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OBJECTIVES

**Molecular Biology / BioInformatics /
BioStatistics**

R&D Biotech/Pharma

**Consultant / Freelance Support
Project Leadership / Management**

PROFESSIONAL EXPERIENCE

**BioInformatician at CHU Liège
(BE), Genetics Department.**

2016APR-Now

Freelance Consultant

Key Responsibilities / Deliverables

NIPT (Non Invasive Prenatal Testing) for Aneuploidy (e.g. Trisomy 21) using NGS (Next Generation Sequencing; Illumina data).

Implementation and Validation of diagnostic pipeline (Linux Ubuntu, BWA, Perl & R Software Packages)

Samples Traceability via SNPs (Single Nucleotide Polymorphism) identified using KASP Fluo (Komparative Allele Specific PCR; LGC group) and NGS.

Design, Implementation and Validation of Software Package.

**Teams / Projects Leader at
Janssen Diagnostics BVBA (JnJ
Group), Mechelen/Beerse (BE).**

2002FEB-2013MAR

Senior / Principal Scientist

Key Responsibilities / Deliverables

Leader of BioIT group in charge of HIV-I Drug Resistance Diagnostics (VircoTYPE™). R&D level 1 to Validated level 4 (FDA submission) electronic device.

Leader of Roche 454-Sequencing / Method Validation, HIV-I Tropism, "Virtual Virus" & Biological Cut-Offs.

Member / Ad hoc member Virco Management Committee, Clinical Virology Team, FLU / HCV Teams.

Quality control / Customers & Users Support, Audits (HIV-I field).

Numerous Publications, Posters, etc.
& 3 Patents

**BioStatistics (1) and
BioInformatics (2) Courses**

**2014SEP-2015MAR (1) and
2015SEP-2016MAR (2)**

NA

Key Responsibilities / Deliverables

(1) SAS, JMP, R, Clinical Applied Statistics, 6 Sigma, ...

(2) Linux Ubuntu ("one liner"), Perl, R, NGS Software Packages, ...

4 months courses + 3 months internships.

Update of Skills / Competencies.

**Project Leader at Monsanto
PBLC, Louvain-la-Neuve (BE) /
Cambridge (UK).**

1997FEB-2002JAN

Scientist / Senior Scientist

Key Responsibilities / Deliverables

Leader for Promoter Discovery. (Wheat Resistance To Fusarium; Genetically Modified Organisms)

Leader for High Throughput Data Generation / Mining (Automation / Robotics: Cloning, PCR, Sequencing, Micro/Macro Arrays, etc.).

Member / Ad hoc member GMO Scientific Committee, Ethic Board, IP Team.

Several Publications, Posters, etc. &
37 Patents.

**Start-up creation (see
WWW.NGYX.EU)**

2013APR -2014JUN

NA (Freelance)

Key Responsibilities / Deliverables

Design & development of products and services (Biotech h / Pharma; Life Sciences / Health care).

Collaboration with "Unité de Biotechnologie des Plantes de l'Université de Liège" .

BCCM Gent Registered Microorganisms.

**Academic Researcher Lab. Mol.
Biol. & Genetics, University of
Liège, Liège (BE).**

1989JUL -1997FEB

Junior Scientist / Scientist

Key Responsibilities / Deliverables

Leader of University DNA Sequencing Unit (creation/implementation /management/ Customer service)

Member of Human Krüppel Zinc-Finger Discovery Team (involved in e.g. Human Acute Leukaemia). Data generation (cloning/Sequencing / Analysis) Identification of the KRAB domain.

Design and development of Biotech Tools eg. DNA Marker SmartLadder (Eurogentec), Modified GFPs.

Several Publications, Posters, etc. & **2 BCCM – LMBP registered micro-organisms.**

PERSONAL SKILLS AND COMPETENCES

Personal aptitudes :

- ♦ Natural team player and people person
- ♦ Excellent organizational skills
- ♦ Flexibility and adaptability
- ♦ String analysis skills and capacity for synthesis
- ♦ Good listening and communication skills
- ♦ Result-oriented
- ♦ Innovation, Creativity

Quality

- ♦ Used to work in strictly regulated environments (e.g. GLP, CAP-CLIA, ISO, FDA / EMEA/New York State / ... Audits)
- ♦ Familiar with QA / QC /Regulatory affairs / Design Change Control
- ♦ Used to Computer System Validation (e.g. Perl, SAS) & Method/software validation

Scientific skills:

- ♦ Molecular biology techniques: DNA/RNA extraction, cloning, mRNA differential display, DNA sequencing (NGS), qPCR, DNA library construction and screening
- ♦ Lab settings (Sequencing / Robotics-automation)
- ♦ Various R&D Fields: Human, Plants, Infectious Diseases.
- ♦

Computer skills:

- ♦ PC Platforms OS (Windows/Linux Ubuntu)
- ♦ Microsoft Office PRO Package
- ♦ BioInformatics/BioStatistics: Perl, R, SQL/DB-Main, Matlab, SAS/JUMP, Spotfire, ORACLE, Mutlivariate Stats, 6sigma, ANOVA, NGS: FastQC, K-merGenie, Ray, Velvet, CISA, BaseSPACE, CONTIGuator,BWA,..
- ♦ Tele/Videocon, Sharepoint / Erooms /LifeMeetings/Skype/...

Languages:

- ♦ French: Native
- ♦ English: Proficient (spoken and written)
- ♦ Dutch: Elementary
- ♦ German: Elementary

Transversal competences:

- ♦ Scientific writing / Oral Presentations
- ♦ Project management
- ♦ Team management
- ♦ Conflict management

EDUCATION AND TRAINING

- ♦ **Master in Biochemistry Industrial / Molecular Biology**, University of Liège (1989)
- ♦ **I.R.S.I.A. Submissions for funding Research associated to PhD**, Bruxelles (1989 to 1992)
- ♦ **Télévie, EC, etc. projects Submissions for funding Research associated to PhD**, Bruxelles (1993-1996). **Lauréat prix Léon Frédérique** (1995).
- ♦ **Bioinformatics methods for DNA and protein sequence analysis** University of Liège (1996)
- ♦ **Company Creation Basic / Advanced**. SOCRAN Liege Science Park, (1996, 1997)
- ♦ **Several Internal/External courses Mandatory/Optional** (e.g. Data Mining for Leads Discovery, Perl Software Package Basics / Advanced courses, Team Leader expertise, Improving Technical Writing / Oral Presentations, Improving English skills, MBTI evaluation & outcomes for relationship, Computer System Validation, FDA Compliance, etc.) Cambridge UK, Saint-Louis US, Mechelen & Beerse/Turnhout BE (1997-2013).
- ♦ **Attending several Conferences / Meetings in various locations />work related topics**. US, UK, FR, BE (1997-2013)
- ♦ **Biostatistics Course** (2014SEP/2015MAR, incl. 3 months internship; GIGA/FOREM, ULg; SAS, R, Jump, 6Sigma, Clinical Trials)
- ♦ **BioInformatics Course** (2015SEP to 2016MAR incl. 3 months internship; GIGA/FOREM, ULg; Linux/Ubuntu, Perl, SQL, R, Omics)

REFERENCES

- ♦ **Vincent Bours**, MD Professor / Director CHU Liège Genetics,
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SOC./PROF. NETWORKS

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OTHERS / MORE RECENTLY

- ♦ Born Liège July 23th 1959, Married to Catherine Bovie (PhD Molecular Biology, Project Manager Diagenode), 2 children.
- ♦ Interested / active in various Social Activities (Family, Friends, Environment, Politics, etc.)
- ♦ Sports Activities also mainly Football: UEFA-B Coaching License, Talent Detection UEFA, RTFJ-I URBSFA, Football Young Label Controller (URBSFA), Monitor Level 2 Football (ADEPS), Member of Standard of Liège Scouting Team, Creator of the "Ecole de Football U6-U13", RES Templiers URBSFA #392, Official Referee URBSFA.
- ♦ Computers and Software Packages (various fields; WEB sites dev. i.e. www.ngyx.eu).

A brief summary of my professional career.

1. "Academics" (JUL1989-FEB1997).

I started my career as a molecular biologist within an academic lab and a primary objective to be a PhD (several years granted by FRIA, Télévie, Prix Léon Frédérique ...). I became quickly a specialist in DNA sequencing and closely related technologies (PCR, Cloning ...). And as I was already very interested in computers/software packages, I gained experience in genetic data mining e.g. identification of a specific protein domain (KRAB) in hundreds of Human Regulatory Transcription Factors (Zinc-Finger; see Publications for more details).

As a follow-up of this specialization, I was promoted as designer/manager of a brand new "Automated DNA –Sequencing Unit" to deliver services to academic labs or/and external customers. This was also the time point where I decided to start working on my future with the idea of creating my own Biotech Company. This project was successful and transferred as such to Eurogentec SA (<http://www.eurogentec.com/life-science.html>; founder prof. J. Martial was also my lab director) as well as Biotech tools (e.g. DNA marker Smartladder).

2. Monsanto (FEB1997 – JAN2002).

Monsanto hired me in February 1997 as Scientist with almost the same responsibilities: generating and mining data to identify promoters of genes overexpressed in different varieties of potato and wheat (to create GMO with resistance to Potato and Wheat head blights). While the job content was very similar, the context was definitively very different as well as objectives. Resources (material, financial ...) were scaled-up drastically, as well as environment (First a big budget to create a fully automated process from tissues collection (robots e.g. Beckman for ARN/DNA experiments, Tecan colony picker, sequencing libraries using ABI Station, formatting and recording data in Oracle Databases and mining data =in house developed software packages; that's where I learned Perl and SQL).

To be noticed: I worked 2 years in Belgium (Corroy Le Grand) than following the debate about GMO by that time (1999) I was relocated in Cambridge UK (PBI; promoted as Senior Scientist). Important: Outcomes of my activities were a fully integrated / automated unit as described before but also in terms of deliverables the identification of 37 patented promoters.

I left Monsanto in 2002 following the latest in date of several reorganizations (did not want to take over with a move to USA, Mystic Connecticut or Saint-Louis Missouri). Remark: In terms of transversal competencies I would like to highlight the facts that I was trained to work in a much more "regulated" environment (GLP, document management, audits) and improved consistently my English as well as my Team leader / Project Manager Skills.

3. Tibotec-Virco / Janssen Diagnostics JnJ (FEB2002-MAR2013).

I joined Tibotec-Virco in February 2002 as Senior Scientist, Project Leader/Manager of the electronic device (VirtualPhenotype / VircoTYPE) used for HIV-I Drug Resistance Diagnostics (and also Team Leader of the BioInformatics group). Being in charge to reformat and improve this already existing Customer Service. My job was to review and reorganize everything inclusive at the end (2011-2013) compliancy with FDA regulation.

In terms of outcomes I would like to highlight that I quickly restructured the electronic device (switch to Oracle DB, reformatting datasets, SAS/Stats usage, cross-check validation and documentation inclusive Clinical Outcome data,...). And was promoted in 2004 as Principal scientist joining the Management committee (but as ad hoc member mostly).

I also want to precise that the device was used not only to provide customers (up to 100,000 requests in 2009-2010) with HIV-I Drug Resistance Predictions for the commercialized drugs but also extensively used to screen the large chemical/drug Datasets of JnJ. And this last bit went to the commercialization of 3 next generation drugs (probably the most efficient ones). That killed our device as with these very efficient drugs a consistent drop in diagnostic requests arrived. And JnJ decided to close our activities by end of 2013 finalizing the job by a FDA submission.

To be noticed: I was also as inventor included in 2 patents and also involved in FLU, HCV, Virtual Virus, Tropism and Next Generation Sequencing (Roche 454) projects; as project leader for the last 3 listed. And finally you can imagine that my transversal competencies were also increased.

4. Since Janssen Diagnostics JnJ (MAR2013-Now).

Since I left Janssen Diagnostics in March 2013, I had / have currently various activities. First in collaboration with the "Unité de Biotechnologie des Plantes de l'Université de Liège » (prof. J. Dommes), I finalized the development of a Next Generation DNA Molecular Weight Marker (ultimately registered at BCCM Gent). Later I went to follow to extensive courses to update/upgrade my skills and competencies in BioStatistics and BioInformatics. And finally following a successful internship at CHU Liège Genetics dept. I was proposed to work as Freelance/Consultant for this department.