

We have included the unique, prototypic spectra from the Pandey and Kuster datasets. Found spectra fall into the categories of ambiguous short peptides, peptides with a high ratio of missed cleavages and very low quality spectra.

In pandeyOlfatory.ppt we have included 43 spectra for from Pandey dataset:

**Slide 1 (top left to bottom right):**

AMYTFNHNKIISVLYTIIVPFFNPAYCLR, *OR6P1*  
AMCAALVGMAWLVS HVSHVSLLYILLMAR, *OR1K1*  
KKAFFSTCSSHMIVVSISYSSCIFMYIK, *OR6C75*  
SISLAGCGTQIFFYVSLGAEFCFLAVMAYDR, *OR2M4*  
SNSLDHFYCDRGQLLK, *OR9A2*  
TTVISHSYCEHMAIVK, *OR52A5*  
FCGPNHIDQFYCDFMLFVGLACSDPR, *OR11A1*  
TISYSECLTQMYFFLAFGNTDSYLLAAMAIDR, *OR1L1*  
MMQTFLFSTFAVTECLLLVMSYDLYVAICHPLR, *OR2A7*

**Slide 2:**

TISFAGCLLQTYFFHSLGASECYLLTAMAYDR, *OR6N2*  
FISFGGCLMQMYFMIALAKADSYTLAAMAYDR, *OR1A2*  
ALSTCSAHFMVVALFFGPCIFIYTRPDTSFSDIK, *OR4E2*  
VEENHTMKNEFILTGFTDHPELK, *OR5K2*  
NSENLTRA AVAPAEFVLLGITNRWDLR, *OR5C1*  
KKVSFSGCMVQMFISFAMGATECMILGTMALDR, *OR13C8*  
TSLAASVMYTMVTPMLNPFYISLRNKDMK, *OR7C2*  
SMLLVLPFPFTLR, *OR51A4*  
SPMYFFLAYLSFIDACYSSVNTPK *OR4C13*

**Slide 3:**

LISDLLAERK, *OR4X2*  
AAMFILTER, *OR56A3*  
LLADMVSK, *OR2T11*  
MLENFFSEDR, *OR5K4*  
MLENFFSENK, *OR5K1*  
FVAICHPLHYAK, *OR1M1*  
HLSPTPSEEHMK, *OR4A15*  
AGNLHSMIHVGLLLR, *OR5K4*  
YVAICKPLHYTIIMSR, *OR4P4*

**Slide 4:**

NLSVLDLCYISVTVPK, *OR14I1*  
FVAICHPLHYTVIMNPR, *OR7A17*  
EMPALIR, *OR2W3*  
MANHTGKLDLFILMGLFR, *OR2T5*  
YCDKNVINHFFCDLPPLK, *OR5I1*  
NNLTRVTEFILMGFMDHPK, *OR9I1*  
AVGIFNTVINPMLNPIIYSFR, *OR3A1*  
MTTGAFKAGNLHSMIHVGLLLR, *OR5K4*  
LHTPMYFLLSQLSLMDMMLVSTTVPK, *OR2T33*

**Slide 5:**

LQTPMYFFLR, *OR6C1*  
DLQAVGGK, *OR51E2*  
AMLSLLLTk, *OR51F1*  
LSFCASHIK, *OR1L4*  
YMAICKPLHELITMNR, *OR4A15*  
SYSIYKSTVNIPLSHGVVHSFCHNMNCNFMHIFK, *OR5T2*  
DKVAHPQR, *OR10G4*

Unfortunately the spectra we have included are only in low resolution as the website (<http://humanproteomemap.org/>) has been unavailable since at least the 25th of June, which means that it has been impossible to take a better quality screenshots. We will send better resolution versions as soon as the web site is available again.

In OR6J1.ppt we have include the 8 spectra from Kuster dataset referring to the *OR6J1* olfactory receptor mentioned in the paper.

MRAVLRSR  
MRAVLRSRSR  
EYLEINK  
YATICPLR  
VLANLGSR  
RMRAVLR  
EYLEINK  
NTDVQGVLRDWWVR

In KusterExtra.ppt we have included a selection of other OR-identifying spectra from the Kuster dataset. This is not an

SSAAMAK, *OR4K5*  
AVFDLSSK, *OR52I1*  
VFQSGQGMGIK, *OR52P1*  
QIQEGVIK, *OR52N2*  
EFKNALK, *OR6B3*  
NTDVQGALCQLLVGKR, *OR3A3*