

# Battelle-Institut e.V.

FRANKFURT (MAIN) · W. 13 · WIESBADENER STRASSE

POSTANSCHRIFT: FRANKFURT (MAIN), POSTFACH 1337

**LABORATORIEN:**

COLUMBUS  
FRANKFURT  
GENÈVE  
BOROS  
COLUMBUS  
FRANKFURT  
GENÈVE  
LONDON  
MADRID  
PARIS

Dr. D. G. Felton  
Research and Development  
Establishment  
British-American Tobacco  
Company Ltd.

Verwaltungsbüro  
DUISBURG  
KÖLN

Regent's Park Road  
Southampton  
England

Research & Development

Rcvd: 18 NOV 1966

Ack.:

Seen by:

File:

*WFA*  
*CIA*

IM ZICHEN:

IM NACHRICHT:

UNSER ZICHEN:

DATUM:

101-11/GKÜ/kve/sos 15th November, 1966

Dear Dr. Felton,

I wish to thank you very much for the kind reception in Southampton.

I have once again discussed the questions of the preparation of condensate for the toxicity trial (for experiment B2), with Dr. Miedreich and Dr. Kiendl. Since the number of cigarettes is too small for the method applied in experiments B0 and B1 (on each smoking day about 200 cigarettes should be smoked in order to determine the yield of dry condensate), it was agreed with Dr. Ayres to evaporate the whole crude condensate in order to obtain dry condensate, and to prepare the painting solution on the basis of this dry condensate. This is the same procedure as that applied for the preparation of the painting solution for the hyperplasia tests.

In Southampton we also discussed the extremely high mortality provoked by experiment B1 (10 ml puff volume), and came unanimously to the conclusion that this effect cannot solely be attributed to differences in the nicotine content. In the next few days Dr. Miedreich will send you a compilation of all analytical data of the different condensates, from which you will see that the individual puff volumes do not show substantial differences in the nicotine content per dose.

In the toxicity trial (for experiment B2) only two animals have died so far (28th October and 5th November, 1966) instead of three, as I told you by mistake. Both belong to group D (50 mg dry condensate).

I have informed Dr. Hofmann that the cigarettes for the December hyperplasia test will be dispatched by the middle of November.

Attached please find a copy of my letter to A.S.L. Farm stating the most important points concerning the test animals which I discussed with Mr. N. Edwards.

Yours sincerely,  
BATTELLE-INSTITUT E.V.,  
Biology Department,  
*Königsmann*  
Dr. G. Königsmann

Enclosure

TELEGRAMM-ANSCHRIFT:  
BATTELLE FRANKFURT/MAIN

DRESDNER BANK AG  
KONTO NR. 11 2878

DEUTSCHE BANK AG  
KONTO NR. 11348

FRANKFURTER BANK  
KONTO NR. 200

FERNSCHREIBER  
0411946

FERNFISCHER  
SAMMEL-NR. 77001

GESCHÄFTSZEIT: MONTAG · FREITAG 8,00-17,00 UHR

105610462

Research & Development	5-5104-10/GKÖ/sos
Recd: 18 NOV 1966	Barnick/Pfeilschifter
Ack.:	Miedreich
Seen by:	Eder
	Kiendl
	Hofmann
	Königsmann (2)
	London files
	Reg. (2)

Norman Edwards, Esq. File: .....  
 Animal Suppliers Ltd.

685 High Road  
 N. Finchley  
 London, N. 12  
 E n g l a n d

101-11/GKÖ/sos/kve 15th November, 1966

Dear Mr. Edwards,

During my visit to Roebuck Farm on 3rd November, 1966, the following points were discussed:

- 1) Both the monthly supply of 250 mice (Dr. Hofmann) and the quarterly supply of 950 mice (Dr. Miedreich) will be delivered in future at the beginning of a week.
- 2) All consignments will be accompanied by a certificate of origin.
- 3) The 250 mice to be supplied monthly (Dr. Hofmann) will in future be 50 to 60 days old. The age will be marked on the boxes.
- 4) An increase in the quarterly supply (Dr. Miedreich) from 950 to 1000 or 1050 mice is possible. At the beginning of December we shall need 1000 female mice aged 4 weeks - 3 or 4 days; please see to it that they are delivered under consideration of items 1) and 2).
- 5) In order to permit the causes of the difficulties due to the change of food (diarrhea) to be determined, Roebuck Farm has promised to submit to Battelle-Institut as soon as possible a compilation of the constituents of the sterile diet administered there, which are guaranteed by the food manufacturer.
- 6) ASL Farm guarantees general veterinary attendance to the animals and bacteriological examination every 4 to 6 weeks by dissection.

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Norman Edwards, Esq.  
London, N. 12

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15th Nov., 1966

- 7) The hygienic measures (change of outerwear, immersion bath for hands and footwear, chemical disinfection of the cages) using Zicodet (Alan Glasby & Company Ltd.) are regarded as satisfactory for our purposes. Only the effectiveness of the disinfectant, but not its composition is known.

The discussion of the above points was followed by an inspection of the ASL Farm. Obviously, everything is done to supply healthy animals, to keep the strains appropriate and modern, and to extend the plant in this direction.

I wish to thank you for the open-minded discussion of the problems raised by me and for the kind reception was given at Reebuck Farm.

Yours sincerely,  
BATTELLE-INSTITUT E.V.,  
Biology Department,

*Königsmann*

Dr. G. Königsmann


105610464

# Battelle-Institut e.V.

FRANKFURT (MAIN) · W. 13 · WIESBADENER STRASSE  
 POSTANSCHRIFT: FRANKFURT (MAIN), POSTFACH 1337

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 LONDON  
 MADRID  
 PARIS  
 VERBANDSGEMEINSCHAFT  
 GÖTTINGEN  
 BREMEN

Dr. D. G. Felton  
 Research and Development  
 Establishment  
 British-American Tobacco Co. Ltd.  
 Regent's Park Road  
 Southampton/England

Research & Development  
 Rcvd: 18 NOV 1966  


*Handwritten:*  
 - WAT  
 MA

HR ZEICHEN:

HRNACHRICHT:

UNSER ZEICHEN:

DATUM:

101-11/WM/sos

15th November, 1966

Dear Dr. Felton,

The following is a synopsis of the analytical data of smoke condensate from the B0 cigarettes. The condensate was produced with puff volumes of 10, 25, 35, and 50 ml, respectively, and the cigarettes were smoked to a buff length of 23 mm.

**A. Yield of Dry Condensate, Nicotine, and Tar per Cigarette<sup>1)</sup>**

Exp.	Puff Vol. ml	Dry Cond. mg	Nicotine mg	Tar mg	Ratio Tar/Nicotine
B1	10	11.64±0.71	1.01±0.07	6.05±0.38	6.00±0.56
B1	25	28.33±0.97	2.32±0.18	15.20±1.05	6.55±0.68
B0	35	33.51±0.51	2.74±0.08	18.63±0.48	6.80±0.26
B1	50	38.91±0.97	3.07±0.27	21.57±1.07	7.02±0.71

**B. Nicotine and Tar Content per Dose of Painting Solution (50 mg Dry Cond./0.3 ml)<sup>1)</sup>**

Exp.	Puff.Vol. ml	Nicotine mg	Tar mg	Number of dead mice <sup>2)</sup>
B1	10	4.34±0.40	25.99±2.27	61 of 264 (= 23.1 %)
B1	25	4.09±0.35	26.83±2.07	20 of 255 (= 7.9 %)
B0	35	4.09±0.13	27.80±0.83	20 of 277 (= 7.1 %)
B1	50	3.95±0.36	27.72±0.71	13 of 258 (= 5.0 %)

1) Mean value ± probable error of mean value.

2) Death caused by "nicotine poisoning" within the first 6 weeks of experiment, substitute mice included.

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GEMEINNÜTZIGE LABORATORIEN FÜR VERTRAGSFORSCHUNG

TELEGRAMM-ANSCHRIFT:  
 BATTELLE FRANKFURT/MAIN

DESSNER BANK AG  
 KONTO NR. 112871

DEUTSCHE BANK AG  
 KONTO NR. 11240

FRANKFURTER BANK  
 KONTO NR. 308

VERBANDSGEMEINSCHAFT  
 8011966

VERBANDSGEMEINSCHAFT  
 SAMMEL-NR. 77 87 81

GESCHÄFTSZEIT: MONTAG-FREITAG 8,00-17,00 UHR

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Battelle-Institut e.V.  
FRANKFURT/M-WIS

an Dr. D.G. Felton, Southampton

Blatt 2 zum Schreiben vom 15. 11. 1966

$\sqrt{\text{puff}}$  Apparently, the nicotine content of the painting solutions depends only slightly on the puff volume. The condensate produced with a  $\sqrt{\text{volume}}$  of 10 ml gives the painting solution with the highest nicotine content per dose. We do not think, however, that this is the real reason for the remarkably high mortality with the 10 ml condensate, because the differences in nicotine content are probably too small as to cause such a large difference in toxicity. It rather seems to us that the 10 ml condensate - perhaps due to the comparatively low temperature in the burning zone of the cigarette - contains substances which either have a nicotine-like effect or - more probable - promote the toxic effect of the nicotine. The fact that the post mortem diagnosis of animals killed by the 10 ml condensate is indiscriminately the same as observed with the other condensates is in our view a strong argument in favour of this hypothesis.

We would be very grateful if we could have your comments on this point.

With best regards.

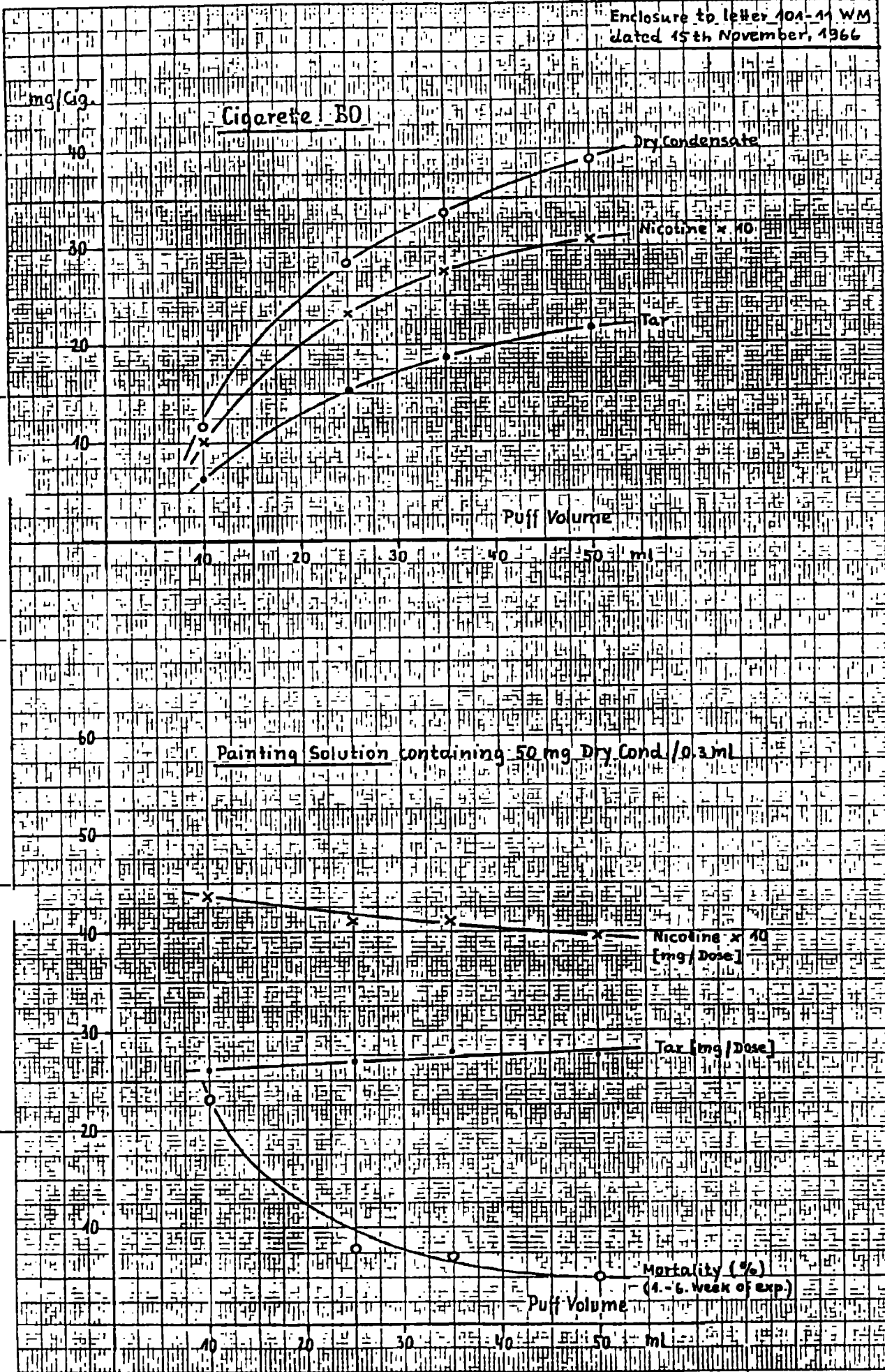
Yours sincerely,  
BATTELLE - INSTITUT E.V.  
Biology Department

*W. Miedreich*  
Dr. W. Miedreich

Enclosure

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Enclosure to letter 104-11 WM  
 Dated 15th November, 1966



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