Dear Sir,

We read with interest the analysis by Pan and colleagues, in which they conclude that, in the myotonic dystrophy protein kinase (DMPK) variable CTG repeat region, alleles of 18 or more repeat units are observed only in patients with non-obstructive azoospermia and not in controls (Pan et al., 2002).

We have previously performed an analysis on the size of the DMPK CTG repeat in 118 male partners of couples undergoing IVF. Forty-three couples had male factor infertility, 52 had female factors, three had both male and female indications and 20 had unexplained infertility. None of the male partners had idiopathic azoospermia.

The range of CTG repeat units elucidated in these 236 DMPK alleles was from 5–32 with a mean of 11 and median of 10. There were 15 males (12.7%) and 16 alleles (6.8%) found to carry a DMPK CTG of >18 repeat units of which 14 men had one allele >18 and one man had both alleles >18 repeat units. The range in these 16 larger alleles was 20–32 with an average CTG length of 23 and a median of 21. Thirteen of these 15 men had semen parameters defined as normozoospermic. Twelve couples underwent an IVF cycle with an average fertilization rate of 67% per couple. Three couples underwent ICSI, one for oligoasthenoteratozoospermia, one for obstructive azoospermia due to a previous vasectomy and one because few oocytes were collected. Within the total group there were six clinical pregnancies (40%) of which five (42%) were in the IVF group and one (33%) was in the ICSI group.

In the study published by Pan et al. (2002) the analysis was carried out on men with idiopathic azoospermia and in a control group of men with proven fertility. The men we studied were from infertile couples who presented for IVF and constitute a different population to that reported in the publication. However, seven of the 15 men who were found to have these larger normal DMPK CTG repeats had fathered previous pregnancies without the help of assisted conception.

Different ethnic groups are known to have different distribu-
tions of DMPK CTG repeat sizes (Davies et al., 1992; Imbert et al., 1993; Zerylnick et al., 1995). The prevalence of larger normal DMPK CTG repeats (19–37) is higher in the Caucasian population than generally found in the Chinese population. In the Taiwanese population this is stated to be 1.4% (Pan et al., 2001). Based on this low frequency, it is necessary to test more than the 47 control individuals used in the published study, to definitively exclude the presence of these larger CTG repeats. We would expect, and observed, a higher percentage of males carrying this larger allele in our Canadian, predominantly Caucasian, population. However, as none of these males had idiopathic azoospermia and almost half of them had proven fertility, the suggestion that there is a correlation between idiopathic azoospermia and larger normal DMPK CTG repeats does not seem applicable in our study group. It could be that, in general, azoospermic men have larger CTG repeat units at the DMPK locus but, unlike the suggestion made by Pan and colleagues (2002), these larger repeats are not exclusive to this group and are also found in normozoospermic men. Therefore, the statement that the genetic defects associated with azoosperma could be linked to triplet repeat instability is unlikely to be valid, at least at the DMPK locus.

References

N.L. Dean1, S.J. Phillips, P. Chan, S.L. Tan and A. Ao
McGill Reproductive Centre, Royal Victoria Hospital, 687 Pine Ave West F6.58, Montreal, Quebec, H3A 1A1 Canada

1To whom correspondence should be addressed.
E-mail: nicola.dean@muhc.mcgill.ca