

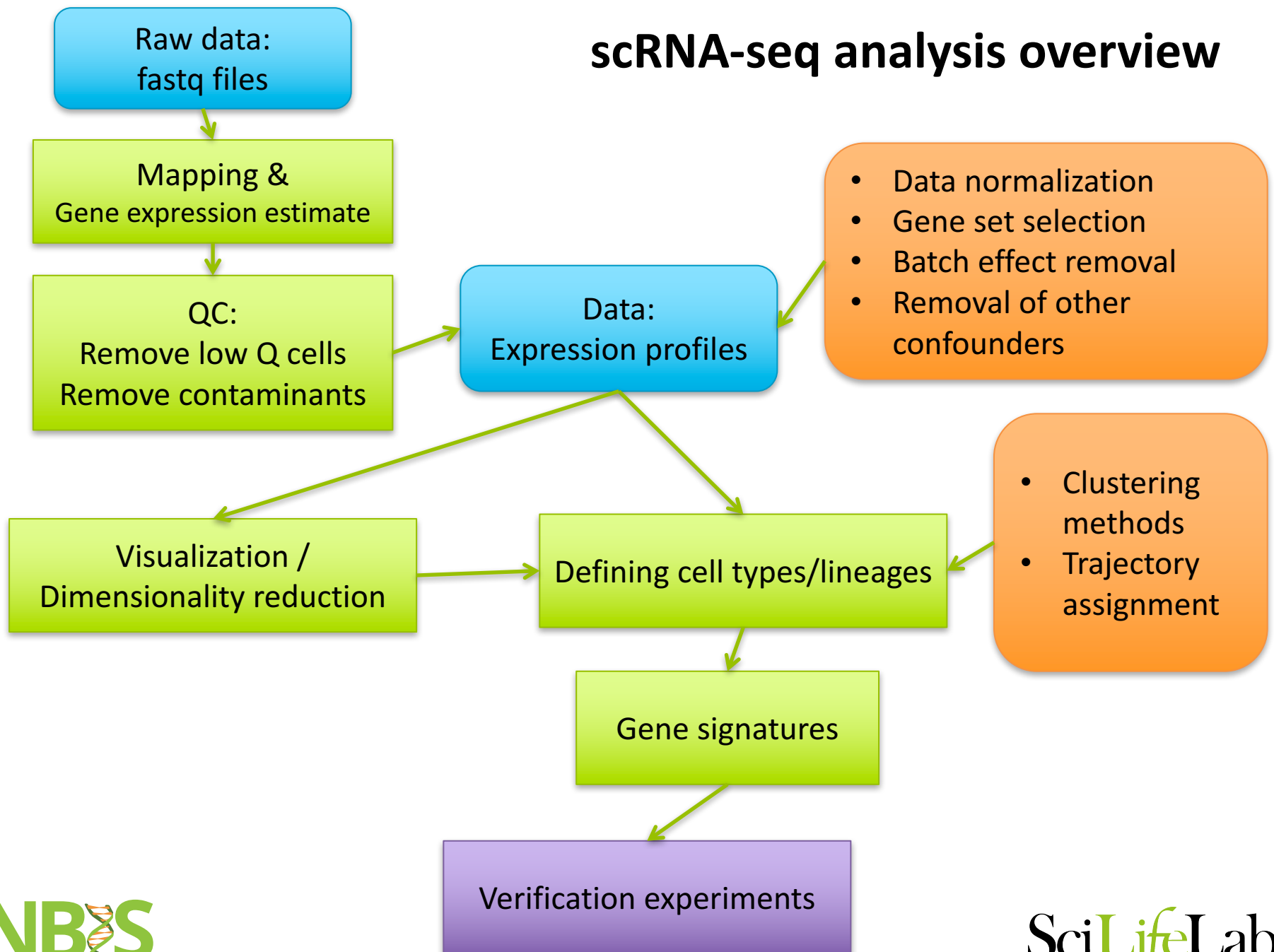


Single cell RNA sequencing data analysis, 27-30 January 2020








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scRNA-seq analysis overview










Monday

09.00	 Course introduction	Åsa Björklund
09.15	 scRNAseq methodologies and ESCG platform	Karolina Wallenberg
10.00	Coffee Break	
10.30	 scRNAseq Quality Control	Åsa Björklund
11.15	 Data normalization	Åsa Björklund
12.10	Lunch	
13.15	 Intro to exercises	Åsa Björklund
13.30	 Exercises: Quality control	Åsa, Paulo, Anna
15.00	Coffee Break	
15.30	 Dimensionality reduction	Paulo Czarnewski
16.30	Wrap up of todays lectures	Åsa Björklund

Tuesday

09.00	 Exercises: Dimensionality reduction	Åsa, Paulo
10.00	Coffee Break	
10.30	 Batch correction + Data integration	Paulo Czarnewski
11.15	 Exercises: Data integration	Åsa, Paulo
12.00	Lunch	
13.00	 Clustering techniques and scRNAseq toolkits	Åsa Björklund
13.45	 Exercises: Clustering	Åsa, Paulo
14.45	Coffee Break	
15.15	 Exercises: Clustering (continued)	Åsa, Paulo
16.30	Wrap up of today's lectures	Åsa Björklund
18.00	** Course dinner at Grappa **	

Wednesday

09.00	 Differential expression	Olga Dethlefsen
09.45	Coffee Break	
10.15	 Exercises: Differential expression	Åsa, Paulo, Olga
11.15	 [Trajectory inference]	Paulo Czarnewski
12.00	Lunch	
13.00	 Exercises: Trajectory inference	Åsa, Paulo, Olga
14.00	Coffee Break	
14.30	 Invited seminar: Single-cell multi-omics (Protein + RNA)	Johan Reimegård
15.00	 Invited seminar: Spatial transcriptomics	Lars Borm
15.30	 Cell type prediction	Oscar Franzen
16.00	Wrap up of todays lectures	Åsa Björklund
16.15	Course Summary	Åsa Björklund

Meals

- Lunches will be at Nanna Svarz restaurant (Aula Medica)
- We have lunch coupons for all participants that you must get from us. Tables have been reserved so that we can sit together.
- Fika will be served morning and afternoon outside the lecture rooms.

Course Dinner

- Shanti – Touch of Bengal
<https://shanti.se/touch-of-bengal>
- Have a look at the menu beforehand and decide what you want to eat.
- Google docs where you should preorder your dish that we will send to the restaurant.
- The budget allows one drink, if you want anything more, you will have to pay for it yourself.

Practical exercises

- We have several different exercises and we do not expect all of you to have time to go through all of them during the few hours that we have.
- Focus on the ones you feel is most relevant for you and start there.

PLEASE ASK QUESTIONS!