and tumor-regression. (2) Animals in which tumor-regression has occurred after the use of cysteine hydrochloride are immune to further inoculation of the same strain of rat sarcoma.

8628 C

Nitrogen Distribution in Human Placental Globulin.*

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(Introduced by R. A. Gortner.)
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It seemed desirable to analyze placental globulin to determine its chemical composition by nitrogen values. Harding and Fort[1] have reported such an analysis of the whole placenta but this contains several proteins as well as other materials which may alter the proportion of nitrogenous fractions as determined by the Van Slyke method.

To prepare the globulin, mature, normal placentas were collected in sterile containers, washed, cut up, and each extracted with

TABLE I.

	Drage and Sandstrom, Placental globulin	Cavett,[3] Serum-pseudo-globulin	Widdowson[7] serum-globulin	Banzhaf, Suguira and Falk[2] Normal serum-globulin	Anti-tetanic serum-globulin	Anti-diphtheric antiserum globulin	Harding and Fort,[1] whole placenta
Humin N	2.64	2.44	0.53	2.0	2.5	2.8	3.17
Ammonia N	8.40	8.85	9.35	6.00	7.4	7.7	6.40
Basic N	26.32	26.93	24.61	28.6	25.5	24.2	35.18
Arginine N	10.23	10.76	10.67	10.8	9.7	9.8	24.00
Cystine N	1.02	0.72		3.0	2.5	3.3	1.43
Histidine N	4.90	2.95	4.21	3.7	2.3	2.0	2.43
Lysine N	10.29	12.95	9.78†	11.1	11.0	9.1	7.31
N in filtrate from bases	61.32	62.87	61.32	64.40	66.5	66.3	51.72
Amino N	60.12	58.53	57.75	61.4	64.4	64.2	48.35
Non-amino N	1.20	4.34	3.57	3.00	2.1	2.1	3.37
P.T.A. Humin N	1.11						
Total recovery (% N)	99.79	101.09	99.33	101.0	101.9	101.0	99.84

† Lysine plus cystine.

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1 Harding, V., and Fort, C., *J. Biol. Chem.*, 1918, **35**, 29.

2 Banzhaf, E., Suguira, K., and Falk, K. G., *J. Immunol.*, 1916, **2**, 125.

150 cc. of 2% solution of sodium chloride at 2°C. for 48 hours. The liquid was decanted, centrifuged, and mixed with an equal volume of saturated solution of ammonium sulfate. The "globulin" was recovered by centrifuging and filtering on hardened paper, dissolved in 2% sodium chloride, and dialyzed until free from sulfate and chloride ions. The precipitate was then recovered on hardened paper and oven-dried. From 40 placentas a yield of 10.5 gm. of globulin resulted; it contained 12.73% nitrogen and 0.61% ash.

The nitrogen-distribution was determined by the method of Van Slyke. The values reported are the averages of duplicate determinations calculated as percentages of the total nitrogen. Some values reported in the literature are given for comparison.

The distribution of nitrogen in placental globulin is essentially that found by Cavett[3] and Widdowson[7] in human serum-globulin, and very similar to the values reported by Banzhaf, Suguira and Falk[2] for normal serum-globulin; also to the values for the globulins of normal and colostral milks as reported by Crowther and Raistrick[8] and those reported by Hartley[5] for animal serum-globulins. This comparison is based largely upon the values for ammonia and arginine which are determined directly and with reasonable accuracy. With the exception of cystine, which is present in smaller quantities, the remaining bases also agree closely. The analysis of whole placental tissue, however, presents an entirely different picture due to other constituents.

8629 P

Fate of Parenterally Administered Crystalline Urobilin; Urobilin Tolerance Test of Liver Function.

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Crystalline urobilin, as isolated from feces by the writer's method,[1, 2] may be administered intramuscularly or intravenously

3 Private communication, Cavett, J. W.

5 Hartley, P., *Biochem. J.*, 1914, **8**, 541.

7 Widdowson, E. M., *Biochem. J.*, 1933, **27**, 1321.

8 Crowther, C., and Raistrick, H., *Biochem. J.*, 1918, **10**, 473.

1 Watson, C. J., *J. Biol. Chem.*, 1934, **105**, 469.

2 Watson, C. J., *Z. physiol. Chem.*, 1935, **233**, 39.