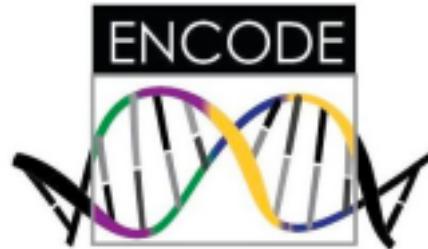


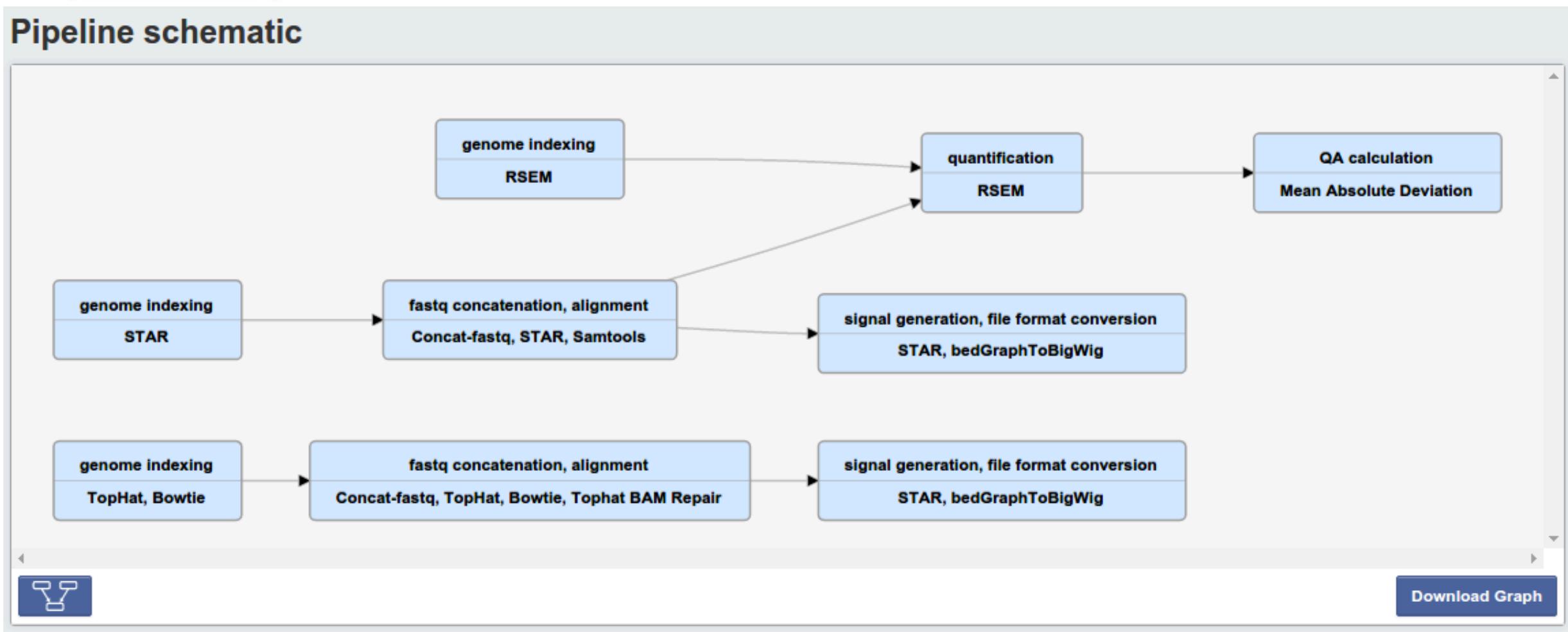
# RNA-Seq & ChIP-Seq pipelines for PsychENCODE

M Gerstein

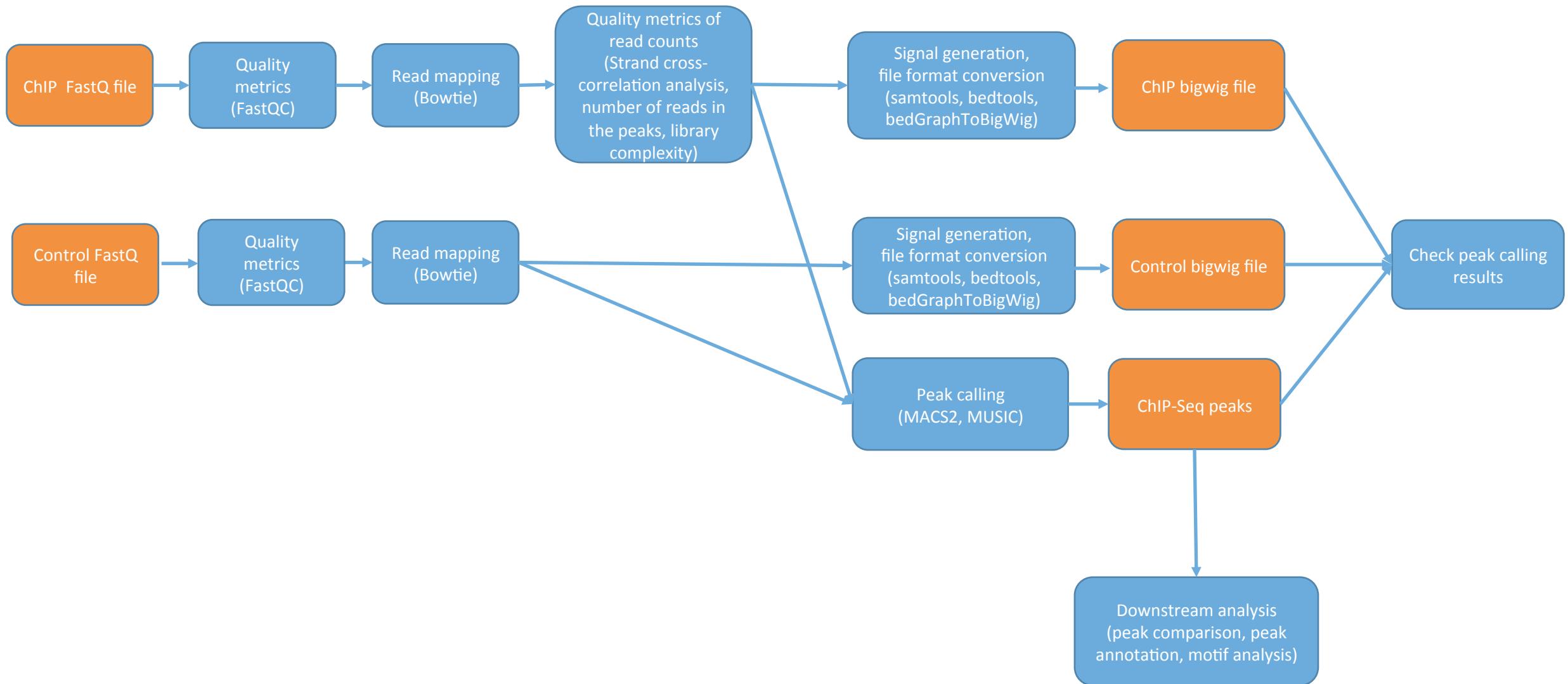


# RNA-Seq analysis pipeline

## Pipeline schematic

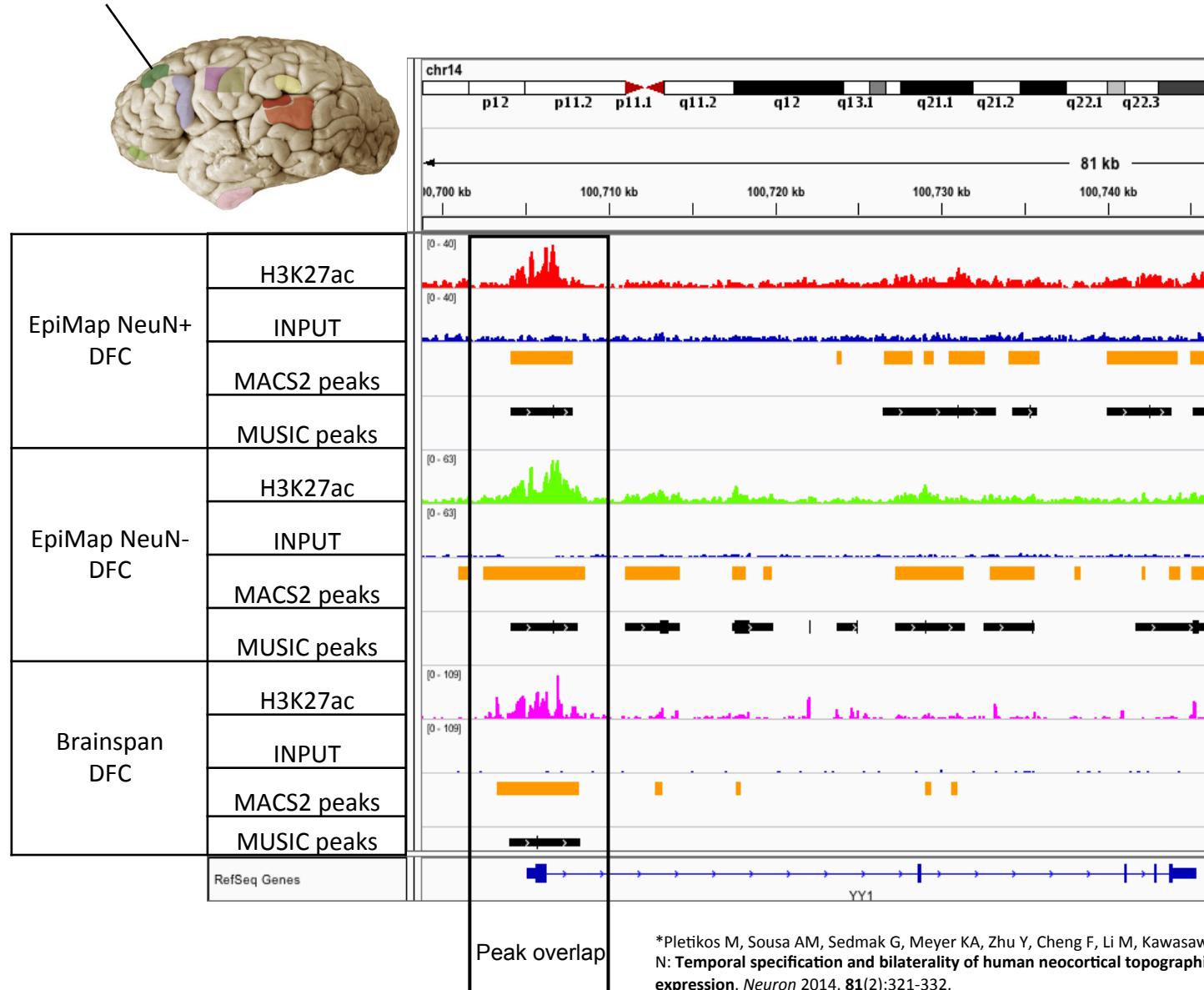


# ChIP-Seq analysis pipeline



# Comparison of ChIP-Seq data across projects

Dorsolateral prefrontal cortex (DFC)\*



\*Pletikos M, Sousa AM, Sedmak G, Meyer KA, Zhu Y, Cheng F, Li M, Kawasawa YI, Sestan N: Temporal specification and bilaterality of human neocortical topographic gene expression. *Neuron* 2014, 81(2):321-332.

MACS2 DFC H3K27ac peak number overlap fraction

	1	0.66	0.74	0.62	0.48	0.68	0.75	Brainspan HSB126
	0.72	1	0.77	0.66	0.5	0.61	0.71	Brainspan HSB136
	0.46	0.44	1	0.5	0.44	0.46	0.64	Brainspan HSB187
	0.56	0.55	0.73	1	0.6	0.55	0.78	Roadmap
	0.25	0.25	0.38	0.35	1	0.3	0.97	EpiMap NeuN+
	0.47	0.39	0.51	0.42	0.4	1	0.91	EpiMap NeuN-
	0.22	0.19	0.31	0.26	0.55	0.4	1	EpiMap all
Brainspan HSB126								
Brainspan HSB136								
Brainspan HSB187								
Roadmap								
EpiMap NeuN+								
EpiMap NeuN-								
EpiMap all								

MUSIC DFC H3K27ac peak number overlap fraction

	1	0.74	0.57	0.62	0.75	0.56	0.81	Brainspan HSB126
	0.8	1	0.62	0.69	0.71	0.61	0.8	Brainspan HSB136
	0.87	0.88	1	0.87	0.79	0.69	0.8	Brainspan HSB187
	0.75	0.77	0.68	1	0.69	0.71	0.8	Roadmap
	0.51	0.44	0.35	0.39	1	0.43	0.91	EpiMap NeuN+
	0.36	0.36	0.29	0.38	0.41	1	0.92	EpiMap NeuN-
	0.27	0.24	0.17	0.22	0.44	0.47	1	EpiMap all
Brainspan HSB126								
Brainspan HSB136								
Brainspan HSB187								
Roadmap								
EpiMap NeuN+								
EpiMap NeuN-								
EpiMap all								