Sebrell and his associates[2] have shown that folic acid, a component of the vitamin B-complex, is effective in preventing and curing the neutropenia produced in rats by feeding the insoluble sulfonamides. It has been suggested[3] that this effect is an indirect one, in the sense that the folic acid fed is required by the coliform bacteria in the intestine for the production of some accessory substance which in turn produces the granulocytic response. Fouts *et al.*[4] observed that dogs with a dietary deficiency of vitamin B_6 develop a microcytic hypochromic anemia which is not relieved by iron. It is well known that the anemia of pellagra and pernicious anemia is similarly unresponsive to iron. Since pyridoxine is a constituent of liver and yeast, both of which are effective in these disorders, Vilter, Schiro and Spies[5] administered pyridoxine intravenously to three pellagrins and two patients with pernicious anemia in relapse. Improvement was noted within 48 hours, and although there was only a 5 per cent. reticulocyte response, there was a striking increase in the leucocyte count, especially in the granulocytic series. Goldman and Malvados[6] report somewhat similar observations in bone marrow studies on three cases of Cooley's anemia when pyridoxine was used in association with pregnancy urine hormone. These findings led us to attempt the treatment of leucopenia and granulocytopenia using intravenously administered pyridoxine hydrochloride.

The material used was a 10 per cent. solution of pyridoxine hydrochloride in physiological sodium chloride. Three cases of agranulocytic angina were studied. The precipitating factor in the first instance was 4.0 grams sulfathiazole given over a period of 24 hours. In the second instance there was no medication apart from self-administered aspirin. The third case followed the use of thiouracil and developed about two months after this therapy for hyperthyroidism was instituted. A total of 13.5 grams of the drug had been taken.

In the first instance noted, leucopenia and granulocytopenia persisted despite repeated blood transfusions and pentose nucleotide in large doses. The second case received one blood transfusion without apparent effect. The third case received only pyridoxine. Pyridoxine hydrochloride was administered in doses of from 125 mgm to 200 mgm intravenously daily. The temperature in each case fell to normal limits and symptoms disappeared within 48 hours. This was associated with a leucocyte increase and the reappearance of granulocytes in the blood. Therapy was continued for from five to six days and blood examinations performed for varying periods thereafter. The findings at two-day intervals for the first ten days after commencing pyridoxine therapy are recorded in Table 1. A full report is in preparation and will be published elsewhere.

TABLE 1

Days after first dose of pyridoxine HCl	Case 1		Case 2		Case 3	
	W.B.C.	Gran. Per cent.	W.B.C.	Gran. Per cent.	W.B.C.	Gran. Per cent.
0	2,850	0	6,400	0	4,300	6
2	8,050	44	7,050	8	5,400	30
4	19,150	67	10,900	27	8,400	53
6	23,750	43	21,300	61	7,750	68
8	28,500	59	29,300	61	7,800	75
10	27,900	64	18,000	78	9,100	66

Our results suggest that pyridoxine hydrochloride administered intravenously is a useful agent for the treatment of agranulocytic angina of toxic origin. Its effectiveness in three instances arising as a result of toxicity due to three chemically unrelated drugs suggests that pyridoxine acts by direct stimulation of the myelocytic elements of the bone marrow.

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SUMMER UPWELLING—NORTHEAST COAST OF FLORIDA

DAILY surface water temperatures, taken for a number of years in connection with sea-level studies at U. S. Coast and Geodetic Survey primary tide stations, disclose an interesting anomaly in summer temperatures along the Florida northeast coast in the vicinity of Daytona Beach.

Southerly winds prevail in July and August, causing an offshore transport of surface water which is replaced by the colder subsurface waters of the Florida Current, the western edge of which is 25 nautical miles from shore at this latitude. That the water area thus cooled is comparatively extensive is indicated by the displacement of the air temperature-latitude curves for the months of July and August. By September the prevailing wind is northeast and the temperature of both surface water and air returns to normal for the latitude.

The full line curves in Fig. 1 show the mean monthly surface water temperatures for July, August and September, and are based on observations at Charleston, Savannah, Daytona, Miami and Key West. The light symbol shows the mean monthly surface water temperatures as observed at Diamond Shoal Light-

[2] S. S. Spicer, F. S. Daft, W. H. Sebrell and L. L. Ashburn, *Public Health Reports*, 57: 1559, 1942; F. S. Daft and W. H. Sebrell, *ibid.*, 58: 1542, 1943.
[3] Leading article, *Nut. Rev.*, 2: 103, 1944.
[4] P. J. Fouts, O. M. Helmer and S. Lepkovsky and T. H. Jukes, *Jour. Nutrition*, 16: 197, 1938.
[5] R. W. Vilter, H. S. Schiro and T. D. Spies, *Nature*, 145: 388, 1940.
[6] L. M. Goldman and A. Malvados, *Jour. Clin. Endocrin.*, 1: 945, 1941.

ship. The broken line curves are the mean monthly air temperatures for the 20-year period, 1923 to 1942, based on observations at 17 well-distributed U. S. Weather Bureau stations on the coast. Arrows give the prevailing wind directions as derived from the Pilot Charts issued by the U. S. Hydrographic Office.

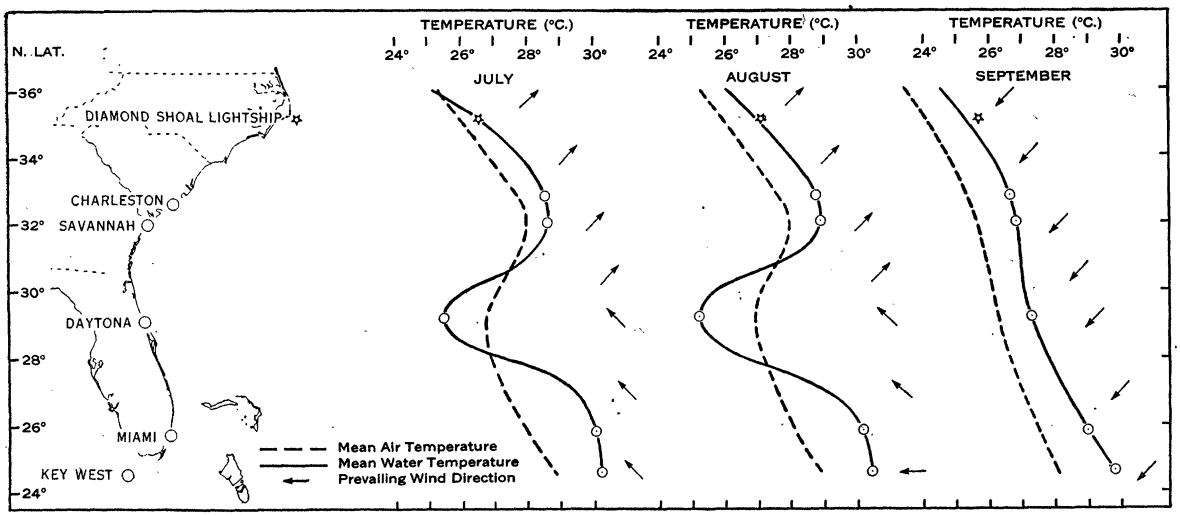

FIG. 1. Relation of water and air temperatures to prevailing direction of wind, southeastern coast of the United States.

A detailed investigation, including relations with annual changes in coastal currents, sea level and density, is contemplated after the war.

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U. S. COAST AND GEODETIC SURVEY

TRANSLITERATION OF RUSSIAN NAMES

FROM his recent letter in SCIENCE[1] it would appear that Dr. Kosolapoff has misunderstood the purport of my note,[2] in which it was suggested that, since the Russian Academy of Sciences has already devised a method of transliteration of Russian names, it would be advisable for all countries to comply with it, irrespective of whether or not this standard transliteration conforms phonetically to the letters of any particular language. Russian words transcribed according to this method should therefore be treated in the same way as words written in any other language using the Latin alphabet, without attempting to adapt their spelling to the phonetics of the user's language.

The question of phonetics is quite independent of transliteration and, therefore, irrelevant to the point under discussion. It concerns only students of languages but not readers who merely desire to substitute Russian characters by some universally recognized Latin equivalents. While such students might use some method of adaptation of Russian sounds to their own language, persons of the latter category could not do better than employ the standard method authorized and used by the Russian Academy, as outlined in my previous note.

For the phonetic representation of Russian letters, it would be preferable to use the script of the International Phonetic Association, which is of universal application, and not the system employed by the *Chemical Abstracts,* as advocated by Dr. Kosolapoff. The latter has the disadvantage of being restricted to the English language, and, moreover, it is out of date, since it is based on the archaic Russian orthography which has been discarded a quarter of a century ago in favor of the orthography set forth in my previous note.

Incidentally, it would be interesting to know which system of transliteration is employed in Dr. Kosolapoff's note for Czech, which is rendered twice as "Chech." Since the first two and the last two letters have different sounds, it is difficult to understand why the same symbols have been employed in both cases.

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ON THE OCCURRENCE OF ANOPHELES PESSOAI IN TRINIDAD, B. W. I.

ON October 22, 1943, a routine collection of anopheline larvae was brought to the laboratory for identification. The larvae were not those of any anopheline species reported for Trinidad or the West Indies. Study of the imagines after emergence identified them as *Anopheles* (*Nyssorhynchus*) *pessôai* Galvão and Lane. Study of the male terminalia confirmed the identification. Adults and larvae have been found in varying numbers since that time.

This species is found in the northern part of South

[1] June 16, 1944, p. 491.
[2] SCIENCE, April 21, 1944, p. 321.