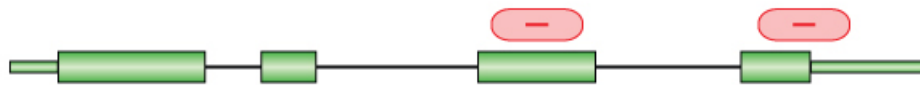
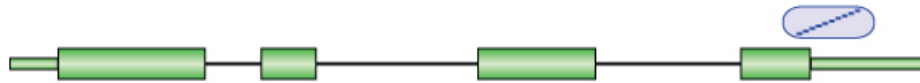


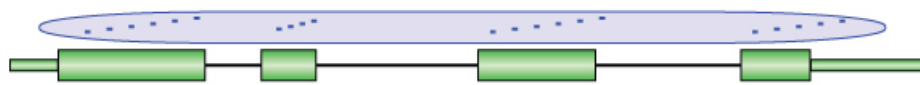
COMPARISON OF EXPRESSION ARRAY PLATFORMS



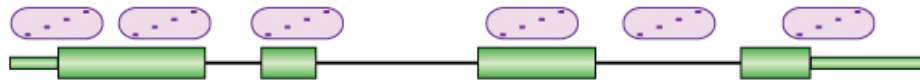
Agilent Expression Arrays
Final signal is derived from a single 60-mer probe. Genes may be represented on the array by multiple probes.



Affymetrix Legacy 3' Arrays
Final signal is derived from a probe set of 8-15 x 25-mer probes

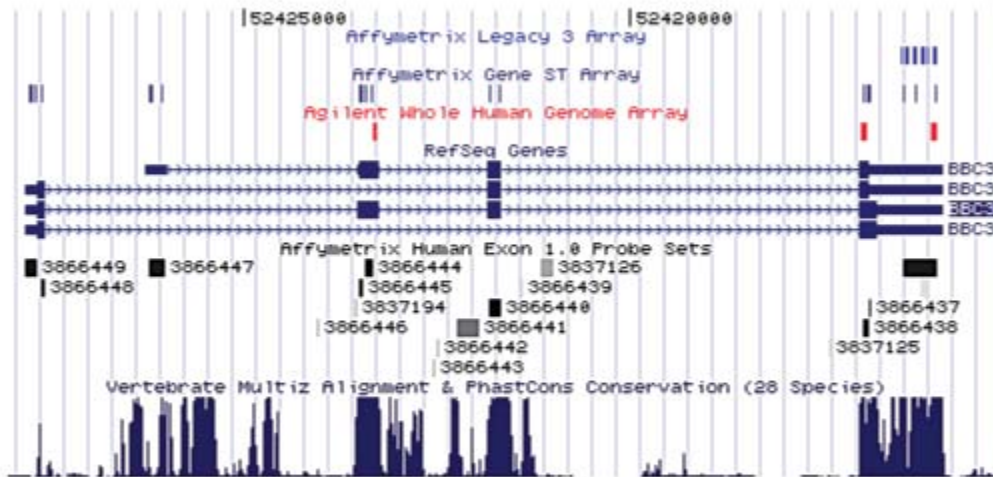


Affymetrix Gene ST Arrays
Final signal is derived from a probe set of upto 26 x 25-mer probes spanning the entire length of the gene



Affymetrix Exon ST Arrays
Exon level signals are derived from probe sets with 4 x 25-mer probes. Both putative and known exon expression values are obtained

Comparison of expression arrays. Peter White, Ph.D.



Comparison of expression arrays using the UCSC Genome Browser. Custom tracks showing the actual probes positions for both the Agilent and Affymetrix arrays for the human BBC3 gene.

Comparison of expression array platforms, based upon the human version of each array.

<u>Creation Date</u>	<u>Design Build</u>	<u>Probe Sets</u>	<u>Known Genes</u>	<u>Optimal Starting Material</u>	<u>Cost</u>
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Agilent-Dual Mode Arrays: *Provides the flexibility to choose between the ease of one-color experimental design and the resolving power of two-color detection*

01/07/05	April 2003 (hg15)	41,000	19,584	500 ng	\$
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Affymetrix Gene ST Arrays: *Alternative for the 3' Array with enhanced content and probe sets designed to span the entire coding region of a gene*

3/29/07	March 2006 (hg18)	28,869	19,734	100 ng	\$\$
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Affymetrix Legacy 3' Arrays: *The original 3'-biased Affymetrix array, most widely used amongst these arrays*

10/02/03	April 2001 (hg7)	54,613	18,865	100 ng	\$\$\$
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Affymetrix Exon ST Arrays: *A powerful tool to look at splice variants with Probe Sets returning data at the Exon level*

01/16/06	July 2003 (hg16)	1,000,000	27,765	1-2 µg	\$\$\$\$
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