LETTERS TO THE EDITOR.

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of NATURE. No notice is taken of anonymous communications.]

The Treatment of Cancer.

IN NATURE of December 20, 1906, I note an article (pp. 177-8) on "The Treatment of Cancer." As a scien-As a scientific investigator, I must dispute the truth of the fact that I have any co-discoverer in this matter of the use of pancreatic ferments in the treatment of malignant growths. As, of course, you are well aware, all priority in scientific discovery depends upon publication. In the case of the medical man mentioned in the article there has never been any publication of scientific facts, and the reference to the comparative immunity of the small intestine from cancer has a very different scientific explanation from that given in the British Medical Journal, 1906, p. 715. The real reason is the very small extent of the original piece of gut, out of which, by growth within itself, the mammalian small intestine is developed. If the explanation given by this medical man were correct, the coccum ought to be as immune from cancer as the lower end of the small intestine. This gentleman has never claimed to have discovered a cure, let alone the cure, for cancer. What he professes to have found is that the proteolytic ferment, trypsin, and not the diastatic one, amylopsin, splits up glycogen. This is a very remarkable find to have made! Assuming a miracle to have happened when these unpublished experiments were made, and that trypsin did split up glycogen, it may be asked why he and his pharmacist adopted for use as an injection into human patients, from about the end of February last until recently, a decoction containing a small amount of practically pure trypsin, which had no action whatever upon glycogen?

The medical man who made this remarkable find, which will not stand the test of confirmation, himself writes in the pages of the Medical Press of December 19, 1906, as follows:—" Every medical man must deplore the frequent attempts which are made in the Lay Press to induce the public to believe that a cure for cancer has been discovered." This is clear enough. Against it I, a scientific man, now affirm not only that a cure has been found, but that my own work and discoveries have revealed the cure. For the evidences of the truth of this statement I will not refer to various microscopic preparations of tumours after treatment, removed by operation, at a post-mortem, or sloughed away, for these are the property of physicians in England and America, who will themselves publish

Instead, as the space at disposal is limited, I will refer to Prof. W. J. Morton's preliminary report in the New York Medical Record, December 8, 1906, to the other cases in course of publication there, and to the brief account of the Naples case of inoperable cancer of the tongue, which I hope to see published shortly in the pages of that medical journal. Six months after all treatment ceased the patient is alive, well, and free from cancer.

This is the sequel of the use of preparations of pancreatic enzymes, scientifically prepared, and employed by such able and distinguished physicians as Cavaliere Guarracino and Prof. Manzo. The cancer yielded to the chemical test. The reagent for this is not, as so many in this country have believed, including certain cancer researchers, a solution of glycerine and water, possibly containing a little trypsin, but it is a potent extract of pancreas-gland, prepared from the fresh gland direct, and

containing all the enzymes.

The writer of an article in the British Medical Journal for December 15, 1906, p. 1736, who displays a close knowledge of the unpublished work of a research body, states that trypsin is among the substances condemned in the passage cited from the fourth annual report of the Imperial Cancer Research Fund. I have not used the term "trypsin treatment," for I agree with Prof. Poirier, of the French Cancer Research, that trypsin will destroy cancer, but not cure it. The preparations used must be

such as those manufactured by Messrs. Fairchild Bros. and Foster, and they must be employed in the way directed by a scientific investigator. If the statement be aimed at the course of treatment advised by me, a scientific man, and, as a chemical trade newspaper says, "not even a and, as a chemical trade newspaper says, "not even a medical man," if this be the case, I now direct the attention of the scientific members of the executive of the Imperial Cancer Research Fund to its existence. I traverse it completely, and deny that it contains a vestige of truth. As I have produced evidences of its falsity, if it refer to the pancreatic treatment, I now call upon these scientific men to substantiate the truth of the point by the production of evidences, including a clear account of the means adopted to obtain a proper injection compound, or to retract and withdraw the assertion; for what happened in Naples has also occurred in New York, as well as in other places in this country, even in the neighbourhood of this city of Edinburgh. J. BEARD.

8 Barnton Terrace, Edinburgh, December 23, 1906.

With reference to the above letter, questions of priority are not involved in the article referred to. It may be that Dr. Shaw-Mackenzie's advocacy of the trypsin treatment of cancer was based on a misconception, but that he did independently evolve it seems clear to us, and this is all that was suggested in the article. His line of treatment is indicated in a letter to the British Medical Journal, May 27, 1905, p. 1183, and again in the same journal, January 27, 1906, p. 240; in the latter not only trypsin, but pan-27, 1900, p. 240; in the latter not only trypsin, but pancreatin and secretin are suggested. As regards the term "trypsin treatment," Dr. Beard, in an article in the British Medical Journal (January 20, 1906, p. 140), uses the phrases, "the length of time and number of injections of trypsin necessary to destroy the tumour," "trypsin is the substance which will destroy the cancer cell (Beard and Shaw-Mackenzie)," &c., and he moreover states, "the preparation of trypsin employed (Fairchild Bros. and Foster's) was that originally dispensed to Dr. Shaw-Mackenzie's prescription by Mr. F. W. Gamble," thus acknowledging Dr. Shaw-Mackenzie's work, and actually making use of the latter's preparation of trypsin! Accepting the details of the second content of ing the details of the case of cancer of the tongue cured by pancreatic extract as correct, it is a remarkable one, but not unique. The writer knows a case of mammary cancer, diagnosed as such 4½ years ago by four doctors, and on which a London surgeon refused to operate, which after treatment with X-rays has atrophied, and the patient is well and in good health to-day, surely as remarkable a case! Lastly, with regard to the alleged cures of cancer obtained by Prof. Morton in America (to which reference was made in the article), these are summarised in the British Medical Journal, December 22, 1906, p. 1835. About thirty cases were treated, and the results claimed About thirty cases were treated, and the results claimed are cure in two cases, remarkable atrophy of the tumour in one, and arrest of disease in many. In one case the "cure" has lasted four months, in the other one month! It is absurd yet to speak of such cases as "cured"; careful surgeons allow a three years' limit! To claim that "the cure" for cancer has been found has at present nothing to substantiate it, and in our opinion Dr. Shaw-Mackenzie's position is far more scientific than Dr. Beard's. We believe that the pancreatic enzymes must be injected into the neighbourhood of the growth or used locally; how, then, could the secondary growths in internal organs, &c., be attacked? Until this can be done, no "cure" for cancer will have been obtained.

THE WRITER OF THE ARTICLE.

The American Gooseberry-mildew.

I GIVE below the facts concerning the outbreak in England of this disease.

This mildew, Sphaerotheca mors-uvae (Schwein.), Berk.

-known in America since 1834-has proved so destructive there as practically to prevent the cultivation of the European gooseberry on a commercial scale.1 It was unrecorded in Europe until 1900, when it appeared in a few gardens in the north-east of Ireland. It has spread over

¹ See, for example, Year Book, U.S. Dept. Agric, 1899; also Bull. 114 161, N.Y. Agric. Exper. Stat.

NO. 1941, VOL. 75