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<http://www.pcdunham.net/Index.html>

August 3, 2008

Proposal to Board of Directors

Upgrading DNA tests from 12 to 25 markers

Our DNA testing program has had 55 participants to date¹. The results of the testing have been very useful in assisting our genealogical research efforts. Table 2 below shows the distribution of testing by number of markers tested and by sub-groups.

Table 1. Distribution of DNA participants by markers tested and sub-groups

<i>Sub-group</i>	<i>12-markers</i>	<i>25-markers</i>	<i>37-marker</i>	<i>Total</i>
Dunham	10	6	5	21
Singletary-				
Dunham	8	8	4	20
Miscellaneous	<u>9</u>	<u>2</u>	<u>0</u>	<u>11</u>
Totals	<u>27</u>	<u>16</u>	<u>9</u>	<u>52</u>

One notes that slightly more than half (52%) were tested at the 12-marker level.

When our testing program was initiated the testing organization recommended initiating the testing at the 12-marker level and then upgrading later if necessary or desirable. We adopted this recommendation.

I am now recommending 25-markers as the beginning level for our testing. The 12-markers, in essence, merely confirm that one probably is a member of the group. Looking at all those who are reported by the testing organization as having exact matches with persons in our test groups, one notes that there are many individuals included with other surnames who obviously are not recently related (although if you went back far enough there might be some relationship).

If the number of markers is increased, greater refinement in the results is possible. When I last looked at my own test results, I had exact matches with 179 individuals [Most of

¹ Two of the 55 did not submit samples; one is still in testing stage.

these are other surnames.]. At the 25-marker level the number of exact matches was 26 and at the 37-marker level there were only 5. I cannot tell the percentage of my exact matches at any level with the entire numbers tested at the level because the latter number is not known.

As we test at the higher number of markers we begin to be able to observe additional mutations. In general, if there are 1 or 2 mutations a relationship may still exist but if the number of mutations goes beyond 2, there probably is not a relationship. These facts help to indicate research that is looking in wrong directions.

The current cost for upgrading from 12-markers to 25-markers is \$49. It would cost \$1,323 to upgrade the 27 participants who have only tested at the 12-marker level to 25-markers. I feel it is important to our genealogical research to undertake these upgrades.

PROPOSAL

- 1. The Board of Directors authorize a program to upgrade participants who have only been tested at the 12-marker level to at least the 25-marker level.**
- 2. I would recommend that Gratia and I (or some other persons with persuasive powers) communicate with each individual and urge the upgrade to the 25-marker level minimally. Since in some instances this may prove to be financially impossible for the individual to undertake, I recommend the Board underwrite the efforts in necessary instances. We might also be able to find some contributors and I suggest utilizing the funds from NDFA for this purpose.**
- 3. I have already modified the web page testing information suggesting the testing begin at the 25 marker level. Does the board need to make this a policy item?**
- 4. I would like to have an item in an upcoming newsletter as soon as possible about such changes, if adopted.**