MAR, a novel high-incidence Rh antigen revealing the existence of an allelic sub-system including Cw (Rh8) and Cx (Rh9) with exceptional distribution in the Finnish population.

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Abstract: We present new genetic evidence obtained from population studies on Finns and from the studies on Finnish blood donors as well as their selected families using an antibody that defines a novel high-incidence Rh antigen MAR. Anti-MAR antibody shows an antithetical relationship to both anti-Cw and anti-Cx. The Rh antigens Cw (RH8) and, more strikingly, Cx (RH9) have each an exceptionally high frequency in Finns. Our studies on their genetic relationship indicate that the three antigens Cw, Cx and MAR behave as if being determined by alleles of the same Rh sub-system. Furthermore, we conclude that this sub-system manifests an inheritance pattern that is distinct from but analogous to that of the two well-known allelic sub-systems of C/c and E/e antigens.

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Nea, new blood group antigen in Finland.

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Abstract: A previously unrecognized blood group antigen is described. The antigen was shown to be different from many rare blood group antigens, to be inherited as an autosomal dominant character and not to be closely linked to the established blood group systems nor to several other polymorphic markers of blood. The antigen is well developed at birth. About 5% of Finns have this antigen. In contrast only 1 donor in 502 Swiss blood donors and 2 unrelated donors in 395 Swedish blood donors were found to be positive for the antigen. The antigen is provisionally called Nea and the respective antibody anti-Nea. At least three Na(a+) blood units were given to a patient on different occasions before anti-Nea was detected in compatibility tests. Since the discovery of the first anti-Nea, three additional examples of this antibody have been identified in serum from multitransfused patients. Anti-Nea is capable of shortening the in vivo survival of transfused incompatible Ne(a+) cells.

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