May 19, 1951

Dear Dr. Lederberg:

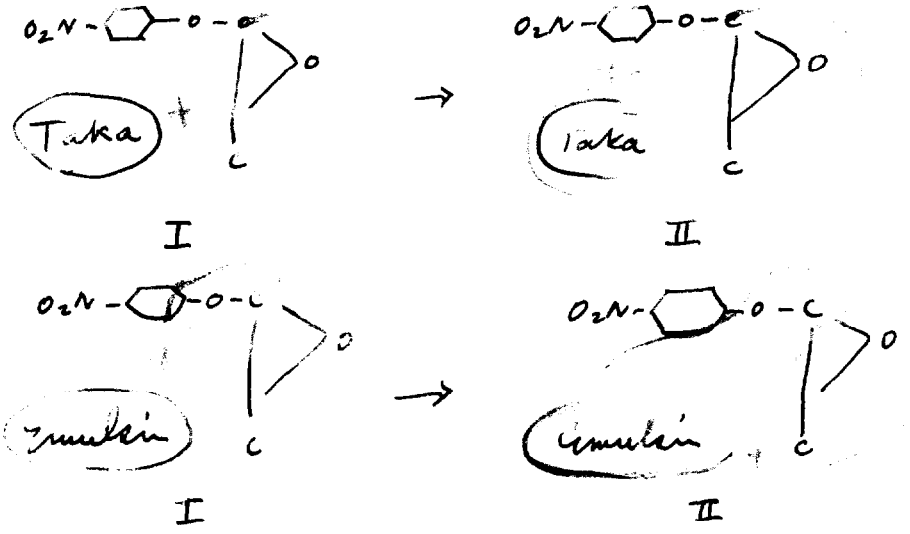
Your air letter (February 7, 1951) to Dr. K. Kobayashi arrived this department today. The letter was already opened. As the head of department, I write you this letter, because Dr. Kobayashi left this university four years ago and lives now in Nagano district as a clinical doctor. I am very glad to read that you use s-paranitrophenol nexoside for carbohydrase assey. I think also this compound is a good substrate.

Reports from this department are usually printed in the name of each researcher. They come here, work unter my guidance for two or three years and go away. This is the condition of the most institutes of this country, I am sorry.

I send you some papers of studies on carbohydrase. The reports after the war are writen in Japanese, because the "Journal of Biochemistry" was not issued since the war time. But this journal has been now re-issued and I intend to write a summary in it recently. I wish you ~~wate~~ waity for some time to let me to translate the content of the papers of Dr. Kobayashi.

If you allow me to summarise in a few sentences, our studies on carbohydrase (β-heteroxidase) are as follows.

β-Glucosidase, β-galactosidase and β-xilyrosidase are different enzymes from each other. Each enzyme can exsit in nature in two different types, Taka- and emulsin-type. Taka type has an affinity to sugar group, emulsin type on the other hand to β-glycoside bond. This is the first step of enzyme-substrate combination. In the primary enzyme-substrate compound occurs the second step combination between the affinity group of enzyme and substrate each other.



My hypothesis for specificity of β-heterosidase.

I send you also some papers of phosphatase etc. Reports after the war are also not in print.

Prof. P. Handler is now in this medical school as a member of conference of American-Japanese medical education. You would ~~pap~~ perhaps hear of the poor condition of my apartment. I can not express my thinks in good words, please pardon me.

Yours sincerely

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Medical school,
Chiba University