VAT reviews

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Revisions

- Positioning of VAT in the cloud
  - Cost analysis

- MNPs (snpEff, ANNOVAR)

- Feature comparison
  - Detailed comparison with ANNOVAR

- Inclusion of UTRs

- Application of VAT to other species
  - Arabidopsis

Tool comparison

Features		VAT	ANNOVAR	snpEff (unpublished)	Ensembl Variant Effect Predictor	PICMI	SeqAnt
Variant types	SNPs	Yes	Yes	Yes	Yes	Yes	Yes
	Indels	Yes	Yes	Yes	Yes	No	Yes
	MNPs	Yes	Yes?	Yes	No	No	No
	SVs	Yes	No	Yes	No	No	No
Mode	Command-line	Yes	Yes	Yes	No	No	No
	Web-interface	Yes	No	No	Yes	Yes	Yes
Cloud-computing support		EC2 Instance	No	GATK	No	No	No
Comparative analysis between samples		Yes	No	Yes	No	No	No
Sample summaries		Yes	No	Yes	No	No	No
Gene summaries		Yes	No	Yes	No	No	No
Graphical visualization of variants and gene models		Yes	No	No	No	No	No
Transcript based annotations		Yes	Yes	No	Yes	Yes	No
Assessment of protein function	SIFT	No	Yes	Yes	Yes	No	No
	PolyPhen	No	Yes	No	Yes	No	No
Input formats		VCF	VCF, Complete Genomics, PileUp, others	VCF	VCF, PileUp, others	VCF, others	Multiple input files required; no VCF support
Output formats		VCF, tabular	tabular	tabular	tabular	tabular	tabular
Organisms		Mainly human; simple to add other organisms	Human; other genomes available	Human; many others supported	Human; many others supported	Human; other genomes available	Human; other genomes available
Annotation sets		GENCODE; simple to add other annotation sets	UCSC Genes, RefSeq, Ensembl, others	Ensembl, others	Ensembl	Ensembl	RefSeq