

BIBLIOGRAPHY

1. Alghisi GC, Rüegg C. Vascular integrins in tumor angiogenesis: mediators and therapeutic targets. *Endothelium* 2006; 13(2):113-135.
2. Arosio D, Manzoni L, Araldi EM, Caprini A, Monferini E, Scolastico C. Functionalized cyclic RGD peptidomimetics: conjugable ligands for $\alpha\beta3$ receptor imaging. *Bioconjug Chem* 2009; 20(8):1611-1617.
3. Aumailley M, Gurrath M, Müller G, Calvete J, Timpl R, Kessler H. Arg-Gly-Asp constrained within cyclic pentapeptides. Strong and selective inhibitors of cell adhesion to vitronectin and laminin fragment P1. *FEBS Lett* 1991; 291(1):50-54.
4. Avraamides CJ, Garmy-Susini B, Varner JA. Integrins in angiogenesis and lymphangiogenesis. *Nat Rev Cancer* 2008; 8(8):604-617.
5. Barczyk M, Carracedo S, Gullberg D. Integrins. *Cell Tissue Res* 2010; 339(1):269-280.
6. Belvisi L, Bernardi A, Checchia A, Manzoni L, Potenza D, Scolastico C, Castorina M, Cupelli A, Giannini G, Carminati P, Pisano C. Potent integrin antagonists from a small library of RGD-including cyclic pseudopeptides. *Org Lett* 2001; 3(7):1001-1004.
7. Belvisi L, Riccioni T, Marcellini M, Vesci L, Chiarucci I, Efrati D, Potenza D, Scolastico C, Manzoni L, Lombardo K, Stasi MA, Orlandi A, Ciucci A, Nico B, Ribatti D, Giannini G, Presta M, Carminati P, Pisano C. Biological and molecular properties of a new $\alpha\beta3/\alpha\beta5$ integrin antagonist. *Mol Cancer Ther* 2005;4(11):1670-1680.
8. Bloch S, Xu B, Ye Y, Liang K, Nikiforovich GV, Achilefu S. Targeting $\beta3$ integrin using a linear hexapeptide labelled with a near-infrared fluorescent molecular probe. *Mol Pharm* 2006; 3(5):539-549.
9. Boisselier E, Astruc D. Gold nanoparticles in nanomedicine: preparations, imaging, diagnostics, therapies and toxicity. *Chem Soc Rev* 2009; 38(6):1759-1782.
10. Brooks PC, Clark RA, Cheresh DA. Requirement of vascular integrin $\alpha\beta3$ for angiogenesis. *Science* 1994; 264(5158): 569-571.
11. Cai W, Shin DW, Chen K, Gheysens O, Cao Q, Wang SX, Gambhir SS, Chen X. Peptide-labeled near-infrared quantum dots for imaging tumor vasculature in living subjects. *Nano Lett* 2006; 6(4):669-976.
12. Carmeliet P, Jain RK. Angiogenesis in cancer and other diseases. *Nature* 2000; 407(6801):249-257.
13. Chen X, Hou Y, Tohme M, Park R, Khankaldyyan V, Gonzales-Gomez I, Bading JR, Laug WE, Conti PS. Pegylated Arg-Gly-Asp peptide: ^{64}Cu labelling and PET imaging of brain tumor $\alpha\beta3$ -integrin expression. *J Nucl Med* 2004; 45(10):1776-1783.
14. Chen X, Park R, SHahinian AH, Tohme M, Khankaldyyan V, Bozorgzadeh MH, Bading JR, Moats R, Laug WE, Conti PS. ^{18}F -labeled RGD peptide: initial evaluation for imaging brain tumor angiogenesis. *Nucl Med Biol* 2004; 31(2):179-189.
15. Ciardella AP, Prall FR, Borodoker N, Cunningham ET Jr. Imaging techniques for posterior uveitis. *Curr Opin Ophthalmol* 2004; 15(6):519-530.

16. Conway EM, Collen D, Carmeliet P. Molecular Mechanisms of blood vessel growth. *Cardiovasc Res* 2001; 49(3):507-521.
17. Danen EH, van Kraats AA, Cornelissen IM, Ruiter DJ, van Muijen GN. Integrin $\beta 3$ cDNA transfection into a highly metastatic $\alpha v\beta 3$ -negative human melanoma cell line inhibits invasion and experimental metastasis. *Biochem Biophys Res Commun* 1996; 226(1):75-81.
18. Dechantsreiter MA, Planker E, Mathä B, Lohof E, Hölzemann G, Jonczyk A, Goodman SL, Kessler H. N-Methylated cyclic RGD peptides as highly active and selective $\alpha v\beta 3$ integrin antagonists. *J Med Chem* 1999; 42(16):3033-3040.
19. Desgrosseilier JS, Cheres DA. Integrins in cancer: biological implications and therapeutic opportunities. *Nat Rev Cancer* 2010; 10(1):9-22.
20. Dietrich T, Onderka J, Bock F, Kruse FE, Vossmeier D, Stragies R, Zahn G, Cursiefen C. Inhibition of inflammatory lymphangiogenesis by integrin $\alpha 5$ blockade. *Am J Pathol* 2007; 171(1): 361-372.
21. Garmy-Susini B, Jin H, Zhu Y, Sung RY, Hwang R, Varner JA. Integrin $\alpha 4\beta 1$ -VCAM-1-mediated adhesion between endothelial and mural cells is required for blood vessel maturation. *J Clin Invest* 2005; 115(6):1542-1551.
22. Garmy-Susini B, Makale M, Fuster M, Varner JA. Methods to study lymphatic vessel integrins. *Methods Enzymol* 2007; 426:415-438.
23. Gilcrease MZ, Zhou X, Lu X, Woodward WA, Hall BE, Morrissey PJ. $\alpha 6\beta 4$ integrin crosslinking induces EGFR clustering and promotes EGF-mediated Rho activation in breast cancer. *J Exp Clin Cancer Res* 2009; 28:67.
24. Gottschalk KE, Kessler H. The structures of integrins and integrin-ligand complexes: implications for drug design and signal transduction. *Angew Chem Int Ed Engl* 2002; 41(20):3767-3774.
25. Haubner R, Finsinger D, Kessler H. Stereoisomeric peptide libraries and peptidomimetics for designing selective inhibitors of the $\alpha v\beta 3$ integrin for a new cancer therapy. *Angew Chem Int Ed Engl* 1997; 36:1374-1389.
26. He Y, Liu XD, Chen ZY, Zhu J, Xiong Y, Li K, Dong JH, Li X. Interaction between cancer cells and stromal fibroblasts is required for activation of the uPAR-uPA-MMP-2 cascade in pancreatic cancer metastasis. *Clin Cancer Res* 2007; 13(11):3115-3124.
27. Hodivala-Dilke KM, McHugh KP, Tsakiris DA, Rayburn H, Crowley D, Ullman-Cullerè M, Ross FP, Coller BS, Teitelbaum S, Hynes RO. $\beta 3$ -integrin-deficient mice are a model for Glanzmann thrombasthenia showing placental defects and reduced survival. *J Clin Invest* 1999; 103(2): 229-238.
28. Hong YK, Lange-Asschenfeldt B, Velasco P, Hirakawa S, Kunstfeld R, Brown LF, Bohlen P, Senger DR, Detmar M. VEGF-A promotes tissue repair-associated lymphatic vessel formation via VEGFR-2 and the $\alpha 1\beta 1$ and $\alpha 2\beta 1$ integrins. *FASEB J* 2004; 18(10): 1111-1113.
29. Huang XZ, WU JF, Ferrando R, Lee JH, Wang YL, Farese RV Jr, Sheppard D. Fatal bilateral chylothorax in mice lacking the integrin $\alpha 9\beta 1$. *Mol Cell Biol*; 20(14): 5208-5215.
30. Jain RK. Normalizing tumor vasculature with anti-angiogenic therapy: a new paradigm for combination therapy. *Nat Med* 2001; 7(9):987-989.

31. Kanamori M, Vanden Berg SR, Bergers G, Berger MS, Pieper RO. Integrin $\beta 3$ overexpression suppresses tumor growth in a human model of gliomagenesis: implications for the role of $\beta 3$ overexpression in glioblastoma multiforme. *Cancer Res* 2004; 64(8):2751-2758.
32. Khalili K, White MK, Lublin F, Ferrante P, Berger JR. Reactivation of JC virus and development of PML in patients with multiple sclerosis. *Neurology* 2007; 68(13): 985-990.
33. Kim S, Bell K, Mousa SA, Varner JA. Regulation of angiogenesis *in vivo* by ligation of integrin $\alpha 5\beta 1$ with the central cell-binding domain of fibronectin. *Am J Pathol* 2000; 156(4): 1345-1362.
34. Lohof E, Planker E, Mang C, Burkhart F, Dechantsreiter MA, Haubner R, Wester HJ, Schwaiger M, Hölzemann G, Goodman SL, Kessler H. Carbohydrate derivatives for use in drug design: cyclic α -selective RGD peptides. *Angew Chem Int Ed Engl* 2000; 39(15):2761-2764.
35. Luttun A, Verfaillie CM. Will the real EPC please stand up? *Blood* 2007; 109(5):1795-1796.
36. Manzoni L, Belvisi L, Arosio D, Civera M, Pilkington-Miksa M, Potenza D, Caprini A, Araldi EM, Monferini E, Mancino M, Podestà F, Scolastico C. Cyclic RGD-containing functionalized azabicycloalkane peptides as potent integrin antagonists for tumor targeting. *ChemMedChem* 2009; 4(4):615-632.
37. Marcinkiewicz C, Taooka Y, Yokosaki Y, Calvete JJ, Marcinkiewicz MM, Lobb RR, Niewiarowski S, Sheppard D. Inhibitory effects of MLDG-containing heterodimeric disintegrins reveal distinct structural requirements for interaction of the integrin $\alpha 9\beta 1$ with VCAM-1, tenascin-C, and osteopontin. *J Biol Chem* 2000; 275(41): 31930-31937.
38. McCarty JH, Monahan-Earley RA, Brown LF, Keller M, Gerhardt H, Rubin K, Shani M, Dvorak HF, Wolburg H, Bader BL, Dvorak AM, Hynes RO. Defective associations between blood vessels and brain parenchyma lead to cerebral hemorrhage in mice lacking αv integrins. *Mol Cell Biol* 2002; 22(21):7667-7677.
39. Mishima K, Watabe T, Saito A, Yoshimatsu Y, Imaizumi N, Masui S, Hirashima M, Morisada T, Oike Y, Araie M, Niwa H, Kubo H, Suda T, Miyazono K. Prox1 induces lymphatic endothelial differentiation via integrin $\alpha 9$ and other signalling cascades. *Mol Biol Cell* 2007; 18(4): 1421-1429.
40. Mizejewski GJ. Role of integrins in cancer: survey of expression patterns. *Proc Soc Exp Biol Med* 1999; 222(2):124-138.
41. Mould PA. Solid phase assays for studying ECM protein-protein interactions. *Methods Mol Biol* 2009; 522:195-200.
42. Paolillo M, Russo MA, Serra M, Colombo L, Schinelli S. Small molecule integrin antagonists in cancer therapy. *Mini Rev Med Chem* 2009; 9(12):1439-1446.
43. Rathinam R, Alahari SK. Important role of integrins in the cancer biology. *Cancer Metastasis Rev* 2010; 29(1):223-237.
44. Reynolds AR, Hart, IR, Watson AR, Welte JC, Silva RG, Robinson SD, Da Violante G, Gourlaouen M, Salih M, Jones MC, Jones DT, Saunders G, Kostourou V, Perron-Sierra F, Norman JC, Tucker GC, Hodivala-Dilke KM. Stimulation of tumor growth and angiogenesis by low concentrations of RGD-mimetic integrin inhibitors. *Nature Medicine* 2008; 15(4):392-400.

45. Reynolds LE, Wyder L, Lively JC, Taverna D, Robinson SD, Huang X, Sheppard D, Hynes RO, Hodivala-Dilke KM. Enhanced pathological angiogenesis in mice lacking $\beta 3$ integrin or $\beta 3$ and $\beta 5$ integrins. *Nat Med* 2002; 8(1):27-34.
46. Sipkins DA, Cheresch DA, Kazemi MR, Nevin LM, Bednarski MD, Li KC. Detection of tumor angiogenesis *in vivo* by $\alpha v\beta 3$ -targeted magnetic resonance imaging. *Nat Med* 1998; 4(5):623-626.
47. Stacker SA, Baldwin ME, Achen MG. The role of tumor lymphangiogenesis in metastatic spread. *FASEB J* 2002; 16(9):922-934.
48. Tammela T, Alitalo K. Lymphangiogenesis: molecular mechanisms and future promise. *Cell* 2010; 140(4):460-476.
49. Vlahakis NE, Young BA, Atakilit A, Hawkridge AE, Issaka RB, Boudreau N, Sheppard D. Integrin $\alpha 9\beta 1$ directly binds to vascular endothelial growth factor (VEGF)-A and contributes to VEGF-A-induced angiogenesis. *J Biol Chem* 2007; 282(20): 15187-15196.
50. Vlahakis NE, Young BA, Atakilit A, Sheppard D. The lymphangiogenic vascular endothelial growth factors VEGF-C and -D are ligands for the integrin $\alpha 9\beta 1$. *J Biol Chem*; 280(6): 4544-4552.
51. Wang W, Wu Q, Pasuelo M, Mc Murray JS, Li C. Probing for integrin $\alpha v\beta 3$ binding of RGD peptides using fluorescence polarization. *Bioconjug Chem* 2005; 16(3):729-734.
52. Wang Z, Chui WK, Ho PC. Integrin targeted drug and gene delivery. *Expert Opin Drug Deliv* 2010; 7(2):159-171.
53. Winter PM, Morawski AM, Caruthers SD, Fuhrhop RW, Zhang H, Williams TA, Allen JS, Lacy EK, Robertson JD, Lanza GM, Wickline SA. Molecular imaging of angiogenesis in early-stage atherosclerosis with $\alpha v\beta 3$ -integrin-targeted nanoparticles. *Circulation* 2003; 108(18):2270-2274.
54. Zhang C, Jugold M, Woenne EC, Lammers T, Morgenstern B, Mueller MM, Zentgraf H, Bock M, Eisenhut M, Semmler W, Kiessling F. Specific targeting of tumor angiogenesis by RGD-conjugated ultrasmall superparamagnetic iron oxide particles using a clinical 1.5-T magnetic resonance scanner. *Cancer Res* 2007; 67(4):1555-1562.