A complete vector-like fourth family model for muon anomalies

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The Standard Model (SM) is extended by introducing a complete vector-like fourth family and a vector-like U(1)' gauge symmetry. This model can explain experimental values of the muon anomalous magnetic moment and anomalies for $b \rightarrow s\mu^+\mu^-$ processes simultaneously without conflicting with the other observations, e.g. lepton flavor violating processes, CKM matrix, neutral meson mixings and so on. The U(1)' charge assignment compatible with Pati-Salam gauge group is favored
compared to that compatible with the SO(10) gauge group in order to explain the muon anomalous magnetic moment. We will discuss observables which can be tested in future experiments.

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