Canada, H3C 3J7.



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Senescence-associated ribosome biogenesis defects contributes to cell cycle arrest through the Rb pathway

Frédéric Lessard, Sebastian Igelmann, Christian Trahan, Geneviève Huot, Emmanuelle Saint-Germain, Lian Mignacca, Neylen Del Toro, Stéphane Lopes-Paciencia, Benjamin Le Calvé, Marinieve Montero, Xavier Deschênes-Simard, Marina Bury, Olga Moiseeva, Marie-Camille Rowell, Cornelia E. Zorca, Daniel Zenklusen, Léa Brakier-Gingras, Véronique Bourdeau, Marlene Oeffinger & Gerardo Ferbeyre 

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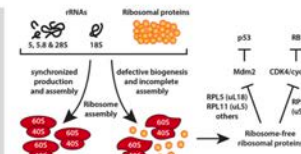


2015/12/12

Ribosomal Proteins Control Tumor Suppressor Pathways in Response to Nucleolar Stress

Frédéric Lessard, Léa Brakier-Gingras, Gerardo Ferbeyre

1800183 | First Published: 01 February 2019



Ribosome-free ribosomal proteins accumulate upon nucleolar stress. While some ribosomal proteins inhibit Myc, E2Fs and Mdm2 and activate p53, RPS14 binds and inhibits CDK4-cyclin D complexes activating the retinoblastoma (RB) pathway. Drugs able to engage the tumor suppressor functions of ribosomal proteins may represent a novel generation of anticancer medicines.

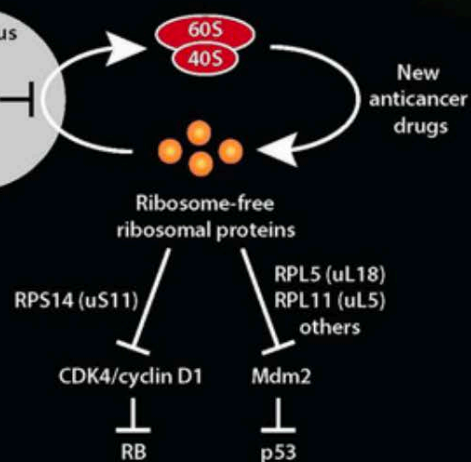
Cell Cycle

Research Paper

Ribosomal protein RPL22/eL22 regulates the cell cycle by acting as an inhibitor of the CDK4-cyclin D complex

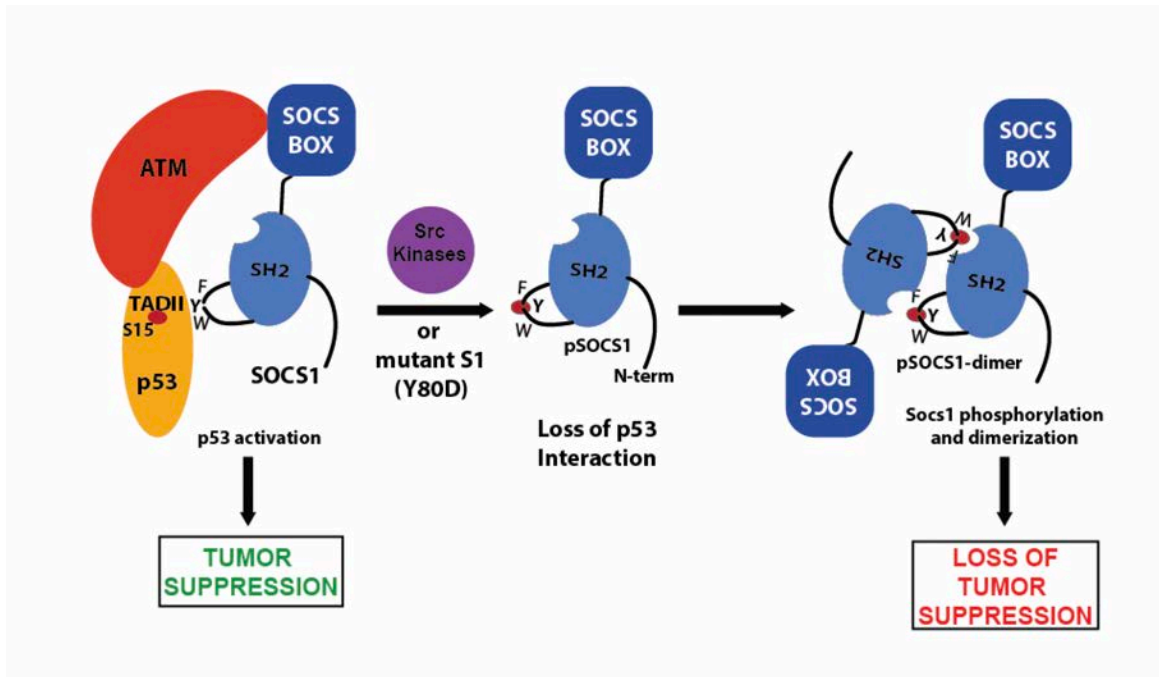
 Neylen Del Toro, Ana Fernandez-Ruiz, Lian Mignacca, Paloma Kalegari, Marie-Camille Rowell, Sebastian Igelmann, Emmanuelle Saint-Germain, Mehdi Benfdil, Stéphane Lopes-Paciencia, Léa Brakier-Gingras, Véronique Bourdeau, Gerardo Ferbeyre & Frédéric Lessard [show less](#)

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 RPS14 (uS11)
RPL29 (eL29)

Phosphorylation of SOCS1 Inhibits the SOCS1-p53 Tumor Suppressor Axis

Emmanuelle Saint-Germain¹, Lian Mignacca¹, Geneviève Huot¹, Mariana Acevedo¹, Karine Moineau-Vallée¹, Viviane Calabrese¹, Véronique Bourdeau¹, Marie-Camille Rowell^{1,2}, Subburaj Ilangumaran³, Frédéric Lessard¹, and Gerardo Ferbeyre^{1,2}







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