

Forty-Fourth Session - November, 1957.

Dr. B. W. HOLLOWAY, Department of  
Bacteriology, University of Melbourne.

New Grant

Name Bruce William HOLLOWAY

Academic Record B.Sc. (Honours) Adelaide. Ph.D., Calif. Inst. Tech.

Contributions to literature,

1. "Nucleic Acid Content of Reticulocytes and its Relation to Uptake of Radioactive Leucine in Vitro". J. bio. Chem. 196
2. "Determination of Adenosine Triphosphate by Means of Phosphoglyceric Acid Kinase". Arch. Biochem. Biophys. 52, 1954.
3. "Genetic Control of Heterocaryosis in Neurospora crassa". Genetics 40, 1955.
4. "Genetic Recombination in Pseudomonas aeruginosa" J. gen. Microbiol. 13, 1955.
5. "Self-fertility in Pseudomonas aeruginosa" J. gen. Microbiol. 15, 1956.

Experience in the subject of research and research methods in general.

Ten years postgraduate research experience in Microbiology, including seven in Microbial Genetics.

Details of appointments at present held and the remuneration derived therefrom.

Senior Lecturer in Bacteriology, Melbourne University. £2,000

Subject of the Research, in detail, including estimated time it will take:-

Microbial Genetics with particular reference to the genetics of the bacterium Pseudomonas aeruginosa.

Work over the past four years has established the existence of a system of sexual recombination in P. aeruginosa. Extension of this work will take place in two directions - firstly, the nature of the fertility system involved and the mechanism of transfer of genetic material; secondly, the relationship of bacteriophage to these hereditary mechanisms. A suitable bacteriophage system has been isolated and studies on the inheritance of prophage already initiated. Further studies on these bacteriophages are also planned as they present certain unusual features.

The estimated time necessary for the completion of any preliminary work before the actual work for which the application is made can commence.

Work on this subject has been proceeding for four years, so no preliminary work is necessary.

Where will the work be carried out and what facilities are available?

Department of Bacteriology, University of Melbourne. All facilities available.

What expert control or help will be available if necessary?

Professor Joshua Lederberg, University of Wisconsin, (by correspondence)

Professor S.D. Rubbo, Department of Bacteriology, University of Melbourne.

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## Financial assistance:-

Total amount required per annum £1148

For what period Minimum of two years

## Graduate assistance

Pamela Ann Jennings, graduated B.Sc. 1955. Four years research experience pre-graduation (two years as graduate assistant on N.H.M.R.C. grant); two years postgraduate experience in bacterial genetics and bacterial viruses. - £948 p.a.

Apparatus, equipment, &c.	Centriguge	£75
	Media	£75
	Glassware and chemicals.	£50