1 MS/PhD position for Bioinformatician/Data Scientist

The emergence and spread of pathogens threaten hospitals and communities at every level and are now a major global threat to public health. Pathogen surveillance using genomic and metagenomic data is becoming more and more relevant for the medical sector. The integrated knowledge from high-throughput sequencing data, epidemiologic data, big data analysis, computer science, mathematics, and microbiology will create a unique opportunity for the surveillance of emerging pathogens.

Jun's research group is particularly interested in the health crisis of antimicrobial resistance using genomic and metagenomic data to understand the dissemination of multidrug resistant pathogens, and developing new tools for prospective surveillance and tracking of emerging pathogens in the hospital setting and public health. Currently, our major focus is surveillance and epidemiology of carbapenem-resistant *Enterobacteriaceae including Klebsiella pneumoniae* and *Escherichia coli* classified as urgent treats by the World Health Organization. We use genomics to investigate pathogen population structure, molecular epidemiologic typing, transmission routes, and dissemination mechanisms of antibiotic resistance.

Jun's research group is looking for a highly motivated Master/PhD student in the field of Bioinformatics, Computer Science, Data Science or Biology with good programming skills in Python/R/Linux.

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