reactions they are involved in, and assembles the corresponding metabolic reactions in databases. It subsequently assigns a function to the genes, such as the metabolic data (the DNA sequence of the organism) and knowledge on metabolic reactions stored catalysing these reactions, and their corresponding genes [2]. Metabolic network the chemical reactions transforming one metabolite to another, the enzymes (proteins) are commonly formalized as graphs describing the relations between the metabolites, degradation of nutrients into precursors fuelling cellular growth. Metabolic networks involved in vital biological processes, such as the transport of molecules into cells or the typically consist of thousands of reactions and small compounds, the metabolites, network of chemical transformations happening inside cells [1]. These networks Description:

them, such as the causative agent of tuberculosis, are slow growers living in association the genus. These species are indeed at the heart of a mystery of microbiology: some of to uncover metabolic bottlenecks explaining the growth-rate variability observed across the phenotype of a dozen of species from the

Context and motivation:

Keywords: Bioinformatics, genome-scale modelling of metabolic networks, health, microbiology.

Context and motivation: Mathematical models that can reproduce in silico the growth phenotype of a dozen of species from the Mycobacterium genus are promising avenues to uncover metabolic bottlenecks explaining the growth-rate variability observed across the genus. These species are indeed at the heart of a mystery of microbiology: some of them, such as the causative agent of tuberculosis, are slow growers living in association with a host, while environmental and insuffensive species are often fast growers.

Description: Genome-scale metabolic networks are useful to understand the complex network of chemical transformations happening inside cells [1]. These networks typically consist of thousands of reactions and small compounds, the metabolites, involved in vital biological processes, such as the transport of molecules into cells or the degradation of nutrients into precursors fuelling cellular growth. Metabolic networks are commonly formalized as graphs describing the relations between the metabolites, the chemical reactions transforming one metabolite to another, the enzymes (proteins) catalysing these reactions, and their corresponding genes [2]. Metabolic network reconstruction is nowadays a partially automated process, which starts from genomics data (the DNA sequence of the organism) and knowledge on metabolic reactions stored in databases. It subsequently assigns a function to the genes, such as the metabolic reactions they are involved in, and assembles the corresponding metabolic reactions.
Rémunération

2 746 euros gross salary/month

Avantages

- Subsidized meals
- Partial reimbursement of public transport costs
- Leave: 7 weeks of annual leave + 10 extra days off due to RTT (statutory reduction in working hours) + possibility of exceptional leave (sick children, moving home, etc.)
- Possibility of teleworking and flexible organization of working hours
- Professional equipment available (videoconferencing, loan of computer equipment, etc.)
- Social, cultural and sports events and activities
- Access to vocational training
- Social security coverage

Rénumération

2 746 euros gross salary/month