Table S1. Further information on the comet and cup genes

Gene	Symbol	CG	Map	Protein domains	DmSP	FlyAtlas
Comet genes						
schumacher-levy	*schuy*	CG17736	78D	Glu-rich	No	Testis
hale-bopp	*hale*	CG7570	78D	Glu-rich	No	Testis
sungrazer	*sunz*	CG15179	84A	EF-hand	No	Testis
solwind	*sowi*	CG15178	84A	EF-hand	No	Testis
borrelly	*boly*	CG30362	44C	DM6	Yes	Testis
comas sola	*cola*	CG30363	44C	DM6	No	Testis
hug-bell	*hubl*	CG30364	44C	DM6	No	Testis
spacewatch	*spaw*	CG30365	44C	None*	No	None
swift-tuttle	*swif*	CG30366	44C	DM6	No	Testis
whipple	*whip*	CG34218	44C	None*	ND	ND
scotti	*soti*	CG8489	88B	None	No	Testis
Pglym87	*Pglym87*	CG17645	87B	Phospho-glycerate mutase	Yes	Testis
Cup genes						
world-cup	*w-cup*	CG7363	32A	None	No	Testis
walker-cup	*wa-cup*	CG10113	84D	TPR-like helical	No	Testis
ryder-cup	*r-cup*	CG10998	19E	None†	No	Testis
stanley-cup	*s-cup*	CG30044	49A	None	No	Testis, brain, head
presidents-cup	*p-cup*	CG12993	16A	None†	No	Testis
davis-cup	*d-cup*	CG14387	87D	EF-hand	No	Testis
calcutta-cup	*c-cup*	CG15623	22B	Cytochrome b5	No	Testis
tetleys-cup	*t-cup*	CG31858	33E	Cytochrome b5	No	Testis
flyers-cup	*f-cup*	CG9611	87F	Leucine-rich repeat	No	Ubiquitous, highly enriched in testis
heineken-cup	*h-cup*	CG6130	88F	DUF837	No	Testis
mann-cup	*m-cup*	CG11896	89F	Ankyrin repeat	No	Ubiquitous, highly enriched in testis
oo18 RNA-binding protein	*orb*	CG10868	94E	RNA binding	No	Ubiquitous, enriched in ovary, brain, testis

Further information on the comet and cup genes, including chromosomal locations, protein domains detected by InterPro searches, detection in *Drosophila* sperm proteome by mass spectroscopy (DmSP) (Dorus et al., 2006), and detection in adult tissues from FlyAtlas (Chintapalli et al., 2007).
**spaw* and *whip* do not have a DM6 domain according to InterPro searches, but have homology to the other DM6-containing proteins.
†*r-cup* and *p-cup* do not have TPR-like helical domains according to when searching using InterPro, but have homology to the TPR-like helical domain-containing cup gene *wa-cup*.
whip was included as a new annotation in Release 5.2 of the *Drosophila* genome annotation.
DUF, domain of unknown function.

Table S2. Homologues of comets or cups

CG	Map	Homologous to	FlyAtlas	DmSP	Staining pattern
CG8701	*44C*	DM6 cluster	Testis	Yes	Like CG10252
CG4691	*35B*	DM6 cluster	Testis	Yes	Like CG10252
CG12861	*51B*	DM6 cluster	Testis	Yes	Like CG10252
CG2127	*44C*	DM6 cluster	Testis	Yes	Like CG10252
CG33340	*95F*	DM6 cluster	Testis, hindgut	Yes	Like CG10252
CG11635	*44C*	DM6 cluster	Testis	No	Like CG10252
CG15177	*84A*	*sunz, sowi, d-cup*	Testis	No	Like CG11591
CG7634	*78D*	*wa-cup, r-cup, p-cup*	Testis, tubule	No	Like CG11591
CG15128	*56E*	*wa-cup, r-cup, p-cup*	Testis	Yes	Like CG11591
Pglym78	*98F*	*Pglym87*	Ubiquitous (low in testis)	No	Not detected
CG10158	*27C*	*h-cup*	Ubiquitous (high in testis)	No	ND

Testis expression patterns (RNA in situ hybridisation staining pattern), chromosomal location, expression profiles in adult flies (FlyAtlas) and detection in *Drosophila* sperm proteome by mass spectroscopy (DmSP) of closely related homologues of the comet and cup genes.