test in rabbits indicate that the ability of trypsin, when injected intracutaneously, to cause a localization of the intravenously injected dye at the injection site, probably depends upon a local liberation of histamine from the skin and the consequent increased capillary permeability which this agent causes.[7] While observing these trypan blue reactions it was noted that adequate concentrations of trypsin digested the skin at the injection site, but that a marked dye localization always preceded the digestion. Also, it was found that weak concentrations of enzyme could produce definite localization of dye without subsequent digestion. These observations suggest that the local liberation of histamine is primary to, and possibly essential for, the ensuing digestion. To test this hypothesis, it was found that the concomitant injection of histamine with trypsin increased the amount of local digestion produced by the latter and would enable otherwise ineffective concentrations of enzyme to produce digestion. The histamine concentrations used did not cause any necrosis when injected alone.

The vitality of organized tissue is closely dependent upon the integrity of its vascular supply. Histamine is a potent angiotoxic agent, producing both marked contraction of arterioles and marked dilatation with increased permeability of capillaries. Thus trypsin releases an agent capable of embarrassing the vitality of tissues which depend upon a vascular supply. Its ability to digest organized tissue would appear to be conditioned by its ability to produce initially a sufficient degree of tissue injury to cause the cells to lose their specific insusceptibility to digestion. Free living cells (bacteria, etc.) are not injured by histamine (even if it is released from them) because its cytotoxic action is weak and there is no vascular system through which injury can be produced indirectly. Thus, while these observations do not explain the nature of the insusceptibility of living cells to tryptic digestion, they suggest an explanation for the ability of trypsin to digest organized tissue which obviates the alternative necessity of assuming that there is a fundamental difference in the protoplasm of the two types of tissues.

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VITAMIN C IN EVERGREEN-TREE NEEDLES

IN his special report to SCIENCE[1] on the work of Soviet botanists, B. Shishkin says, in part, "Quite recently it was discovered that needles of ordinary pine trees contain large quantities of vitamin C. Biochemists in Moscow and Leningrad have organized mass production of vitamin C concentrate from pine needles. Despite the fact that the percentage of vitamin contained in needles is very small, this source of vitamin C is of particular value to us on account of the huge pine forests throughout the whole territory of the Soviet Union. . . ."

This report reminded me of the following account by Parkman in his book, "Pioneers of France in the New World":[2] "A malignant scurvy broke out among them. Man after man went down before the hideous disease, till twenty-five were dead, and only three or four were left in health. . . . Cartier, walking one day near the river, met an Indian, who not long before had been prostrate like many of his fellows with the scurvy, but who now, to all appearance, was in high health and spirits. What agency had wrought this marvellous recovery? According to the Indian, it was a certain evergreen, called by him *ameda,* of which a decoction of the leaves was sovereign against the disease. The experiment was tried. The sick men drank copiously of the healing draught,—so copiously indeed that in six days they drank a tree as large as a French oak. Thus vigorously assailed, the distemper relaxed its hold, and health and hope began to revisit the hapless company." Parkman gives the opinion in a footnote that "The wonderful tree seems to have been a spruce."

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TRANSLITERATION OF RUSSIAN NAMES

THE recent communications of Knight[1] and Hrdlička[2] contained pertinent comments on the problem of representing Russian names and titles in American journals. It was a surprise to me, however, that neither referred to the Library of Congress catalogue rules for transliteration. As American scientists are becoming increasingly familiar with Slavic literature it would seem worth while calling attention to this method of transliteration with one or two comments on its use.

It has been my experience in studying translations, maps, gazeteers and catalogues of Russian work that a number of different systems are used which vary more or less from one another. The principal cause of transliteration confusion (particularly on maps and in library catalogues) is the fact that every one uses a different method. The worst system now in use would be the best one if it was employed by every one; *e.g.,* the Russian Я (pronounced *ja,* like

[7] M. Rocha e Silva and C. A. Dragstedt, *Jour. Pharm. and Exp. Therap.,* 73: 405, 1941.

[1] SCIENCE, April 16, 1943, pp. 354–355.

[2] Francis Parkman, "Pioneers of France in the New World," 17th ed., pp. 194–195. Boston: Little, Brown and Company, 1880.

[1] SCIENCE, April 30, 1943.

[2] SCIENCE, March 12, 1943.