

**COMMENTS ON THE DISCOVERY OF WATER CHANNELS,
SELECTED FOR THE 2003 NOBEL PRIZE IN CHEMISTRY, AND
THE REGRETTABLE OMISSION OF GHEORGHE BENGA**

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The true history of the discovery of the first water channel protein (WCP) from the red blood cell (RBC) membrane, called today aquaporin 1, was described by Benga in several recent reviews (1-4), including the EDITORIAL published in this issue.

If we compare the "birth of aquaporin" (as a specific proteic pathway for water permeation across biological membranes) with the birth of a human being we can say that aquaporin had a very long gestation period (1).

Comparing the water channel protein with a child whose possible existence was predicted for a long time (5-8), whose some features (transport of water and its reversible inhibition) were assigned by Macey and Farmer (9), one can claim that this child was first detected by Benga et al. (10, 11), similarly to a child detected "in utero" by ultrasonography. Benga described for the first time one of his essential components: the glycosylated component (with a molecular weight of 35 - 60 kDa) and also the way to recognise it after birth (among other children of his group!): by placing the isolated children in a certain environment and asking them to perform the same task (one should read: reconstitution studies in liposomes and measurement of water permeability), like aligning athletes for a running test. This was the only certain way to know that the child is really the fastest runner and not just one that is helping (by various means) another child to be the fastest runner.

Some scientists denied the existence of a "fastest runner" and attributed this quality to other children already known (i.e. some scientists denied the existence of a water channel and considered this property as complementary to anion, cation and nonelectrolyte transport performed by other proteins).

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377