



**PRELIMINARY REPORT REGARDING SEROLOGICAL
TESTING, INVOLVING BLOOD TYPES AND BLOOD MARKERS,
IN DAVID BRYSON CASE**

I. For the determination of the ABO Secretor status of an individual there are 2 tests: the Lewis test performed on the blood sample & the absorption inhibition (A/I) test performed on the saliva sample. In this case Ms. Gilchrist conducted Lewis typing and A/I typing on Ms. Taylor, Mr. Kalina, and Mr. Bryson. From a review of the notes the results appear to be correct as reported. There is not however, any indication that Lewis typing was conducted on Thomas or Katherine Kuritz. A/I testing on the saliva samples indicates that Thomas Kuritz is a B Secretor but Katherine Kuritz is a non secretor. This is inconsistent with Ms. Gilchrist's reported Lewis result (a-b+) for Katherine Kuritz. It is also inconsistent with Ms. Gilchrist's report of Katherine Kuritz's type as O secretor.

II. The P30 assay is a semen specific assay to determine the concentration of semen in an evidence extract to help with the interpretation of A/I results. Ms. Gilchrist performed the P30 assay on evidence items in this case.

III. Vaginal Aspirate, Swabs & Rectal Swab.

On 10-18-82 Ms. Gilchrist conducted the absorption inhibition test on these items and found that no secreted B antigen, consistent with Mr. Bryson, was found. The notes indicate however, that the positive control was not working correctly. The test was repeated the next day and again the positive control was not working correctly. These tests were not repeated even though a A/I test was conducted on 1-25-83 with correct positive controls. Therefore, based on the results, no conclusion should be drawn regarding the ABO & secretor status of the semen donor.

However, assuming that the results on the evidence are correct, several inconsistencies in Ms. Gilchrist's interpretation are apparent:

1) A review of Ms. Gilchrist's notes regarding the P30 assay reveals that there was a high level of semen on the Cervical Swab sufficient for a B blood type to have been detected, if it existed. This strongly indicates that David Bryson was excluded as being a contributor of the semen found in the vagina of Theresa Taylor.

2) While there is predominantly H antigen on the Cervical Swab, consistent with the victim, there are indications of A antigen on the Vaginal Aspirate and Rectal Swab. The presence of A antigen is inconsistent with either Theresa Taylor or David Bryson. In light of the presence of A antigen on the Pipe this should have been explored further.

3) The absorption elution (A/E) test is more sensitive and is used for detecting small amounts of the ABO blood group substances which are found in non-secretors and also in dilute stains from secretors. The absorption elution test is prone to false positive results due to "wash reactions". Ms. Gilchrist's notes show only '+' and '-' scoring instead of the customary 1 to 4 scoring of agglutination intensity which she used in the absorption inhibition test. Her absorption elution test results show weak positive results for the B antigen on 3 of the 4 swabs and a 'REPEAT' note appears on the bottom of the page of her notes. It does not appear that a repeat test was conducted. Even if the A/E test was correct the combined results of P30, A/I and A/E on the Cervical Swab would indicate a B non-secretor which would exclude Mr. Bryson.

IV. The Robe.

There are 2 semen stains (labeled Q1 & Q2) on the Robe that are the result of vaginal drainage. The P30 assay on Q1 showed the same high level of semen as found on the Cervical Swab and again gave test results by A/I of only H antigen but no B antigen. Stain Q2 however contained a lower level of semen by P30 assay but by A/I gave test results of clear B and H antigens. This is strong evidence that there are probably 2 semen donors on the Robe. Again if Katherine Kuritz, the owner of the robe, is in fact a non-secretor, then she could not be a contributor to the Q1 semen stain. That would mean that stain Q1 came from Ms. Taylor and based on the P30 and A/I results, Mr. Bryson is excluded. The B antigen obtained by A/E could have come from the background of the robe and therefore from Thomas Kuritz. Ms. Gilchrist failed to run a substrate or background control from the robe as she was taught in my laboratory at Serological Research Institute in California.

V. Conclusions.

Ms. Gilchrist's conclusions as stated in her report of 1-28-03 are badly written at best but in fact are totally misleading as follows:

1) The results from the vaginal aspirate, vaginal and rectal swabs together with both stains from the robe are combined by Ms. Gilchrist to conclude that the semen donor on all items is a B Secretor "and the semen could have originated from Bryson." Of all the items and stains only one could be from a B Secretor (ie. Q2 on the Robe) and that semen could have originated from Thomas Kuritz. That fact does not get reported until 2 paragraphs later and then in a discussion about PGM.

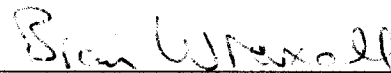
2) No mention is made of the different A/I results between the 2 stains on the robe. They are lumped together as "semen stains."

3) Statements are made on 2 occasions in the conclusions that all four individuals (ie Ms. Taylor, Mr. Bryson and Mr. & Mrs. Kuritz) are all the same PGM type (2-1) and "therefore, no conclusion as to the PGM type of the semen donor can be drawn." This is wrong for 3 reasons:

- a) The PGM types are all type 1, not 2-1, as the photograph of the results clearly shows.
- b) The conclusion gives the impression that a PGM result was obtained when it was not, and
- c) If a PGM test is completed on the evidence items and a type other than that of the four individuals is obtained, then Mr. Bryson would be excluded as the semen donor. It is a totally false premise that in sexual assault cases, conducting PGM tests where the victim and suspect are the same type will not give usable results. This presumes that the suspect is the semen donor.

In summary it is clear that the analysis and report by Ms. Gilchrist is incomplete and misleading. It is also clear that she should have seen that Mr. Bryson was excluded as the semen donor on the Cervical Swab and on the Q1 stain on the Robe.

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