

CAHIER DES CHARGES
1. Actualisation :

Etabli le	12.11.2021	Par	Julien Marquis
Remplace la version du			
Motif d'actualisation		Taux d'activité	80%-100%

2. Identification du poste :

Direction / Faculté:	FBM	Département/Service/ Institut/Section:	
N° emploi-type :	278	N° de poste :	
Libellé emploi type	Expert-e scientifique de laboratoire	Chaîne et niveau :	Chaîne 237 – niveau 12
Intitulé du poste dans l'entité			
Responsable hiérarchique direct·(poste)	MER1 head of the Lausanne Genomics facility		

3. Missions générales du poste :

The head of bioinformatics of the Lausanne Genomics is responsible for all data analysis and data management activities done by the platform. She•he functionally supervises the GTF bioinformaticians team, analysis tools, and infrastructure to ensure that the facility delivers high quality data and that its users benefit from state of the art genomics data processing procedures

4. Conduite : ETP directement subordonné-s :
 Cf. Organigramme

- Non
 Oui rôle fonctionnel vis-à-vis de l'équipe Data Analysts

5. Mode de remplacement prévu, en cas d'absence du titulaire :

- Non
 Oui

6. Mission et activités :
**Temps moyen
en %**

1. Managing the bioinformatics activities of the Lausanne Genomic Technologies Facility (GTF)	20%
<ul style="list-style-type: none"> ○ Contribute to genomics project meetings with GTF users. Understand their needs and share expertise to help them choosing the most appropriate genomics technologies, experimental design, and data analysis methods to be applied. ○ In coordination with the facility manager, schedule and setup the bioinformatics activities of the facility. Supervise the GTF bioinformaticians work. Contribute to the execution of the scheduled analysis. 	
2. Responsibility for the GTF data management	30%

<ul style="list-style-type: none"> o Ensure proper operation of the GTF Laboratory Information Management System (LIMS). Manage the corresponding database. 	
<ul style="list-style-type: none"> o Manage, supervise, and ensure the proper operation of the GTF informatics and bioinformatics tools dedicated to genomics data processing. This includes but is not limited to data transfer from sequencers, data quality control, primary data analysis, data distribution to GTF users, and long-term data archiving. 	
<ul style="list-style-type: none"> o Ensure continuous evaluation of the quality of the data generated by the GTF. Proactively participate to troubleshooting when suboptimal metrics are observed. 	
3. Managing data analysis services carried out by the GTF F	30%
<ul style="list-style-type: none"> o Organize meetings with GTF users requesting analysis services (e.g. gene expression analysis, variant detection, single cell analysis, or long read sequencing applications). In coordination with the facility manager, discuss the project aims, the genomics methods to be used, and propose and/or refine experimental designs. Decide about the statistical analysis methods to be applied. 	
<ul style="list-style-type: none"> o Design, supervise and, when required, contribute to the execution of the corresponding data analysis of GTF projects. 	
<ul style="list-style-type: none"> o Manage data analysis results delivery to users. Together with the analyst team, present and explain the data analysis methods applied and help in the interpretation of the results obtained. In coordination with the facility manager, propose follow up analysis and/or extra experiments when required. 	
4. Ensure continuous improvement of the bioinformatic tools, methods, and services offered by the GTF	20%
<ul style="list-style-type: none"> o Schedule, manage and supervise the continuous update and deployment of the GTF bioinformatics tools dedicated to genomics data processing. 	
<ul style="list-style-type: none"> o Actively follow the evolution of the genomics laboratory and analysis methods (e.g. through networking, scientific readings, or participation to congresses) 	
<ul style="list-style-type: none"> o In coordination with the facility manager, ensure GTF keeps proposing state of the art genomics methods by designing experiments to benchmark new laboratory genomics techniques and technologies available. Critically analyze the corresponding results and report conclusions. 	
<ul style="list-style-type: none"> o In coordination with the facility manager, propose and evaluate new data analysis services to be offered by the GTF. When required, manage and supervise the implementation of the tools and pipelines required for such services. 	
5.	
<ul style="list-style-type: none"> o 	

7. Eventuelles responsabilités particulières attribuées au titulaire :

8. Exigences requises :

8.1 Formation de base

Titre	
PhD related to Life Sciences domains (e.g. biology or bioinformatics)	<input checked="" type="checkbox"/> Exigé <input type="checkbox"/> Souhaité

8.2 Formation complémentaire

Titre	
Training in project management	<input type="checkbox"/> Exigé <input checked="" type="checkbox"/> Souhaité
	<input type="checkbox"/> Exigé <input type="checkbox"/> Souhaité

8.3 Expériences professionnelles

Domaine	Nombre d'années
Experience in several of the following topics: statistical analysis methods, bioinformatics, database management, programming	> 4 years
Next generation sequencing data analysis, in particular gene expression analysis	> 4 years
Experience in a production environment (e.g. industry) would be a plus	> 1 year

8.4 Connaissances et capacités particulières

Domaine	
Decisiveness, capacity for synthesis, good communication and organizational skills. Strong customer service and quality orientation	<input checked="" type="checkbox"/> Exigé <input type="checkbox"/> Souhaité
Strong data analysis skills with experience in experimental designs and advanced knowledge of statistical analysis methods and dedicated software. Strong knowledge of R is mandatory. Experience with standard bioinformatics tools used in genomics. Knowledge of standard genomics databases	<input checked="" type="checkbox"/> Exigé <input type="checkbox"/> Souhaité
Strong IT skills with advanced experience with UNIX environment, SQL, and bash programming. Experience with some other programming languages such as Perl, Python, C or Java Script	<input checked="" type="checkbox"/> Exigé <input type="checkbox"/> Souhaité
Very good written and oral English skills. Ability to communicate in French is required	<input checked="" type="checkbox"/> Exigé <input type="checkbox"/> Souhaité
Knowledge of standard genomics technologies such as next generation sequencing, sequencing library generation methods, long read sequencing, and single cell genomics	<input checked="" type="checkbox"/> Exigé <input type="checkbox"/> Souhaité
Experience with team management	<input type="checkbox"/> Exigé <input checked="" type="checkbox"/> Souhaité

9. Astreintes particulières (travail de nuit, service de piquet, etc...) :

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10. Signatures :

Le/la titulaire atteste avoir pris connaissance du présent cahier des charges.

Date :	Nom et prénom :	Signature :
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Le/la supérieur/e hiérarchique.		
Date :	Nom et prénom : Marquis Julien	Signature :
Le/la représentant/e de l'autorité d'engagement. (décanat, chef-fe de service ou direction).		
Date :	Nom et prénom : Sylvie Traimond	Signature :