

Stephane Wenric, PhD

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USA

EDUCATION **University of Liege**, Belgium

Ph.D., Biomedical Sciences, 2017

- Thesis Topic: *Bioinformatics contribution to the analysis of omics data in the clinical, technical, and molecular domains of human cancer.*
- Advisors: Prof. Vincent Bours and Prof. Guy Jerusalem

Master, Biomedical Engineering, 2010

- Topic: *Completion of the OMIM network using machine learning techniques.*
- Advisors: Prof. Pierre Geurts and Prof. Louis Wehenkel
- *Cum Laude*

Bachelor, Engineering, 2007

- Major: *Computer Science*, Minor: *Biomedical Engineering*

PROFESSIONAL EXPERIENCE **Postdoctoral Fellow** September 2017 to Present
Icahn School of Medicine at Mount Sinai
Advisor: Dr. Eimear Kenny

Research Fellow July 2013 to August 2017
GIGA-Research, Unit of Human Genetics, University of Liege
Advisors: Prof. Vincent Bours and Prof. Guy Jerusalem
Fellowship: FRS-FNRS

I worked on the optimal integration of sequencing and biological data coming from various sources (Exome-seq, RNA-seq, miRNA expression, CGH) to tackle specific technical, biological and clinical problems related to human cancer. I made use of several machine learning, data mining and software engineering techniques.

Research Engineer April 2012 to June 2013
GIGA-Research, Unit of Human Genetics, University of Liege & University Hospital

I set up the software environment for next-generation sequencing data analysis at the university hospital genetic diagnostic center.
I worked with micro-array data (CGH & SNP, case-control and family-based studies).
I worked with exome sequencing data (mapping, variants calling and annotation), mainly for family-based cases.

Bioinformatician Nov 2010 to April 2012
DNAVision

Design and development of various bioinformatics pipelines related to next-generation sequencing (Roche 454, Illumina HiSeq 2000, SOLiD 4). Work on pipelines related to quality control analysis, de novo assembly, metagenomics, mapping, annotation, SNP and variants calling.

Design and development of significant IT projects, such as the integration of all the analysis pipelines with the in-house LIMS, the development of a cross-platform archiving system, and the development of an automatic report creation system.

PEER-REVIEWED
JOURNAL
PUBLICATIONS
AS FIRST AUTHOR

1. **Using supervised learning methods for gene selection in RNA-Seq case-control studies.**
Stephane Wenric, Ruhollah Shemirani.
Frontiers in Genetics. 2018
2. **Transcriptome wide analysis of natural antisense transcripts shows their potential role in breast cancer.**
Stephane Wenric, Sonia El Guendi, Jean-Hubert Caberg, Warda Bezzaou, Corinne Fasquelle, Benoit Charlotheaux, Latifa Karim, Benoit Hennuy, Pierre Frères, Joëlle Collignon, Meriem Boukerroucha, Hélène Schroeder, Fabrice Olivier, Véronique Jossa, Guy Jerusalem, Vincent Bours and Claire Josse.
Scientific Reports. 2017
3. **Exome Copy Number Variation detection: use of a pool of unrelated healthy tissue as reference sample.**
Stephane Wenric, Tiberio Sticca, Jean-Hubert Caberg, Claire Josse, Corinne Fasquelle, Christian Herens, Mauricette Jamar, Stéphanie Max, André Gothot, Jo Caers, Vincent Bours.
Genetic Epidemiology. 2016
4. **Circulating microRNA-based screening tool for breast cancer.**
Pierre Frères*, **Stéphane Wenric***, Meriem Boukerroucha, Corinne Fasquelle, Jérôme Thiry, Nicolas Bovy, Ingrid Struman, Pierre Geurts, Joëlle Collignon, Hélène Schroeder, Frédéric Kridelka, Eric Lifrange, Véronique Jossa, Vincent Bours, Claire Josse, Guy Jerusalem *: as co-first authors
Oncotarget. 2015

PEER-REVIEWED
JOURNAL
PUBLICATIONS
AS CO-AUTHOR

1. **Variations of circulating biomarkers during and after anthracycline-containing chemotherapy in breast cancer patients.**
Pierre Frères, Nassim Bouznad, Laurence Servais, Claire Josse, **Stéphane Wenric**, Aurélie Poncin, Jérôme Thiry, Marie Moonen, Cécile Oury, Patrizio Lancellotti, Vincent Bours, Guy Jerusalem.
BMC Cancer. 2018
2. **Genomic Studies of Multiple Myeloma Reveal an Association between X Chromosome Alterations and Genomic Profile Complexity.**
Tiberio Sticca, Jean-Hubert Caberg, **Stephane Wenric**, Christophe Poulet, Christian Herens, Mauricette Jamar, Claire Josse, Sonia El Guendi, Stéphanie Max, Yves Beguin, André Gothot, Jo Caers, Vincent Bours.
Genes, Chromosomes and Cancer. 2016
3. **Evaluation of BRCA1-related molecular features and microRNAs as prognostic factors for triple negative breast cancers.**
Meriem Boukerroucha, Claire Josse, Sonia El Guendi, Bouchra Boujemla, Pierre Frères, Raphaël Marée, **Stephane Wenric**, Karin Segers, Joelle Collignon, Guy Jerusalem, Vincent Bours.
BMC Cancer. 2015

PATENTS

1. European patent: EP2942399 **Method for the diagnosis of breast cancer**.

POSTER
PRESENTATIONS

1. Human Genetics in NYC Conference 2018
2. American Society of Human Genetics Annual Meeting (ASHG) 2017
3. European Conference of Human Genetics (ESHG) 2017

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| 4. GIGA Cancer | 2015 |
| 5. Belgian Medical Genomics Initiative | 2014 |
| 6. BeNeLux Bioinformatics Conference | 2013 |
| 7. Belgian Society of Human Genetics | 2013 |

AWARDS AND GRANTS

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|---|-----------|
| 1. B.A.E.F. Henri Benedictus Fellowship | 2017-2018 |
| 2. WBI.World Fellowship | 2017-2018 |
| | 2018-2019 |
| 3. Fonds Leon Frederic Travel Award | 2017-2018 |

LANGUAGES

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| • French | Native speaker |
| • English | Full professional proficiency |
| • Dutch | Professional proficiency |
| • German | Limited working proficiency |
| • Hebrew | Elementary proficiency |
| • Spanish | Elementary proficiency |

TECHNICAL SKILLS

- **Programming & markup languages:** Perl, Bash, R, PHP, node.js, jQuery & javascript, XML, HTML/CSS, LaTeX
- **Bioinformatics API:** Ensembl, OMIM
- **Databases:** MySQL, MongoDB
- **High performance computing:** Unix environment, Slurm, SGE, Torque
- **Version control:** Git, SVN

REFERENCES

- Vincent Bours, MD, PhD
 Professor of Genetics, University of Liège
 Head of the Genetics Department, University Hospital of Liège
 Director of the Unit of Human Genetics, GIGA-Research, University of Liège
 ✉ vbours@ulg.ac.be ☎ +32 4 366 81 45
- Guy Jerusalem, MD, PhD
 Professor of Medical Oncology, University of Liège
 Head of Medical Oncology, University Hospital of Liège
 Director of the Breast Clinic, University Hospital of Liège
 ✉ g.jerusalem@chu.ulg.ac.be ☎ +32 4 366 76 64
- Pierre Geurts, PhD
 Associate Professor of Computer Science, University of Liège
 ✉ p.geurts@ulg.ac.be ☎ +32 4 366 29 84
- Kristel Van Steen, PhD
 Associate Professor of Statistical Genetics, University of Liège
 Director of the Medical Genomics Unit, GIGA-Research, University of Liège
 ✉ kristel.vansteen@ulg.ac.be ☎ +32 4 366 26 92