

Do you like a challenge? Are you creative with leadership skills? Are you looking for a position that offers great opportunities for personal growth and freedom within a young, ambitious start-up company? Then it's you we are looking for!

## **Bio-informatician / Data Analyst**

### **Our profile**

Materiomics is a small biotech company focused at interaction between cells and surfaces. Surface structure, next to chemical composition, directs the interaction between (medical) devices and (human) cells. Based on this concept - cell behavior is guided by surface structure - Materiomics designs algorithm-based unique surface structures featured through our proprietary high-throughput TopoChip platform. We identify the optimal designed surfaces to substantially augment medical devices. Next to medical devices, Materiomics designs topographies to functionalize cell culture ware and improve the condition, quality and quantity of cells cultured in vitro (in the lab).

Materiomics currently holds a small number of employees and is growing to about 10-15 full-time employees within the next years. Materiomics is located in Maastricht. We also have close cooperation with national and international companies and academic groups.

### **The challenge**

The TopoChip features thousands of distinct surface topographies. Through high-content screening we determine the efficiency of each surface to elicit a specific desired biological response. Once a highly efficient 'hit-topography' has been identified, we bring this topography to the actual production process of the medical device or culture ware. Currently TopoChip screens are running for various applications while validation of already identified hit-topographies for other fields is ongoing.

Within the position offered, you will be responsible for:

- Write and run scripts for both data mining and data analysis, including complex statistical analysis. Most of the raw data will be image-based and requires various runs of image corrections / filtering / segmentation, cell profiler pipelines and cluster calculations to interpret the obtained data with statistical significance. Resulting long analysis times require you to plan well and keep the overview while managing strict deadlines.
- Develop, and manage, our database storing all experimental details and analysis results.
- Developing smart (evolutionary) algorithms for new TopoChip designs.
- Engage with, and give support to, co-workers and give insights from a data analysis perspective keeping in mind the whole R&D pipeline. Discuss the best methods to get reliable outcome, align the practical outcome (images, other raw data) with the analysis pipelines by communicating in early stages with your co-workers. Also, assist them by visualizing the obtained results and by e.g. build viewing pages to quickly assess the data analysis results.
- Detailed documenting of all developed scripts, pipelines, protocols and methods using our database and QC system.
- SOP writing for developed scripts, pipelines and protocols.

### **Your profile**

You have a MSc in informatics, mathematics or related fields and at least 3-5 years of relevant work experience and are an independent and creative professional.

Your skill set includes experience with:

- Write and run scripts to support data mining, data analysis and reporting of the results;
- Write and run scripts for database development and database management;
- Big data analysis
- Mathematical approaches to data analysis and statistics;

- Programming in C or C++ and MatLab. It is beneficial if you know R, AWK, Python or equivalent;
- It is an advantage if you have experience with high-content image analysis (e.g. Cell Profiler pipelines and/or Fiji), mathematical design, experimental design and/or evolutionary algorithms, and database management;
- Quality control protocols, SOP writing

As a person you have:

- An independent work style who can take the lead in communication with external/collaborating (engineering) parties
- Outstanding knowledge of (scientific) English in speaking, in reading and in writing
- Flexible, open-minded and enthusiastic attitude
- Willing to learn new techniques and skills
- Excellent social and communication skills
- Team-player attitude

### **Our offer**

We offer a top level work environment with excellent opportunities for personal development in an ambitious, young company. Our team is enthusiastic, dynamic and flexible. We have a strong team spirit. You will have great opportunity to grow within this position and have freedom to fill in the specifics of your work activities. You will help translate science to business. The assignment is for 1 year initially, with possibilities for extension.

### **Contact details**

If you feel your ambitions match with ours and that you are the person we are looking for to strengthen our team and build with us this young and dynamic company, please send your application before October 13, 2017 to Bernke Papenburg (bernke.papenburg@materiomics.com). You can also turn to Bernke for questions. Your application should be in English and should consist of a detailed CV and a motivation letter explaining why you are interested in this position and why your experience fits our requirements.