

**PhD Bio-informatics**

***"Integrated cross species pediatric cancer genomics"***

**The position:**

The Speleman research team at the Center for Medical Genetics has an open **PhD position** for a highly motivated young researcher with expertise in bio-informatics and a keen interest in translational cancer research.

**The project:**

We aim to apply high-end (epi-)genomic profiling of leukemia and neuroblastoma zebrafish tumor models as part of our efforts to establish cross-species genomics studies to unravel perturbed regulatory networks and to uncover novel drugging opportunities. In addition, we aim to exploit the zebrafish cancer models as innovative platforms for testing novel drug combinations and use (epi-)genomic profiling as tools to unravel the underlying mechanistic basis of synergistic interactions in combination therapies.

**Your profile:**

You will work in a multidisciplinary environment under the supervision of senior scientists in bioinformatics and molecular biology in the Center for Medical Genetics (Dept. Pediatrics and Genetics) where you will implement and develop new algorithms for integrative and cross species comparative genomic analysis of zebrafish data.

* Master degree in bio-informatics, (medical) biology, (bio-)engineering, computer science, or related fields
* MSc with a specialization track in bioinformatics or equivalent through experience
* Solid experience with bioinformatics programming, databases and statistics for bioinformatics, including scripting (e.g. Perl, Python), R (incl. Bioconductor), UCSC Genome Browser, Ensembl API, etc.
* Experience with the analysis of massive amounts of sequence reads is a plus: human whole exome re-sequencing, whole-genome re-sequencing, SNP/indel calling, CNV, structural variation, RNA-seq, ChIP-seq, …
* You are a dedicated and flexible team player with excellent communication skills and strong strategic analytical problem-solving skills (creative, critical, and open-minded)
* Excellent oral and written communication skills in English
* General understanding of statistics
* Basic insight of (cancer)biology and genomics
* English language proficiency
* Complementary strengths: working experience in bioinformatics, with NGS data (quality control, read mapping, variant detection, de novo assembly...), with High-Performance-Computing (SGE, PBS...) and with statistical/mathematical packages (Matlab, R, SAS, SPSS...); knowledge of relational databases (MySQL...) and web servers (Apache...)

**What we offer:**

* A **4-year PhD-research project**
* Participate in an exciting and rapidly evolving new research area of zebrafish genomics and cancer modeling
* Become member of a young, dynamic and enthusiastic research team with great team spirit (see www.c4cc.be/)
* Research team operating at international level and dedicated to improving survival of children with cancer
* The opportunity to work in a dynamic and interdisciplinary academic research environment
* Embedded within a top-research teams with a broad range of expertise
* Benefit from a well established PhD training program
* Collaborate with and assist wetlab scientists in the design, analysis and interpretation of cancer genomics data
* Ghent is ranked amongst the top cities to visit, with connections to London, Amsterdam, Paris in no time (http://www.flandershouse.org/ghent-top-ten) . A diverse local community with a range of housing options and many opportunities for eating out, movies, sports,...etc..

**Links:**

Center for Medical Genetics Ghent (CMGG) (www.cmgg.be)

Cancer Research Institute Ghent (CRIG) (www.crig.ugent.be)

Bioinformatics Institute Ghent N2N (BIG N2N)( www.bign2n.ugent.be)

**Postal address:**

Medical Research Building (MRB1)

Ghent University Hospital

De Pintelaan 185, B-9000 Ghent, Belgium

tel +32 9 332 24 51

http://www.cmgg.be/‎

Candidates can apply by sending their letter of motivation, letter of recommendation and CV to [A.DePaepe](mailto:Franki.Speleman@UGent.be)@ugent.be before August 31st, 2015.