previously shown that Rh saline agglutinins and blocking antibody can be distinguished by rabbit antibody[9]. The antibodies to the Waldenström macroglobulins, however, showed some activity against the blocking antibody. One of the three latter antisera failed to inhibit any of the Rh antibodies tested even though it formed a specific precipitate with normal human serum.

The monkey antisera were also tested for their ability to inhibit the activity of other 18 *S* human antibodies. Activity against α- and β-isohæmagglutinins, cold agglutinins and heterophile agglutinins was noted and other known high mol. wt. antibodies are being tested. The inhibitions of these antibody activities by the monkey antisera were again variable, dependent on the serum source. Family investigations of the 18 *S* γ_1-globulins are being initiated to determine whether the differences noted here have a genetic basis.

The monkey antibodies to the Rh saline agglutinins and Waldenström macroglobulins are resistant to the action of 2-mercaptoethanol and thus appear to be 7 *S* molecules. They form specific precipitates with all human sera tested but not with pooled normal human γ_2-globulins. Immunoelectrophoresis and other investigations indicate that the factor in serum with which the monkey antibody reacts is a γ_1-macroglobulin.

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Haptoglobin and Transferrin Differences in some Iranian Populations

Previous studies of ABO blood groups and glucose-6-phosphate dehydrogenase (G-6-PD) distribution in Moslems, Zoroastrians and the Ghashghai tribal group in Iran showed absence of G-6-PD deficiency and a *B* gene frequency of 0·34 in Zoroastrians as compared with G-6-PD deficiency of 8 per cent and a *B* gene frequency of 0·28 in Moslems; ABO blood group studies of the Ghashghai tribe were comparable with that of the Moslem group, and 11 per cent of males examined had G-6-PD deficiency[1].

Haptoglobin and transferrin patterns in these groups are described in this communication. Blood was collected in ACD solution, and plasma was run according to the vertical starch-gel electrophoresis technique of Smithies[2]. The frequency of the Hp^1 gene in the Zoroastrians (Table 1) was significantly lower than that of the Moslems ($\chi^2 = 10{\cdot}5$, $P < 0{\cdot}005$) and the Ghashghai ($\chi^2 = 13{\cdot}3$, $P < 0{\cdot}005$). Haptoglobins of the latter two groups did not differ ($\chi^2 = 1{\cdot}3$, $0{\cdot}5 > P > 0{\cdot}25$). Haptoglobin negative and other variants were not observed. Transferrin results are shown in Table 2. *TfB* was only found in the Moslem group; however, the size of the other samples may have been too small to detect this rarer transferrin.

Zoroastrians, the 'original' Iranians, are historically distinctive from Semitic and other peoples in the Middle East[3]. They are one of the most restrictive of religious groups: they do not proselytize; outsiders are not accepted into the religion; and if one marries into another group, neither he nor his children are considered Zoroastrian.

Table 1. Distribution of Haptoglobins

Population	No.		Hp 1-1	Hp 2-1	Hp 2-2	Hp^1 gene frequency
Moslem	429	Obs.	34	176	219	0·28
		Exp.	35	175	220	
Zoroastrian	145	Obs.	6	43	96	0·19
		Exp.	5	44	95	
Ghashghai	117	Obs.	15	46	56	0·33
		Exp.	12	51	53	

Table 2. Distribution of Transferrins

Population	No.	Phenotype frequencies BC	CC	CD
Moslem	429	0·007	0·953	0·040
Zoroastrian	145	0·000	0·986	0·014
Ghashghai	117	0·000	0·949	0·051

Since the Islamic conquest in the seventh century A.D., vast areas of Iran have been overrun by Arabs, Turks, Mongols and Afghans[3]. These peoples arrived as Moslems or were afterwards converted to Islam. Large numbers of the invaders remained and their descendants to-day form the tribes in Iran; however, many of their progeny are now mixed with the Moslem population.

The Ghashghai may be classified as a federation of tribes. One must depend on legend for their origins. They were brought to Iran by Shah Abbas in the seventeenth century A.D. from what is now the U.S.S.R., west of the Caspian Sea. Their language is Turkish; however, the tribal leaders do not consider themselves of Ottoman or Seljuk Turkish origin. They believe that their language was acquired within the past 300 years. In any event, ABO blood groups, G-6-PD studies and haptoglobin and transferrin patterns in the Ghashghai are not distinctive from that of the Moslems.

The Zoroastrians are, however, separable from the Moslems by ABO blood groups, G-6-PD assays and haptoglobins. Whatever the Zoroastrians were before the Islamic era, there is no doubt that they are a separate and genetically different breeding group from that of the present Moslem majority. There is no question of their cultural distinctiveness.

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HISTOCHEMISTRY

Histochemical Localization of Amines in *Hydra* and in the Sea Anemone

Several investigators utilizing chemical techniques have identified neuropharmacological substances within cœlenterates. Welsh[1,2] has presented evidence for the presence of 5-hydroxytryptamine (5-HT) and a number of quaternary ammonium compounds in the sea anemone and *Hydra*; 5-HT occurring in greatest concentration within the tentacles and acontia. Methias *et al.*[3,4] identified 5-HT, histamine and other amines in the sea anemone as well as in *Physalia*. This worker found the highest concentration of 5-HT in the cœlenteric tissues, including the acontia, with relatively low concentration in the tentacles. These compounds were discussed as possible agents responsible for the toxicity within nematocysts of