

CURRICULUM VITAE

PERSONAL INFORMATION:

Name:	Diether Lambrechts
Date and place of birth:	02-08-1976; Hasselt, Belgium
Nationality:	Belgium
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ACADEMIC APPOINTMENTS:

1994–1999	Bio-engineer (MSc) in the Agricultural and Applied Biological Sciences. Speciality: Cell and Gene Biotechnology, University of Leuven, Belgium.
Jan 2000–May 2003	PhD in Medical Sciences (Promoter Prof Peter Carmeliet) at the Center for Transgene Technology and Gene Therapy (CTG), University of Leuven, Belgium.
May 21st, 2003	PhD dissertation (entitled 'Genetic evidence in the mouse, fish and humans for the role of VEGF in motor neuron degeneration and congenital heart defects').
Oct 2003–Sept 2009	Postdoctoral Researcher at the CTG, KUL, Belgium. Two fellowships from the Flemish Fund for Scientific Research (FWO) were obtained.
April 2008–April 2013	Group Leader Position at the VIB Vesalius Research Center (VRC/VIB3), Leuven, Belgium.
Oct 2008–Sept 2012	Assistant Professor, Department of Oncology, University of Leuven, Belgium.
Oct 2012–Present	Associate Professor, Department of Oncology, University of Leuven, Belgium.

AWARDS AND HONOURS:

1. **Prize Karel-Lodewijk Verleysen** for Human Medicine 2003; awarded for an important contribution to fundamental or clinical research in human medicine.
2. **Galenus Prize** for pharmacology and fundamental research 2004 (jointly with E Storkebaum).
3. **Prize "Rimaux-Bartier"** to support research for treating incurable diseases, FWO, Belgium.
4. **AstraZeneca Award for Translational Research** 2012 for the 'Discovery and validation of genetic biomarkers for targeted cancer therapies'.
5. **ERC Consolidator Grant** 2013 for the project entitled 'Cellular Hypoxia Alters DNA Methylation through Loss of Epigenome Oxidation' (CHAMELEON).

RESEARCH EXPERTISE:

Before 2008 (PhD student, Post-doc): Functional genomics in mice and fish to decipher the role of the VEGF and hypoxia in neurodegeneration. **Expertise:** Molecular biology (RNA/DNA/protein isolation, Western blotting, ELISA, etc), mouse genetics (gene-targeting and generation of transgenic mice), Experimental surgery for neurodegenerative disease models, histology, recombinant proteins (production/purification in E coli and P pastoris), cell biology, gene therapy (adenoviral and adeno-associated vectors), etc.

After 2008 (independent researcher): Unraveling the genetic and epigenetic mechanisms during carcinogenesis with the ultimate aim to discover and functionally validate genetic biomarkers for cancer therapies (with a focus on anti-VEGF therapy and hypoxia). **Expertise:** Biomarker research within phase 2/3 clinical trials, hot-spot mutation profiling of oncogenes (Sequenom), targeted resequencing, whole-genome and exome-sequencing of tumors (mouse and human tissue, fresh-frozen and FFPE), transcriptomics (RNA-seq), Epigenome profiling (mDIP-seq, hmDIP-seq, WGBS-seq), development of data-analysis pipelines, functional validation of genetic markers using genomics (transfection, siRNA technology, genome editing, etc), tumor models (xenografts and xenopatients), etc

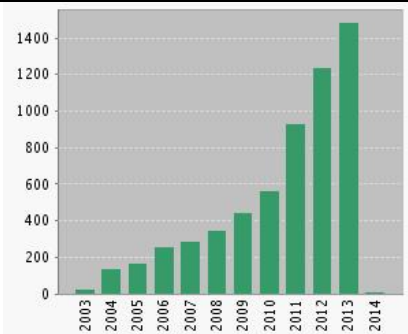
PATENTS

1. Responsiveness to Angiogenesis Inhibitors (EP 09167184.2, PCT/EP2010/004761, EP 09167184.2 and US 13/388,840). Licensed to Hoffmann-La Roche Ltd (2008).
2. Responsiveness to Angiogenesis Inhibitors (EP 11179498.8), co-inventor. Licensed to Hoffmann-La Roche Ltd (2011).
3. Method for predicting risk of hypertension associated with anti-angiogenesis therapy (EP 11179500.1), co-inventor. Licensed to Hoffmann-La Roche Ltd (2011).
4. Responsiveness to Angiogenesis Inhibitors (EP 11190229.2), co-inventor. Licensed to Hoffmann-La Roche Ltd (2011).
5. Microsatellite instability markers in detection of cancer (US 61/622,383), the inventor. Licensed to Biocartis (2012).
6. Method for predicting the risk of hypertension after VEGF-targeted therapies, co-inventor (2013).

PUBLICATION SUMMARY:

Publications: In total, I have authored 146 Pubmed-listed publications, 34 of which as a first, last or corresponding author. I published 46 manuscripts in high impact journals (IF>10) and 29 in super-top journals (IF>20). As an independent researcher, I published 117 papers, 56 with IF>5, 31 papers with IF>10, 20 papers with IF>20, of which respectively 18, 7 and 2 papers involve first or senior authorships.

Citations: I have been cited 5,327 times. My current H-index is 33. My annual number of citations increases exponentially (see figure). My best-cited publication is my first-author Nature Genetics publication published in 2003 (n=531).



MY FIVE MOST RELEVANT PUBLICATIONS AS PHD STUDENT/POST-DOC:

*Legend: Corresponding author, * Equal contribution, (ISI citations on February 21st 2013).*

1. Stalmans I*, **Diether Lambrechts***, De Smet F, Jansen S, Wang J, Maity S, ..., Carmeliet G, Behn-Krappa A, Devriendt K, Collen D, Conway S, Carmeliet P. VEGF: a modifier of the del22q11 (DiGeorge) syndrome? **Nature Medicine**, 9(2)173-82, **2003** (IF=30.55) ([164 ISI citations](#)).
2. **Diether Lambrechts**, E Storkebaum, M Morimoto, Del-Favero J, Desmet F, Marklund S, Wyns S, Thijs V, Andersson J, van Marion I, Al-Chalabi A, ..., Van Broeckhoven C, Collen D, Andersen P, Carmeliet P. VEGF is a modifier of ALS in mice and humans, and protects motoneurons against ischemic death. **Nature Genetics**, 34(4)383-94, **2003** (with accompanying News and Views). (IF=26.49) ([531 ISI citations](#)).
3. Storkebaum E*, **Diether Lambrechts***, Dewerchin M, Moreno-Murciano M, Appelmans S, Oh H, Van Damme P, Rutten B, ..., Schmitz C, Robberecht W, Conway E, Collen D, Moons L, Carmeliet P. Treatment of motoneuron degeneration by intracerebroventricular delivery of VEGF in a rat model of ALS. **Nature Neuroscience**, 8(1)85-92, **2005** (IF=15.46) ([295 ISI citations](#)).
4. Poesen K*, **Diether Lambrechts***, Van Damme P, Dhondt J, ..., Sendtner M, Robberecht W, Carmeliet P; Novel Role for Vascular Endothelial Growth Factor (VEGF) Receptor-1 and Its Ligand VEGF-B in Motor Neuron Degeneration. **Journal of Neuroscience**, 28(42)10451-9, **2008** (IF=7.45) ([48 ISI citations](#)).
5. Aerts S*, **Diether Lambrechts***, Maity S*, Van Loo P*, Coessens B*, Tranchevent L, De Moor B, Marynen P, Hassan B, Carmeliet P, Moreau Y; Gene prioritization through genomic data fusion. **Nature Biotechnology**, 24(5)537-44, **2006** (IF=22.74) ([332 ISI citations](#)).

FIVE PUBLICATIONS AS INDEPENDENT SCIENTIST:

*Legend: Corresponding author, Lab member, * Equal contribution, (ISI citations on February 21st 2013).*

1. **Diether Lambrechts***, Buysschaert I*, Zanen P*, Coolen J, Lays N, Cuppens H, Groen H, Dewever W, Verschakelen J, Wijmenga C, Postma D, Decramer M, Janssens W; The 15q24/25 susceptibility variant for lung cancer and COPD is associated with emphysema. **American Journal of Respiratory and Critical Care Medicine** 181(5)486-93, **2010** (IF=11.08) ([37 ISI citations](#))
2. Reumers J*, P De Rijk*, Zhao H, Liekens A, Smeets D, Cleary J, Van Loo P, Van Den Bossche M, Catthoor K, Sabbe B, Despierre E, Vergote I, Hilbush B, **Diether Lambrechts***, Del-Favero J*. Optimized filtering reduces the error rate in detecting genomic variants by short-read sequencing. **Nature Biotechnology**, 30(1)61-8, **2011** (IF=23.27) ([20 ISI citations](#)).
3. Wauters E*, Smeets D*, Coolen J, Verschakelen J, De Leyn P, Decramer M, Vansteenkiste J, Janssens W, **Lambrechts D**. The TERT-CLPTM1L locus for lung cancer predisposes to bronchial obstruction and emphysema. **European Respiratory Journal**, 38(4)924-31, **2011** (IF=6.34) ([8 ISI citations](#)).

4. **Diether Lambrechts***, Claes B*, Delmar P, Reumers J, Mazzone M, Yesilyurt BT, Devlieger R, Verslype C, Tejpar S, Wildiers H, de Haas S, Carmeliet P, Scherer SJ, Van Cutsem E. Clinical and functional correlation of a genetic locus in VEGFR-1 with outcome of bevacizumab treatment. **Lancet Oncology**, 13(7)724-33, **2012** (IF=22.59) (**32** ISI citations).
5. **Diether Lambrechts**, Lenz HJ, de Haas S, Carmeliet P, Scherer SJ; Markers of Response for the Anti-Angiogenic Agent Bevacizumab. **Journal Clinical Oncology**, 31(9)1219-30, **2013** (IF=18.37) (**15** ISI citations).

MEMBERSHIPS AND AFFILIATIONS:

- Active board member of the Genomics Core (University Hospital Leuven, Belgium); responsible for SNP genotyping projects (Sequenom and iSCAN).
- Member of the Board of directors of the Verelst Endometrial Cancer Fund, the 'Belgian Association for Cancer Research (BACR), the VIB group Leader Committee and VIB Tech Transfer Team.
- Consultant for the biotech company 'Multiplicom' (compensated) and for 'Reliable Cancer Therapies' (uncompensated).
- Active contributor to international genetic consortia (BCAC, OCAC, E2C2 and CARDIOGENICS).

LECTURES AND SEMINARS AT INTERNATIONAL INSTITUTES OR MEETINGS

Before 2008: Keynote on the Annual Meeting of European Federation of Physiologic Societies (Munich, Germany); Lecture at the Scuole Normale Superiore (Pisa, Italy); Presentation at the Annual Meeting of the Society for Neuroscience, (Atlanta, USA); Speaker on the 2nd Symposium of Fondation André-Delambre (Québec City, Canada); Speaker on the Joint Meeting of the Belgian Society of Human genetics and Nephrology (Brussels, Belgium); Seminar at the Wallenberg Neuroscience Center (Lund University, Sweden); Seminar in Ecole Supérieure de Physique et de Chimie Industrielles (Paris, France); Seminar in the Genomics group, Wellcome Trust Center for Human Genetics, (Oxford, UK); Seminar in the Section for Neuroscience (Sheffield University, UK).

2008: Lecture at Annual Belgian Breast Meeting (Leuven, Belgium); Lecture at the Targeted Therapy meeting for Colorectal Cancer in Taormina (Sicily, Italy).

2009: Lecture at the IMPAKT Breast Cancer Conference (Brussels, Belgium); Presentation at Clinical Investigator Meetings for AstraZeneca (Manchester, UK), Hoffman-La-Roche (Basel, Switzerland) and Sanofi-Aventis (Firenze, Italy); Poster presentation at the Annual ASCO Meeting 2009 (Orlando, USA); Late-breaking Abstract Presentation at the ESMO/ECCO Annual Meeting (Berlin, Germany).

2011: Seminar at the Institute for Cancer Research and Treatment (University of Turin, Italy); Presentation at Clinical Investigator Meeting for Merck (Frankfurt, Germany); Seminar at the Belgian Breast Meeting-BBM (Brussels, Belgium).

2012: Seminar at London Research Institute (London, UK). Lecture at Annual Irish Association for Cancer Research (IACR) meeting (Belfast, Ireland). Seminar at Erasmus Medical Center (Rotterdam, The Netherlands); Lecture at the Illumina Cancer Meeting (Antwerp, Belgium); Keynote for the Annual Symposium of LCRP (Hasselt University, Belgium).

2013: Lecture at the EORTC Postgraduate Course Medical Oncology (Brussels, Belgium). Keynote at ACHOG Course on Angiogenesis (Istanbul, Turkey). Talk at the Illumina User Meeting (Paris, France). Lecture on NGS at pre-IMPACT training course (Brussels, Belgium). Talk at the TraFo Symposium (Bergisch Gladbach, Germany). Workshop at the Symposium Genetics of Autoimmunity (Leuven, Belgium). Lecture at the 2nd Annual International Conference on Genomics in Europe (Ghent, Belgium). Keynote at "The Epigenetics Revolution: development and disease biology revisited" Symposium (Leuven, Belgium). Lecture at the Angiogenesis Foundation Meeting (Berlin, Germany). Keynote at the Annual kConFab meeting (Cairns, Australia). Talk at the Annual Meeting of the German Genetics Society (Braunschweig, Germany). Symposium on Personalised Treatment in Colorectal Cancer (ESMO Annual Meeting; Amsterdam, The Netherlands). Keynote at Symposium on Oncology (Maria Middelaers; Gent, Belgium). Talk at the Elcker-Ik Center (Antwerp, Belgium).

2014: Talk at the Scientific Symposium on "Progress in angiogenesis inhibition in (colorectal) cancer (Mannheim, Germany)

PAST AND CURRENT PHD STUDENTS:

Ian Buyschaert (2006-2010; IWT funding); First authorship in **Eur Heart J**, 31(9)1132-41, 2010. Current position: cardiologist in UZA, Antwerp, Belgium;

Joke Dhondt (2007-2011; IWT funding); First authorship in the **FASEB J**, 25(5)1461-73, 2011. Current position: scientific coordinator at Universal Medica (Paris, France);

An Verheyen (2007-2011 IWT funding); First authorship in **Brain**, 135 (Pt 9): 2629-41, 2012. Current position: scientist at Janssen Pharmaceutics, J&J, Beerse, Belgium;

Bart Claes (2008-2012; IWT funding); First authorship in **Lancet Oncology**, 13(7)724-33, 2012. Current position: Project manager at Biocartis, Mechelen, Belgium. I am currently supervising 4 additional PhD students, who each obtained a 4-year grant from local funding agencies (FWO and IWT).

Betül Yesilyurt (2008-2013; FWO funding); Functional validation of recurrent mutations in micro satellite instable endometrial tumors (FWO);

Els Wauters (since 2010; FWO funding); Unraveling the common genetic basis of lung cancer, COPD and emphysema; First authorship publication in **European Respiratory Journal**, 38(4)924-31, 2011.

Matthieu Moisse (since 2010; FWO funding); Breast cancer-associated risks of established susceptibility loci in other cancers (FWO).

Dominiek Smeets (since 2011; KUL funding); Tumor heterogeneity in the evolution of primary ovarian and breast cancer to recurrence or metastasis (KUL);

Jeroen Depreeuw (since 2013; KUL funding); Treatment of gynaecologic tumors using patient-derived xenograft models based on primary tumor mutation profiling (KUL);

Flora D'Anna (since 2013; KUL funding); Cellular hypoxia alters DNA methylation through loss of epigenome oxidation (KUL).

PAST AND CURRENT POST-DOCS:

Joke Reumers (2009-2012; FWO funding); First authorship in **Nature Biotechnology**, 30(1)61-8, 2011. Current position: project manager at Janssen Pharmaceutics, J&J, Beerse, Belgium;

Hui Zhao (since 2011; FWO funding); First authorship in **Human Molecular Genetics**, 21(11)2412-9, 2012. Recruited from Hebei University of Technology, China;

Bernard Thienpont (since 2012; FWO-funding). Former post-doc at the Babraham Institute, Cambridge, UK (W. Reik Laboratory).