We read with a great pleasure the article ‘Rare ADH variant constellations are specific for alcohol dependence’ by Zuo et al. (2012). We want to direct the speciality about the alcohol dehydrogenase (ADH) isoenzyme nomenclature to the readers of Alcohol and Alcoholism. Namely, the authors use an old isoenzyme nomenclature what can cause some confusion to not enough familiar readers.

Electrophoresis is an analytical method used in molecular biology and medicine. It is applied for the separation and characterization of proteins, nucleic acids and enzymes. Enzymes which catalyse the same reaction but which have different chemical or physico-chemical properties are known as isoenzymes. The nomenclature principles are the same for all the enzymes (alkaline phosphatase (ALP), lactate dehydrogenase (LDH), creatinin kinase (CK), ADH etc.). The basic model is the model for LDH. It was the first one with defined nomenclature based on the speed of movement in electrophoresis.

The isoenzymes of LDH, all of which catalyse the same reaction—the reversible conversion of lactate into pyruvate exhibit distinct structural differences and hence migrate at different rates on electrophoresis (Bais and Panteghini 2006; Panteghini et al., 2006).

The LDH has a molecular weight of 134 000 and comprises four peptide chains of two types: M and H, each under separate genetic control. The subunit compositions of the five isoenzymes, in the order of decreasing anodal mobil-

REFERENCE


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