

MARDI
7 FEVRIER 2023
COLLOQUE DESS

HEURE : 11h à 12h

LIEU : Salle Delachaux
Rte de la Corniche 10
1010 Lausanne
& via Webex

Modeling spatial transcriptomics data at super-resolution

INTERVENANT :

■ PROF RAPHAËL GOTTARDO

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DIRECTION GÉNÉRALE DU CHUV

DESRIPTIF :

Recent advances in sequencing- and imaging-based approaches have led to what is now called spatial transcriptomics (ST), enabling the unbiased quantification of all genes throughout a given tissue. The resulting data can then be analyzed to generate critical insights from a patient sample. For example, these insights can help select cancer treatment options and identify mechanisms of response and relapse to a specific treatment. Despite their extraordinary potential, ST data present significant challenges from the point of view of data analysis. In particular, the most commonly used platform (Visium, developed by 10X Genomics) does not provide single-cell resolution yet, preventing the exact localizations of individual cells within a tissue. Here, I will show how we can use a Bayesian data augmentation trick to permit statistical inference of ST data at near single-cell resolution.

Recommandé par la Société Suisse des Spécialistes en prévention et santé publique (SPHD)
pour la reconnaissance de la formation continue.

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