

CHEMICAL CORPS BIOLOGICAL LABORATORIES

PS DIVISION

Biophysics Branch
Camp Detrick, Frederick, Maryland

8 January 1952

Dr. Joshua Lederburg
Department of Genetics
University of Wisconsin
Madison, Wisconsin

Dear Dr. Lederburg:

Dr. Braun told me recently that you had expressed an interest in a method developed here for preparing uniformly dispersed samples of particulate material.

The method is extremely simple and I believe of very wide applicability. One merely mixes the particles with a dilute protein solution. When a few microliters of this mixture are applied with a micropipette to a water surface the protein spreads to form an insoluble monolayer, and in so doing disperses the particles over the surface. The monolayer with its embedded particles can then be transferred to a glass slide for microscopic examination, to wire mesh screens for examination in the electron microscope, or to pieces of membrane filter for studies of the effects of irradiation, growth rates, and so forth. The transfer from the liquid to the solid surface is done by withdrawing the immersed plate through the air-liquid interface occupied by the film.

I do not know whether this provides the information that you need. A detailed description of procedure would be rather dull and it would be very much easier to demonstrate the technique to you if you are in this part of the world. If not, I shall certainly be happy to amplify this description.

With kind regards,

Yours sincerely,



J.B. BATEMAN
Chief, Biophysics Branch
PS Division

JBB:gmt