

PERSONAL INFORMATION**BLOMME Arnaud, PhD**Email address: a.blomme@uliege.beDate of birth: 06/10/1986Nationality: BelgianORCID ID: 0000-0003-4183-8726SCOPUS Author ID: 36134252700Bibliometric indicators:

- **Scientific publications:** 28 (including **8** original articles as **first author** and **1** as **last author**)
- **h-index:** 15 (Scopus) – 18 (Google Scholar)
- **Total citations:** 629 (Scopus) – 843 (Google Scholar)

**EDUCATION**

- 2014 PhD in Biomedical and Pharmaceutical Sciences
Faculty of Medicine, University of Liège, Liège, Belgium
Pr. Vincent Castronovo
- 2009 Master in Biochemistry, Molecular and Cellular Biology (*PGD – ranked as top of the class*)
Faculty of Sciences, University of Liège, Liège, Belgium

PROFESSIONAL EXPERIENCE

- 2021 - 2023 **Marie Curie post-doctoral fellow (MSCA IF) (current position)**
GIGA-Research Institute, Stem Cells unit, University of Liège, Belgium
- 2020 - 2021 Post-doctoral fellow (FNRS)
GIGA-Research Institute, Stem Cells unit, University of Liège, Belgium
- 2015 - 2020 Post-doctoral fellow (CRUK)
Prostate Cancer Group, Beatson Institute for CRUK, Glasgow, UK
- 2014 - 2015 Post-doctoral fellow (FNRS)
GIGA-Cancer, Metastasis Research Laboratory, University of Liège, Belgium

FELLOWSHIPS

- 2021 - 2023 Marie Sklodowska Curie Action - Individual Fellowship, University of Liège, Belgium
- 2020 - 2021 Post-doctoral fellowship (FNRS), University of Liège, Belgium
- 2015 - 2020 Post-doctoral fellowship (CRUK), Beatson Institute for CRUK, Glasgow, UK
- 2015 - 2016 Long-term travel fellowship - Centre Anti Cancereux près l'Université de Liège, Belgium
- 2014 - 2015 Post-doctoral fellowship (FNRS), University of Liège, Belgium
- 2010 - 2014 PhD fellowship (FNRS), University of Liège, Belgium

AWARDS

- 2021 Braconnier Lamarche Award - Fonds Léon Frédéricq, Belgium (5000 euros)
- 2021 Postdoctoral Scientist functioning budget - Fonds Léon Frédéricq, Belgium (7500 euros)
- 2020 Frédéric Van Den Brûle Award - Fonds Léon Frédéricq, Belgium (7500 euros)
- 2020 Postdoctoral Scientist functioning budget - Fonds Léon Frédéricq, Belgium (7500 euros)
- 2014 ICPI Travel Award - ASIP Annual Meeting at Experimental Biology, USA (travel cost)
- 2014 Best Poster Award - GIGA annual meeting, Belgium
- 2013 Foundation against cancer Award - Fonds Léon Frédéricq, Belgium (2500 euros)
- 2013 Best Poster Award - Belgian Association for Cancer Research, Belgium
- 2012 Best presentation award – Télévie annual meeting, Belgium
- 2009 Biochemistry Award (Walter Verly) - University of Liege, Belgium (250 euros)

SUPERVISION OF GRADUATE STUDENTS

2020 - now Ning An, PhD student, GIGA-Stem Cells, University of Liège, Belgium
 2022 - 2022 Morgane Paque, Master student, GIGA-Stem Cells, University of Liège, Belgium
 2017 - 2020 Rafael Sanchez-Martinez, PhD student, Beatson Institute for CRUK, Glasgow, UK
 2018 - 2019 Yi Min Ng, Master student, Beatson Institute for CRUK, Glasgow, UK
 2018 - 2018 Coralie Peter, Master student (Erasmus), Beatson Institute for CRUK, Glasgow, UK
 2013 - 2017 Brunella Costanza, PhD student, GIGA-Cancer, University of Liège, Belgium

TEACHING ACTIVITIES

2010 - 2015 Teaching assistant - Practical works in General Biology (Pr. Castronovo) - 1st year medicine and biopharmaceutical sciences students, University of Liège, Belgium

ORGANISATION OF SCIENTIFIC MEETINGS

Scottish Biomedical Postdoctoral Researcher Conference (SBPRC) – joint organisation between IGMM PODS (Edinburgh) and Beatson Postdoc Society (Glasgow):

Organising committee member - SBPRC 2016 - Appletown Tower, Edinburgh, UK
 Organising committee member - SBPRC 2017 - Sir Charles Wilson Building, Glasgow, UK
 Organising committee member - SBPRC 2018 - Appletown Tower, Edinburgh, UK

INSTITUTIONAL RESPONSIBILITIES

2020 - now Member of PhD thesis committee (co-supervisor) - University of Liège, Liège, Belgium
 2016 - 2019 Organising committee member of the Beatson Postdoc Society, organisation of two-weekly seminars and annual scientific conference (SBPRC) - Beatson Institute for Cancer Research, Glasgow, UK.

SCIENTIFIC MEMBERSHIPS

2022 Member of the European Association for Cancer Research (EACR)
 2021 Member of the International Society for Cancer Metabolism (ISCAM)

REVIEWING ACTIVITIES

2019 - now I recently served as a reviewer for *Nature Communications*, *BMC Medicine*, *Cell Death and Disease* and *Journal of Cellular and Molecular Medicine*.

MAJOR COLLABORATIONS

Pr. Hing Leung, Prostate cancer biology, Beatson Institute for CRUK, Glasgow, UK
 Pr. Daniel Murphy, Mouse models of cancer/lung cancer, University of Glasgow, Glasgow, UK
 Pr. Sarah Maria Fendt, Cellular metabolism and metabolic regulation, VIB-KULeuven, Leuven, Belgium
 Dr. Daniel Sumpton, head of Metabolomics unit, Beatson Institute for CRUK, Glasgow, UK
 Pr. Alex von Kriegsheim, head of Mass Spectrometry unit, IGMM, Edinburgh, UK
 Pr. Reinhard Büttner, head of Pathology department, Uniklinik Köln, Cologne, Germany
 Pr. Afshin Samali, ER stress and cancer, Apoptosis Research Center, Galway, UK
 Dr. Edward Avezov, ER dynamics and ultrastructure, Dementia Research Institute, Cambridge, UK
 Pr. Didier Cataldo, Lung Cancer team, GIGA-Cancer, University of Liège, Liège, Belgium

PUBLIC OUTREACH

2016 - 2018 Organizing committee member of the Beatson Postdoc Society, organization of two-weekly seminars and annual scientific conference (SBPRC) – Beatson Institute for Cancer Research – Glasgow – UK.

2011 - 2015 Main organizer of the Belgian charity event “Brocante Televie” in 2012, 2013, 2014, 2015 – Rocourt – Belgium.

PUBLICATION LIST

Publications as first author: 8

Blomme A, Peter C, Mui E, Rodriguez Blanco G, An N, Mason LM, Jamieson LE, McGregor GH, Lilla S, Ntala C, Patel R, Thiry M, Kung SHY, Leclercq M, Ford CA, Rushworth LK, McGarry DJ, Mason S, Repiscak P, Nixon C, Salji MJ, Markert E, MacKay GM, Kamphorst JJ, Graham D, Faulds K, Fazli L, Gleave ME, Avezov E, Edwards J, Yin H, Sumpton D, Blyth K, Close P, Murphy DJ, Zanivan S, Leung HY. THEM6-mediated reprogramming of lipid metabolism supports treatment resistance in prostate cancer. *EMBO Mol Med.* 2022 Jan 11:e14764.

IF: 12.14.

Blomme A, Ford CA, Mui E, Patel R, Ntala C, Jamieson LE, Planque M, McGregor GH, Peixoto P, Hervouet E, Nixon C, Salji M, Gaughan L, Markert E, Repiscak P, Sumpton D, Rodriguez Blanco G, Lilla S, Kamphorst JJ, Graham D, Faulds K, MacKay GM, Fendt SM, Zanivan S, Leung HY. 2020. 2,4-dienoyl-CoA reductase regulates lipid homeostasis in treatment-resistant prostate cancer. *Nat Commun.* 2020. May 19;11(1):2508.

IF: 14.92.

Blomme A, Van Simaey G, Doumont G, Costanza B, Bellier J, Otaka Y, Sherer F, Lovinfosse P, Boutry S, Palacios AP, De Pauw E, Hirano T, Yokobori T, Hustinx R, Bellahcène A, Delvenne P, Detry O, Goldman S, Nishiyama M, Castronovo V, Turtoi A. 2018. Murine stroma adopts a human-like metabolic phenotype in the PDX model of colorectal cancer and liver metastases. *Oncogene.* Mar;37(9):1237-1250.

IF: 6.634.

Blomme A, Costanza B, de Tullio P, Thiry M, Van Simaey G, Boutry S, Doumont G, Di Valentin E, Hirano T, Yokobori T, Gofflot S, Peulen O, Bellahcène A, Sherer F, Le Goff C, Cavalier E, Mouithys-Mickalad A, Jouret F, Cusumano PG, Lifrange E, Muller RN, Goldman S, Delvenne P, De Pauw E, Nishiyama M, Castronovo V, Turtoi A. 2017. Myoferlin regulates cellular lipid metabolism and promotes metastases in triple-negative breast cancer. *Oncogene.* Apr;36(15):2116-2130.

IF: 6.854.

Blomme A, Fahmy K, Peulen O, Costanza B, Fontaine M, Struman I, Baiwir D, de Pauw E, Thiry M, Bellahcène A, Castronovo V, Turtoi A. 2016. Myoferlin is a novel exosomal protein and functional regulator of cancer-derived exosomes. *Oncotarget.* Dec 13;7(50):83669-83683.

IF: 5.168.

Peixoto P*, **Blomme A***, Costanza B*, Ronca R, Rezzola S, Palacios AP, Schoysman L, Boutry S, Goffart N, Peulen O, Maris P, Di Valentin E, Hennequière V, Bianchi E, Henry A, Meunier P, Rogister B, Muller RN, Delvenne P, Bellahcène A, Castronovo V, Turtoi A. 2016. HDAC7 inhibition resets STAT3 tumorigenic activity in human glioblastoma independently of EGFR and PTEN: new opportunities for selected targeted therapies. *Oncogene.* Aug 25;35(34):4481-94.

IF: 7.519.

Turtoi A*, **Blomme A***, Bianchi E, Maris P, Vannozzi R, Naccarato AG, Delvenne P, De Pauw E, Bevilacqua G, Castronovo V. 2014. Accessibility of Human Glioblastoma: Collagen-VI-alpha-1 is a New Target and a Marker of Poor Outcome. *J Proteome Res.* Dec 5;13(12):5660-9.

IF:4.245.

Turtoi A*, **Blomme A***, Bellahcène A, Gilles C, Hennequière V, Peixoto P, Bianchi E, Noel A, De Pauw E, Lifrange E, Delvenne P, Castronovo V. 2013. Myoferlin as a key regulator of EGFR activity in breast cancer. *Cancer Res.* 73 (17): 5438-5448.

IF: 9.284.

Publications as last author: 1

Martinez RS, Salji MJ, Rushworth L, Ntala C, Rodriguez Blanco G, Hedley A, Clark W, Peixoto P, Hervouet E, Renaude E, Kung SHY, Galbraith LCA, Nixon C, Lilla S, MacKay GM, Fazli L, Gaughan L, Sumpton D, Gleave ME, Zanivan S, **Blomme A***, Leung HY*. SLFN5 Regulates LAT1-Mediated mTOR Activation in Castration-Resistant Prostate Cancer. *Cancer Res.* 2021 Jul 1;81(13):3664-3678.
IF: 12.7.

Publications as co-author: 19

Almanza A, Mnich K, **Blomme A**, Robinson C, Rodriguez Blanco G, Kierszniowska S, McGrath E, Le Gallo M, Pilalis E, Swinnen J, Chatziioannou A, Chevet E, Gorman A, Samali A. Regulated IRE1 α -dependent decay (RIDD)-mediated reprogramming of lipid metabolism in cancer. *Nat Commun.* 2022. Accepted for publication.
IF: 14.92.

Salji M, **Blomme A**, Däbritz JHM, Repiscak P, Lilla S, Patel R, Sumpton D, van den Broek NJF, Daly R, Zanivan S, Leung HY. Multi-omics & pathway analysis identify potential roles for tumor N-acetyl aspartate accumulation in murine models of castration-resistant prostate cancer. *iScience.* 2022 Mar 11; 25(4):104056.
IF: 5.549.

Chiavarina B, Costanza B, Ronca R, **Blomme A**, Rezzola S, Chiodelli P, Giguelay A, Belthier G, Doumont G, Van Simaey G, Lacroix S, Yokobori T, Erkhem-Ochir B, Balaguer P, Cavailles V, Fabbrizio E, Di Valentin E, Gofflot S, Detry O, Jerusalem G, Goldman S, Delvenne P, Bellahcène A, Pannequin J, Castronovo V, Turtoi A. Metastatic colorectal cancer cells maintain the TGF β program and use TGFBI to fuel angiogenesis. *Theranostics.* 2021 Jan 1;11(4):1626-1640.
IF: 11.556.

Moncan M, Mnich K, **Blomme A**, Almanza A, Samali A, Gorman AM. Regulation of lipid metabolism by the unfolded protein response. *J Cell Mol Med.* 2021 Feb;25(3):1359-1370.
IF: 5.31.

Ntala C, Salji M, Salmond J, Officer L, Teodosio AV, **Blomme A**, McGhee EJ, Powley I, Ahmad I, Kruithof-de Julio M, Thalmann G, Roberts E, Goodyear CS, Jamaspishvili T, Berman DM, Carlin LM, Le Quesne J, Leung HY. Analysis of Prostate Cancer Tumor Microenvironment Identifies Reduced Stromal CD4 Effector T-cell Infiltration in Tumors with Pelvic Nodal Metastasis. *Eur Urol Open Sci.* 2021 May 25;29:19-29.
IF: 1.17.

Bellier J, Nokin MJ, Caprasse M, Tiamiou A, **Blomme A**, Scheijen JL, Koopmansch B, MacKay GM, Chiavarina B, Costanza B, Rademaker G, Durieux F, Agirman F, Maloujahnoum N, Cusumano PG, Lovinfosse P, Leung HY, Lambert F, Bours V, Schalkwijk CG, Hustinx R, Peulen O, Castronovo V, Bellahcène A. 2020. Methylglyoxal Scavengers Resensitize KRAS-Mutated Colorectal Tumors to Cetuximab. *Cell Rep.* Feb 4;30(5):1400-1416.e6.
IF: 9.423.

Patel R, Brzezinska EA, Repiscak P, Ahmad I, Mui E, Gao M, **Blomme A**, Harle V, Tan EH, Malviya G, Mrowinska A, Loveridge CJ, Rushworth LK, Edwards J, Ntala C, Nixon C, Hedley A, Mackay G, Tardito S, Sansom OJ, Leung HY. 2020. Activation of β -catenin cooperates with loss of Pten to drive AR-independent castration-resistant prostate cancer. *Cancer Res.* Feb 1;80(3):576-590.
IF: 12.7.

Costanza B, Rademaker G, Tiamiou A, De Tullio P, Leenders J, **Blomme A**, Bellier J, Bianchi E, Turtoi A, Delvenne P, Bellahcène A, Peulen O, Castronovo V. 2019. TGFBI, an ECM interacting protein, enhances glycolysis and promotes pancreatic cancer cell migration. *Int J Cancer.* Sep 15;145(6):1570-1584.
IF: 4.982.

Patel R, Fleming J, Mui E, Loveridge C, Repiscak P, **Blomme A**, Harle V, Salji M, Ahmad I, Teo K, Hamdy FC, Hedley A, van den Broek N, Mackay G, Edwards J, Sansom OJ, Leung HY. 2018. Sprouty2 loss-induced IL6 drives castration-resistant prostate cancer through scavenger receptor B1. *EMBO Mol Med.* Apr;10(4).
IF: 10.624.

Costanza B, Turtoi A, Bellahcène A, Hirano T, Peulen O, **Blomme A**, Hennequière V, Mutijima E, Boniver J, Meuwis MA, Josse C, Koopmansch B, Segers K, Yokobori T, Fahmy K, Thiry M, Coimbra C, Garbacki N, Colige A, Baiwir D, Bours V, Louis E, Detry O, Delvenne P, Nishiyama M, Castronovo V. 2018. Innovative methodology for the identification of soluble biomarkers in fresh tissues. *Oncotarget*. Jan 31;9(12):10665-10680.

IF: - .

Hendrick E, Peixoto P, **Blomme A**, Polese C, Matheus N, Cimino J, Frère A, Mouithys-Mickalad A, Sertheyn D, Bettendorff L, Elmoualij B, De Tullio P, Eppe G, Dequiedt F, Castronovo V, Mottet D. 2017. Metabolic inhibitors accentuate the anti-tumoral effect of HDAC5 inhibition. *Oncogene*. Aug 24;36(34):4859-4874.

IF: 6.854.

Nokin MJ, Durieux F, Peixoto P, Chiavarina B, Peulen O, **Blomme A**, Turtoi A, Costanza B, Smargiasso N, Baiwir D, Scheijen JL, Schalkwijk CG, Leenders J, De Tullio P, Bianchi E, Thiry M, Uchida K, Spiegel DA, Cochrane JR, Hutton CA, De Pauw E, Delvenne P, Belpomme D, Castronovo V, Bellahcène A. 2016. Methylglyoxal, a glycolysis side-product, induces Hsp90 glycation and YAP-mediated tumor growth and metastasis. *Elife*. Oct 19;5. pii: e19375.

IF: 7.725.

Henry A, Nokin MJ, Leroi N, Lallemand F, Lambert J, Goffart N, Roncarati P, Bianchi E, Peixoto P, **Blomme A**, Turtoi A, Peulen O, Habraken Y, Scholtes F, Martinive P, Delvenne P, Rogister B, Castronovo V, Bellahcène A. 2016. New role of osteopontin in DNA repair and impact on human glioblastoma radiosensitivity. *Oncotarget*. Sep 27;7(39):63708-63721.

IF: 5.168.

Maris P, **Blomme A**, Perez Palacios A, Costanza B, Bellahcène A, Bianchi E, Gofflot S, Drion PV, Trombino G, Di Valentin E, Cusumano P, Maweja S, Jerusalem G, Delvenne P, Lifrange E, Castronovo V, Turtoi A. 2015. Asporin is a fibroblast-derived TGF-B inhibitor and a tumor suppressor associated with good prognosis in breast cancer. *Plos Med*. Sep 1;12(9):e1001871.

IF: 13.585.

Turtoi A, **Blomme A**, Debois D, Somja J, Delvaux D, Patsos G, Di Valentin E, Peulen O, Mutijima EN, De Pauw E, Delvenne P, Detry O, Castronovo V. 2013. Organized proteomic heterogeneity in colorectal cancer liver metastases and implications for therapies. *Hepatology*. Mar;59(3):924-34.

IF: 11.190.

Warnock G, Turtoi A, **Blomme A**, Bretin F, Bahri MA, Lemaire C, Libert LC, Seret AE, Luxen A, Castronovo V, Plenevaux AR. 2013. In vivo PET/CT in a human glioblastoma chicken chorioallantoic membrane model: a new tool for oncology and radiotracer development. *Journal of Nuclear Medicine*. 54 (10): 1782-1788.

IF: 5.563.

Turtoi A, Dumont B, Greffe Y, **Blomme A**, Mazzucchelli G, Delvenne P, Mutijima EN, Lifrange E, De Pauw E, Castronovo V. 2011. Novel Comprehensive Approach for Accessible Biomarker Identification and Absolute Quantification from Precious Human Tissues. *J. Proteome Res*. 10 (7): 3160-3182.

IF: 5.113.

Gérin S., Mathy G., **Blomme A.**, Franck F., Sluse F.E. 2010. Plasticity of the mitoproteome to nitrogen sources (nitrate and ammonium) in *Chlamydomonas reinhardtii*: The logic of Aox1 gene localization., *Biochim. Biophys. Acta*. 1767(6-7), 994-1003.

IF: 4.663.

Mathy G., Cardol P., Dinant M., **Blomme A.**, Gérin S., Ghysels B., Cloes M., De Pauw E., Leprince P., Remacle C., Sluse-Goffart C., Franck F., Matagne R.F., Sluse F.E. 2010. Proteomic and functional characterization of a *Chlamydomonas reinhardtii* mutant lacking the mitochondrial alternative oxidase 1. *J. Proteome Res*. 9(6), 2825-2838.

IF: 5.46.

ORAL COMMUNICATIONS

Blomme A, THEM6-mediated lipid remodelling sustains stress resistance in cancer, VIB Conference: Tumor heterogeneity, plasticity and therapy, 2021, virtual meeting (selected abstract)

Blomme A, Thioesterase Superfamily Member 6 (THEM6) regulates endoplasmic reticulum function by controlling lipid homeostasis in castration-resistant prostate cancer, Endoplasmic Reticulum meeting – From basic cell biology to translational approaches: a path to the clinics, 2019, IPNP Paris, France (selected abstract)

Blomme A, Thioesterase Superfamily Member 6 (THEM6) regulates endoplasmic reticulum function by controlling lipid homeostasis in castration-resistant prostate cancer, Beatson International Cancer Conference – Protein Dynamics in Cancer, 2019, University of Glasgow, UK (selected abstract)

Blomme A, TGF β -Induced Protein ig-h3 is Essential for The Growth of Human Colorectal Carcinoma Liver Metastases, Belgian Week of Gastroenterology, 2014, La Hulpe, Belgium (selected abstract)

Blomme A, Imaging Guided Proteomics Unveils Heterogeneity in Colorectal Carcinoma Liver Metastases – Implications for Targeted Therapies, HUPO Meeting 2012, Boston, USA (selected abstract)

INVITED PRESENTATIONS TO INTERNATIONAL MEETINGS

Blomme A, Altered metabolism in castration-resistant prostate cancer, TransPot Marie Curie program - training course, 2019, University of Glasgow, UK (invited speaker)

Blomme A, Rewiring of cancer cell metabolism drives resistance to Androgen Receptor inhibition in castration-resistant prostate cancer, VisualSonics Vevo Cancer User Meeting, 2019, Queen Mary University of London, UK (invited speaker)