

Wheat Exome v1

Status Update
*IWGSC Business Meeting,
PAG XXVII (January 2019)*

PRESENTED BY:



arbor
biosciences

Kellye Eversole
Isabelle Caugant
Burkhard Steuernagel
Sreya Ghosh
Ute Baumann
Etienne Paux
Sébastien Praud
Magalie Leveugle

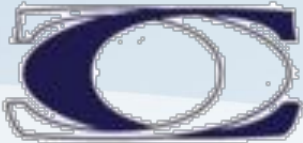


Thanks!

ARBOR ACQUIRED Jan 3



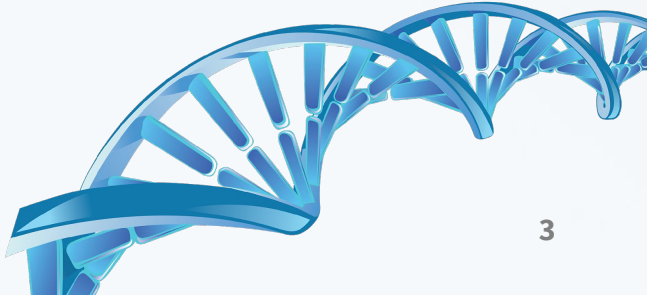
● ● ●
DAICEL



CHIRAL
TECHNOLOGIES INC
DAICEL GROUP



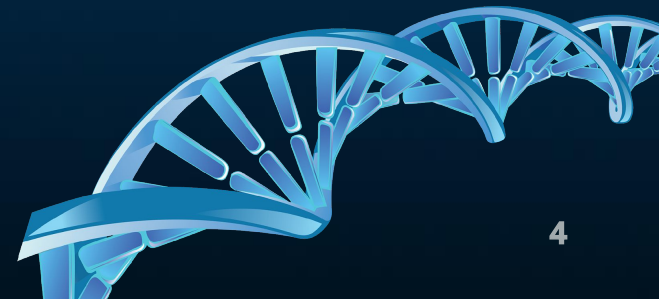
arbor
biosciences



Wheat Exome Kit v1



Survey, Design, Testing

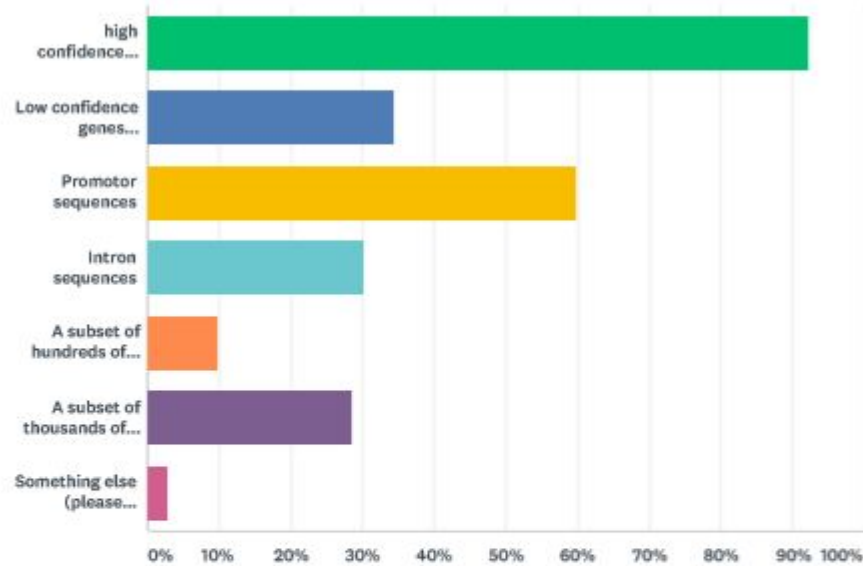


EXOME SURVEY, April 2018

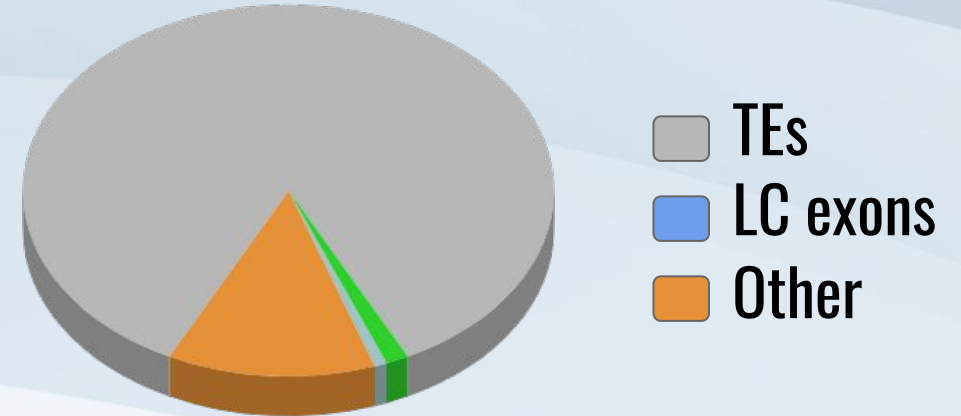


Q2 What components of a wheat exome capture would be valuable for your work?

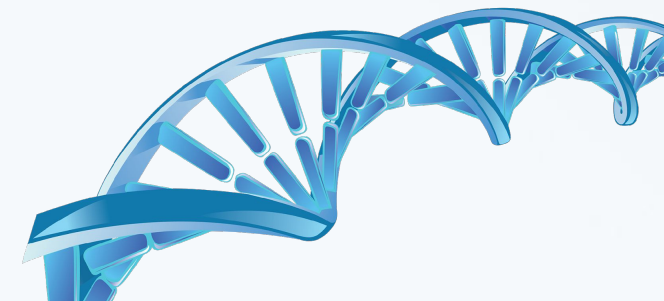
Answered: 102 Skipped: 3



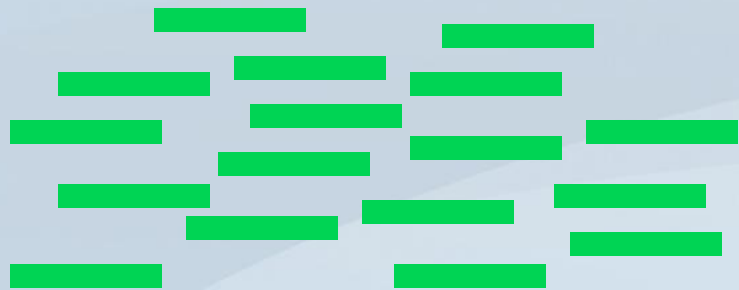
ANSWER CHOICES	RESPONSES	
high confidence genes (including UTR)	92.16%	94
Low confidence genes (including UTR)	34.31%	35
Promotor sequences	59.80%	61
Intron sequences	30.39%	31
A subset of hundreds of exons	9.80%	10
A subset of thousands of exons	28.43%	29
Something else (please specify)	2.94%	3



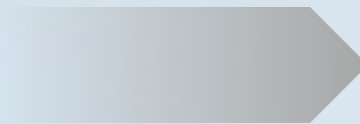
High-confidence exons
170 Mbp
[249 Mbp]



TESTING- ALPHA & BETA PHASE I - LATE 2018

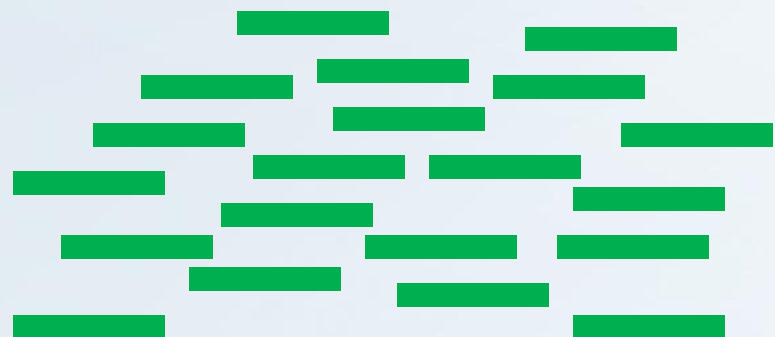


1.98M probes
window-optimized

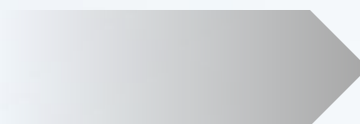


ALPHA TESTING

- specificity gauge
- balancing guide

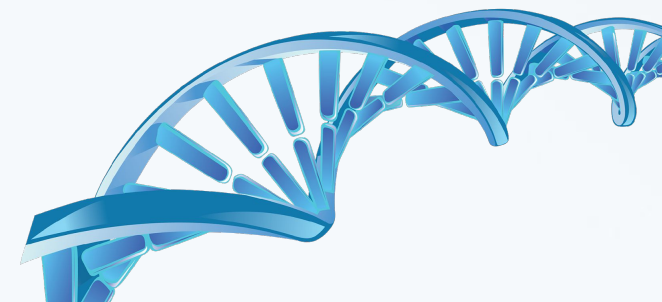


1.65M probes
re-balanced

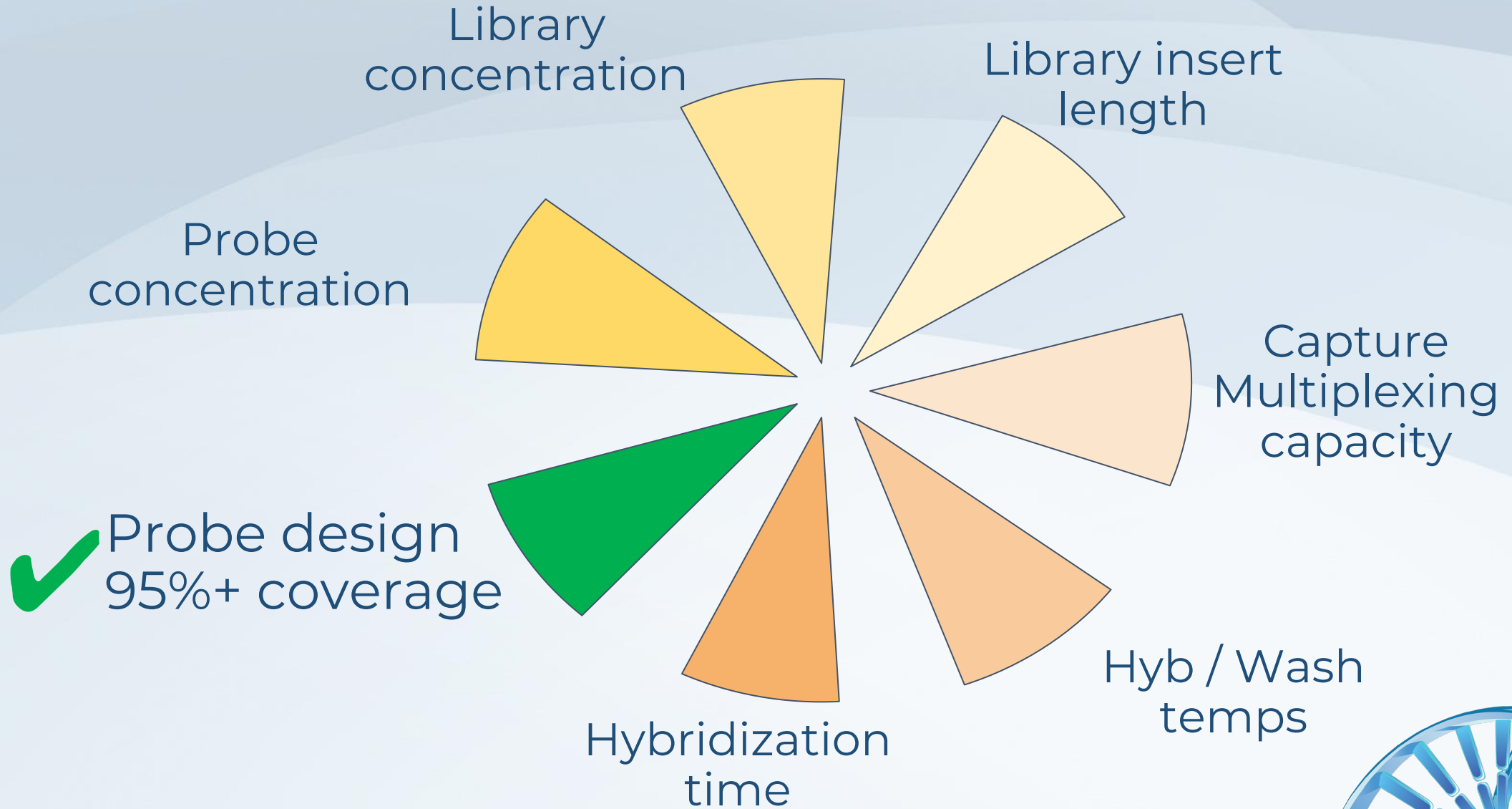


BETA TESTING

- coverage breadth
- parameter optimization

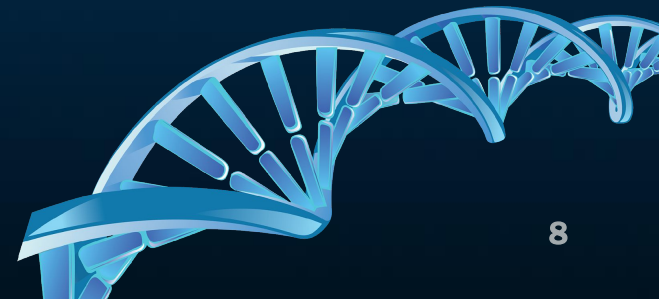


TESTING- BETA PHASE II - EARLY 2019

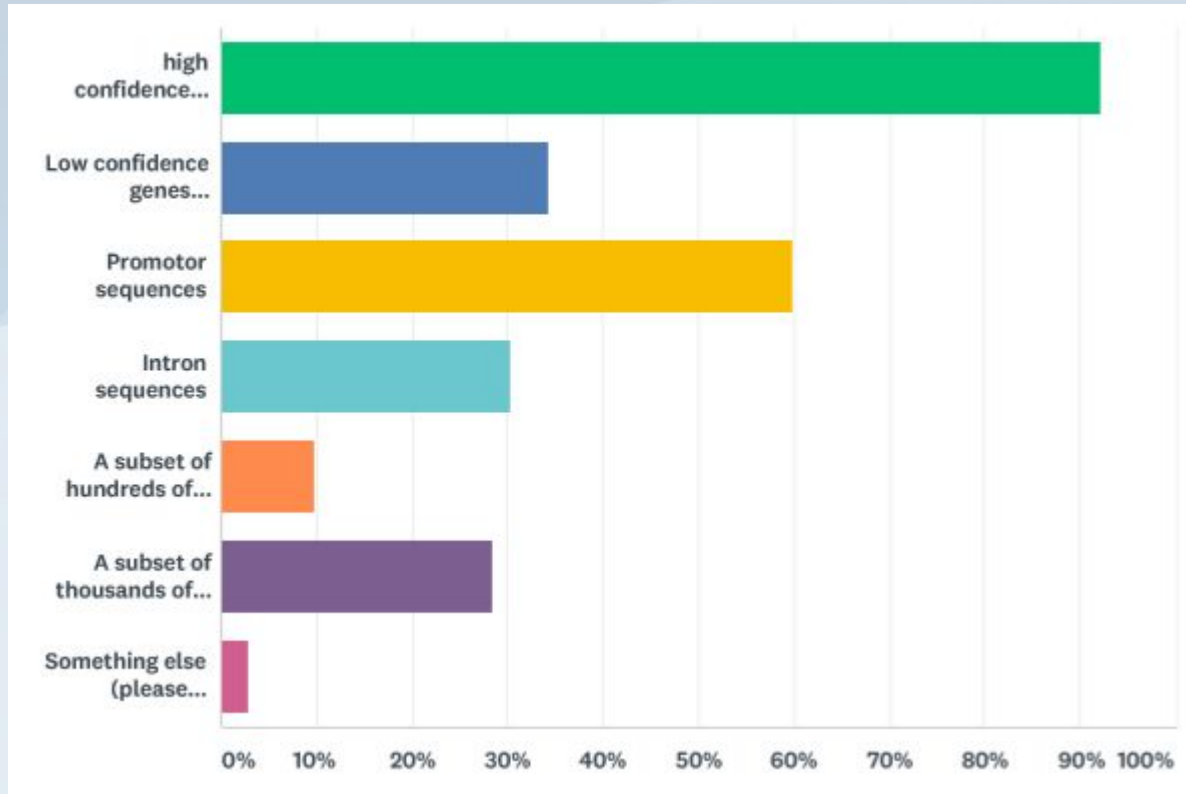




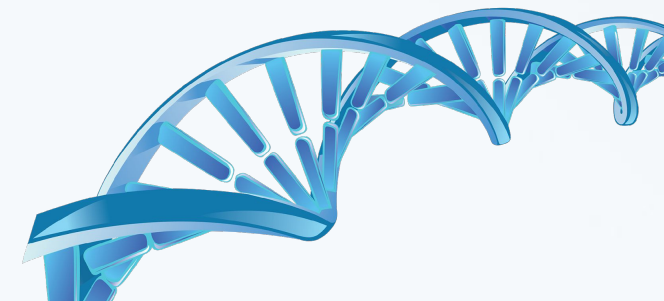
Future Features



EXPANSION PACKS- LATER 2019



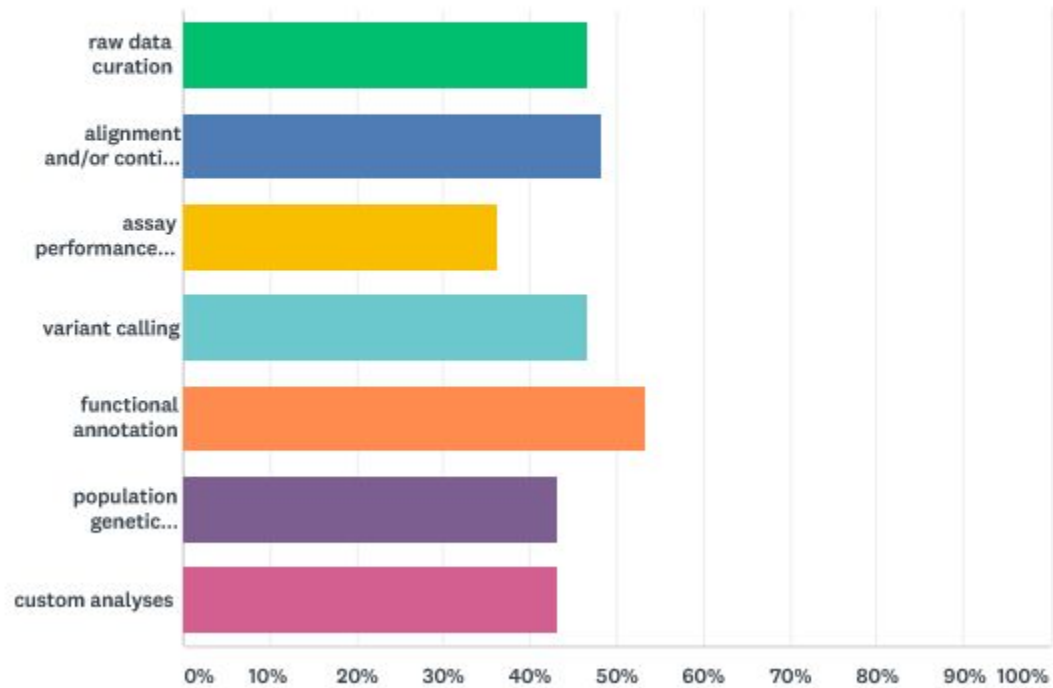
- ✓ Low-confidence exons
- ✓ Promoters
- ✓ Discounted custom mods
- ✓ Other cultivars





Q3 What steps of NGS data analysis do you or your team routinely perform?

Answered: 58 Skipped: 0



Partner company to provide wheat exome...

- data curation
- QC and alignment
- performance metrics
- variant calling





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