

## LETTER TO THE EDITOR

INST. OSWALDO CRUZ,  
RIO DE JANEIRO.

Dear Sir,

In answer to the remarks of Prof. R. Chaussinand (Leprosy Review, 31 No. 4, October 1960, p. 308) I beg you the kindness to publish the following information. On 12th September, 1947, Dr. Chaussinand kindly gave me at the Institut Pasteur, Paris, two rat lepromas for my studies. From September 1947 to December 1948 I inoculated suspension of said lepromas in two batches of white rats in which the classical lesions appeared from six to twelve months. With the new lepromas, after various unsuccesses, I obtained in November and December 1948 two strains (I and II) of chromogenic cultures in Loewenstein medium, of pure a-f bacilli, which I passed to other rats, recovering retrocultures pathogenic for murines.

On 15th March, 1949, I inoculated suspension of Stefansky lepromas in ten black mice (*Mus musculus*, C-57 Rockland Farms, New City, N.Y., U.S.A.) which from 22 to 48 days incubation showed plaques of alopecia, musculocutaneous lesions and enlarged lymphnodes. From these black mice I obtained two non-chromogenic eugonic cultures of a-f bacilli (Strain III) from tumor of mice killed on 22nd day incubation and Strain IV from enlarged lymphnode of the last mouse died on 12th July (118th day incubation. These four a-f strains I presented at the 5th International Congress for Microbiology (meeting of 23rd August, 1950, presided over by the late Professor Sir Alexander Fleming), telling that all four were permanent acid-alcohol fast, fluorescent 2 plus, but the chromogenic negative to Dubos test for virulence and the non-chromogenic (III and IV) positive 2 plus. This fact was kindly confirmed by Professor P. Hauduroy. Dr. Chaussinand present at the meeting of 23rd August in Petropolis, gave a look to the cultures and said that they were "Para-tuberculous bacilli" (sic!). After the Congress I sent to Dr. Chaussinand samples of all four above strains, with the hope that he could confirm or not his suspicion. But he never wrote me any word on the subject. Now, in October 1960, after ten years, he says: "I have not changed my mind since then".

Dr. W. K. Stefansky published in 1903 as "Eine lepraenlich Erkrankung der Haut und der Lymphdruesen bei Wanderratten" (Centralb. f. Bakteriologie etc., Bd. 33, No. 7, 1903. Orig. Abt.) the disease of rats he discovered in Odessa, Russia, and confirmed in the same year in Germany and in England, and later on described all over the World as "Rat Leprosy". In 1948, being elapsed 45 years of the important discovery, Professor Chaussinand presented a paper at the National Academy of Medicine of Paris, telling that the





infection described by Stefansky was not leprosy, but paratuberculosis (Bull. A.N.M., Année 112, Tome 132, 1948, pp. 486-488).

If the strain of rat infection of Chaussinand's Laboratory is really "paratuberculosis", I should be congratulated for having got the above strains of a.a. fast bacilli. The great specialists in mycobacteria, Professor P. Hauduroy and Professor G. Penso affirm that it is very easy to isolate and cultivate acid-fast bacilli from such type of infection. Why then Dr. Chaussinand failed after ". . . the very numerous attempts at culture of the Stefansky bacillus . . . strain have never up to now resulted in the appearance of a culture of acid-alcohol-fast bacilli of any type"?

In July 1951, in the Van Deirse's Laboratory, Professor Hauduroy said to me that the name para-tuberculosis bacillus has no significance, what should be taken into consideration is the pathogenicity of the strain in cause.

Also Professor Giuseppe Penso says: ". . . la division des mycobactéries, en bacilles tuberculeux et en bacilles paratuberculeux, est une distinction fictive qui peut servir à de simples fins empiriques et conventionnelles, mais que n'a pas use base rationnellement scientifique". (In P. Hauduroy—Bacilles Tuberculeux et Paratuberculeux, Masson, 1950, p. 101).

The following characteristics of my a-f strains differentiate them from the so-called paratuberculous: All four cultures are permanent a.a. fast; show coccithrix form when strained by Fontes method; are fluorescent 2-plus; (the chromogenic I and II), "S" type are negative to cyto-chemical Dubos test for virulence; the non-chromogenic "R" type (III and IV) gave positive Dubos 2-plus. All four strains gave negative reaction with all nine phagi from the Instituto Superiore di Sanità of Rome, according to Dr. Vittorio Ortali, some of which do react with paratuberculous bacilli. The strain III used as antigen in Bordet-Gengou test carried out with bloods of 38 leprosy patients gave 69, 2% positivity.

Higher positivity (92%) was obtained with such bloods using as antigen the suspension of Stefansky leproma, the same strain obtained with Dr. Chaussinand. The subject merits larger scale of researches.

DR. H. C. DE SOUZA-ARAÚJO

(Note: We regret to report the sad news of the death of Dr. de Souza-Araujo this year in Brazil. This news was brought by Dr. E. Muir who visited Rio in August this year).