nutritionist to make is that 2 $\mu\text{g.}$ of carotene is required to supply in an ordinary diet the equivalent of 1 i.u. of vitamin A. This, incidentally, is a highly practical question and not an academic matter of figure manipulation. If a daily intake of 2,500 i.u. is required and 500 of these are supplied as preformed vitamin A, the amount of carotene needed in addition will be either 1,200 $\mu\text{g.}$ or 4,000 $\mu\text{g.}$ per day, according as we take 0.6 $\mu\text{g.}$ or 2 $\mu\text{g.}$ to be equivalent to 1 i.u. This, according to "Nutritive Values of War-Time Foods," represents the difference between 12 and 40 g. of fresh summer carrots or between 3 and 10 oz. (85 and 284 ml.) of liquid summer milk.

Incidentally, the Medical Research Council War Memorandum No. 14, to which I refer above, contained on p. 4 of the original edition an unfortunate printer's error, whereby it is stated that 1 i.u. has, by definition, the potency of 0.06 $\mu\text{g.}$ of β -carotene; this was subsequently corrected by an erratum slip to the correct figure of 0.6. I would, however, again emphasize that this equivalence is a matter of definition applying to certain specified laboratory conditions and that for practical purposes the biological activity of carotene so defined has to be divided by 3 or 4.—I am, etc.,

London, N.W.3.

A. L. BACHARACH.

Duodenal Ulcer and Priority Foods

SIR,—I think Dr. A. H. Morley (Nov. 8, p. 745) is a little hard on his patients. While the milk ration for children remains so small, who knows what pressure is brought to bear on father to cultivate his gastric symptoms? I believe that gastric sufferers are given milk and eggs as it is assumed they are unable to eat meat. If the issue of milk certificates automatically cancelled meat and bacon rations it would cause no hardship to genuine sufferers and discourage others from renewing priorities unnecessarily.—I am, etc.,

E. Molesey, Surrey.

E. M. COLLINS.

Belladonna Poisoning

SIR,—When it was my privilege—many years ago—to work under the late Dr. Hughlings Jackson at the London Hospital as his house-physician, several cases were contacted in which it was difficult to decide whether the patient was suffering from post-epileptic delirium or belladonna poisoning. Dr. Hughlings Jackson advised that in such cases of doubt a few drops of the patient's urine should be instilled into the eye of a cat, which is extremely sensitive to the drug. This was done; and on several occasions both then and since this procedure, by causing rapid dilatation of the cat's pupil, has proved valuable in determining the diagnosis. This simple help may not be generally known.—I am, etc.,

Manchester.

WILLIAM COATES.

SIR,—I was interested in the case of belladonna poisoning reported by Drs. M. Hamilton and A. B. Sclare (Oct. 18, p. 611) because I am surprised such cases are rare, but chiefly because I suspect the aetiology of the reported case may have been similar to a "near miss" of my own. At all events such cases may serve as a timely warning to Service M.O.s, particularly the more recent entrants.

The incident which prompts me to write this occurred when I had been in the R.A.F. only a month or so. I had under my care an airman with symptoms of peptic ulceration, and ordered for him, in writing, a mixture of magnesium trisilicate (stock) to which should be added 10 min. (0.6 ml.) of tincture of belladonna per dose. The dispensing of this I left in the hands of an orderly. When I came to check the final mixture (which I may have neglected to do) I discovered that liquid extract of belladonna had been added instead of the tincture. Fortunately the patient did not receive any, but two points were brought home to me. First, it is unwise (and, as I later discovered, contrary to Air Force Regulations) to allow inexperienced and unskilled, albeit "keen," orderlies to carry out even simple dispensing. Personal dispensing will benefit both the patient and the half-forgotten pharmacology of the doctor. Secondly, of the tinctures commonly used in civilian practice many are replaced in the Services, presumably for reasons of economy, by liquid extracts with their lower maximum doses.—I am, etc.,

R. L. G., R.A.F.V.R.

Genetics and Science in the U.S.S.R.

SIR,—After the self-righteous indignation of the leading article entitled "Ourselves and the Russians" (Aug. 30, p. 339) I was surprised at the crude attack on Soviet science and scientists printed under the title "Genetics and Science in the U.S.S.R." (Oct. 18, p. 616). I do not wish to discuss the scientific pros and cons of the Soviet genetics controversy, but the totally inadequate account given in your article suggests that its author is either extraordinarily ill informed or determined not to do the matter justice. Up to the present one has been inclined to take the more charitable view that your reviewers of Soviet medicine tend to be but poorly briefed. An example is the surprising ignorance of your annotator who thought fit to review work on spinal pumping (July 12, p. 62) though unaware of the existence of an English translation of Speransky's work for no less than twelve years.

In the present case, however, this conclusion is hardly possible. Though no less than five and a half columns were lavished upon the article, a little under one and a half was devoted to an inadequate account of the scientific controversy, and the rest to a vicious attack on Soviet scientific honesty, with a lengthy and slavish reproduction of the totally unfounded allegations of Darlington. It is necessary to state most emphatically that there is not a shred of evidence produced by Darlington or anyone else to suggest either that the death of Vavilov was due to other than natural causes or that he or any other geneticist was at any time under detention. Not only is there no word of truth in these allegations, but those who made them had ample evidence to the contrary before them when they wrote. The monograph of Hudson and Richens to which you pay such tribute contains conclusive proof of the existence and active work of a large Mendelian school in the U.S.S.R. enjoying the full support of the Soviet Government. Furthermore, Zhebrak, the leader of this school, far from being subjected to a "heresy hunt" as you would have us believe, was in May of this year elected president of the Byelo-Russian Academy of Science and is head of the Moscow Agricultural Academy.

One is therefore forced to the conclusion that your article is nothing more than an attempt to blacken Soviet science and is inspired by a determined hostility which readily accepts any scurrilous fable without asking for proof, while at the same time ignoring facts that do not suit your book. In fact the criticisms of Radbil (*Meditsinsky Rabotnik*, July 3, 1947) do not now seem to be so wide of the mark. Nor is it sufficient, in order to protest your innocence, to produce a list of articles by Soviet authors which have appeared in the *B.M.J.* if these were all published during or immediately after the war. In those days the most unexpected people found it necessary to pay lip service to the contribution of a gallant ally, but it is by their subsequent behaviour that the sincerity of these people has been tested. Your own recent attitude has been characterized by a stony silence broken by an ill-informed annotation and two hostile quasi-political editorials. It is a pity that the objectivity and impartiality of Hudson and Richens, to which you pay tribute, cannot also be found in your own attitude. Instead it shows every evidence of the very thing to which you pretend to object—ideological motives obscuring scientific truth.—I am, etc.,

Taunton.

J. R. HAWKINGS.

* * In view of the statements made by Dr. Hawkins we submitted his letter to Dr. Darlington, whose reply follows.—ED., *B.M.J.*

SIR,—The circumstances of the imprisonment and killing of Vavilov and other leading Russian biologists have been reported this year as follows: Darlington, C. D., *Discovery*, 1947, 8, 40 (February); *Nineteenth Century*, 1947, 142, 157 (September); *J. Heredity*, 1947, 38, 143 (May). Th. Dobzhansky, "N. I. Vavilov, a Martyr of Genetics, 1887–1942," *J. Heredity*, 1947, 38, 227 (August). Eric Ashby, *Manchester Guardian*, Nov. 1. These reports, disgraceful to the Soviet Government, have never been contradicted officially or unofficially from any Soviet source.

Your correspondent's denial of "scurrilous fables" does not therefore take us any further. We must continue to rely on