for stab wound injury and its regeneration [57]. 'Why do MT isoforms exist?' There is no answer yet; however, MT-I/II is thought to be an acutely reactive (anti-inflammatory) protein, while the reaction of MT-III is slower than that of MT-I/II and MT-III continues to work longer, based on the observation of the stab wounds in the rat brain [58].

Similarly there are two types of fiber (type I and type II) in the muscle. The type I muscle fibers react slower and more continuous than the type II muscle fibers. The ratio of type I muscle fibers to type II fibers differs among muscles according to the function. The existence of two types of fibers in the muscle is similar to that of isoforms of MT.

MT-III is abundant in the CNS. It is sure that MT-III plays important roles in the brain and in the progression of neurodegenerative diseases such as ALS, AD, PD, FD, as well asprion disease [59], brain trauma [58], brain ischemia [60], and psychiatric disorders [61]. A combination of MT-I/II and MT-III will be good tools for the treatment of neurodegenerative diseases.

CONFLICT OF INTEREST

The authors confirm that this article content has no conflicts of interest.

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ABBREVIATIONS

AD	=	Alzheimer's disease
ALS	=	Amyotrophic lateral sclerosis
Cd	=	Cadmium
Cu	=	Copper
FD	=	Fahr's disease
GSH	=	Glutathione
Hg	=	Mercury
MT	=	Metallothionein
PD	=	Parkinson's disease
ROS	=	Reactive oxygen species
Zn	=	Zinc

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