

## **How Does Spearman's Coefficient Relate to Pearson's Coefficient?** **Bruce Ratner, Ph.D.**

The following example, using SAS®, illustrates the relationship between the two coefficients, thus providing a *hint* at the formal answer.

```
data test;
  do i=1 to 100;
    x=2+rannor(3456);
    y=x+rannor(2345);
    output;
  end;
run;

** Pearson correlation coefficients;
proc corr;
  var x y;
run;

** Spearman rank correlation coefficients;
proc corr spearman;
  var x y;
run;

proc rank data=test out=out;
  var x y;
run;

*** Pearson coefficient on ranks;
proc corr data=out;
  var x y;
run;
```