EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

Curriculum Vitae

Personal information

Koenraad Brusselmans

Work experience

1. Employer: University of Leuven, Laboratory for Experimental Medicine and Endocrinology
   - Start date: 022002
   - End date: 092008
   - Position: post_doctoral researcher
   - Activities: Scientific research: study of the role of lipogenesis in cancer cell metabolism and tumorigenesis.
   - Country: Belgium
2. Employer: Scientific Institute of Public Health (Belgium)
   - Start date: 102008
   - End date: 032018
   - Position: Quality assessor
   - Activities: Quality assessor for biological medicines: Assessment of scientific dossiers (registrations (MAA), variations, scientific advices) and participation in inspections (pharmaceutical companies) for biological medicines (vaccines, plasma_derived products, biotech products).
   - Country: Belgium
3. Employer: Sciensano (Note: same activity as in period 2008_2018; no change in activities; only name of institute has changed)
   - Start date: 042018
   - End date:
   - Position: Quality assessor
   - Activities: Quality assessor for biological medicines: Assessment of scientific dossiers (registrations (MAA), variations, scientific advices) and participation in inspections (pharmaceutical companies) for biological medicines (vaccines, plasma_derived products, biotech products).
   - Country: Belgium

Education and training

1. Subject: University of Leuven
   - Start date: 101991
   - End date: 071996
   - Qualification: Master in Bioscience Engineering: cell and gene biotechnology
   - Organisation: Bioscience Engineering: general training programme (including chemistry, physics, mathematics, biology,...) with a particular focus on biochemistry, biophysics, microbiology, cell biology, molecular biology, genetics and biotechnology.
   - Country: Belgium
2. Subject: University of Leuven, Laboratory for transgene technology and gene therapy
   - Start date: 081996
   - End date: 122001
   - Qualification: PhD in medical sciences
   - Organisation: Molecular biology, transgene technology, angiogenesis, vascular biology, hypoxic stress in tumors.
   - Country: Belgium

Additional information

Publications

Publications in scientific journals:

Limonier F, Van Steendam K, Waeterloos G, Brusselmans K, Sneyers M, Deforce D. An application of mass spectrometry for quality control of biologicals: Highly sensitive profiling of plasma residuals in human plasma_derived immunoglobulin. J Proteomics 152: 312_320, 2017.

Willemarck N, Rysman E, Brusselmans K, Van Imschoot G, Vanderhoydonc F, Moerloose K, Lerut E, Verhoeven G, van Roy F, Vleminckx K,, Swinnen JV. Aberrant activation of fatty acid synthesis suppresses primary cilium formation and distorts tissue development. Cancer Res 70: 9453_9462, 2010.

Rysman E, Brusselmans K, Scheys K, Timmermans L, Derua R, Munck S, Van Veldhoven PP, Waltregny D, Daniëls VW, Machiels J, Vanderhoydonc F, Smans K, Waelkens E, Verhoeven G, Swinnen JV. De novo lipogenesis protects cancer cells from free radicals and chemotherapeutics by promoting membrane lipid saturation. Cancer Res 70: 8117_8126, 2010.

Beckers A, Organe S, Timmermans L, Scheys K, Peeters A, Brusselmans K, Verhoeven G, Swinnen JV. Chemical inhibition of acetyl_CoA carboxylase induces growth arrest and cytotoxicity selectively in cancer cells. Cancer Res 67: 8180_8187, 2007.

Brusselmans K, Timmermans L, van de Sande T, Van Veldhoven PP, Guan G, Shechter I, Claessens F, Verhoeven G, Swinnen JV. Squalene synthase, a determinant of raft_associated cholesterol and modulator of prostate cancer cell proliferation. J Biol Chem 282: 18777_18785, 2007.

Swinnen JV, Brusselmans K, Verhoeven G. Increased lipogenesis in cancer cells: new players, novel targets. Curr

Opin Clin Nutr Metab Care 9: 358_365, 2006.

Beckers A, Organe S, Timmermans L, Vanderhoydonc F, Deboel L, Derua R, Waelkens E, Brusselmans K, Verhoeven G, Swinnen JV. Methotrexate enhances the antianabolic and antiproliferative effects of 5_aminoimidazole_4_carboxamide riboside. Mol Cancer Ther 5: 2211_2217, 2006.

Brusselmans K, De Schrijver E, Verhoeven G, Swinnen JV. RNA interference_mediated silencing of the acetyl_CoA_carboxylase_alpha gene induces growth inhibition and apoptosis of prostate cancer cells. Cancer Res 65: 6719_6725, 2005.

Swinnen JV, Beckers A, Brusselmans K, Organe S, Segers J, Timmermans L, Vanderhoydonc F, Deboel L, Derua R, Waelkens E, De Schrijver E, Van de Sande T, Noel A, Foufelle F, Verhoeven G. Mimicry of a cellular low energy status blocks tumor cell anabolism and suppresses the malignant phenotype. Cancer Res 65: 2441_2448, 2005.

Brusselmans K, Vrolix R, Verhoeven G, Swinnen JV. Induction of cancer cell apoptosis by flavonoids is associated with their ability to inhibit fatty acid synthase activity. J Biol Chem 280: 5636_5645, 2005.

Acker T, Diez_Juan A, Aragones J, Tjwa M, Brusselmans K, Moons L, Fukumura D, Moreno_Murciano MP, Herbert JM, Burger A, Riedel J, Elvert G, Flamme I, Maxwell PH, Collen D, Dewerchin M, Jain RK, Plate KH, Carmeliet P. Genetic evidence for a tumor suppressor role of HIF_2alpha. Cancer Cell 8: 131_141, 2005.

Brusselmans K, Bono F, Collen D, Herbert JM, Carmeliet P, Dewerchin M. A novel role for VEGF as an autocrine survival factor for embryonic stem cells during hypoxia. J Biol Chem 280: 3493_3499, 2005.

Swinnen JV, Heemers H, van de Sande T, de Schrijver E, Brusselmans K, Heyns W, Verhoeven G. Androgens, lipogenesis and prostate cancer. J Steroid Biochem Mol Biol 92: 273_279, 2004.

De Schrijver E, Brusselmans K, Heyns W, Verhoeven G, and Swinnen JV. RNA interference_mediated silencing of the fatty acid synthase gene attenuates growth and induces morphological changes and apoptosis of LNCaP prostate cancer cells. Cancer Res 63: 3799_3804, 2003.

Brusselmans K, De Schrijver E, Heyns W, Verhoeven G, and Swinnen JV. Epigallocatechin_3_gallate is a potent natural inhibitor of fatty acid synthase in intact cells and selectively induces apoptosis in prostate cancer cells. Int J Cancer 106: 856_862, 2003.

Swinnen JV, Van Veldhoven PP, Timmermans L, De Schrijver E, Brusselmans K, Vanderhoydonc F, Van de Sande T, Heemers H, Heyns W and Verhoeven G. Fatty acid synthase drives the synthesis of phospholipids partitioning into detergent_resistant membrane microdomains, Biochemical and Biophysical Research Communications 302: 898_903, 2003.

Compernolle V, Brusselmans K, Franco D, Moorman A, Dewerchin M, Collen D, and Carmeliet P. Cardia bifida, defective heart development and abnormal neural crest migration in embryos lacking hypoxia_inducible factor_1alpha. Cardiovasc Res 60: 569_579, 2003.

Brusselmans K, Compernolle V, Tjwa M, Wiesener MS, Maxwell PH, Collen D, and Carmeliet P. Heterozygous deficiency of hypoxia_inducible factor_2alpha protects mice against pulmonary hypertension and right ventricular dysfunction during prolonged hypoxia. J Clin Invest 111: 1519_1527, 2003.

Luttun A, Brusselmans K, Fukao H, Tjwa M, Ueshima S, Herbert JM, Matsuo O, Collen D, Carmeliet P and Moons L. Loss of placental growth factor protects mice against vascular permeability in pathological conditions. Biochemical and Biophysical Research Communications 295: 428_434, 2002.

Compernolle V, Brusselmans K, Acker T, Hoet P, Tjwa M, Beck H, Plaisance S, Dor Y, Keshet E, Lupu F, Nemery B, Dewerchin M, Van Veldhoven P, Plate K, Moons L, Collen D and Carmeliet P. Loss of HIF_2alpha and inhibition of VEGF impair fetal lung maturation, whereas treatment with VEGF prevents fatal respiratory distress in premature mice. Nature Medicine 8: 702_710, 2002.

Oosthuyse B, Moons L, Storkebaum E, Beck H, Nuyens D, Brusselmans K, Van Dorpe J, Hellings P, Gorselink M, Heymans S, Theilmeier G, Dewerchin M, Laudenbach V, Vermylen P, Raat H, Acker T, Vleminckx V, Van Den Bosch L, Cashman N, Fujisawa H, Drost MR, Sciot R, Bruyninckx F, Hicklin DJ, Ince C, Gressens P, Lupu F, Plate KH, Robberecht W, Herbert JM, Collen D and Carmeliet P. Deletion of the hypoxia_response element in the vascular endothelial growth factor promoter causes motor neuron degeneration. Nature Genetics 28: 131_138, 2001.

Brusselmans K, Bono F, Maxwell P, Dor Y, Dewerchin M, Collen D, Herbert JM and Carmeliet P. Hypoxia_inducible factor_2alpha (HIF_2alpha) is involved in the apoptotic response to hypoglycemia but not to hypoxia. Journal of Biological Chemistry 276: 39192_39196, 2001.

Carmeliet P, Ng YS, Nuyens D, Theilmeier G, Brusselmans K, Cornelissen I, Ehler E, Kakkar VV, Stalmans I, Mattot V, Perriard JC, Dewerchin M, Flameng W, Nagy A, Lupu F, Moons L, Collen D, D'Amore PA and Shima DT. Impaired myocardial angiogenesis and ischemic cardiomyopathy in mice lacking the vascular endothelial growth factor isoforms VEGF164 and VEGF188. Nature Medicine 5: 495_502, 1999.

Carmeliet P, Dor Y, Herbert JM, Fukumura D, Brusselmans K, Dewerchin M, Neeman M, Bono F, Abramovitch R, Maxwell P, Koch CJ, Ratcliffe P, Moons L, Jain RK, Collen D and Keshet E. Role of HIF_1alpha in hypoxia_mediated apoptosis, cell proliferation and tumour angiogenesis. Nature 394: 485_490, 1998.

Publications in scientific books:

Brusselmans K and Swinnen JV. The lipogenic switch in cancer. In: Mitochondria and Cancer. K.K. Singh and L.C. Costello, editors. Springer (New York, USA), 2009; p. 39_59.

Brusselmans K, De Schrijver E, Heyns W, Verhoeven G, Swinnen JV. Cancer prevention by green tea via EGCG_mediated inhibition of fatty acid synthase. In: Hormonal carcinogenesis IV. J.J. Li, S.A. Li and A. Llombart_Bosch, editors. Springer (New York, USA), 2005; p. 343_349.

De Schrijver E, Brusselmans K, Heyns W, Verhoeven G, Swinnen JV. Silencing of the fatty acid synthase gene by RNA interference inhibits growth and induces apoptosis of LNCaP prostate cancer cells. In: Hormonal carcinogenesis IV. J.J. Li, S.A. Li and A. Llombart_Bosch, editors. Springer (New York, USA), 2005; p. 350_356.

Projects

Memberships

Other Relevant Information