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

Inhibition of JAK-STAT Signaling With Baricitinib Reduces Inflammation and Improves Cellular Homeostasis in Progeria Cells
Liu C, Arnold R, Henriques G, Djabali K. *Cells* 2019;8(10):1276. Published 2019 Oct 18. doi:10.3390/cells8101276

Analysis of Somatic Mutations Identifies Signs of Selection During in Vitro Aging of Primary Dermal Fibroblasts
Narisu N, Rothwell R, Vrtačnik P, et al. *Aging Cell* 2019;18(6):e13010. doi:10.1111/acel.13010

Transient Introduction of Human Telomerase mRNA Improves Hallmarks of Progeria Cells
Li Y, Zhou G, Bruno IG, et al. *Aging Cell*. 2019;18(4):e12979. doi:10.1111/acel.12979

Autophagic Removal of Farnesylated Carboxy-Terminal Lamin Peptides
Lu X, Djabali K. *Cells* 2018;7(4):33. Published 2018 Apr 23. doi:10.3390/cells7040033

Targeting the Phospholipase A2 Receptor Ameliorates Premature Aging Phenotypes
Griveau A, Wiel C, Le Calvé B, et al. *Aging Cell* 2018;17(6):e12835. doi:10.1111/acel.12835

A Cell-Intrinsic Interferon-like Response Links Replication Stress to Cellular Aging Caused by Progerin.
Kreienkamp R, Graziano S, Coll-Bonfill N, Bedia-Diaz G, Cybulla E, Vindigni A, Dorsett D, Kubben N, Batista LFZ, Gonzalo S. *Cell Rep*. 2018 Feb 20;22(8):2006-2015.

Epigenetic clock for skin and blood cells applied to Hutchinson Gilford Progeria Syndrome and ex vivo studies
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Nucleoplasmic lamins define growth-regulating functions of lamina-associated polypeptide 2α in progeria cells.
Vidak S, Georgiou K, Fichtinger P, Naetar N, Dechat T, Foisner R.
J Cell Sci. 2017 Dec 28. pii: jcs.208462. doi: 10.1242/jcs.208462. [Epub ahead of print]

Intermittent treatment with farnesyltransferase inhibitor and sulforaphane improves cellular homeostasis in Hutchinson-Gilford progeria fibroblasts.
Gabriel D, Shafry DD, Gordon LB, Djabali K. *Oncotarget*. 2017 Jul 18;8(39):64809-64826. doi: 10.18632/oncotarget.19363. eCollection 2017 Sep 12.

Temsirolimus Partially Rescues the Hutchinson-Gilford Progeria Cellular Phenotype.
Gabriel D, Gordon LB, Djabali K. *PLoS One* 2016;11(12):e0168988. Published 2016 Dec 29. doi:10.1371/journal.pone.0168988

Progerin Impairs Chromosome Maintenance by Depleting CENP-F From Metaphase Kinetochores in Hutchinson-Gilford Progeria Fibroblasts
Eisch V, Lu X, Gabriel D, Djabali K. *Oncotarget* 2016;7(17):24700-24718. doi:10.18632/oncotarget.8267

Permanent farnesylation of lamin A mutants linked to progeria impairs its phosphorylation at

serine 22 during interphase.
Moiseeva O, Lopes-Paciencia S, Huot G, Lessard F, Ferbeyre G. *Aging* 2016 Feb;8(2):366-81.

Vitamin D Receptor Signaling Improves Hutchinson-Gilford Progeria Syndrome Cellular Phenotypes
Kreienkamp R, Croke M, Neumann MA, et al. *Oncotarget* 2016;7(21):30018-30031. doi:10.18632/oncotarget.9065

Lamin A Is an Endogenous SIRT6 Activator and Promotes SIRT6-Mediated DNA Repair.
Ghosh S, Liu B, Wang Y, Hao Q, Zhou Z. *Cell Rep*. 2015 Nov 17;13(7):1396-1406. doi: 10.1016/j.celrep.2015.10.006. Epub 2015 Nov 5. PMID:26549451

Proliferation of progeria cells is enhanced by lamina-associated polypeptide 2α (LAP2α) through expression of extracellular matrix proteins.
Vidak S, Kubben N, Dechat T, Foisner R. *Genes & Development.* 2015 Oct 1;29(19):2022-36.

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.

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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.

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Pegoraro G, Kubben N, Wickert U, Göhler H, Hoffmann K, Misteli T. *Nat Cell Biol.* 2009 Oct;11(10):1261-7.

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Scaffidi P, Misteli T. *Nat Cell Biol.* 2008 Apr;10(4):452-9.

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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.
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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 Jun15;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.

HGMDFN090

Epigenetic Deregulation of Lamina-Associated Domains in Hutchinson-Gilford Progeria Syndrome
Köhler F, Bormann F, Raddatz G, et al. *Genome Med* 2020;12(1):46. Published 2020 May 25. doi:10.1186/s13073-020-00749-y

Chromatin and Cytoskeletal Tethering Determine Nuclear Morphology in Progerin-Expressing Cells
Lionetti MC, Bonfanti S, Fumagalli MR, Budrikis Z, Font-Clos F, Costantini G, Chepizhko O, Zapperi S, La Porta CAM. *Biophysical Journal* 2020 May 5;118(9):2319-2332.

Transient Introduction of Human Telomerase mRNA Improves Hallmarks of Progeria Cells
Li Y, Zhou G, Bruno IG, et al. *Aging Cell* 2019;18(4):e12979. doi:10.1111/acel.12979

A Cell-Intrinsic Interferon-like Response Links Replication Stress to Cellular Aging Caused by Progerin.
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Vidak S, Georgiou K, Fichtinger P, Naetar N, Dechat T, Foisner R.
J Cell Sci. 2017 Dec 28. pii: jcs.208462. doi: 10.1242/jcs.208462. [Epub ahead of print]

Progerin sequestration of PCNA promotes replication fork collapse and mislocalization of XPA in laminopathy-related progeroid syndromes
Hilton BA, Liu J, Cartwright BM, et al. *FASEB J* 2017;31(9):3882-3893. doi:10.1096/fj.201700014R

Vitamin D Receptor Signaling Improves Hutchinson-Gilford Progeria Syndrome Cellular Phenotypes
Kreienkamp R, Croke M, Neumann MA, et al. *Oncotarget* 2016;7(21):30018-30031. doi:10.18632/oncotarget.9065

Methylene blue alleviates nuclear and mitochondrial abnormalities in progeria.

Xiong ZM, Choi JY, Wang K, Zhang H, Tariq Z, Wu D, Ko E, LaDana C, Sesaki H, Cao K. *Aging Cell.* 2015 Dec 14. [Epub ahead of print]

Proliferation of progeria cells is enhanced by lamina-associated polypeptide 2α (LAP2α) through expression of extracellular matrix proteins.
Vidak S, Kubben N, Dechat T, Foisner R. *Genes & Development.* 2015 Oct 1;29(19):2022-36.

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.

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Arlt MF, Ozdemir AC, Birkeland SR, Lyons RH Jr, Glover TW, Wilson TE. *Genetics*. 2011 Mar;187(3):675-83.

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Progerin and telomere dysfunction collaborate to trigger cellular senescence in normal human fibroblasts.
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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.

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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.
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Glynn MW, Glover TW. *Hum Mol Genet.* 2005 Oct 15;14(20):2959-69.

HGADFN122

Direct reprogramming of human smooth muscle and vascular endothelial cells reveals defects associated with aging and Hutchinson-Gilford progeria syndrome
Bersini S, Schulte R, Huang L, Tsai H, Hetzer MW. *Elife*. 2020 Sep 8;9:e54383. doi: 10.7554/eLife.54383. PMID: 32896271; PMCID: PMC7478891.

Epigenetic Deregulation of Lamina-Associated Domains in Hutchinson-Gilford Progeria Syndrome
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PML2-mediated Thread-Like Nuclear Bodies Mark Late Senescence in Hutchinson-Gilford Progeria Syndrome
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Insights into the role of immunosenescence during varicella zoster virus infection (shingles) in the aging cell model.
Kim JA, Park SK, Kumar M, Lee CH, Shin OS. *Oncotarget*. 2015 Oct 14. [Epub ahead of print]

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

Direct reprogramming of human smooth muscle and vascular endothelial cells reveals defects associated with aging and Hutchinson-Gilford progeria syndrome
Bersini S, Schulte R, Huang L, Tsai H, Hetzer MW. *Elife*. 2020 Sep 8;9:e54383. doi: 10.7554/eLife.54383. PMID: 32896271; PMCID: PMC7478891.

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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.

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Increased mechanosensitivity and nuclear stiffness in Hutchinson-Gilford progeria cells: effects of farnesyltransferase inhibitors.
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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

Direct reprogramming of human smooth muscle and vascular endothelial cells reveals defects associated with aging and Hutchinson-Gilford progeria syndrome
Bersini S, Schulte R, Huang L, Tsai H, Hetzer MW. *Elife*. 2020 Sep 8;9:e54383. doi: 10.7554/eLife.54383. PMID: 32896271; PMCID: PMC7478891.

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HGADFN169

Direct reprogramming of human smooth muscle and vascular endothelial cells reveals defects associated with aging and Hutchinson-Gilford progeria syndrome
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Epigenetic Deregulation of Lamina-Associated Domains in Hutchinson-Gilford Progeria Syndrome

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Correction acknowledging PRF for cell lines is pending

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Predicting Age From the Transcriptome of Human Dermal Fibroblasts
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HGADFN188

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HGADFN271

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HGADFN367

Direct reprogramming of human smooth muscle and vascular endothelial cells reveals defects associated with aging and Hutchinson-Gilford progeria syndrome
Bersini S, Schulte R, Huang L, Tsai H, Hetzer MW. *Elife*. 2020 Sep 8;9:e54383. doi: 10.7554/eLife.54383. PMID: 32896271; PMCID: PMC7478891.

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HGMDFN368

Direct reprogramming of human smooth muscle and vascular endothelial cells reveals defects

associated with aging and Hutchinson-Gilford progeria syndrome
Bersini S, Schulte R, Huang L, Tsai H, Hetzer MW. *Elife*. 2020 Sep 8;9:e54383. doi: 10.7554/eLife.54383. PMID: 32896271; PMCID: PMC7478891.

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HGFDFN369

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Horvath S, Oshima J, Martin GM, et al. *Aging* (Albany NY). 2018;10(7):1758-1775. doi:10.18632/aging.101508

HGADFN370

Imbalanced Nucleocytoskeletal Connections Create Common Polarity Defects in Progeria and Physiological Aging
Chang W, Wang Y, Luxton GWG, Östlund C, Worman HJ, Gundersen GG. *Proc Natl Acad Sci U S A*. 2019;116(9):3578-3583. doi:10.1073/pnas.1809683116

HGMDFN371

Imbalanced Nucleocytoskeletal Connections Create Common Polarity Defects in Progeria and Physiological Aging
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PSADFN086 (formally HGADFN086)

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Horvath S, Oshima J, Martin GM, et al. *Aging* (Albany NY). 2018;10(7):1758-1775. doi:10.18632/aging.101508

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PSADFN257

A Cell-Intrinsic Interferon-like Response Links Replication Stress to Cellular Aging Caused by Progerin.
Kreienkamp R, Graziano S, Coll-Bonfill N, Bedia-Diaz G, Cybulla E, Vindigni A, Dorsett D, Kubben N, Batista LFZ, Gonzalo S. *Cell Rep*. 2018 Feb 20;22(8):2006-2015.

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PSADFN317

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Horvath S, Oshima J, Martin GM, et al. *Aging* (Albany NY). 2018;10(7):1758-1775. doi:10.18632/aging.101508

PSADFN318

Epigenetic clock for skin and blood cells applied to Hutchinson Gilford Progeria Syndrome and ex vivo studies
Horvath S, Oshima J, Martin GM, et al. *Aging* (Albany NY). 2018;10(7):1758-1775. doi:10.18632/aging.101508

PSFDFN319

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PSMDFN320

Epigenetic clock for skin and blood cells applied to Hutchinson Gilford Progeria Syndrome and ex vivo studies
Horvath S, Oshima J, Martin GM, et al. *Aging* (Albany NY). 2018;10(7):1758-1775. doi:10.18632/aging.101508

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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.

PSMDFN326

Epigenetic clock for skin and blood cells applied to Hutchinson Gilford Progeria Syndrome and ex vivo studies
Horvath S, Oshima J, Martin GM, et al. *Aging* (Albany NY). 2018;10(7):1758-1775. doi:10.18632/aging.101508

PSFDFN327

A Cell-Intrinsic Interferon-like Response Links Replication Stress to Cellular Aging Caused by Progerin.
Kreienkamp R, Graziano S, Coll-Bonfill N, Bedia-Diaz G, Cybulla E, Vindigni A, Dorsett D, Kubben N, Batista LFZ, Gonzalo S. *Cell Rep*. 2018 Feb 20;22(8):2006-2015.

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PSMDFN346

A Cell-Intrinsic Interferon-like Response Links Replication Stress to Cellular Aging Caused by

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PSADFN392

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Kreienkamp R, Graziano S, Coll-Bonfill N, Bedia-Diaz G, Cybulla E, Vindigni A, Dorsett D, Kubben N, Batista LFZ, Gonzalo S. *Cell Rep*. 2018 Feb 20;22(8):2006-2015.

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PSMDFN393

Epigenetic clock for skin and blood cells applied to Hutchinson Gilford Progeria Syndrome and ex vivo studies

Horvath S, Oshima J, Martin GM, et al. *Aging* (Albany NY). 2018;10(7):1758-1775. doi:10.18632/aging.101508

PSFDFN394

Epigenetic clock for skin and blood cells applied to Hutchinson Gilford Progeria Syndrome and ex vivo studies

Horvath S, Oshima J, Martin GM, et al. *Aging* (Albany NY). 2018;10(7):1758-1775. doi:10.18632/aging.101508

PSADFN414

Everolimus Rescues Multiple Cellular Defects in Laminopathy-Patient Fibroblasts
DuBose AJ, Lichtenstein ST, Petrash NM, Erdos MR, Gordon LB, Collins FS [published correction appears in Proc Natl Acad Sci U S A. 2018 Apr 16;:]. *Proc Natl Acad Sci U S A*. 2018;115(16):4206-4211. doi:10.1073/pnas.1802811115

PSADFN425

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HGADFN003 iPS1B

iPSC-Derived Endothelial Cells Affect Vascular Function in a Tissue-Engineered Blood Vessel Model of Hutchinson-Gilford Progeria Syndrome
Atchison L, Abutaleb NO, Snyder-Mounts E, et al. *Stem Cell Reports* 2020;14(2):325-337. doi:10.1016/j.stemcr.2020.01.005

Progerin Phosphorylation in Interphase Is Lower and Less Mechanosensitive Than lamin-A,C in iPS-derived Mesenchymal Stem Cells
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Reprogramming Progeria Fibroblasts Re-Establishes a Normal Epigenetic Landscape
Chen Z, Chang WY, Etheridge A, et al. *Aging Cell* 2017;16(4):870-887. doi:10.1111/acel.12621

HGADFN003 iPS1C

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HGADFN003 iPS1D

iPSC-Derived Endothelial Cells Affect Vascular Function in a Tissue-Engineered Blood Vessel Model of Hutchinson-Gilford Progeria Syndrome
Atchison L, Abutaleb NO, Snyder-Mounts E, et al. *Stem Cell Reports* 2020;14(2):325-337. doi:10.1016/j.stemcr.2020.01.005

Dysfunction of iPSC-derived Endothelial Cells in Human Hutchinson-Gilford Progeria Syndrome
Matrone G, Thandavarayan RA, Walther BK, Meng S, Mojiri A, Cooke JP. *Cell Cycle* 2019;18(19):2495-2508. doi:10.1080/15384101.2019.1651587

HGMDFN090 iPS1B

Dysfunction of iPSC-derived Endothelial Cells in Human Hutchinson-Gilford Progeria Syndrome
Matrone G, Thandavarayan RA, Walther BK, Meng S, Mojiri A, Cooke JP. *Cell Cycle* 2019;18(19):2495-2508. doi:10.1080/15384101.2019.1651587

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Chen Z, Chang WY, Etheridge A, et al. *Aging Cell*. 2017;16(4):870-887. doi:10.1111/acel.12621

HGMDFN090 iPS1C

Reprogramming Progeria Fibroblasts Re-Establishes a Normal Epigenetic Landscape
Chen Z, Chang WY, Etheridge A, et al. *Aging Cell*. 2017;16(4):870-887. doi:10.1111/acel.12621

HGADFN167 iPS1J

Reprogramming Progeria Fibroblasts Re-Establishes a Normal Epigenetic Landscape
Chen Z, Chang WY, Etheridge A, et al. *Aging Cell*. 2017;16(4):870-887. doi:10.1111/acel.12621

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;111(22):E2261-E2270. doi:10.1073/pnas.1320843111

HGADFN167 iPS1Q

Dysfunction of iPSC-derived Endothelial Cells in Human Hutchinson-Gilford Progeria Syndrome
Matrone G, Thandavarayan RA, Walther BK, Meng S, Mojiri A, Cooke JP. *Cell Cycle* 2019;18(19):2495-2508. doi:10.1080/15384101.2019.1651587

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HGFDFN168 iPS1D2

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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;111(22):E2261-E2270. doi:10.1073/pnas.1320843111

HGFDFN168 iPS1P

Dysfunction of iPSC-derived Endothelial Cells in Human Hutchinson-Gilford Progeria Syndrome
Matrone G, Thandavarayan RA, Walther BK, Meng S, Mojiri A, Cooke JP. *Cell Cycle* 2019;18(19):2495-2508. doi:10.1080/15384101.2019.1651587

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Chen Z, Chang WY, Etheridge A, et al. *Aging Cell* 2017;16(4):870-887. doi:10.1111/acel.12621

HGALBV009

Stem cell depletion in Hutchinson-Gilford progeria syndrome.
Rosengardten Y, McKenna T, Grochová D, Eriksson M. *Aging Cell.* 2011 Dec;10(6):1011-20. Epub 2011 Oct 11.

Low and high expressing alleles of the LMNA gene: implications for laminopathy disease development.
Rodríguez S, Eriksson M. *PLoS One.* 2011;6(9):e25472. Epub 2011 Sep 29.

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. Epub 2003 Apr 25.

HGMLBV010

Stem cell depletion in Hutchinson-Gilford progeria syndrome.
Rosengardten Y, McKenna T, Grochová D, Eriksson M. *Aging Cell.* 2011 Dec;10(6):1011-20. Epub 2011 Oct 11.

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HGALBV011

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HGMLBV013

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. Epub 2003 Apr 25.

HGFLBV021

Stem cell depletion in Hutchinson-Gilford progeria syndrome.
Rosengardten Y, McKenna T, Grochová D, Eriksson M. *Aging Cell.* 2011 Dec;10(6):1011-20. Epub 2011 Oct 11.

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. Epub 2003 Apr 25.

HGMLBV023

Stem cell depletion in Hutchinson-Gilford progeria syndrome.
Rosengardten Y, McKenna T, Grochová D, Eriksson M. *Aging Cell.* 2011 Dec;10(6):1011-20. Epub 2011 Oct 11.

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. Epub 2003 Apr 25.

HGFLBV031

Stem cell depletion in Hutchinson-Gilford progeria syndrome.
Rosengardten Y, McKenna T, Grochová D, Eriksson M. *Aging Cell.* 2011 Dec;10(6):1011-20. Epub 2011 Oct 11.

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. Epub 2003 Apr 25.

HGFLBV050

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. Epub 2003 Apr 25.

HGALBV057

Stem cell depletion in Hutchinson-Gilford progeria syndrome.
Rosengardten Y, McKenna T, Grochová D, Eriksson M. *Aging Cell.* 2011 Dec;10(6):1011-20. Epub 2011 Oct 11.

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. Epub 2003 Apr 25.

HGMLBV058

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. Epub 2003 Apr 25.

HGSLBV059

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. Epub 2003 Apr 25.

HGMLBV066

Stem cell depletion in Hutchinson-Gilford progeria syndrome.

Rosengardten Y, McKenna T, Grochová D, Eriksson M. *Aging Cell.* 2011 Dec;10(6):1011-20. Epub 2011 Oct 11.

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. Epub 2003 Apr 25.

HGFLBV067

Stem cell depletion in Hutchinson-Gilford progeria syndrome.
Rosengardten Y, McKenna T, Grochová D, Eriksson M. *Aging Cell.* 2011 Dec;10(6):1011-20. doi: 10.1111/j.1474-9726.2011.00743.x. Epub 2011 Oct 11.

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. Epub 2003 Apr 25.

HGALBV071

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. Epub 2003 Apr 25.

HGMLBV081

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. Epub 2003 Apr 25.

HGFLBV082

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. Epub 2003 Apr 25.