Package ‘allelic’

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Title A fast, unbiased and exact allelic exact test

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Description This is the implementation in R+C of a new association test described in ‘‘A fast, unbiased and exact allelic exact test for case-control association studies’’ (Submitted). It appears that in most cases the classical chi-square test used for testing for allelic association on genotype data is biased. Our test is unbiased, exact but fast throught careful optimization.

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R topics documented:

allelic.exact.test 1

Index **3**

`allelic.exact.test` *Fast Unbiased Exact Allelic Test*

Description

This is the implementation in R+C of a new association test described in "A fast, unbiased and exact allelic exact test for case-control association studies" (Submitted). It appears that in most cases the classical chi-square test used for testing for allelic association on genotype data is biased. Our test is unbiased, exact but fast throught careful optimization.

Usage

```
allelic.exact.test(d0,d1,d2,h0,h1,h2)
```

Arguments

Takes the 2x3 contingency table on which to compute the test

	aa	aA	AA
[case (diseased)]	d0	d1	d2
[control(healthy)]	h0	h1	h2

	nb of first homozygous among cases
d1	nb of heterozygous among cases
d2	nb of second homozygous among cases
h0	nb of first homozygous among controls
h1	nb of heterozygous among controls
h2	nb of second homozygous among controls

Value

return the p-value of the test, or -1 if the sum of all cells in table is greater than TABLE_OF_LOG_FACTORIALS_SIZE, a C symbol defined in src/newallelic.c

See Also

chisq.test, fisher.test

Examples

```
allelic.exact.test(160,80,60,160,160,30)
```

Index

∗Topic **univar**
    allelic.exact.test, 1

allelic.exact.test, 1

chisq.test, *2*

fisher.test, *2*