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

Anti-hsa-miR-59 alleviates premature senescence associated with Hutchinson-Gilford progeria syndrome in mice

Hu Q, Zhang N, Sui T, et al. [published online ahead of print, 2022 Nov 16]. *EMBO J*. 2022;e110937. doi:10.15252/embj.2022110937

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

Establishment and Characterization of hTERT Immortalized Hutchinson-Gilford Progeria Fibroblast Cell Lines
Lin H, Mensch J, Haschke M, et al. Published 2022 Sep 6. doi:10.3390/cells11182784

Impact of MnTBAP and Baricitinib Treatment on Hutchinson-Gilford Progeria Fibroblasts
Vehns E, Arnold R, Djabali K. Pharmaceuticals (Basel). 2022;15(8):945. Published 2022 Jul 29. doi:10.3390/ph15080945

SerpinE1 drives a cell-autonomous pathogenic signaling in Hutchinson-Gilford progeria syndrome
Catarinella G, Nicoletti C, Bracaglia A, et al. Cell Death Dis. 2022;13(8):737. Published 2022 Aug 26. doi:10.1038/s41419-022-05168-y

Isoprenylcysteine Carboxylmethyltransferase-Based Therapy for Hutchinson-Gilford Progeria Syndrome
Marcos-Ramiro B, Gil-Ordóñez A, Marín-Ramos NI, et al. *ACS Cent Sci*. 2021;7(8):1300-1310. doi:10.1021/acscentsci.0c01698

Baricitinib, a JAK-STAT Inhibitor, Reduces the Cellular Toxicity of the Farnesyltransferase Inhibitor Lonafarnib in Progeria Cells
Arnold R, Vehns E, Randl H, Djabali K. *Int J Mol Sci*. 2021;22(14):7474. Published 2021 Jul 12. doi:10.3390/ijms22147474

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Self-assembly of multi-component mitochondrial nucleoids via phase separation.
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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

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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.

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Vidak S, Georgiou K, Fichtinger P, Naetar N, Dechat T, Foisner R.
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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.

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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

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Sulforaphane enhances progerin clearance in Hutchinson-Gilford progeria fibroblasts.
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Depleting the methyltransferase Suv39h1 improves DNA repair and extends lifespan in a progeria mouse model.
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Naïve adult stem cells from patients with Hutchinson-Gilford progeria syndrome express low levels of progerin in vivo.
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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.
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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.

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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.
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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

Quantification of Farnesylated Progerin in Hutchinson-Gilford Progeria Patient Cells by Mass Spectrometry
Camafeita E, Jorge I, Rivera-Torres J, Andrés V, Vázquez J. Int J Mol Sci. 2022;23(19):11733. Published 2022 Oct 3. doi:10.3390/ijms231911733

Self-assembly of multi-component mitochondrial nucleoids via phase separation.
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Chromatin and Cytoskeletal Tethering Determine Nuclear Morphology in Progerin-Expressing Cells
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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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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.
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Progerin sequestration of PCNA promotes replication fork collapse and mislocalization of XPA in laminopathy-related progeroid syndromes
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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]

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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.

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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.

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PML2-mediated Thread-Like Nuclear Bodies Mark Late Senescence in Hutchinson-Gilford Progeria Syndrome
Wang M, Wang L, Qian M, et al. [published online ahead of print, 2020 Apr 29]. *Aging Cell*
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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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

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Li Y, Zhou G, Bruno IG, et al. *Aging Cell* 2019;18(4):e12979. doi:10.1111/acel.12979

Predicting Age From the Transcriptome of Human Dermal Fibroblasts
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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

HGMDFN368

Inhibition of the NLRP3 inflammasome improves lifespan in animal murine model of Hutchinson-Gilford Progeria
González-Dominguez A, Montañez R, Castejón-Vega B, et al. [published online ahead of print, 2021 Aug 27]. *EMBO Mol Med*. 2021;e14012. doi:10.15252/emmm.202114012

A targeted antisense therapeutic approach for Hutchinson-Gilford progeria syndrome
Erdos MR, Cabral WA, Tavarez UL, Cao K, Gvozdenovic-Jeremic J, Narisu N, Zerfas PM, Crumley S, Boku Y, Hanson G, Mourich DV, Kole R, Eckhaus MA, Gordon LB, Collins FS. Nat Med. 2021 Mar;27(3):536-545. doi: 10.1038/s41591-021-01274-0. Epub 2021 Mar 11. PMID: 33707773.

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.

Transient Introduction of Human Telomerase mRNA Improves Hallmarks of Progeria Cells
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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

HGFDFN369

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

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
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

HGADFN496

A targeted antisense therapeutic approach for Hutchinson-Gilford progeria syndrome
Erdos MR, Cabral WA, Tavarez UL, Cao K, Gvozdenovic-Jeremic J, Narisu N, Zerfas PM, Crumley S, Boku Y, Hanson G, Mourich DV, Kole R, Eckhaus MA, Gordon LB, Collins FS. Nat Med. 2021 Mar;27(3):536-545. doi: 10.1038/s41591-021-01274-0. Epub 2021 Mar 11. PMID: 33707773.

HGMDFN718

A targeted antisense therapeutic approach for Hutchinson-Gilford progeria syndrome
Erdos MR, Cabral WA, Tavarez UL, Cao K, Gvozdenovic-Jeremic J, Narisu N, Zerfas PM, Crumley S, Boku Y, Hanson G, Mourich DV, Kole R, Eckhaus MA, Gordon LB, Collins FS. Nat Med. 2021 Mar;27(3):536-545. doi: 10.1038/s41591-021-01274-0. Epub 2021 Mar 11. PMID: 33707773.

PSADFN086 (formally HGADFN086)

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

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.

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.

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

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

PSADFN317

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

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

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

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

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

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.

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.

Epigenetic clock for skin and blood cells applied to Hutchinson Gilford Progeria Syndrome and ex vivo studies
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Kreienkamp R, Croke M, Neumann MA, et al. *Oncotarget* 2016;7(21):30018-30031. doi:10.18632/oncotarget.9065

PSMDFN346

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
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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Kreienkamp R, Croke M, Neumann MA, et al. *Oncotarget* 2016;7(21):30018-30031. doi:10.18632/oncotarget.9065

PSADFN373

Targeting RAS-converting enzyme 1 overcomes senescence and improves progeria-like phenotypes of ZMPSTE24 deficiency
Yao H, Chen X, Kashif M, Wang T, Ibrahim MX, Tüksammel E, Revêchon G, Eriksson M, Wiel C, Bergo MO. Aging Cell. 2020 Aug;19(8):e13200. doi: 10.1111/acel.13200. Epub 2020 Jul 24. PMID: 32910507; PMCID: PMC7431821.

PSADFN386

MG132 Induces Progerin Clearance and Improves Disease Phenotypes in HGPS-like Patients' Cells

Harhouri K, Cau P, Casey F, et al. *Cells*. 2022;11(4):610. Published 2022 Feb 10. doi:10.3390/cells11040610

PSADFN392

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

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

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

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

HGADFN003 iPS1B

Gaussian curvature dilutes the nuclear lamina, favoring nuclear rupture, especially at high strain rate
Pfeifer CR, Tobin MP, Cho S, et al. Nucleus. 2022;13(1):129-143. doi:10.1080/19491034.2022.2045726

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
Cho S, Abbas A, Irianto J, et al.. *Nucleus* 2018;9(1):230-245. doi:10.1080/19491034.2018.1460185

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

Telomerase therapy reverses vascular senescence and extends lifespan in progeria mice
Mojiri A, Walther BK, Jiang C, et al. [published online ahead of print, 2021 Aug 14]. *Eur Heart J*. 2021;ehab547. doi:10.1093/eurheartj/ehab547

iPSC-Derived Endothelial Cells Affect Vascular Function in a Tissue-Engineered Blood Vessel Model of Hutchinson-Gilford Progeria Syndrome
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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

Telomerase therapy reverses vascular senescence and extends lifespan in progeria mice
Mojiri A, Walther BK, Jiang C, et al. [published online ahead of print, 2021 Aug 14]. *Eur Heart J*. 2021;ehab547. doi:10.1093/eurheartj/ehab547

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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

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

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

Vascular senescence in progeria: role of endothelial dysfunction
Xu Q, Mojiri A, Boulahouache L, Morales E, Walther BK, Cooke JP. Eur Heart J Open. 2022;2(4):oeac047. Published 2022 Jul 28. doi:10.1093/ehjopen/oeac047

Telomerase therapy reverses vascular senescence and extends lifespan in progeria mice
Mojiri A, Walther BK, Jiang C, et al. [published online ahead of print, 2021 Aug 14]. *Eur Heart J*. 2021;ehab547. doi:10.1093/eurheartj/ehab547

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

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

HGFDFN168 iPS1D2

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

HGFDFN168 iPS1P

Vascular senescence in progeria: role of endothelial dysfunction
Xu Q, Mojiri A, Boulahouache L, Morales E, Walther BK, Cooke JP. Eur Heart J Open.

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Telomerase therapy reverses vascular senescence and extends lifespan in progeria mice
Mojiri A, Walther BK, Jiang C, et al. [published online ahead of print, 2021 Aug 14]. *Eur Heart J*. 2021;ehab547. doi:10.1093/eurheartj/ehab547

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

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

HGALBV009

Inhibition of the NLRP3 inflammasome improves lifespan in animal murine model of Hutchinson-Gilford Progeria
González-Dominguez A, Montañez R, Castejón-Vega B, et al. [published online ahead of print, 2021 Aug 27]. *EMBO Mol Med*. 2021;e14012. doi:10.15252/emmm.202114012

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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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.

HGALBV011

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.

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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.

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

Inhibition of the NLRP3 inflammasome improves lifespan in animal murine model of Hutchinson-Gilford Progeria
González-Dominguez A, Montañez R, Castejón-Vega B, et al. [published online ahead of print, 2021 Aug 27]. *EMBO Mol Med.* 2021;e14012. doi:10.15252/emmm.202114012

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.

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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.
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