

**Aicher A, Heeschen C, Mildner-Rihm C, Urbich C, Ihling C, Ihling K, Zeiher M, and Dimmeler S.** Essential role of endothelial nitric oxide synthase for mobilization of stem and progenitor cells. *Nat Med* 9: 1370–1376, 2003.

**Asahara T, Takahashi T, Masuda H, Kalka C, Chen D, Iwaguro H, Silver M, van der Zee R, Li T, Witzgenbichler B, Schatteman G, and Isner JM.** VEGF contributes to postnatal neovascularization by mobilizing bone marrow-derived endothelial progenitor cells. *EMBO J* 18: 3964–72, 1999.

**Bauer SM, Goldstein LJ, Bauer RJ, Chen H, Putt M, and Velazquez OC.** The bone marrow-derived endothelial progenitor cell response is impaired in delayed wound healing from ischemia. *J Vasc Surg* 41:699–707, 2005.

**Ceradini DJ, Kulkarni AR, Callaghan MJ, Callaghan MJ, Tepper OM, Bastidas N, Kleinman ME, Capla JM, Galiano RD, Levine JP, and Gurtner GC.** Progenitor cell trafficking is regulated by hypoxic gradients through HIF-1 induction of SDF-1. *Nat Med* 10: 858–864, 2004.

**DeWynter EA, Buck D, Hart C, Heywood R, Coutinho LH, Clayton A, Rafferty JA, Burt D, Guenechea G, Bueren JA, Gagen D, Fairbairn LJ, Lord BL, and Testa NG.** CD34 AC133 cells isolated from cord blood are highly enriched in long-term culture-initiating cells, NOD/SCID-repopulating cells and dendritic cell progenitors. *Stem Cells* 16:387–396, 1998.

**Feldmeier JJ. (Editor).** *The Hyperbaric Oxygen Therapy Committee Report.* Dunkirk, MD: Undersea and Hyperbaric Med. Soc., 2003.

**Fukumoto Y, Miyamoto T, Okamura T, Gondo H, Iwasaki H, Horiuchi T, Yoshizawa S, Inaba S, Harada M, and Niho Y.** Angina pectoris occurring during granulocyte colony-stimulating factor-combined preparatory regimen for autologous peripheral blood stem cell transplantation in a patient with acute myelogenous leukemia. *Br J Haematol* 97: 666–668, 1997.

**Hessing B, Hattori K, Dias S, Friedrich NR, Crystal RG, Besmer P, Lyden D, Moore MAS, Werb Z, and Rafii S.** Recruitment of stem and progenitor cells from the bone marrow niche requires MMP-9 mediated release of Kit-ligand. *Cell* 109: 625–637, 2002.

**Jiang Y, Jahagirdar BN, Reinhardt RL, Schwartz RE, Keene CK, Ortiz-Gonzalez XR, Reyes M, Lenvik T, Lund T, Blackstad M, Du J, Aldrich S, Lisberg A, Low WC, Largaespada DA, and Verfaillie CM.** Pluripotency of mesenchymal stem cells derived from adult marrow. *Nature* 418: 41–49, 2002.

**Kalka C, Masuda H, Takahashi T, Kalka-Möll WM, Silver M, Kearney M, Li T, Isner JM, and Asahara T.** Transplantation of ex vivo expanded endothelial progenitor cells for therapeutic neovascularization. *Proc Natl Acad Sci USA* 97: 3422–3427, 2000.

**Kang TS, Gorti GK, Quan SY, Ho M, and Koch RJ.** Effect of hyperbaric oxygen on the growth factor profile of fibroblasts. *Arch Facial Plast Surg* 6: 31–35, 2004.

**Kawamoto A, Murayama T, Kusano K, Li M, Tkebuchava T, Shintani S, Iwakura A, Johnson I, von Samson P, Hanley A, Gavin M, Curry C, Silver M, Ma H, Kearney M, and Losordo DW.** Synergistic effect of bone marrow mobilization and vascular endothelial growth factor-2 gene therapy in myocardial ischemia. *Circulation* 110: 1398–1405, 2004.

**Lapidot T and Kollet O.** The essential roles of the chemokine SDF-1 and its receptor CXCR4 in human stem cell homing and repopulation of transplanted immune-deficient NOD/SCID and NOD/SCID/B2mnull mice. *Leukemia* 16: 1992–2003, 2002.

**Lin S, Shyu KG, Lee CC, Wang BW, Chang CC, Liu YC, Huang FY, and Chang H.** Hyperbaric oxygen selectively induces angiopoietin-2 in human umbilical vein endothelial cells. *Biochem Biophys Res Commun* 296: 710–715, 2002.

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Downloaded from [ajpheart.physiology.org](http://ajpheart.physiology.org) on October 20, 2008

**Marx RE and Johnson RP.** Studies in the radiobiology of osteoradionecrosis and their clinical significance. *Oral Surg Oral Med Oral Pathol* 64:379–390, 1987.

**Nakamura Y, Tajima F, Ishiga K, Yamazaki H, Oshimura M, Shiota G, and Murawaki Y.** Soluble c-kit receptor mobilizes hematopoietic stem cells to peripheral blood in mice. *Exp Hematol* 32: 390–396, 2004.

**Peichev M, Naiyer AJ, Pereira D, Zhu Z, Lane WJ, Williams M, Oz MC, Hicklin DJ, Witte L, Moore MAS, and Rafii S.** Expression of VEGFR-2 and AC133 by circulating human CD34 cells identifies a population of functional endothelial precursors. *Blood* 95: 952–958, 2000.

**Plafki C, Peters P, Almeling M, Welslau W, and Busch R.** Complications and side effects of hyperbaric oxygen therapy. *Aviat Space Environ Med* 71: 119–124, 2000.

**Platzbecker U, Bornhauser M, Zimmer K, Lerche L, Rutt C, Ehninger G, and Holig K.** Second donation of granulocyte-colony-stimulating factor-mobilized peripheral blood progenitor cells: risk factors associated with a low yield of CD34 cells. *Transfusion* 45: 11–15, 2005.

**Rafii S.** Circulating endothelial precursors: mystery, reality and promise. *J Clin Invest* 105: 17–19, 2000.

**Rafii S and Lyden D.** Therapeutic stem and progenitor cell transplantation for organ vascularization and regeneration. *Nat Med* 9: 702–712, 2003.

**Rehman J, Li J, Parvathaneni L, Karlsson G, Panchal VR, Temm CJ, Mahenthiran J, and March KL.** Exercise acutely increases circulating endothelial progenitor cells and monocyte-/macrophage-derived angiogenic cells. *J Am Coll Cardiol* 43: 2314–2318, 2004.

**Reyes M, Dudek A, Jahagirdar B, Koodie L, Marker PH, and Verfaillie CM.** Origin of endothelial progenitors in human postnatal bone marrow. *J Clin Invest* 109: 337–346, 2002.

**Roeckl-Wiedmann I, Bennett M, and Kranke P.** Systematic review of hyperbaric oxygen in the management of chronic wounds. *Br J Surg* 92:24–32, 2005.

**Seggewiss R, Buss EC, Herrmann D, Goldschmidt H, Ho AD, and Fruehauf S.** Kinetics of peripheral blood stem cell mobilization following G-CSF-supported chemotherapy. *Stem Cells* 21: 568–574, 2003.

**Sheikh AY, Gibson JJ, Rollins MD, Hopf HW, Hussain Z, and Hunt TK.** Effect of hyperoxia on vascular endothelial growth factor levels in a wound model. *Arch Surg* 135: 1293–1297, 2000.

**Shintani S, Murohara T, Ikeda H, Ueno T, Honma T, Katoh A, Sasaki K, Shimada T, Oike Y, and Imaizumi T.** Mobilization of endothelial progenitor cells in patients with acute myocardial infarction. *Circulation* 103: 2776–2779, 2001.

**Sivan-Loukianova E, Awad OA, Stepanovic V, Bickenbach J, and Schatteman GC.** CD34 blood cells accelerate vascularization and healing of diabetic mouse skin wounds. *J Vasc Surg* 203: 368–377, 2003.

**Sun L, Lee J, and Fine HA.** Neuronally expressed stem cell factor induces neural stem cell migration to areas of brain injury. *J Clin Invest* 113: 1364–1374, 2004.

**Takahashi T, Kalka C, Masuda H, Chen D, Silver M, Kearney M, Magner M, Isner JM, and Asahara T.** Ischemia- and cytokine-induced mobilization of bone marrow-derived endothelial progenitor cells for neovascularization. *Nat Med* 5: 434–438, 1999.

**Tassorelli C, Greco R, Cappelletti D, Sandrini G, and Nappi G.** Comparative analysis of the neuronal activation and cardiovascular effects of nitroglycerin, sodium nitroprusside and L-arginine. *Brain Res* 1051:17–24, 2005.

**Tateishi-Yuyama E, Matsubara H, Murohara T, Shintani S, Masaki H, Amano K, Kishimoto Y, Yoshimoto K, Akashi H, Shimada K, Iwasaka T, and Imaizumi T.** Therapeutic angiogenesis for patients with limb ischaemia by autologous transplantation of bone-marrow cells: a pilot study and a randomized controlled trial. *Lancet* 360: 427–435, 2002.

**Thom SR, Bhopale VM, Fisher D, Manevich Y, Huang PL, and Buerk DG.** Stimulation of nitric oxide synthase in cerebral cortex due to elevated partial pressures of oxygen: an oxidative stress response. *J Neurobiol* 51:85–100, 2002.

**Thom SR, Fisher D, Zhang J, Bhopale VM, Ohnishi ST, Kotake Y, Ohnishi T, and Buerk DG.** Stimulation of perivascular nitric oxide synthesis by oxygen. *Am J Physiol Heart Circ Physiol* 284: H1230–H1239, 2003.

**Thom SR, Mendiguren I, Hardy KR, Bolotin T, Fisher D, Nebolon M, and Kilpatrick L.** Inhibition of human neutrophil 2-integrin-dependent adherence by hyperbaric oxygen. *Am J Physiol Cell Physiol* 272: C770–C777, 1997.

**To LB, Haylock DN, Simmons PJ, and Juttner CA.** The biology and clinical uses of blood stem cells. *Blood* 89: 2233–2258, 1997.

**Tong J, Hoffman R, Siena S, Srour EF, Bregni M, and Gianni AM.** Characterization and quantitation of primitive hematopoietic progenitor cells present in peripheral blood autografts. *Exp Hematol* 22: 1016–1024, 1994.

**Trytko BE and Bennett M.** Hyperbaric oxygen therapy: complication rates are much lower than authors suggest. *BMJ* 318: 1077–1078, 1999.

**Yamamoto HA.** Nitroprusside intoxication: protection of ketoglutarate and thiosul. *Food Chem Toxicol* 30: 887–890, 1992.