**Research fellowship Bio-informatics**
***"Clinical implementation of genomics based precision oncology pipelines"***

**The position:**
The cancer research team at the Center for Medical Genetics (supervised by prof. ir. Katleen De Preter (www.crig.ugent.be/en/prof-katleen-de-preter-phd), dr. Bram De Wilde and prof. Frank Speleman (www.spelemanlab.org)) has an open position for a highly motivated researcher with expertise in bio-informatics and a keen interest in translational cancer research.

**The project:**
A new era of clinical care, so-called ***precision oncology*** is opening unprecedented potential for developing novel therapeutic strategies for cancer patients. Amongst others, liquid biopsies are now offering a great potential for noninvasive exploration of circulating tumor nucleic acids and cells thus allowing improved diagnostics, follow up, study of tumor heterogeneity etc. In addition to several research grants, we have also launched the **NucleUZ program at Ghent University Hospital** (uzgent.be) aiming for a better diagnosis and more precise and effective treatment of cancer patients. NucleUZ aims to bring precision oncology into practice at the Ghent University Hospital. To this end, we will make use of a dedicated **precision medicine toolbox**, including integrative analysis of exome, genome and transcriptome sequencing generated on bulk cells as well as single cells obtained using invasive and non-invasive tumor sampling.

**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 (cmgg.be) and within the broader framework of the Cancer Research Institute Ghent (crig.ugent.be) where you will implement and develop (new) algorithms for genomics analysis of tumors aiming at a more precise care for the patient.

- MSc with a specialization track in bioinformatics or equivalent through experience OR holder of a PhD degree in bio-informatics, (medical) biology, (bio-)engineering, computer science, or related fields, obtained in the last 5 years. Candidates with prior experience in (epi)genomics technologies and standard bioinformatics and statistical skills are strongly encouraged to apply.

- Candidates should be team players able to help organizing multidisciplinary projects and have strong strategic analytical problem-solving skills (creative, critical, and open-minded).
- Experience with the analysis of sequencing data, such as human whole exome/genome sequencing, (single cell) RNA-sequencing, including quality control, read mapping, variant detection, *de novo* assembly, SNP/indel calling, copy number and structural variation analysis, expression level analysis, etc is a plus.
- 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, knowledge of relational databases (MySQL, etc) and web servers (Apache, etc) is strongly recommended.
- Basic insight of (cancer)biology and genomics.
- International experience (internships, short visits, etc) is appreciated.
- Excellent oral and written communication skills in English; English language proficiency.

**What we offer:**
- A 2-year translational research position with an option to extend
- Participate in an exciting and rapidly evolving research area of clinically translational genomics
- Research team operating at international level and dedicated to improve survival of patients with cancer
- "State-of-the-art" technology and facilities (sequencing, single cell sequencing and manipulation, bioinformatics, mouse and zebrafish modeling, molecular biology, etc)
- The opportunity to work in a dynamic and interdisciplinary academic research environment
- Embedded within top-research teams with a broad range of expertise
- Collaborate with and assist wetlab scientists in the design, analysis and interpretation of cancer genomics data

**Location:**
Medical Research Building (MRB1)
Center for Medical Genetics Ghent (CMGG)
Ghent University Hospital
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**Candidates can apply** by sending their CV and letter of motivation to Annelies De Paepe (A.DePaepe@ugent.be) before June 30th, 2018. Top-ranked candidates will be invited for an interview (either skype or on site).