

## Curriculum Vitae

### Personal information **Sofie Peirs**

#### Work experience

##### **Non-clinical assessor at Federal Agency for Medicines and Health Products (FAMHP), Belgium**

- Start date: March 2019
- End date: current employment
- Activities: assessment of clinical trial applications, marketing authorisation applications/variations and scientific advice

##### **Postdoctoral researcher at Ghent University, Belgium**

- Start date: May 2017
- End date: February 2019
- Position: Postdoctoral fellowship of FWO-Flanders, promotor: prof. dr. Pieter Van Vlierberghe
- Activities: research at the Center for Medical Genetics Ghent (Faculty of Medicine and Health Sciences). Study of the molecular basis of T-cell acute lymphoblastic leukemia (T-ALL) and in vitro and in vivo evaluation of new therapies for the treatment of T-ALL.

##### **PhD student at Ghent University, Belgium**

- Start date: October 2012
- End date: May 2017
- Position: PhD student, promotors: prof. dr. Pieter Van Vlierberghe and Bruce Poppe
- Activities: Research at the Center for Medical Genetics Ghent (Faculty of Medicine and Health Sciences). Title of PhD thesis: "Novel molecular insights and targeted therapies in T-cell acute lymphoblastic leukemia"

#### Education and training

##### **PhD in Health Sciences**

- Start date: October 2012
- End date: May 2017
- Qualification: Doctor in Health Sciences
- Title of PhD thesis: "Novel molecular insights and targeted therapies in T-cell acute lymphoblastic leukemia"
- Institution: Ghent University, Faculty of Medicine and Health Sciences
- Country: Belgium

##### **Laboratory animal sciences course (to allow performing experiments with laboratory animals)**

- Start date: September 2012
- End date: January 2013
- Qualification: Laboratory animal science courses I and II
- Institution: Ghent University
- Country: Belgium

##### **Master of Science in Bioscience Engineering: cell and gene biotechnology**

- Start date: September 2010
- End date: June 2012
- Qualification: Master of Science in Bioscience Engineering: cell and gene biotechnology
- Institution: Ghent University, Faculty of Bioscience Engineering
- Country: Belgium

##### **Bachelor of Science in Bioscience Engineering: cell and gene biotechnology**

- Start date: September 2007
- End date: June 2010
- Qualification: Bachelor of Science in Bioscience Engineering: cell and gene biotechnology
- Institution: Ghent University, Faculty of Bioscience Engineering
- Country: Belgium

#### Additional information

##### Publications

- Di Grande A, Peirs S, Donovan PD, Van Trimpt M, Morscio J, Lintermans B, Reunes L, Vandamme N, Goossens S, Nguyen HA, Lavie A, Lock RB, Prehn JHM, Van Vlierberghe P, Ni Chonghaile T. The spleen as a sanctuary site for residual leukemic cells following ABT-199 monotherapy in ETP-ALL. Blood Adv. 2021 Apr 13;5(7):1963-1976.
- Matthijssens F, Sharma ND, Nysus M, Nickl CK, Kang H, Perez DR, Lintermans B, Van Looke W, Roels J, Peirs S, Demoen L, Pieters T, Reunes L, Lammens T, De Moerloose B, Van Nieuwerburgh F, Deforce DL, Cheung LC, Kotecha RS, Risseuw MD, Van Calenbergh S, Takarada T, Yoneda Y, van Delft FW, Lock RB, Merkley SD, Chigaev A, Sklar LA, Mullighan CG, Loh ML, Winter SS, Hunger SP, Goossens S, Castillo EF, Ornatowski W, Van Vlierberghe P, Matlawska-Wasowska K. RUNX2 regulates leukemic cell metabolism and

- chemotaxis in high-risk T cell acute lymphoblastic leukemia. *J Clin Invest*. 2021 Mar 15;131(6):e141566.
- Pouliot GP, Degar J, Hinze L, Kochupurakkal B, Vo CD, Burns MA, Moreau L, Ganesa C, Roderick J, Peirs S, Menten B, Loh ML, Hunger SP, Silverman LB, Harris MH, Stevenson KE, Weinstock DM, Weng AP, Van Vlierberghe P, D'Andrea AD, Gutierrez A. Fanconi-BRCA pathway mutations in childhood T-cell acute lymphoblastic leukemia. *PLoS One*. 2019 Nov 13;14(11):e0221288.
  - Ariès IM, Bodaar K, Karim SA, Chonghaile TN, Hinze L, Burns MA, Pfirrmann M, Degar J, Landrigan JT, Balbach S, Peirs S, Menten B, Isenhardt R, Stevenson KE, Neuberger DS, Devidas M, Loh ML, Hunger SP, Teachey DT, Rabin KR, Winter SS, Dunsmore KP, Wood BL, Silverman LB, Sallan SE, Van Vlierberghe P, Orkin SH, Knoechel B, Letai AG, Gutierrez A. PRC2 loss induces chemoresistance by repressing apoptosis in T cell acute lymphoblastic leukemia. *J Exp Med* 2018; 215(12):3094\_3114.
  - Jin Q, Martinez CA, Arcipowski KM, Zhu Y, Gutierrez Diaz BT, Wang KK, Johnson MR, Volk AG, Wang F, Wu J, Grove C, Wang H, Sokirniy I, Thomas PM, Goo YA, Abshiru NA, Hijjiya N, Peirs S, Vandamme N, Bex G, Goossens S, Marshall SA, Rendleman EJ, Takahashi YH, Wang L, Rawat R, Bartom ET, Collings CK, Van Vlierberghe P, Strikoudis A, Kelly S, Ueberheide B, Mantis C, Kandela I, Bourquin JP, Bornhauser B, Serafin V, Bresolin S, Paganin M, Accordi B, Basso G, Kelleher NL, Weinstock J, Kumar S, Crispino JD, Shilatfard A, Ntziachristos P. USP7 Cooperates with NOTCH1 to Drive the Oncogenic Transcriptional Program in T-Cell Leukemia. *Clin Cancer Res* 2019; 25(1):222\_239.
  - De Smedt R, Peirs S, Morscio J, Matthijssens F, Roels J, Reunes L, Lintermans B, Goossens S, Lammens T, Van Roy N, Touzart A, Jenni S, Tsai YC, Lovisa F, Mussolin L, Serafin V, Van Nieuwerburgh F, Deforce D, Uyttebroeck A, Tousseyn T, Burkhardt B, Klapper W, De Moerloose B, Benoit Y, Macintyre E, Bourquin JP, Basso G, Accordi B, Bornhauser B, Meijerink J, Vandenberghe P, Van Vlierberghe P. Pre-clinical evaluation of second generation PIM inhibitors for the treatment of T-cell acute lymphoblastic leukemia and lymphoma. *Haematologica* 2019; 104(1):e17\_e20.
  - Milani G, Matthijssens F, Van Looche W, Durinck K, Roels J, Peirs S, Thénoz M, Pieters T, Reunes L, Lintermans B, Vandamme N, Lammens T, Van Roy N, Van Nieuwerburgh F, Deforce D, Schwab C, Raimondi S, Dalla Pozza L, Carroll AJ 3rd, De Moerloose B, Benoit Y, Goossens S, Bex G, Harrison CJ, Basso G, Cavé H, Sutton R, Asnafi V, Meijerink J, Mullighan C, Loh M, Van Vlierberghe P. Genetic characterization and therapeutic targeting of MYC-rearranged T cell acute lymphoblastic leukaemia. *Br J Haematol* 2018.
  - Nguyen HA., Su Y., Zhang JY., Antanasijevic A., Caffrey M., Schalk AM., Liu L., Rondelli D., Oh A., Mahmud DL., Bosland MC., Kajdacsy Balla A., Peirs S., Lammens T., Mondelaers V., De Moerloose B., Goossens S., Schlicht MJ., Kabirov KK., Lyubimov AV., Merrill BJ., Sauntharajah Y., Van Vlierberghe P. and Lavie A. A novel L-asparaginase with low L-glutaminase coactivity is highly efficacious against both T- and B- cell acute lymphoblastic leukemias in vivo. *Cancer Research* 2018; 78(6):1549\_1560.
  - Peirs S.\*, Frimantas V.\*, Matthijssens F., Van Looche W., Pieters T., Vandamme N., Lintermans B., Dobay MP., Bex G., Poppe B., Goossens S., Bornhauser BC., Bourquin JP.\*\* and Van Vlierberghe P.\*\* Targeting BET proteins improves the therapeutic efficacy of BCL-2 inhibition in T-cell acute lymphoblastic leukemia. *Leukemia* 2017; 31(10):2037\_2047. \*co\_first authors, \*\*co\_last authors.
  - Goossens S.\*, Peirs S.\*, Van Looche W., Wang J., Takawy M., Matthijssens F., Sonderegger S., Haigh K., Nguyen T., Vandamme N., Costa M., Carmichael C., Van Nieuwerburgh F., Deforce D., Kleefeld O., Curtis D., Bex G., Van Vlierberghe P.\*\* and Haigh JJ.\*\*. Oncogenic ZEB2 activation drives sensitivity towards KDM1A inhibition in T-cell acute lymphoblastic leukemia. *Blood* 2017; 129(8):981\_990. \*co\_first authorship, \*\*co\_last authorship.
  - Unnikrishnan A., Guan YF., Huang YZ., Beck D., Thoms JAI., Peirs S., Knezevic K., Ma SY., de Walle IV., de Jong I., Ali Z., Zhong L., Raftery MJ., Taghon T., Larsson J., MacKenzie KL., Van Vlierberghe P., Wong JWH. and Pimanda JE. A quantitative proteomics approach identifies ETV6 and IKZF1 as new regulators of an ERG-driven transcriptional network. *Nucleic Acids Research* 2016; 44(22): 10644\_10661.
  - Durinck K., Goossens S., Peirs S., Wallaert A., Van Looche W., Matthijssens F., Pieters T., Milani G., Lammens T., Rondou P., Van Roy N., De Moerloose B., Benoit Y., Haigh J. Speleman F., Poppe B. and Van Vlierberghe P. Novel biological insights in T-cell acute lymphoblastic leukemia. *Experimental Hematology* 2015; 43(8): 625\_639.
  - Peirs S., Van der Meulen J., Van de Walle I., Taghon T., Speleman F., Poppe B. and Van Vlierberghe P. Epigenetics in T-cell acute lymphoblastic leukemia. *Immunological Reviews* 2015; 263(1):50\_67.
  - Goossens S., Radaelli E., Blanchet O., Durinck K., Van der Meulen J., Peirs S., Taghon T., Tremblay CS., Costa M., Ghahremani MF., De Medts J., Bartunkova S., Haigh K., Schwab C., Farla N., Pieters T., Matthijssens F., Van Roy N., Best JA., Deswarte K., Bogaert P., Carmichael C., Rickard A., Suryani S., Bracken LS., Alserihi R., Canté-Barrett K., Haenebalcke L., Clappier E., Rondou P., Slowicka K., Huylebroeck D., Goldrath AW., Janzen V., McCormack MP., Lock RB., Curtis DJ., Harrison C., Bex G., Speleman F., Meijerink JPP., Soulier J., Van Vlierberghe P. and Haigh JJ. ZEB2 drives immature T-cell lymphoblastic leukaemia development via enhanced tumour-initiating potential and IL-7 receptor signalling. *Nature Communications* 2015;6.
  - Peirs S., Matthijssens F., Goossens S., Van de Walle I., Ruggero K., de Bock C., Degryse S., Canté-Barrett K., Briot D., Clappier E., Lammens T., De Moerloose B., Benoit Y., Poppe B., Meijerink J.P., Cools J., Soulier J., Rabbitts TH., Taghon T., Speleman F. and Van Vlierberghe P. ABT-199 mediated inhibition of BCL-2 as a novel therapeutic strategy in T-cell acute lymphoblastic leukemia. *Blood* 2014; 124(25):3738\_3747.

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