



1138 Elliott Street
Saskatoon, Saskatchewan
December 1969

Dear VH,

Greetings from Canada.

We "landed" early in August and are just now getting really settled at home and in the lab. It was only last week that the furniture we ordered last summer arrived. Our house is old but elegant, bought from the mayor! The best part is that it is located just across the street from the university. This enables us to have lunch with the children most of the time and to make use of our personal library of books and reprints that wouldn't fit into our office space at the university.

I finally received a faculty appointment as associate professor - though paid on a special development grant from the Medical Research Council (to improve research and graduate teaching in the area of developmental biology). Funds are available for two years. Do you have any suggestions as to other sources after that time?

Byron received a grant from the MRC so we can go ahead and order the remainder of the equipment that we need. He brought two graduate students with him from Kansas and is working with another from McGill.

We find the people here very friendly and extremely cooperative. There are many other Americans scattered throughout the university and a wide variety from almost every country in the world.

Hope to see you at the Growth Conference in June.

Sincerely,

Shaw & Byron

May '68

MEDICAL RESEARCH COUNCIL

REFEREE REPORT ON APPLICATION FOR GRANT

1. NAME OF APPLICANT: Byron Wenger

2. TITLE OF PROJECT AND/EQUIPMENT: A biochemical study of the crooked neck dwarf mutant in the domestic chicken and a comparison with experimentally produced phenocopies.

3. COMMENTS ON PROGRESS REPORT (IF APPLICABLE):

a) Does the report indicate the applicant is familiar with previous and current work by others in this area?

b) Does the report indicate that the work done is such as to advance knowledge in the field?

c) What are the specific contributions of this work?

d) Does this report give confidence that continued support of this project is justified?

Yes: At a higher level _____

At the same level _____

At a lower level _____

No:

e) Do the applicant's proposals constitute a reasonable continuation or extension of his current research program?

4. ASSESSMENT OF APPLICATION:

a) Does the applicant have the requisite training to carry out the proposed research? Yes

b) Is the applicant aware of the methodological and technical problems involved in the proposed research? Yes

c) Is the proposed work original or does it represent repetition of previous work?
The work is original (see under 5)

d) Is the proposed research likely to produce results which might justify the awarding of a grant? Yes

e) Are the funds requested reasonable? Yes

(over)

May '68

MEDICAL RESEARCH COUNCIL

5. GENERAL COMMENTS:

REFeree REPORT ON APPLICATION FOR GRANT

Name of Applicant: Byron Wenger

Title of Project: Anatomical study of the crooked neck dwarf infant in the domestic chicken and a comparison with experimentally produced phocomelia.

Summary of Project Report (if available):

1) Does the report indicate the applicant is familiar with previous and current work by others in this area?

2) Does the report indicate that the work done is such as to advance knowledge in the field?

3) What are the specific contributions of this work?

4) Does this report give confidence that continued support of this project is justified?

Yes: At a higher level _____

At the same level _____

At a lower level _____

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6. RECOMMENDATION:

a) Financial: full support

b) General: full support

1) Does the applicant have the technical training to carry out the proposed research? Yes

2) Is the applicant aware of the methodological and technical problems involved in the proposed research? Yes
The work is original (see under 2)

3) Is the proposed work original or does it represent repetition of previous work?

The work is original (see under 2)

Date: May 5, 1969

Signature of Referee

4) Are the funds requested reasonable? Yes

The applicant was my student, and I have followed his scientific career rather closely. He has had an excellent postdoctoral training in microchemical methods, and he has applied them to good advantage in his past work on the biochemical differentiation of the central nervous system. Since, in addition, he has an intimate knowledge of problems of embryonic differentiation, he has a distinct advantage over many others who work in biochemical embryology but are familiar only with one field or the other.

The importance of the project lies in the prospect that it will help to understand the genetic control of myopathies and of disturbances of chondrogenesis in higher organisms, including man. Modern molecular genetics derives most of its particular achievements from work on microorganisms. Experimental investigations of warm-blooded organisms are badly needed, and mutations which mimic genetic or metabolic errors in humans are the material of choice for such investigations. The choice of the crooked neck dwarf mutant in the chick is a good one, because there is a suspicion that embryonic inductions are involved. Their analysis requires embryonic transplantations which can be done on chick embryos but not in mammalian fetuses. A further advantage is that the phenocopy of the mutant syndrome by nicotinamide antagonists gives a lead as to the metabolic pathway which might be affected by the mutant gene. I think that is perfectly reasonable to begin with the exploration of differences between normal and mutant embryos with respect to enzymes implicated in the glycolytic pathways, because a) the experimentally reproducible myopathies (phenocopies) point in this direction, and b) Dr. Wenger is particularly familiar with these enzymes.

Dr. Wenger is a hard working and strongly motivated researcher. He has inspired and trained a number of students.

concerning the role of
genes in the development
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