

## Juice Plus+ Research

by Dr. Carlos Madero, Ph.D.

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Every so often we hear from folks who have been told "everyone knows a study needs at least X subjects to be valid" and interestingly the X has ranged from 30 to 10,000!

Since sample size and p value are related, if you'd like detailed information on how sample size is determined for an investigation, Dr. Madero recommends this link to an on-line textbook: [http://www.statsoft.com/Textbook/Power-Analysis#power\\_doe3](http://www.statsoft.com/Textbook/Power-Analysis#power_doe3). This site provides an excellent explanation of this process. Note: there is no single "ideal" study size for all investigations. A power analysis is required as part of a grant application both to the NIH or from investigators requesting a research grant from the Juice Plus+ company.

In addition, please remember that Juice Plus+ is **nutrition** research rather than **drug** research. While there is much overlap for methods between these fields of investigation, Juice Plus+ is made from ingredients that have been present in the food supply for many years. Physicians and pharma reps are much more familiar with drug studies than nutrition studies. *Drugs are often molecules not common in the food supply, so they require extensive testing in cells, animals and humans to demonstrate both safety and efficacy, hence the large populations studied.*

**Dr. Carlos Madero** earned his Ph.D. in Food Sciences from Texas A&M University, his area of interest for both his Master's Thesis and his Ph.D. dissertation was biochemistry (enzymology specifically) as it applies to food quality. Dr. Madero has worked in the food industry, both in the fields of Quality, Research and Product Development.

*Dr. Madero is Director of Quality at the Juice Plus+ home office in Memphis, Tennessee. His responsibilities span from the quality of raw material procurement to the shipping of the finished product to our customers. He oversees all the outside certification processes, regulatory compliance, formula documentation and he also provides technical support to our Customer Care and Business Support Departments.*