# SQANTI3 report

Unique Genes: 8939 Unique Isoforms: 23906

## Transcript Classification

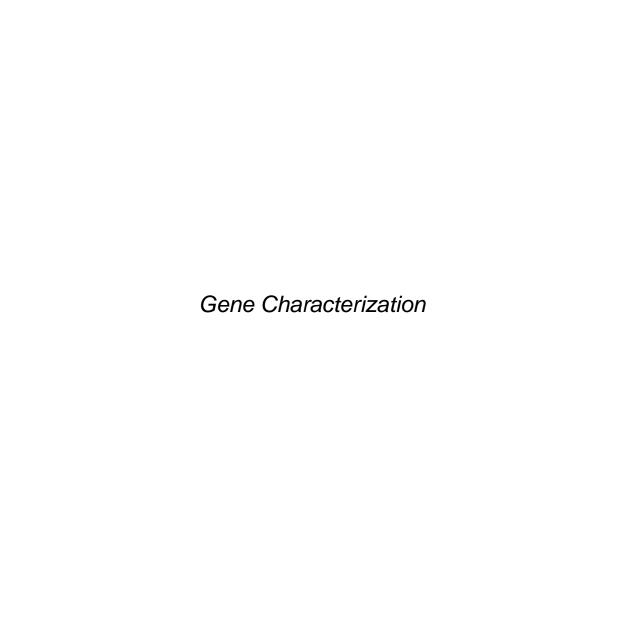
# Gene Classification

Category	Genes, count	
Annotated Genes	8907	
Novel Genes	32	

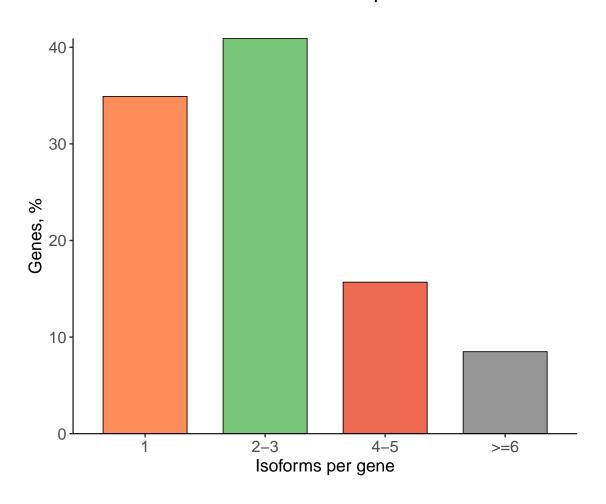
Category	Isoforms, count
FSM	18039
ISM	3458
NIC	2047
NNC	305
Genic Genomic	3
Antisense	13
Fusion	19
Intergenic	22
Genic Intron	0

# Splice Junction Classification

Category	SJs, count	Percent
Known canonical	72067	99.15
Known Non-canonical	32	0.04
Novel canonical	586	0.81
Novel Non-canonical	0	0.00

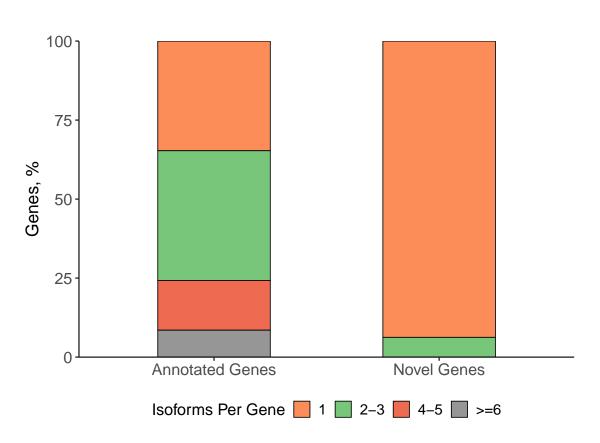


## Number of Isoforms per Gene

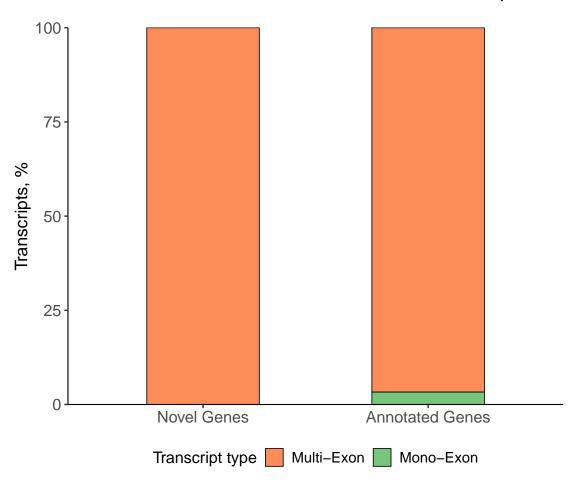


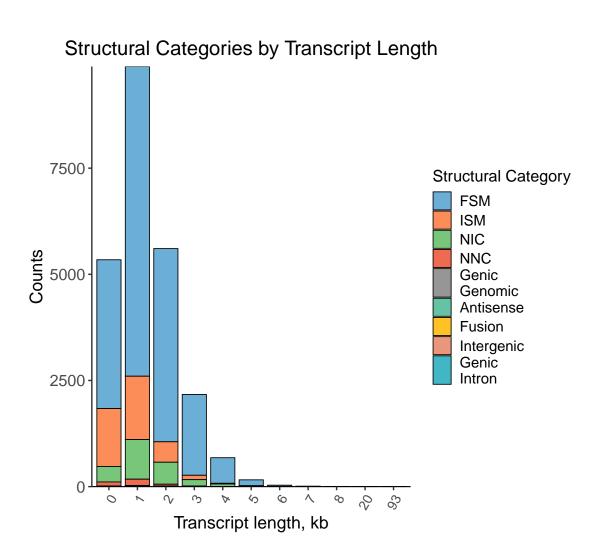
## Number of Isoforms per Gene

#### Known vs Novel Genes

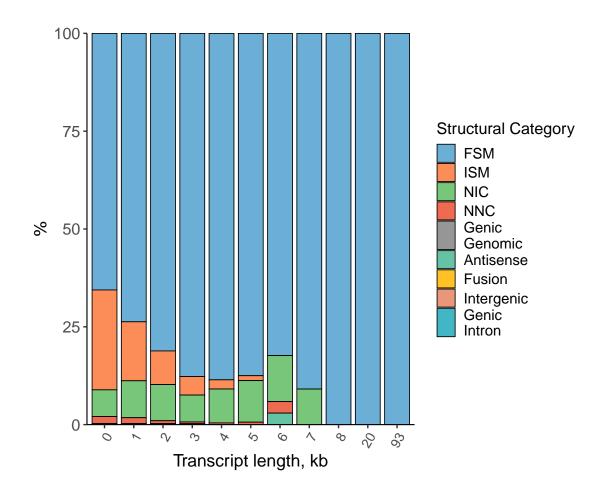


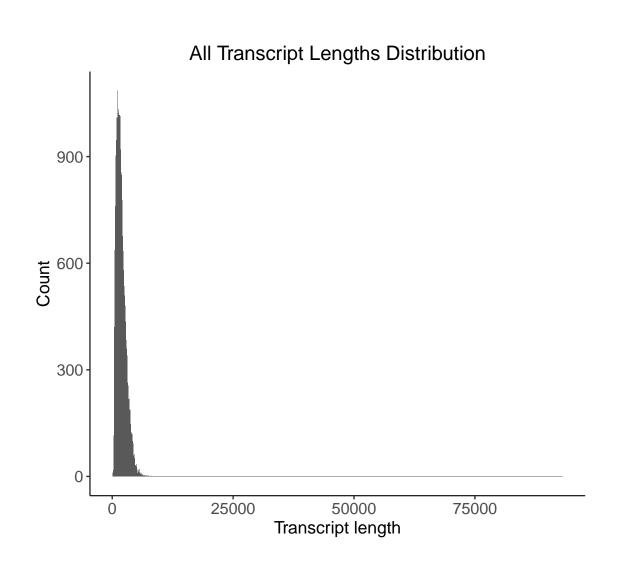
## Distribution of Mono- vs Multi-Exon Transcripts



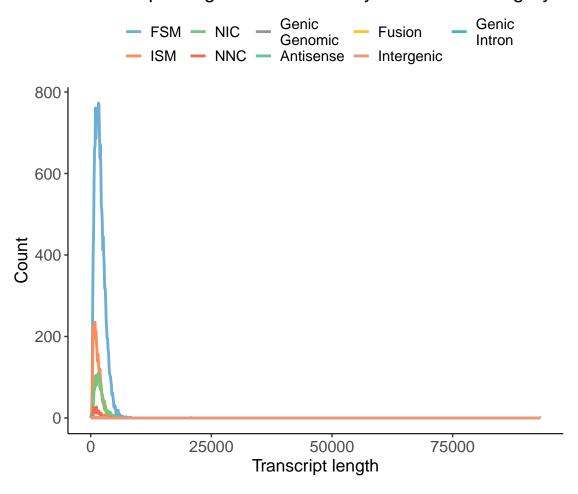


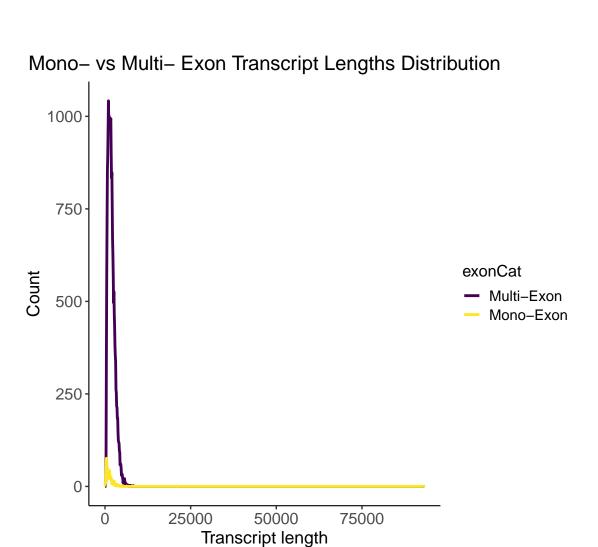
## Structural Categories by Transcript Length

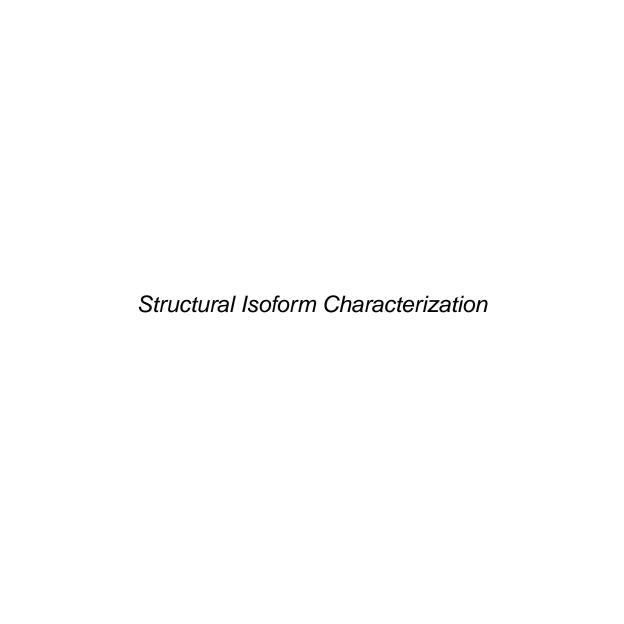




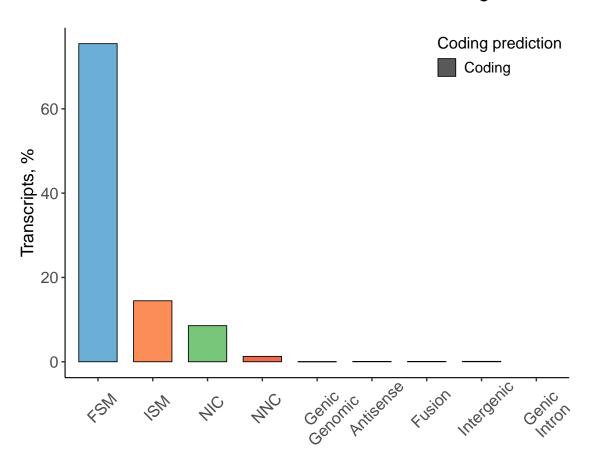
#### Transcript Lengths Distribution by Structural Category



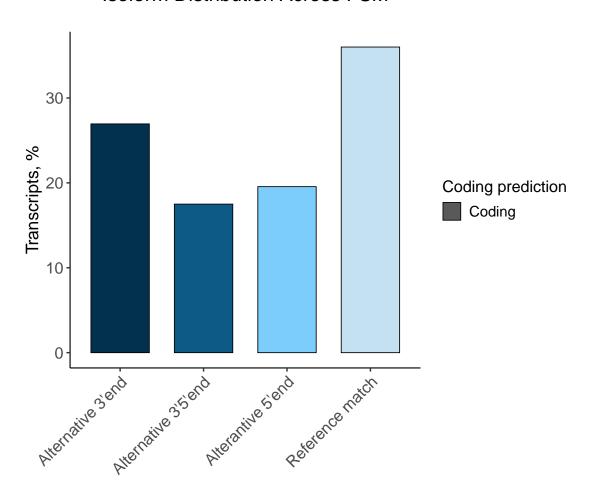




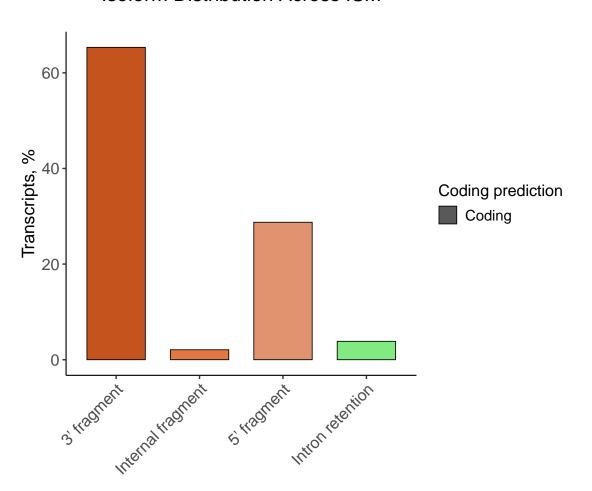
#### Isoform Distribution Across Structural Categories



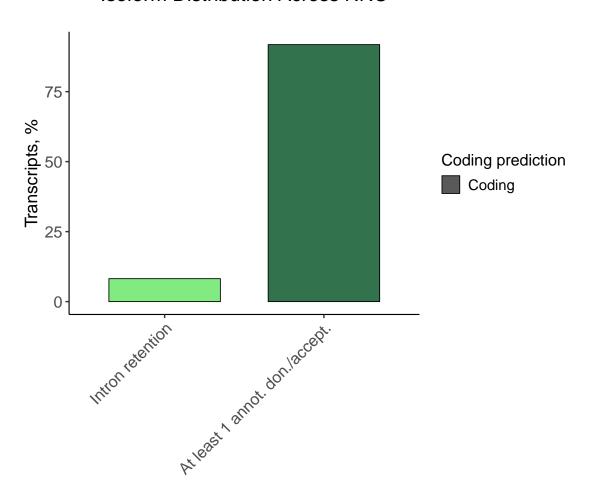
#### Isoform Distribution Across FSM



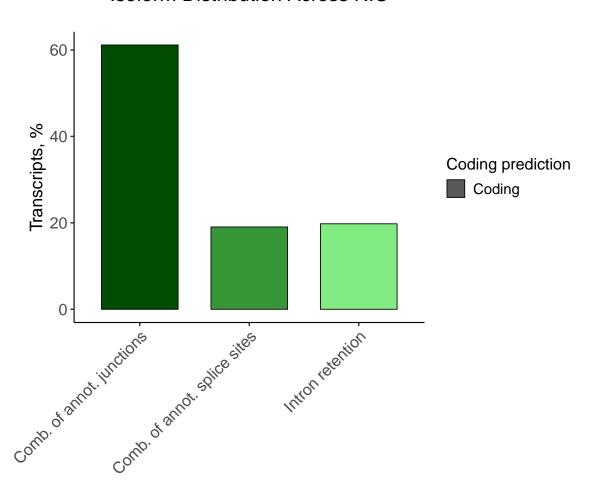
#### Isoform Distribution Across ISM



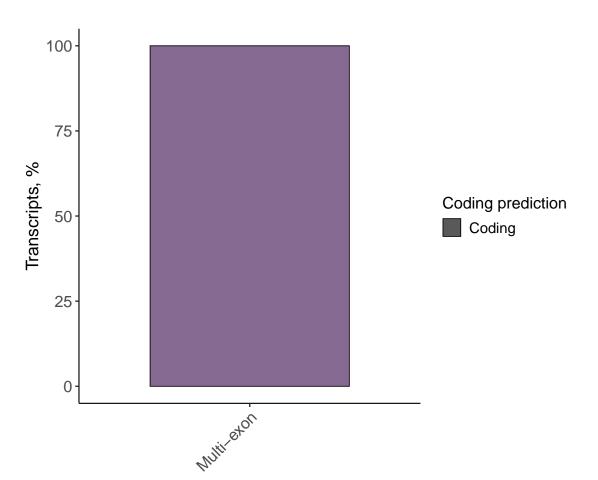
#### Isoform Distribution Across NNC



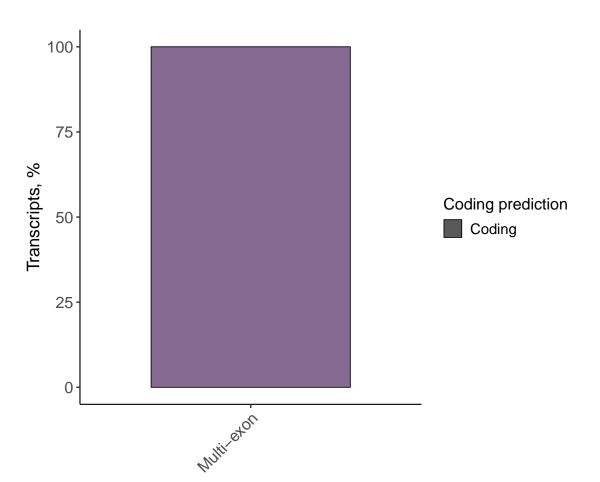
## Isoform Distribution Across NIC



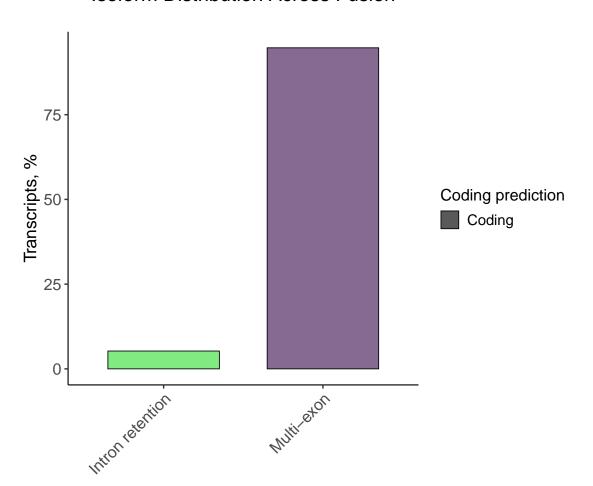
#### Isoform Distribution Across Genic Genomic



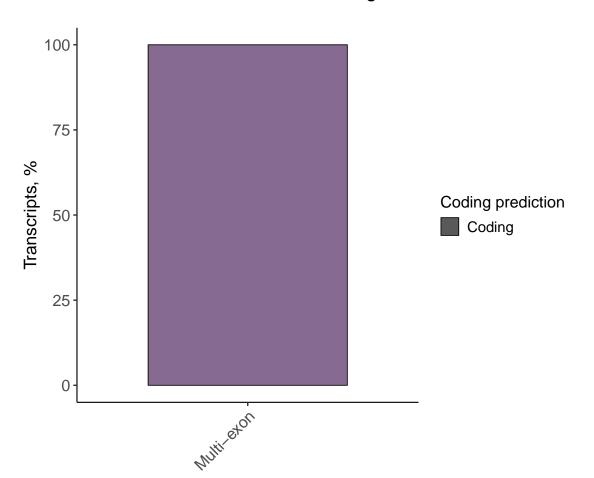
#### Isoform Distribution Across Antisense



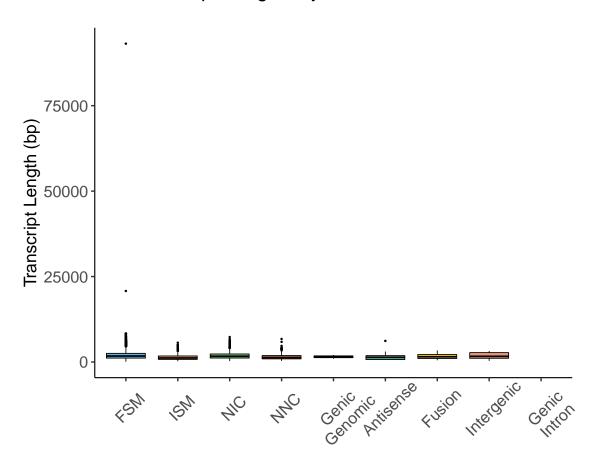
#### Isoform Distribution Across Fusion



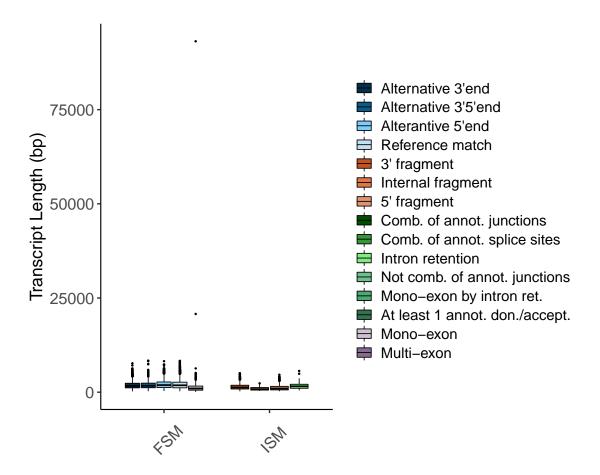
## Isoform Distribution Across Intergenic



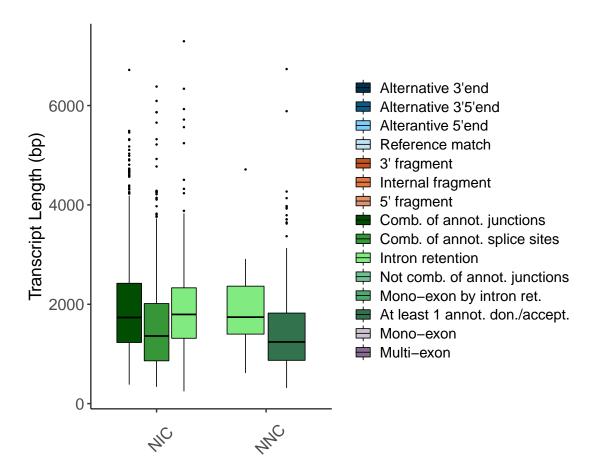
#### Transcript Lengths by Structural Classification



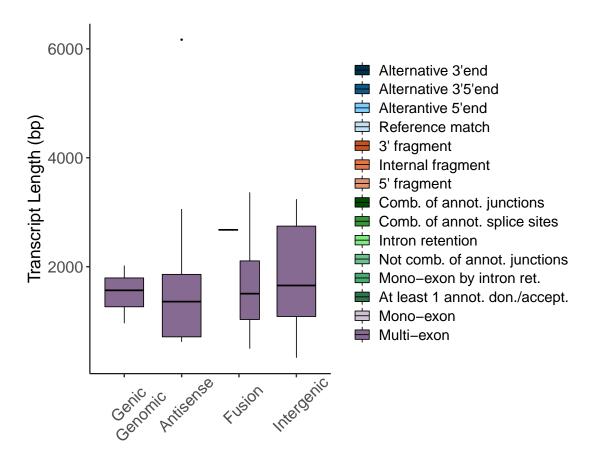
#### Transcript Lengths by Subcategory



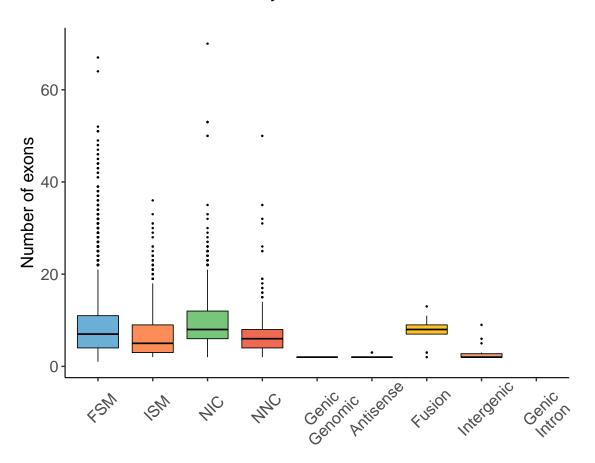
#### Transcript Lengths by Subcategory



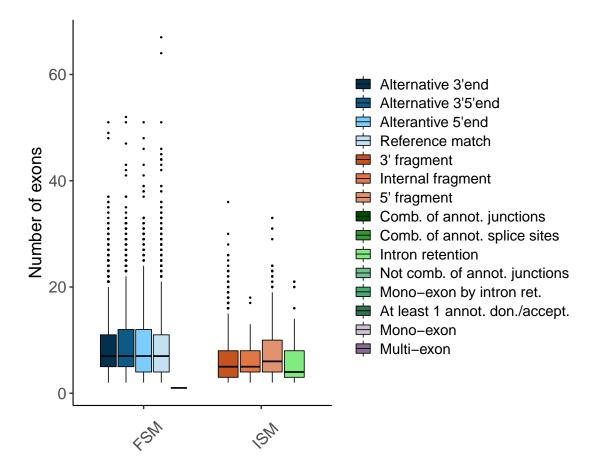
## Transcript Lengths by Subcategory



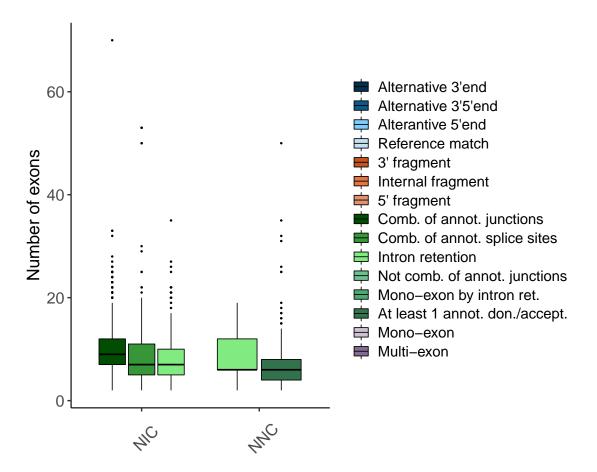
#### **Exon Counts by Structural Classification**



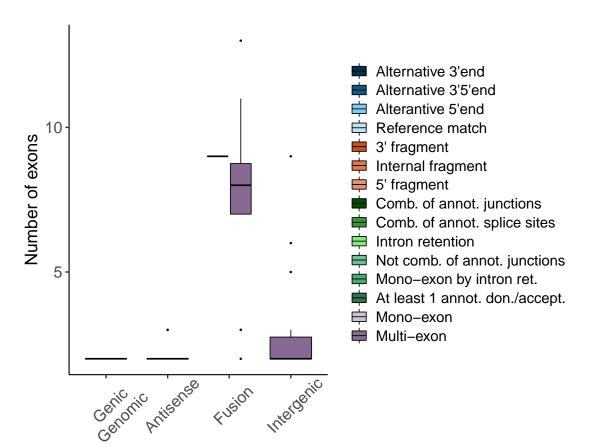
#### **Exon Counts by Subcategory**



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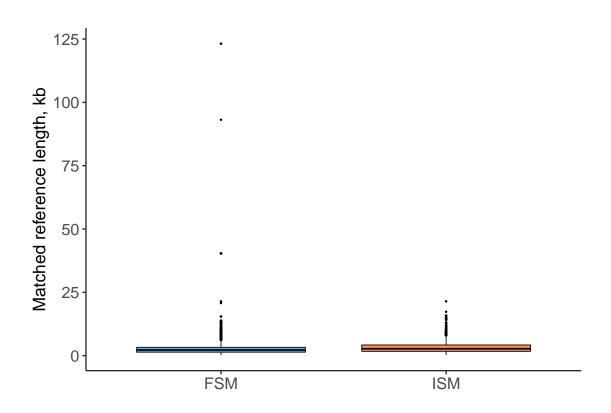


#### **Exon Counts by Subcategory**



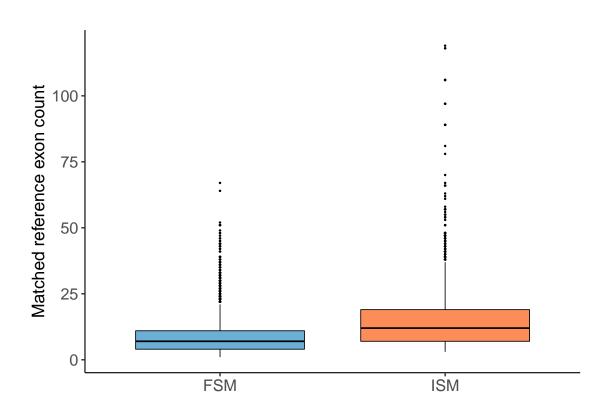
#### Length Distribution of Matched Reference Transcripts

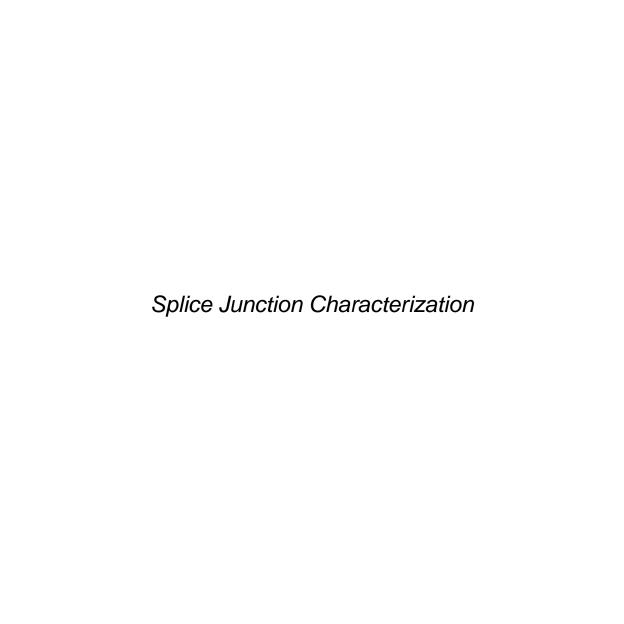
Applicable Only to FSM and ISM Categories



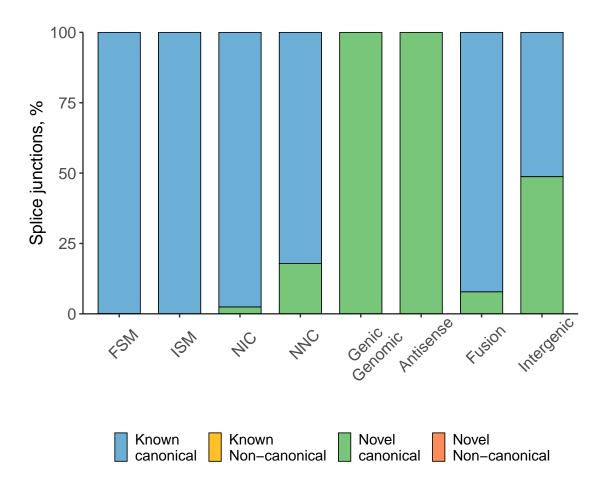
## Exon Count Distribution of Matched Reference Transcripts

Applicable Only to FSM and ISM Categories

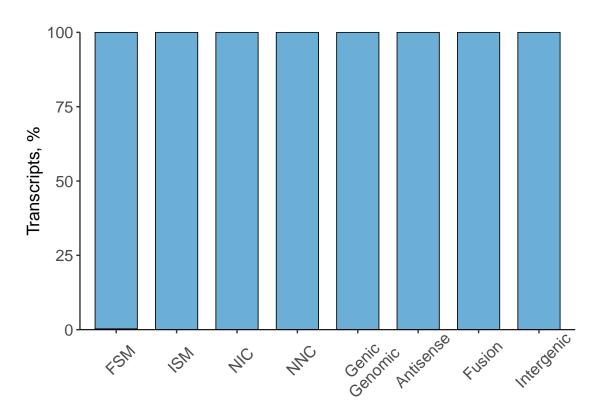




#### Distribution of Splice Junctions by Structural Classification

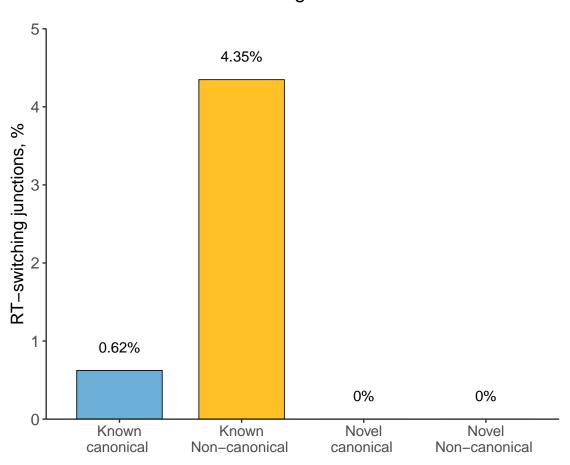


#### Distribution of Transcripts by Splice Junctions

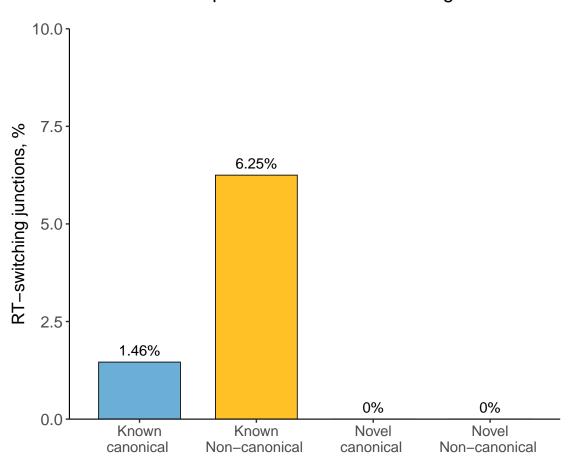


■ Canonical ■ Non-canonical

## RT-Switching All Junctions



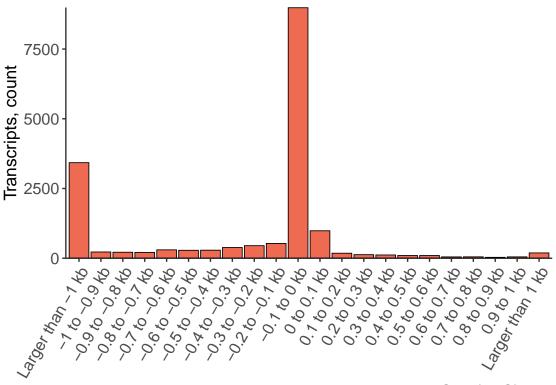
## Unique Junctions RT-switching





# Distance to annotated Transcription Termination Site (TTS) FSM

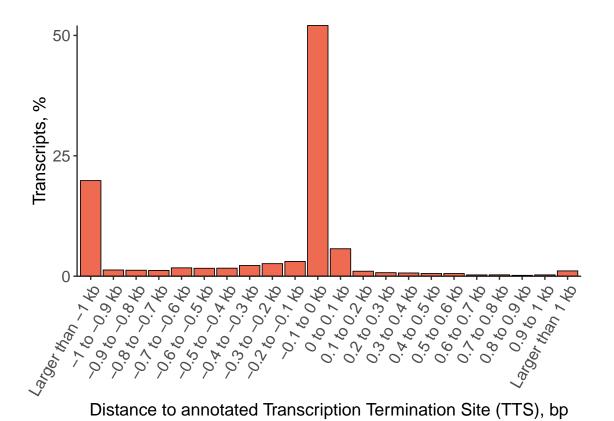
Negative values indicate upstream of annotated termination site



Distance to annotated Transcription Termination Site (TTS), bp

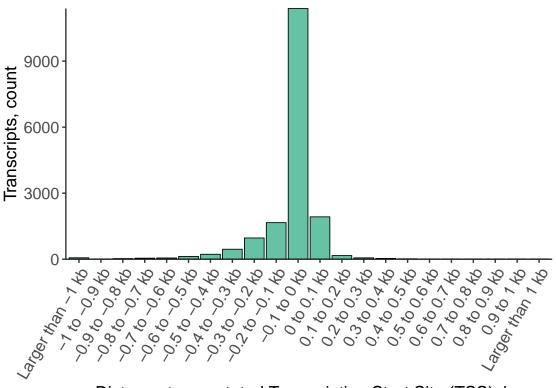
# Distance to annotated Transcription Termination Site (TTS) FSM

Negative values indicate upstream of annotated termination site



## Distance to Annotated Transcription Start Site for FSM

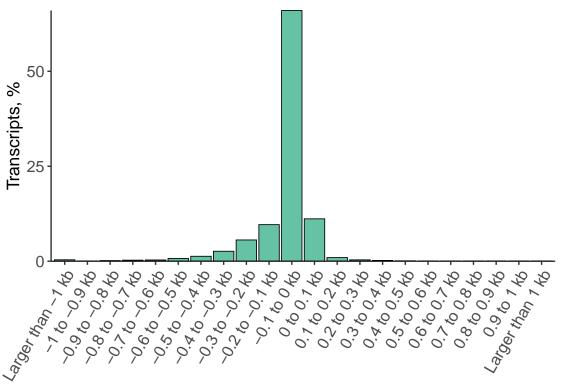
Negative values indicate downstream of annotated TSS



Distance to annotated Transcription Start Site (TSS), bp

### Distance to Annotated Transcription Start Site for FSM

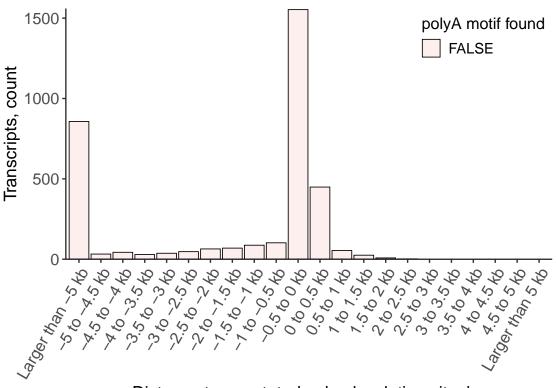
Negative values indicate downstream of annotated TSS



Distance to annotated Transcription Start Site (TSS), bp

## Distance to Annotated Polyadenylation Site for ISM

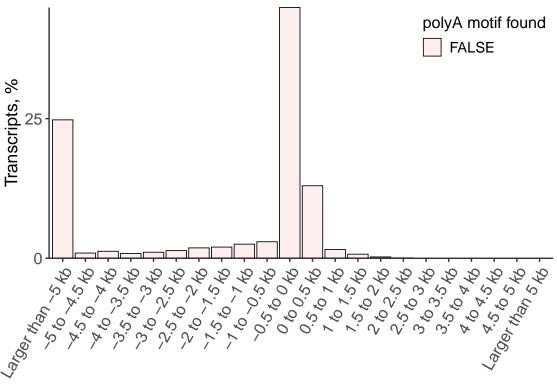
Negative values indicate upstream of annotated polyA site



Distance to annotated polyadenylation site, bp

### Distance to Annotated Polyadenylation Site for ISM

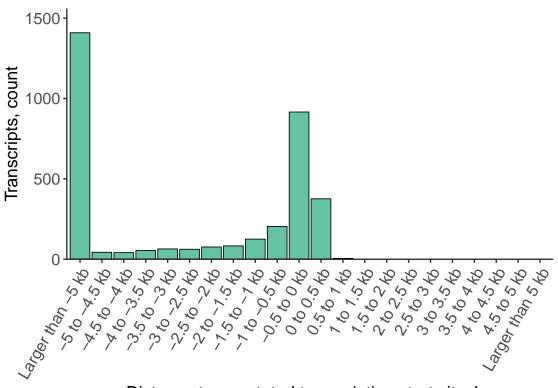
Negative values indicate upstream of annotated polyA site



Distance to annotated polyadenylation site, bp

## Distance to Annotated Transcription Start Site for ISM

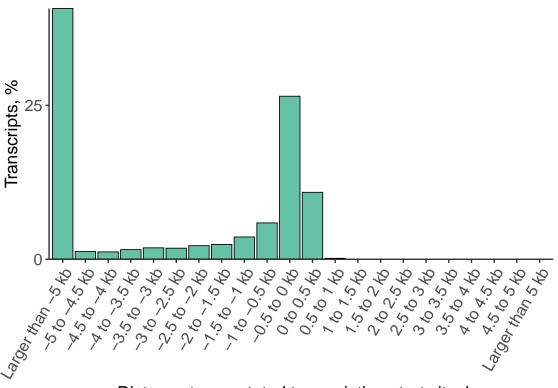
Negative values indicate downstream of annotated TSS



Distance to annotated transcription start site, bp

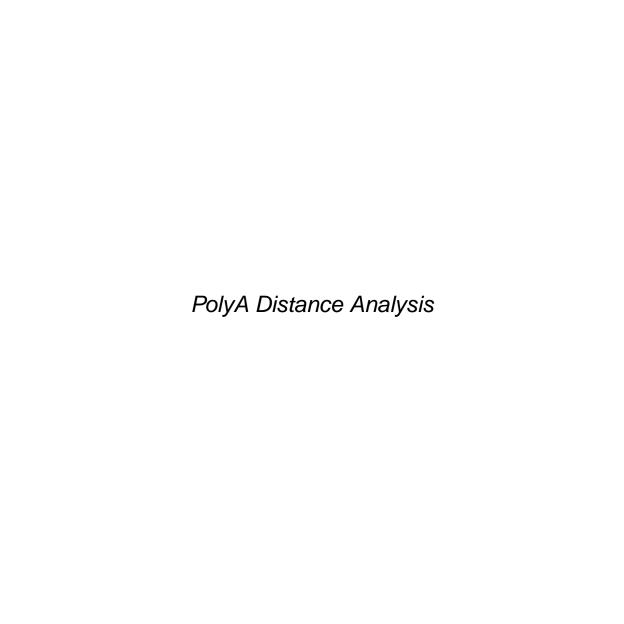
## Distance to Annotated Transcription Start Site for ISM

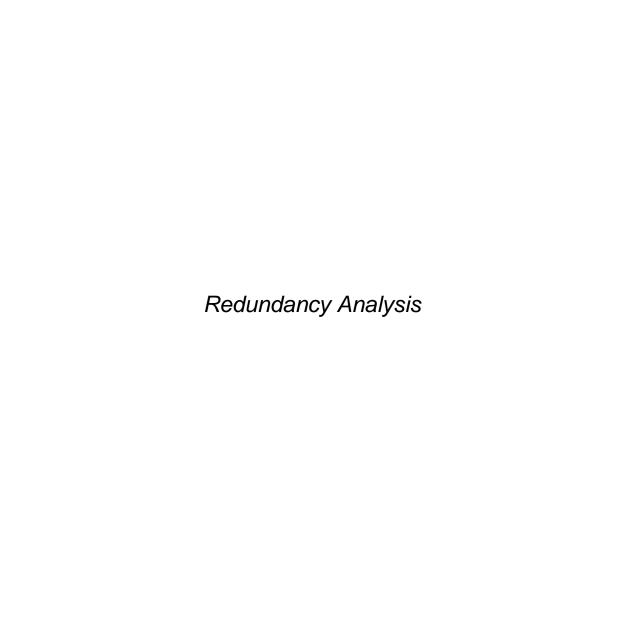
Negative values indicate downstream of annotated TSS

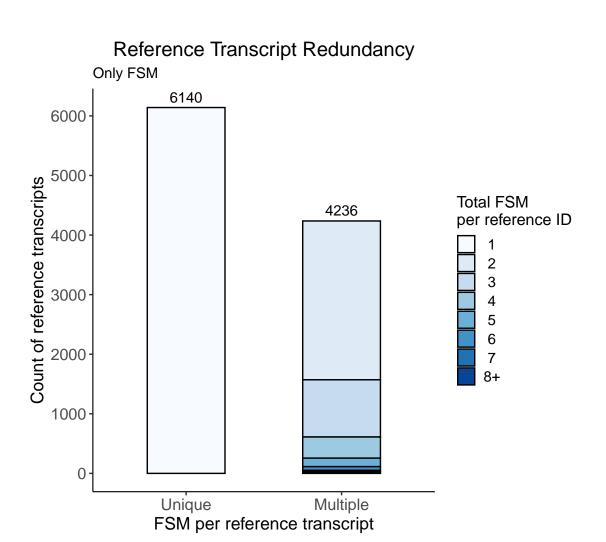


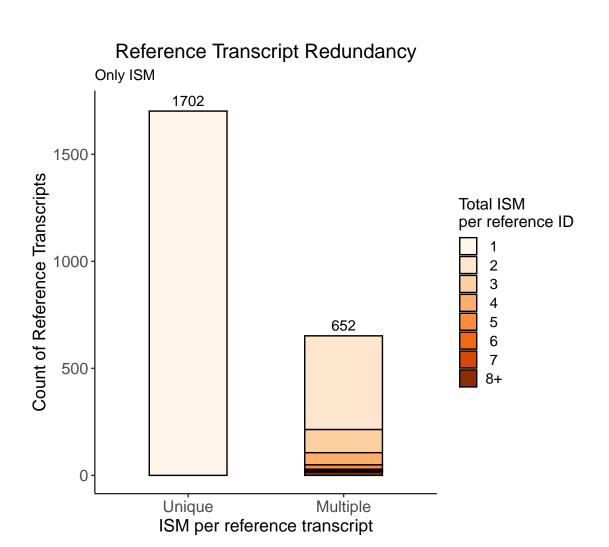
Distance to annotated transcription start site, bp

Comparison With Annotated TSS and TTS by Subcategories

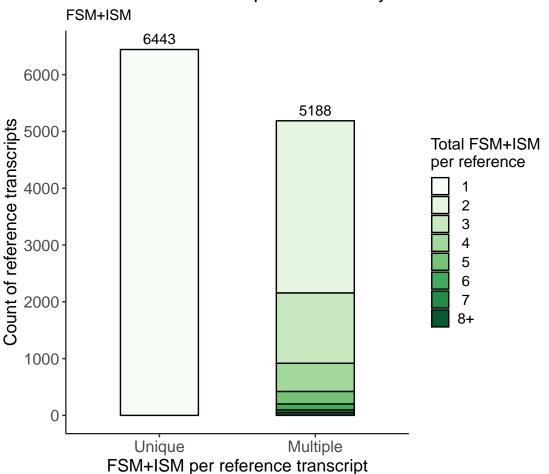






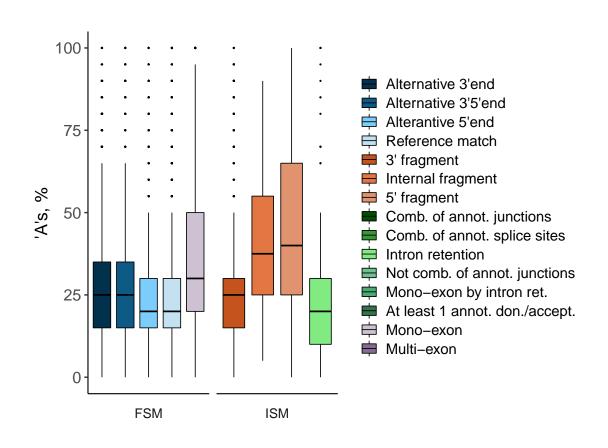


## Reference Transcript Redundancy

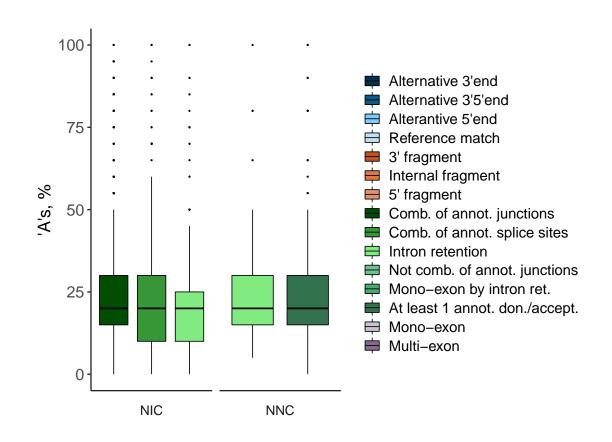




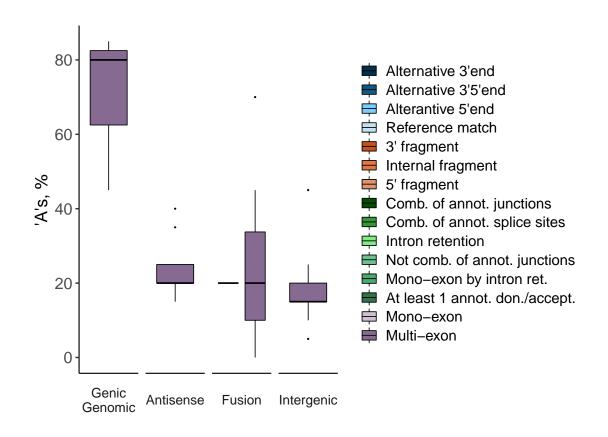
## Possible Intra-Priming by Structural Category



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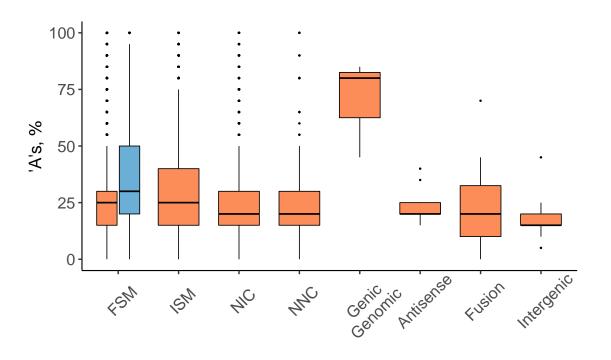


## Possible Intra-Priming by Structural Category



### Mono- vs Multi-Exon Possible Intra-Priming

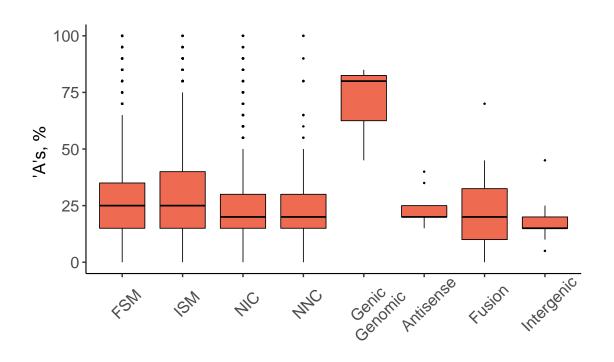
Percent of genomic 'A's in downstream 20 bp



 □ Mono-Exon Isoforms

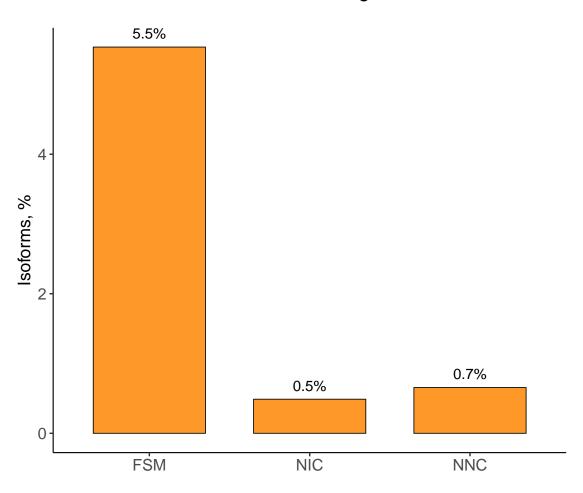
 □ Multi-Exon Isoforms

## Coding vs Non-Coding Possible Intra-Priming

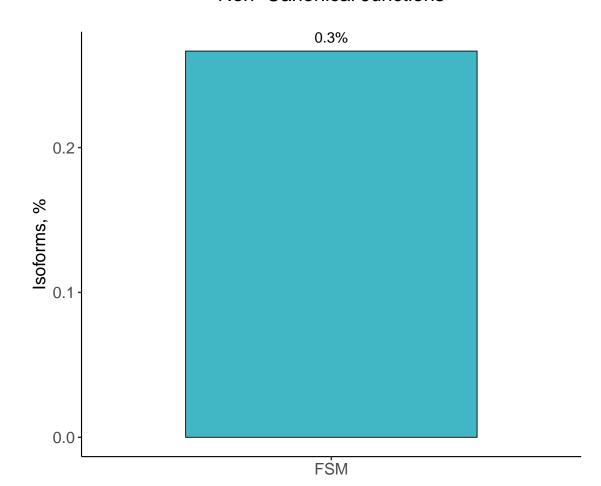




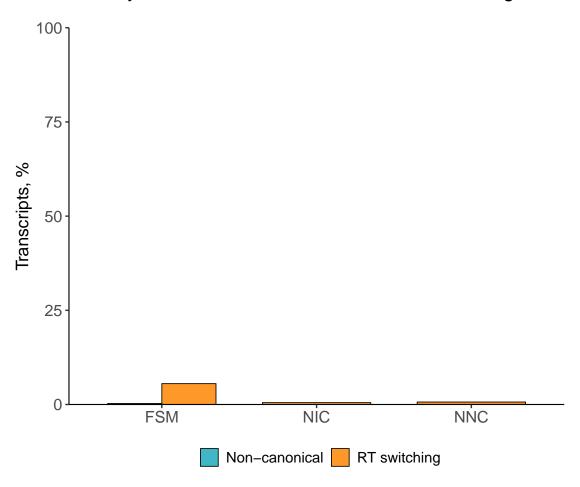




## Non-Canonical Junctions

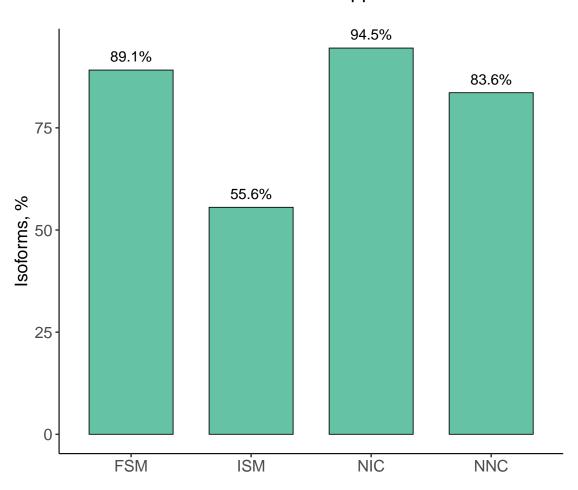


## Quality Control Attributes Across Structural Categories

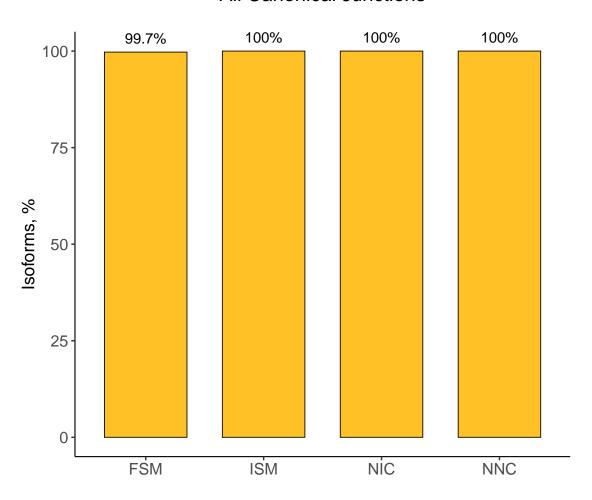




# **Annotation Support**



## All Canonical Junctions



## Good Quality Control Attributes Across Structural Categories

