New complete list of Mixed Movement Disorders

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| **Designation** | **Clinical clues** | **OMIM** | **MOI** |
| MxMD-*ADCY5943* | Pleiotropic dyskinesia (choreiform, myoclonic, dystonic) mainly involving the limbs, neck, and/or face, paroxysmal worsening triggered by anxiety or drowsiness, axial hypotonia, developmental delay, abnormal saccades, spasticity | 600293 | AD |
| MxMD-*ATP13A2A* | Broad and variable clinical spectrum including several movement disorders: 1) Kufor-Rakeb syndrome944-946: juvenile-onset atypical dystonia-parkinsonism, supranuclear gaze palsy, pyramidal signs, dementia, dysphagia, dysarthria and olfactory dysfunction; 2) HSP947-950: adult-onset, characterized by spasticity, lower limb weakness, cognitive impairment, psychiatric symptoms, axonal neuropathy, thin corpus callosum and *ear of the lynx* sign on MRI; 3) Adult-onset progressive ataxia951-953 and action myoclonus51, 951, 952, 954, 955  | 606695 (PARK), 617225 (HSP) | AR |
| MxMD-*MYORG*956-959 | Dysarthria, cognitive deficits, and depression, headaches and psychosis in a lower percentage, imaging abnormalities include basal ganglia and cerebellum calcification | 618317 | AR |
| MxMD-*OPA3960-965* | 3-Methylglutaconic Aciduria Type 3 (MGCA3; many alternative names); neuroophthalmological syndrome with early-onset bilateral optic atrophy with progressive decrease in visual acuity and horizontal nystagmus, choreoathetoid movements before age ten, which can restrict ambulation, spastic paraparesis in second decade, pyramidal dysfunction, ataxia and variable cognitive impairment | 258501 | AR |
| MxMD-*PDGFB*-(PFBC)*966, 967*  | Parkinsonism, ataxia, or chorea with possible additional headache and cognitive deficits, imaging abnormalities include thalamus, cerebellum, white matter and basal ganglia calcifications | 615483 | AD |
| MxMD-*POLG*968-970 | Multiple syndromes often with progressive external ophthalmoparesis and variable other neurological manifestations; rarely prominent parkinsonism | 174763 | AD or AR |

AD = autosomal dominant, AR = autosomal recessive, MOI = mode of inheritance, OMIM = Online Mendelian Inheritance in Man (https://www.omim.org/about)

A Mutations in this gene also cause neuronal ceroid lipofuscinosis (CLN12).954

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