

The results in this first experiment were so encouraging that further tests of sulfa drugs, especially sulfamerazine, for the treatment of furunculosis are to be made shortly.

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Sir Oliver Lodge, Lord Kelvin, and Hertzian Waves

Apropos the recently announced Soviet claim that Russian scientists had anticipated Marconi, a story worth recalling was told by John Allen Harker, the British physicist, at a meeting held in Browning Hall, Walworth, London, on 26 November 1914:

"I remember the British Association meeting in Liverpool—in 1896, I think it was. At the end of the meeting on the last morning Sir William Preece, who was then chief electrician to the Post Office, had been describing, in the course of a debate on transmission of wireless signals, the fact that a young Italian had come a few months previously to his laboratory at the Post Office, and had succeeded in showing what was then an extremely novel thing: that wireless signals could be transmitted over a distance of about a mile. That young man was Mr. Marconi, whose name is now so familiar to us all. After the morning's work was done I was clearing away my apparatus in the preparation room attached to the Physical Lecture Theatre, where the meeting was held, and was having a word with Sir Oliver Lodge. As we were talking, Lord Kelvin came in—came up to Sir Oliver just like a schoolboy let out of school. For the program was over and he felt, like the rest of us that we had done our work. He said: 'Let's see, Lodge, weren't you on with something of that sort—with Hertzian waves?' 'Yes,' said Sir Oliver, 'and under the circumstances I'm sorry I didn't show this experiment myself. I have been so busy as General Secretary of the Association that I haven't had time to do what I planned to do during this meeting. I have been telegraphing by wireless signals between my house and this laboratory, and I intended to have had the installation fixed up to demonstrate to the members of this section.' Kelvin asked with enthusiasm: 'How far is it to your house? How far have you succeeded in getting good signals?' 'Oh, about two miles,' said Sir Oliver. I shall never forget the reply of Lord Kelvin. He said: 'That's right, Lodge. If Mr. *Macaroni* can go a mile, surely *you* can go two miles!'"

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Inactivation of Hypertensin

In an article by O. M. Helmer and K. G. Kohlstaedt (*Science*, 1945, 102, 422) the action of horse-radish peroxidase on angiotonin, peptinsin, and epinephrine was discussed. The authors also mention that, whereas small concentrations of iodine have only a limited inactivating effect on these substances, the peroxidase reaction is greatly enhanced by the addition of small amounts of potassium iodide.

We have previously shown (New York Academy of Sciences Conference on Experimental Hypertension, 9–10

February 1945) that the inactivation of hypertensin by iodine is related to the tyrosine present in the molecule—as established by the use of the Gerngross, Voss, and Herfeld reaction. The parallelism between decrease of hypertensin activity and intensity of iodation is illustrated in Table 1.

TABLE 1
INACTIVATION OF HYPERTENSIN BY IODINE

Hypertensin (cc.)	Iodine added (micrograms)	Pressure effect in the cat (mm./Hg)
0.1	52	22
0.1	104	12
0.1	156	7
0.1	208	4
0.1	—	24

We have also shown that the tyrosine titrated by the Gerngross reaction is transformed into di-iodotyrosine or iodine tyrosine, substances with little or no activity. It is shown in Table 2 that the hypertensive activity of hypertensin (angiotonin) is suppressed when tyrosine is blocked with iodine.

TABLE 2

	Control	1 drop	2 drops	3 drops	4 drops
Iodine added	0	52	104	156	208
Titrated tyrosine . .	180γ	142γ	115γ	85γ	40γ
Pressor activity in cat (in mm.) . . .	25	21	15	9	3

Since we have established that an inactivation of the same order occurs with postpituitary hormone (pituintrin), we believe that tyrosine also plays a role in the hypertensive activity of these substances.

It appears that tyrosine combines with iodine only when it is present as free iodine or as iodine with a positive charge; this is obtained when peroxide and potassium iodide or solutions of metallic iodine or iodine chloride are used. The results of Helmer and Kohlstaedt show that potassium iodide used in conjunction with an oxidizing reaction destroys hypertensive activity and thus confirm our previous statements.

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Request for Reprints on Virus Diseases

Since the end of the war, letters and articles have appeared in numerous scientific periodicals requesting that reprints be sent to scientific workers in countries that have been out of contact with progress in America since 1940. One needs no more than a brief visit to become deeply impressed with the high regard these men have for the contributions and advances originating in American laboratories. There is a great need and an intense desire for reprints of published work in all fields.

I would like to extend to investigators in the field of virus diseases the request of two European colleagues—