but also indicate the presence of mixed aromatic-aliphatic aldehydes. An interchange may exist between these two classes of aldehydes and they may replace each other in acetal phosphatides. Striking differences in the occurrence and distribution of bound aldehyde in normal and pathological kidneys from human autopsies speak for the physiological significance of stored aldehyde¹⁹. Thus, aldehydes with antipressor and depressor effect may be conserved in this form, so that they may be mobilized for various needs of the organism. These aldehyde depots can be depleted in tissue sections by incubation with aromatic amines such as sulphanilic and *para*-aminobenzoic acids and may serve a similar purpose of local detoxification *in vivo*. They would be especially suitable to combat undesirable accumulations of pressor amines. Thus they may function as temporary 'buffers' delaying the onset of experimental hypertension which, in spite of the immediate production of renal ischemia, appears only three or four days after the Goldblatt operation.

The above diagram illustrates the hypothetical sequences of reactions from cyclic amino acids through pressor amines, antipressor and depressor substances to inert end-products. The equilibrium between these transformations, obtaining under physiological conditions, is disturbed in renal hypertension; the pressor amines then accumulate and at the same time their antagonists are depleted and used up. Extracts with depressor effect have been obtained from normal kidney²⁰. In experimental unilateral renal ischemia in dogs²¹ the production of the antagonists in the intact kidney prevents the persistence of hypertension in spite of the continuous output of pressor amines from the ischemic kidney.

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Self-incompatibility in Certain Diploid Potato Species

Pal and Puskar Nath¹ have reported that the diploid ($2n = 24$) potato species, *S. arrac-papa*, *S. Caldasii*, *S. chacoense*, *S. Jamesii* and *S. subtilius*, are self-incompatible. Under Cambridge conditions the diploid species, *S. Rybinii*, *S. boyacense*, *S. lanciforme* and *S. phureja*, also appear to be self-incompatible.

Only one clone of *S. Rybinii*, which Salaman² states he was unable to infect with either leaf roll or potato virus Y, has been brought to Europe, and on selfing this clone never sets berries. It will, however, cross readily with the closely related species *S. boyacense* (clone E.P.C. 546), which also does not set berries on selfing. Berries containing a very large number of seeds are obtained from this cross and from the reciprocal. Also, as is shown in the table, F_1 plants from the cross are cross-compatible with either parent. It has not, however, been possible to show that only four types of F_1 plants, such as would be expected on a simple oppositional factor hypothesis, are produced.

		FEMALE PARENT					
		<i>S. Rybinii</i>	E.P.C. 546	$F_1 4$	$F_1 6$	$F_1 8$	$F_1 10$
MALE PARENT	<i>S. Rybinii</i>	—	+	+	—	+	+
	E.P.C. 546	+	—	—	—	—	—
	$F_1 4$	+	—	—	—	—	—
	$F_1 6$	—	—	+	—	—	+
	$F_1 8$	—	—	—	—	—	—
	$F_1 10$	+	+	—	—	+	—

+ = compatible pollination; — = incompatible pollination; $F_1 4$, 6, 8, and 10 = F_1 (*S. Rybinii* × E.P.C. 546).

No berries have been obtained from selfing any of the clones of the blight-immune, Mexican diploid species *S. lanciforme* which was brought back by the Empire Potato Expedition as seeds. Berries containing numerous seeds have, however, been obtained from the following crosses between clones, E.P.C. 40.3 × 40.4, E.P.C. 40.3 × 40.7, E.P.C. 40.4 × 40.3, E.P.C. 40.6 × 40.3 and E.P.C. 40.6 × 40.4.

Similarly, two clones of *S. phureja*, E.P.C. 1307 and E.P.C. 1310, have never set berries on selfing, but berries with seeds were obtained from the cross E.P.C. 1310 female × E.P.C. 1307.

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Effect of Sulphanilamides on the Growth of Micro-organisms in Presence and Absence of *p*-Aminobenzoic Acid

LAST year I presented some results of experiments on the antagonism between *p*-aminobenzoic acid and sulphanilamides (sulphanilamide, sulphapyridine and sulphathiazole) in autotrophic organisms¹. These experiments were carried out with two strains of the freshwater diatom *Nitzschia palea* var. *debilis* (Kg.) Grun. I also made experiments on the inhibitory action of sulphanilamide on the growth of *N. communis* Rabenhorst, *N. Kützingeriana* var. *exilis* Grun. (f. *multiplex*²) and further strains of *N. palea* var. *debilis*.