group disclosed a theoretical final body weight of 211.40±3.40 g. This figure was not significantly different from the observed weight for this group (217.88±3.40.).

These observations, namely a suppression of somatic growth as determined by body weight and body length, both of which were significantly inhibited, agree with the recent reports of Commins[3] and Lawless,[4] who also found an inhibition in body weight of castrated males. It may be added, however, that in contrast to the report of Lawless who, on the basis of comparison of body weight-body length (W/L^3) ratios concluded that weight and length were proportionately depressed, we feel that body length is affected more than body weight since at 80 days of age the castrate male had become relatively heavy for its smaller body length as determined by the formula of Donaldson.

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Absorption and Excretion of Sulfanilamidopyridine (2-Para-aminobenzenesulfonamidopyridine).*†

L. H. SCHMIDT AND HETTIE B. HUGHES. (Introduced by Glenn E. Cullen.)

From the Christ Hospital Research Institute and the Department of Biochemistry, College of Medicine, University of Cincinnati, Cincinnati, O.

This report concerns the absorption and excretion of sulfanilamidopyridine (2-para-aminobenzene sulfonamidopyridine) in 2 normal adult humans, following the oral administration of a single dose of the drug. Such data are of immediate interest since experimental studies,[1, 2] and preliminary clinical reports[3, 4, 5] indicate that sulfanilamidopyridine may be useful in the treatment of pneumococcus infections.

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3 Commins, W. D., *J. Exp. Zool.*, 1932, **63**, 573.

4 Lawless, J. J., *Anat. Rec.*, 1936, **66**, 455.

* Sulfanilamidopyridine was supplied by Dr. David A. Bryce, The Calco Chemical Company, Bound Brook, New Jersey.

† The name of this drug has been officially changed to sulfapyridine.

1 Whitby, L. E. H., *Lancet*, 1938, **1**, 1210.

2 Hilles, C., and Schmidt, L. H., PROC. SOC. EXP. BIOL. AND MED., 1939, **40**, 73.

3 Telling, M., and Oliver, W. A., *Lancet*, 1938, **1**, 1391.

4 Evans, G. M., and Gaisford, W. F., *Lancet*, 1938, **2**, 14.

5 Flippin, H. F., and Pepper, D. S., *Am. J. Med. Sci.*, 1938, **196**, 509.

TABLE I.
Concentration of Sulfanilamidopyridine in Blood and Amount Excreted in Urine Following Ingestion of the Drug.

Hr after ingestion of drug	Normal Female—Wt 64 kilos Sulfanilamidopyridine						Normal Male—Wt 73 kilos Sulfanilamidopyridine					
	Conc. in Blood			Quantity in Urine			Conc. in Blood			Quantity in Urine		
	Free mg%	Conjugated mg%	Total mg%	Free mg	Conjugated mg	Total mg	Free mg%	Conjugated mg%	Total mg%	Free mg	Conjugated mg	Total mg
1	0.56	.04	0.60	—	—	trace	1.5	—	1.5	—	—	trace
2	1.00	.10	1.10	9	9	18	1.6	0.3	1.9	24	24	48
4	2.6	.30	2.90	36	56	92	2.1	0.6	2.7	44	82	126
8	2.0	.6	2.6	107	204	311	1.1	1.2	2.3	96	251	347
12	1.3	.8	2.1	88	214	302	0.6	0.9	1.5	44	166	210
24	—	—	trace	111	385	496	—	—	—	78	390	468
32				17	93	110						
				Total in 32 hr		1329				Total in 24 hr		1199

Each subject ingested 2 g of sulfanilamidopyridine suspended in 400 cc quantities of water. Blood samples were obtained 1, 2, 4, 8, 12, and 24 hours after ingestion of the drug; urine was collected quantitatively at the same intervals, and in one subject at the end of 32 hours. Both subjects took the drug one hour after breakfast and followed a normal routine of working, eating and sleeping.

Free and total sulfanilamidopyridine concentrations in blood and urine were determined colorimetrically according to Marshall's method[6] for estimation of sulfanilamide. Since sulfanilamide standards were used for comparison, the results were obtained in terms of sulfanilamide equivalents. These were converted to sulfanilamidopyridine concentrations by multiplying by the factors 1.25 in the free and 1.5 in the total sulfanilamidopyridine determinations.†

As the data in Table I show, the maximum concentrations of sulfanilamidopyridine in the blood, 2.7 and 2.9 mg %, were found 4 hours after the drug had been ingested. These concentrations fell rather slowly and at the end of 12 hours were 1.5 and 2.1 mg %. The relative proportions of free and conjugated sulfanilamidopyridine changed considerably during this interval. At 4 hours the conjugated drug was 10 and 22% of the total; at 12 hours this fraction amounted to 39 and 60%.

The data also show that urinary excretion accounts for between 60 and 65% of the sulfanilamidopyridine ingested. (The fate of the remaining 35 to 40% of the drug is still unknown; in view of its insolubility one may suggest that it has probably been lost in the feces.) Approximately 75% of the drug found in the urine was in the conjugated form, but the proportions of conjugated sulfanilamidopyridine were largest during the later periods of the experiment.

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[6] Marshall, E. K., *J. Biol. Chem.*, 1937, **122**, 263.

† These conversion factors were derived experimentally. When sulfanilamidopyridine solutions were treated as in the determination of free sulfanilamide, the color produced amounted to 80.0% of that given by the same weight of sulfanilamide; the theoretical color equivalent is 69.4%. When sulfanilamidopyridine solutions were treated as in the determination of total sulfanilamide (*i. e.*, boiled in dilute acid for 90 minutes) the color produced amounted to 66.67% of that given by the same weight of sulfanilamide. These observations gave the conversion factors 1.25 ($^{100}/_{80.0}$) and 1.5 ($^{100}/_{66.7}$) for the free and total sulfanilamidopyridine determinations.