

DNA ANALYTICA SRL

SPIN OFF OF THE UNIVERSITY OF TRIESTE (Italy)

Update on the sequencing of the DNA of *Coffea arabica*

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What for ?

Offer a tool to improve the cup quality, productivity and agronomic practice.

Examples:

Cell wall thickness - Solubility

Aroma precursors

Resistance to pests and illnesses
and more



State of the art *ROBUSTA COFFEE*

Internation Consortium

Robusta (Coffea canephora): 1.38 Gbp

276.000 sheet A4

Cost: over € 2 milioni

5 year work

64 scientists of 28 institutions

Results publisced in "Science" a few weeks ago



State of the art *ARABICA*

Coffea arabica: 3.2 Gbp = 550.000 A4

Italia Consortium: 12 scientists of 3 Universities
and 4 Companies

The sequencing is finished.

The reconstruction of the genome
is almost completed.



Sequencing

WGS Library		Insert size (bp)	Read length (bp)	Nucleotides (Gb)	Coverage
Miseq overlapped		420	300+300	22.5	17.3x
Hiseq overlapped		180	100+100	34.4	26.5x
Hiseq		250	100+100	8.2	6.3x
Hiseq long		900	100+100	20.2	15.5x
Mate pairs		2000	100+100	42.7	32.8
TOTAL				128.0	98.4x
BAC	Pool	BACxPool	Insert size	Coverage	Nucleotides
36,864	96	384	≈100Kb	2.84x	488Gb



Associazione Italiana Helio Cat



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Italian Consortium

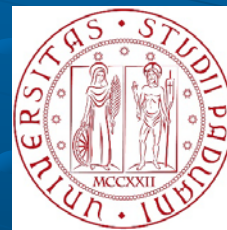
Companies



DNA Analytica Srl



Universities



Padova



Udine



Trieste



Thank you for your attention