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 which 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 catalyze 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). It was designated that the most rapidly anode-migrating isoenzyme is LD1 and the electrophoretically slowest LD5 (Anonymous, 1965), while before the reverse convention was followed in several publications (King and Campbell, 1961).

The same principle or model is valid also for ADH. However, in the article ‘Rare ADH variant constellations are specific for alcohol dependence’, the ADH 7 isoenzyme and not the ADH 1 was denoted as the fastest anodically migrating isoenzyme on starch gel electrophoresis. The authors’ nomenclature is based on the chronology of discovering the ADH isoenzymes where the fastest one was not discovered as the first of all. That means that after the internationally accepted nomenclature proper denotation of rare ADH 7 and ADH 6 variants (upon authors) are ADH 1 and ADH 2.

**REFERENCES**


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