Publications Stemming From

The Progeria Research Foundation Cell and Tissue Bank

The Progeria Research Foundation Cell and Tissue Bank has contributed to the following medical publications, categorized by cell line for researcher convenience:

HGADFN001

Age-dependent loss of MMP-3 in Hutchinson-Gilford progeria syndrome.
Harten IA, Zahr RS, Lemire JM, Machan JT, Moses MA, Doiron RJ, Curatolo AS, Rothman FG, Wight TN, Toole BP, Gordon LB. *J Gerontol A Biol Sci Med Sci*. 2011 Nov;66(11):1201-7.

The mutant form of lamin A that causes Hutchinson-Gilford progeria is a biomarker of cellular aging in human skin.
McClintock D, Ratner D, Lokuge M, Owens DM, Gordon LB, Collins FS, Djabali K. *PLoS One*. 2007 Dec 5;2(12):e1269.

Hutchinson-Gilford progeria mutant lamin A primarily targets human vascular cells as detected by an anti-Lamin A G608G antibody.
McClintock D, Gordon LB, Djabali K. *Proc Natl Acad Sci U S A.* 2006 Feb 14;103(7):2154-9.

Aggrecan expression is substantially and abnormally upregulated in Hutchinson-Gilford Progeria Syndrome dermal fibroblasts.
Lemire JM, Patis C, Gordon LB, Sandy JD, Toole BP, Weiss AS. *Mech Ageing Dev.* 2006 Aug;127(8):660-9.

Rescue of heterochromatin organization in Hutchinson-Gilford progeria by drug treatment.
Columbaro M, Capanni C, Mattioli E, Novelli G, Parnaik VK, Squarzoni S, Maraldi NM, Lattanzi G. *Cell Mol Life Sci.* 2005 Nov;62(22):2669-78.

Recurrent de novo point mutations in lamin A cause Hutchinson-Gilford progeria syndrome.
Eriksson M, Brown WT, Gordon LB, Glynn MW, Singer J, Scott L, Erdos MR, Robbins CM, Moses TY, Berglund P, Dutra A, Pak E, Durkin S, Csoka AB, Boehnke M, Glover TW, Collins FS. *Nature.* 2003 May 15;423(6937):293-8.

HGADFN003

Sulforaphane enhances progerin clearance in Hutchinson-Gilford progeria fibroblasts.
Gabriel D, Roedl D, Gordon LB, Djabali K. *Aging Cell*. 2014 Dec 16: 1-14.

Depleting the methyltransferase Suv39h1 improves DNA repair and extends lifespan in a progeria mouse model.
Liu B, Wang Z, Zhang L, Ghosh S, Zheng H, Zhou Z.*Nat Commun*. 2013;4:1868.

Naïve adult stem cells from patients with Hutchinson-Gilford progeria syndrome express low levels of progerin in vivo.
Wenzel V, Roedl D, Gabriel D, Gordon LB, Herlyn M, Schneider R, Ring J, Djabali K. *Biol Open.* 2012 Jun 15;1(6):516-26. Epub 2012 Apr 16.

Age-dependent loss of MMP-3 in Hutchinson-Gilford progeria syndrome.
Harten IA, Zahr RS, Lemire JM, Machan JT, Moses MA, Doiron RJ, Curatolo AS, Rothman FG, Wight TN, Toole BP, Gordon LB. *J Gerontol A Biol Sci Med Sci*. 2011 Nov;66(11):1201-7.

Progerin and telomere dysfunction collaborate to trigger cellular senescence in normal human fibroblasts.
Cao K, Blair CD, Faddah DA, Kieckhaefer JE, Olive M, Erdos MR, Nabel EG, Collins FS. *J Clin Invest.* 2011 Jul 1;121(7):2833-44

Defective lamin A-Rb signaling in Hutchinson-Gilford Progeria Syndrome and reversal by farnesyltransferase inhibition.
Marji J, O'Donoghue SI, McClintock D, Satagopam VP, Schneider R, Ratner D, Worman HJ, Gordon LB, Djabali K. *PLoS One*. 2010 Jun 15;5(6):e11132.

Effect of progerin on the accumulation of oxidized proteins in fibroblasts from Hutchinson Gilford progeria patients.
Viteri G, Chung YW, Stadtman ER. *Mech Ageing Dev*. 2010 Jan;131(1):2-8.

Ageing-related chromatin defects through loss of the NURD complex.
Pegoraro G, Kubben N, Wickert U, Göhler H, Hoffmann K, Misteli T. *Nat Cell Biol.* 2009 Oct;11(10):1261-7.

Lamin A-dependent misregulation of adult stem cells associated with accelerated ageing.
Scaffidi P, Misteli T. *Nat Cell Biol.* 2008 Apr;10(4):452-9.

Perturbation of wild-type lamin A metabolism results in a progeroid phenotype.
Candelario J, Sudhakar S, Navarro S, Reddy S, Comai L. *Aging Cell*. 2008 Jun;7(3):355-67

Alterations in mitosis and cell cycle progression caused by a mutant lamin A known to accelerate human aging.
Dechat T, Shimi T, Adam SA, Rusinol AE, Andres DA, Spielmann HP, Sinensky MS, Goldman RD. *Proc Natl Acad Sci USA*. 2007 Mar 20;104(12):4955-60.

The mutant form of lamin A that causes Hutchinson-Gilford progeria is a biomarker of cellular aging in human skin.

McClintock D, Ratner D, Lokuge M, Owens DM, Gordon LB, Collins FS, Djabali K. *PLoS One*. 2007 Dec 5;2(12):e1269.

A lamin A protein isoform overexpressed in Hutchinson-Gilford progeria syndrome interferes with mitosis in progeria and normal cells.
Cao K, Capell BC, Erdos MR, Djabali K, Collins FS. *Proc Natl Acad Sci USA*. 2007 Mar 20;104(12):4949-54.

Hutchinson-Gilford progeria mutant lamin A primarily targets human vascular cells as detected by an anti-Lamin A G608G antibody.
McClintock D, Gordon LB, Djabali K. *Proc Natl Acad Sci U S A.* 2006 Feb 14;103(7):2154-9.

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Columbaro M, Capanni C, Mattioli E, Novelli G, Parnaik VK, Squarzoni S, Maraldi NM, Lattanzi G. *Cell Mol Life Sci.* 2005 Nov;62(22):2669-78.

Genomic instability in laminopathy-based premature aging.
Liu B, Wang J, Chan KM, Tjia WM, Deng W, Guan X, Huang JD, Li KM, Chau PY, Chen DJ, Pei D, Pendas AM, Cadiñanos J, López-Otín C, Tse HF, Hutchison C, Chen J, Cao Y, Cheah KS, Tryggvason K, Zhou Z. *Nat Med.* 2005 Jul;11(7):780-5.

Incomplete processing of mutant lamin A in Hutchinson-Gilford progeria leads to nuclear abnormalities, which are reversed by farnesyltransferase inhibition.
Glynn MW, Glover TW. *Hum Mol Genet.* 2005 Oct 15;14(20):2959-69.

Accumulation of mutant lamin A causes progressive changes in nuclear architecture in Hutchinson-Gilford progeria syndrome.
Goldman RD, Shumaker DK, Erdos MR, Eriksson M, Goldman AE, Gordon LB, Gruenbaum Y, Khuon S, Mendez M, Varga R, Collins FS. *Proc Natl Acad Sci U S A.* 2004 Jun 15;101(24):8963-8.

Recurrent de novo point mutations in lamin A cause Hutchinson-Gilford progeria syndrome.
Eriksson M, Brown WT, Gordon LB, Glynn MW, Singer J, Scott L, Erdos MR, Robbins CM, Moses TY, Berglund P, Dutra A, Pak E, Durkin S, Csoka AB, Boehnke M, Glover TW, Collins FS. *Nature.* 2003 May 15;423(6937):293-8.

HGADFN004

Incomplete processing of mutant lamin A in Hutchinson-Gilford progeria leads to nuclear abnormalities, which are reversed by farnesyltransferase inhibition.
Glynn MW, Glover TW. *Hum Mol Genet.* 2005 Oct 15;14(20):2959-69.

HGADFN005

Recurrent de novo point mutations in lamin A cause Hutchinson-Gilford progeria syndrome.
Eriksson M, Brown WT, Gordon LB, Glynn MW, Singer J, Scott L, Erdos MR, Robbins CM, Moses TY, Berglund P, Dutra A, Pak E, Durkin S, Csoka AB, Boehnke M, Glover TW, Collins FS. *Nature.* 2003 May 15;423(6937):293-8.

HGADFN008

Recurrent de novo point mutations in lamin A cause Hutchinson-Gilford progeria syndrome.
Eriksson M, Brown WT, Gordon LB, Glynn MW, Singer J, Scott L, Erdos MR, Robbins CM, Moses TY, Berglund P, Dutra A, Pak E, Durkin S, Csoka AB, Boehnke M, Glover TW, Collins FS. *Nature.* 2003 May 15;423(6937):293-8.

HGADFN014

Recurrent de novo point mutations in lamin A cause Hutchinson-Gilford progeria syndrome.
Eriksson M, Brown WT, Gordon LB, Glynn MW, Singer J, Scott L, Erdos MR, Robbins CM, Moses TY, Berglund P, Dutra A, Pak E, Durkin S, Csoka AB, Boehnke M, Glover TW, Collins FS. *Nature.* 2003 May 15;423(6937):293-8.

HGADFN086

Increased progerin expression associated with unusual LMNA mutations causes severe progeroid syndromes.
Moulson CL, Fong LG, Gardner JM, Farber EA, Go G, Passariello A, Grange DK, Young SG, Miner JH. *Hum Mutat.* 2007 Sep;28(9):882-9.

HGMDFN090

Higher-order unfolding of satellite heterochromatin is a consistent and early event in cell senescence.
Swanson EC, Manning B, Zhang H, Lawrence JB. *J Cell Biol*. 2013 Dec 23;203(6):929-42.

Correlated alterations in genome organization, histone methylation, and DNA-lamin A/C interactions in Hutchinson-Gilford progeria syndrome.
McCord RP, Nazario-Toole A, Zhang H, Chines PS, Zhan Y, Erdos MR, Collins FS, Dekker J, Cao K. *Genome Res*. 2013 Feb;23(2):260-9. Epub 2012 Nov 14.

Comparison of constitutional and replication stress-induced genome structural variation by SNP array and mate-pair sequencing.
Arlt MF, Ozdemir AC, Birkeland SR, Lyons RH Jr, Glover TW, Wilson TE. *Genetics*. 2011 Mar;187(3):675-83.

Hydroxyurea induces de novo copy number variants in human cells.
Arlt MF, Ozdemir AC, Birkeland SR, Wilson TE, Glover TW. *Proc Natl Acad Sci USA.* 2011 Oct 18;108(42):17360-5

Progerin and telomere dysfunction collaborate to trigger cellular senescence in normal human fibroblasts.
Cao K, Blair CD, Faddah DA, Kieckhaefer JE, Olive M, Erdos MR, Nabel EG, Collins FS. *J Clin Invest.* 2011 Jul 1;121(7):2833-44

CTP:phosphocholine cytidylyltransferase α (CCTα) and lamins alter nuclear membrane structure without affecting phosphatidylcholine synthesis.
Gehrig K, Ridgway ND. *Biochim Biophys Acta*. 2011 Jun;1811(6):377-85.

Effect of progerin on the accumulation of oxidized proteins in fibroblasts from Hutchinson Gilford progeria patients.
Viteri G, Chung YW, Stadtman ER. *Mech Ageing Dev*. 2010 Jan;131(1):2-8.

Replication stress induces genome-wide copy number changes in human cells that resemble polymorphic and pathogenic variants.
Arlt MF, Mulle JG, Schaibley VM, Ragland RL, Durkin SG, Warren ST, Glover TW. *Am J Hum Genet*. 2009 Mar;84(3):339-50.

A lamin A protein isoform overexpressed in Hutchinson-Gilford progeria syndrome interferes with mitosis in progeria and normal cells.
Cao K, Capell BC, Erdos MR, Djabali K, Collins FS. *Proc Natl Acad Sci USA*. 2007 Mar 20;104(12):4949-54.

Incomplete processing of mutant lamin A in Hutchinson-Gilford progeria leads to nuclear abnormalities, which are reversed by farnesyltransferase inhibition.
Glynn MW, Glover TW. *Hum Mol Genet.* 2005 Oct 15;14(20):2959-69.

HGADFN122

Depleting the methyltransferase Suv39h1 improves DNA repair and extends lifespan in a progeria mouse model.
Liu B, Wang Z, Zhang L, Ghosh S, Zheng H, Zhou Z. *Nat Commun*. 2013;4:1868.

HGADFN127

Sulforaphane enhances progerin clearance in Hutchinson-Gilford progeria fibroblasts.
Gabriel D, Roedl D, Gordon LB, Djabali K. *Aging Cell*. 2014 Dec 16: 1-14.

A proteomic study of Hutchinson-Gilford progeria syndrome: Application of 2D-chromotography in a premature aging disease.
Wang L, Yang W, Ju W, Wang P, Zhao X, Jenkins EC, Brown WT, Zhong N. *Biochem Biophys Res Commun.* 2012 Jan 27;417(4):1119-26. Epub 2011 Dec 24.

Age-dependent loss of MMP-3 in Hutchinson-Gilford progeria syndrome.
Harten IA, Zahr RS, Lemire JM, Machan JT, Moses MA, Doiron RJ, Curatolo AS, Rothman FG, Wight TN, Toole BP, Gordon LB. *J Gerontol A Biol Sci Med Sci*. 2011 Nov;66(11):1201-7.

CTP:phosphocholine cytidylyltransferase α (CCTα) and lamins alter nuclear membrane structure without affecting phosphatidylcholine synthesis.
Gehrig K, Ridgway ND. *Biochim Biophys Acta*. 2011 Jun;1811(6):377-85.

Defective lamin A-Rb signaling in Hutchinson-Gilford Progeria Syndrome and reversal by farnesyltransferase inhibition.
Marji J, O'Donoghue SI, McClintock D, Satagopam VP, Schneider R, Ratner D, Worman HJ, Gordon LB, Djabali K. *PLoS One*. 2010 Jun 15;5(6):e11132.

Increased mechanosensitivity and nuclear stiffness in Hutchinson-Gilford progeria cells: effects of farnesyltransferase inhibitors.
Verstraeten VL, Ji JY, Cummings KS, Lee RT, Lammerding J. *Aging Cell.* 2008 Jun;7(3):383-93.

Alterations in mitosis and cell cycle progression caused by a mutant lamin A known to accelerate human aging.
Dechat T, Shimi T, Adam SA, Rusinol AE, Andres DA, Spielmann HP, Sinensky MS, Goldman RD. *Proc Natl Acad Sci USA.* 2007 Mar 20;104(12):4955-60.

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Columbaro M, Capanni C, Mattioli E, Novelli G, Parnaik VK, Squarzoni S, Maraldi NM, Lattanzi G. *Cell Mol Life Sci.* 2005 Nov;62(22):2669-78.

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Liu B, Wang J, Chan KM, Tjia WM, Deng W, Guan X, Huang JD, Li KM, Chau PY, Chen DJ, Pei D, Pendas AM, Cadiñanos J, López-Otín C, Tse HF, Hutchison C, Chen J, Cao Y, Cheah KS, Tryggvason K, Zhou Z. *Nat Med.* 2005 Jul;11(7):780-5.

Novel progerin-interactive partner proteins hnRNP E1, EGF, Mel 18, and UBC9 interact with lamin A/C.
Zhong N, Radu G, Ju W, Brown WT. *Biochem Biophys Res Commun.* 2005 Dec 16;338(2):855-61.

HGADFN136

Incomplete processing of mutant lamin A in Hutchinson-Gilford progeria leads to nuclear abnormalities, which are reversed by farnesyltransferase inhibition.
Glynn MW, Glover TW. *Hum Mol Genet.* 2005 Oct 15;14(20):2959-69.

HGADFN143

Depleting the methyltransferase Suv39h1 improves DNA repair and extends lifespan in a progeria mouse model.
Liu B, Wang Z, Zhang L, Ghosh S, Zheng H, Zhou Z. *Nat Commun*. 2013;4:1868.

CTP:phosphocholine cytidylyltransferase α (CCTα) and lamins alter nuclear membrane structure without affecting phosphatidylcholine synthesis.
Gehrig K, Ridgway ND. *Biochim Biophys Acta.* 2011 Jun;1811(6):377-85.

Increased mechanosensitivity and nuclear stiffness in Hutchinson-Gilford progeria cells: effects of farnesyltransferase inhibitors.
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The mutant form of lamin A that causes Hutchinson-Gilford progeria is a biomarker of cellular aging in human skin.
McClintock D, Ratner D, Lokuge M, Owens DM, Gordon LB, Collins FS, Djabali K. *PLoS One*. 2007 Dec 5;2(12):e1269.

Hutchinson-Gilford progeria mutant lamin A primarily targets human vascular cells as detected by an anti-Lamin A G608G antibody.
McClintock D, Gordon LB, Djabali K. *Proc Natl Acad Sci U S A.* 2006 Feb 14;103(7):2154-9.

HGADFN155

Sulforaphane enhances progerin clearance in Hutchinson-Gilford progeria fibroblasts.
Gabriel D, Roedl D, Gordon LB, Djabali K. *Aging Cell*. 2014 Dec 16: 1-14.

Higher-order unfolding of satellite heterochromatin is a consistent and early event in cell senescence.
Swanson EC, Manning B, Zhang H, Lawrence JB. *J Cell Biol*. 2013 Dec 23;203(6):929-42.

Correlated alterations in genome organization, histone methylation, and DNA-lamin A/C interactions in Hutchinson-Gilford progeria syndrome.
McCord RP, Nazario-Toole A, Zhang H, Chines PS, Zhan Y, Erdos MR, Collins FS, Dekker J, Cao K. *Genome Res*. 2013 Feb;23(2):260-9. Epub 2012 Nov 14.

An inhibitory role of progerin in the gene induction network of adipocyte differentiation from iPS cells.
Xiong ZM, LaDana C, Wu D, Cao K. *Aging* (Albany NY). 2013 Apr;5(4):288-303.

Depleting the methyltransferase Suv39h1 improves DNA repair and extends lifespan in a progeria mouse model.
Liu B, Wang Z, Zhang L, Ghosh S, Zheng H, Zhou Z. *Nat Commun*. 2013;4:1868.

Automated image analysis of nuclear shape: what can we learn from a prematurely aged cell?
Driscoll MK, Albanese JL, Xiong ZM, Mailman M, Losert W, Cao K. *Aging* (Albany NY). 2012 Feb;4(2):119-32.

Rapamycin reverses cellular phenotypes and enhances mutant protein clearance in Hutchinson-Gilford progeria syndrome cells.
Cao K, Graziotto JJ, Blair CD, Mazzulli JR, Erdos MR, Krainc D, Collins FS. *Sci Transl Med.* 2011 Jun 29;3(89):89ra58.

Defective lamin A-Rb signaling in Hutchinson-Gilford Progeria Syndrome and reversal by farnesyltransferase inhibition.
Marji J, O'Donoghue SI, McClintock D, Satagopam VP, Schneider R, Ratner D, Worman HJ, Gordon LB, Djabali K. *PLoS One*. 2010 Jun 15;5(6):e11132.

HGADFN164

Sulforaphane enhances progerin clearance in Hutchinson-Gilford progeria fibroblasts.
Gabriel D, Roedl D, Gordon LB, Djabali K. *Aging Cell*. 2014 Dec 16: 1-14.

Mechanisms controlling the smooth muscle cell death in progeria via down-regulation of poly(ADP-ribose) polymerase 1.
Zhang H, Xiong ZM, Cao K. *Proc Natl Acad Sci* U S A. 2014 Jun 3;111(22):E2261-70. Epub 2014 May 19.

Correlated alterations in genome organization, histone methylation, and DNA-lamin A/C interactions in Hutchinson-Gilford progeria syndrome.
McCord RP, Nazario-Toole A, Zhang H, Chines PS, Zhan Y, Erdos MR, Collins FS, Dekker J, Cao K. *Genome Res*. 2013 Feb;23(2):260-9. Epub 2012 Nov 14.

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Naïve adult stem cells from patients with Hutchinson-Gilford progeria syndrome express low levels of progerin in vivo.
Wenzel V, Roedl D, Gabriel D, Gordon LB, Herlyn M, Schneider R, Ring J, Djabali K. *Biol Open.* 2012 Jun 15;1(6):516-26. Epub 2012 Apr 16.

Defective lamin A-Rb signaling in Hutchinson-Gilford Progeria Syndrome and reversal by farnesyltransferase inhibition.
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HGADFN167

Phenotype-Dependent Coexpression Gene Clusters: Application to Normal and Premature Ageing.
Wang K, Das A, Xiong Z, Cao K, Hannenhalli S. *IEEE/ACM Trans Comput Biol Bioinform* 2015 Jan-Feb;12(1):30-9.

Mechanisms controlling the smooth muscle cell death in progeria via down-regulation of poly(ADP-ribose) polymerase 1.
Zhang H, Xiong ZM, Cao K. *Proc Natl Acad Sci* U S A. 2014 Jun 3;111(22):E2261-70. Epub 2014 May 19.

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Progeria: translational insights from cell biology.
Gordon LB, Cao K, Collins FS. *J Cell Biol*. 2012 Oct 1;199(1):9-13. doi: 10.1083/jcb.201207072.

Automated image analysis of nuclear shape: what can we learn from a prematurely aged cell?
Driscoll MK, Albanese JL, Xiong ZM, Mailman M, Losert W, Cao K. *Aging* (Albany NY). 2012 Feb;4(2):119-32.

Computational image analysis of nuclear morphology associated with various nuclear-specific aging disorders.
Choi S, Wang W, Ribeiro AJ, Kalinowski A, Gregg SQ, Opresko PL, Niedernhofer LJ, Rohde GK, Dahl KN. *Nucleus*. 2011 Nov 1;2(6):570-9. Epub 2011 Nov 1.

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Cao K, Graziotto JJ, Blair CD, Mazzulli JR, Erdos MR, Krainc D, Collins FS. *Sci Transl Med.* 2011 Jun 29;3(89):89ra58.

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Cao K, Capell BC, Erdos MR, Djabali K, Collins FS. *Proc Natl Acad Sci USA*. 2007 Mar 20;104(12):4949-54.

HGADFN168

Phenotype-Dependent Coexpression Gene Clusters: Application to Normal and Premature Ageing.
Wang K, Das A, Xiong Z, Cao K, Hannenhalli S. *IEEE/ACM Trans Comput Biol Bioinform* 2015 Jan-Feb;12(1):30-9.

Mechanisms controlling the smooth muscle cell death in progeria via down-regulation of poly(ADP-ribose) polymerase 1.
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Choi S, Wang W, Ribeiro AJ, Kalinowski A, Gregg SQ, Opresko PL, Niedernhofer LJ, Rohde GK, Dahl KN. *Nucleus*. 2011 Nov 1;2(6):570-9. Epub 2011 Nov 1.

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Cao K, Capell BC, Erdos MR, Djabali K, Collins FS. *Proc Natl Acad Sci USA*. 2007 Mar 20;104(12):4949-54.

HGADFN169

Correlated alterations in genome organization, histone methylation, and DNA-lamin A/C interactions in Hutchinson-Gilford progeria syndrome.
McCord RP, Nazario-Toole A, Zhang H, Chines PS, Zhan Y, Erdos MR, Collins FS, Dekker J, Cao K. *Genome Res*. 2013 Feb;23(2):260-9. Epub 2012 Nov 14.

Depleting the methyltransferase Suv39h1 improves DNA repair and extends lifespan in a progeria mouse model.
Liu B, Wang Z, Zhang L, Ghosh S, Zheng H, Zhou Z. *Nat Commun*. 2013;4:1868.

Rapamycin reverses cellular phenotypes and enhances mutant protein clearance in Hutchinson-Gilford progeria syndrome cells.
Cao K, Graziotto JJ, Blair CD, Mazzulli JR, Erdos MR, Krainc D, Collins FS. *Sci Transl Med.* 2011 Jun 29;3(89):89ra58.

HGADFN178

Naïve adult stem cells from patients with Hutchinson-Gilford progeria syndrome express low levels of progerin in vivo.
Wenzel V, Roedl D, Gabriel D, Gordon LB, Herlyn M, Schneider R, Ring J, Djabali K. *Biol Open.* 2012 Jun 15;1(6):516-26. Epub 2012 Apr 16.

HGADFN188

Sulforaphane enhances progerin clearance in Hutchinson-Gilford progeria fibroblasts.
Gabriel D, Roedl D, Gordon LB, Djabali K. *Aging Cell*. 2014 Dec 16: 1-14.

Depleting the methyltransferase Suv39h1 improves DNA repair and extends lifespan in a progeria mouse model.
Liu B, Wang Z, Zhang L, Ghosh S, Zheng H, Zhou Z. *Nat Commun*. 2013;4:1868.

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Marji J, O'Donoghue SI, McClintock D, Satagopam VP, Schneider R, Ratner D, Worman HJ, Gordon LB, Djabali K. *PLoS One*. 2010 Jun 15;5(6):e11132.

PSFDFN319

Rapamycin reverses cellular phenotypes and enhances mutant protein clearance in Hutchinson-Gilford progeria syndrome cells.
Cao K, Graziotto JJ, Blair CD, Mazzulli JR, Erdos MR, Krainc D, Collins FS. *Sci Transl Med.* 2011 Jun 29;3(89):89ra58.

PSMDFN320

Rapamycin reverses cellular phenotypes and enhances mutant protein clearance in Hutchinson-Gilford progeria syndrome cells.
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HGALBV009

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HGMLBV010

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HGALBV011

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HGMLBV013

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HGFLBV021

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HGMLBV023

Stem cell depletion in Hutchinson-Gilford progeria syndrome.
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HGFLBV031

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HGFLBV050

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HGALBV057

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HGMLBV058

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HGSLBV059

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HGMLBV066

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HGFLBV067

Stem cell depletion in Hutchinson-Gilford progeria syndrome.
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HGALBV071

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HGMLBV081

Recurrent de novo point mutations in lamin A cause Hutchinson-Gilford progeria syndrome.
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HGFLBV082

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