

Division of Physiology
Experimental Biology and
Medicine Institute

October 15, 1948

Dr. J. O. Lampen
Washington University School of Medicine
St. Louis, Missouri

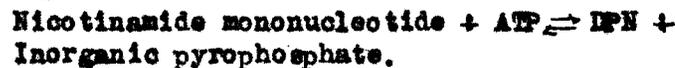
Dear Joe:

I was glad to get your letter and must apologize for delaying in answering it.

I wish I had some nicotinamide derivatives to send you, but unfortunately we're rather poor at the moment. The supply of nucleotide pyrophosphatase is almost gone and I'm waiting for the arrival of Maine potatoes in order to prepare some more. The mononucleotide is obtained, as you know, by DPN hydrolysis and freed from adenylic acid and any residual DPN by Hg and Pb fractionation. It has been used in solution and has not been dried to determine its purity. We've prepared the nucleoside by phosphatase action. There seems to be a specific but weak acid phosphatase (in prostate and potato) for this nucleotide which we've purified about 100-fold from potato extracts.

In rabbit brain where nucleosidase activity is high, the reaction seemed to be quite active on the mononucleoside as well as on DPN in a bicarbonate medium. It may be that there is nevertheless a phosphorylation of the nucleoside.

I've been having some fun with a reaction in yeast which goes like this:



The equilibrium constant is about 0.5. I wish you were nearby to discuss the possible relations of this to coupled phosphorylation.

Baranowski dropped by and told me about his crystal collection and some other St. Louis highlights. It made me lonesome for the place.

Best regards.

Arthur