

## UNIVERSITY OF MINNESOTA

THE MEDICAL SCHOOL

MINNEAPOLIS 14

DEPARTMENT OF BACTERIOLOGY  
AND IMMUNOLOGY

March 12, 1957

Proddy

Dear Josh:

I have intended to write you sooner about the Hungarian article  
HORVÁTH, J., MARTON, M and OROSZLÁN, I. (1954)  
Vegetative Hybridisationversuche an Streptomyces.

Acta Microbiologica Acad. Sci. Hungaricae. II: 21-37.

The article apparently is based on the work of  
Kalina (1952) which is in Russian. *S. globosus* is  
used. Vegetative hybridisation means transformation  
à la Pneumococci but the paper does not support it.  
In fact the title becomes transformation-attempts  
in the Streptomyces. Horvath does quite a bit  
on the stability of the two strains - like much of  
the work in this country. The interesting part is  
that one strain is grown in the filtrate of  
another strain (the mycelium is ground with  
sand and sterilized by filtration). After  
a dozen passages, the original strain  
changes. Its pigment, antibiotic and other  
characteristics are said to become more  
like that of the strain yielding the  
filtrate — hence transformation.

I need not discuss the alternatives with  
you — selection, adaptation and contamination.  
There may be some transformation but there  
is not any evidence strongly presented.

The "transformed" strain is then quite stable - ruling out adaptation. The statement is made that the transformation goes rapidly once started - i.e. in the 11<sup>th</sup> passage the streptomycete is like its ancestor but in the 12<sup>th</sup> passage in the filtrate, the streptomycete converts immediately to the new type and is stable. Unquestionably this is interesting but in this paper was carried no further.

Howarth wrote for a reprint recently so I intend to write him about any current work or extensions of this publication.

Everything progresses normally here. With spring approaching we are beginning to think about some tree planting (evergreens). Last fall we planted some deciduous trees - I hope they survived the winter.

Best wishes to you & yours.

Gaylen.

We are all fine - except for an interlude of measles which John David, Phillip & Evelyn are only now recovering from. Don had them first. Lois seems to like the Twin City almost as much as Madison.