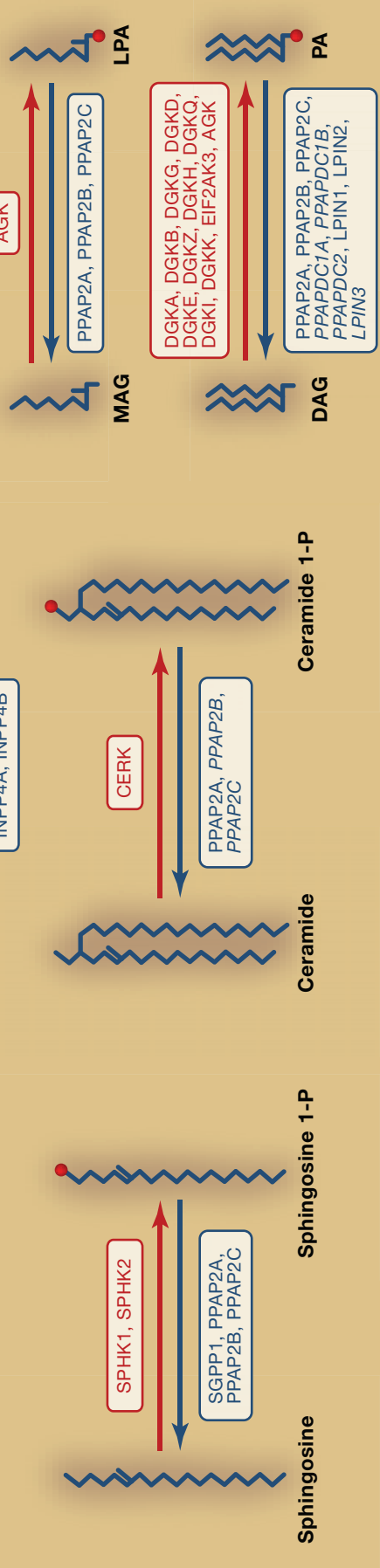
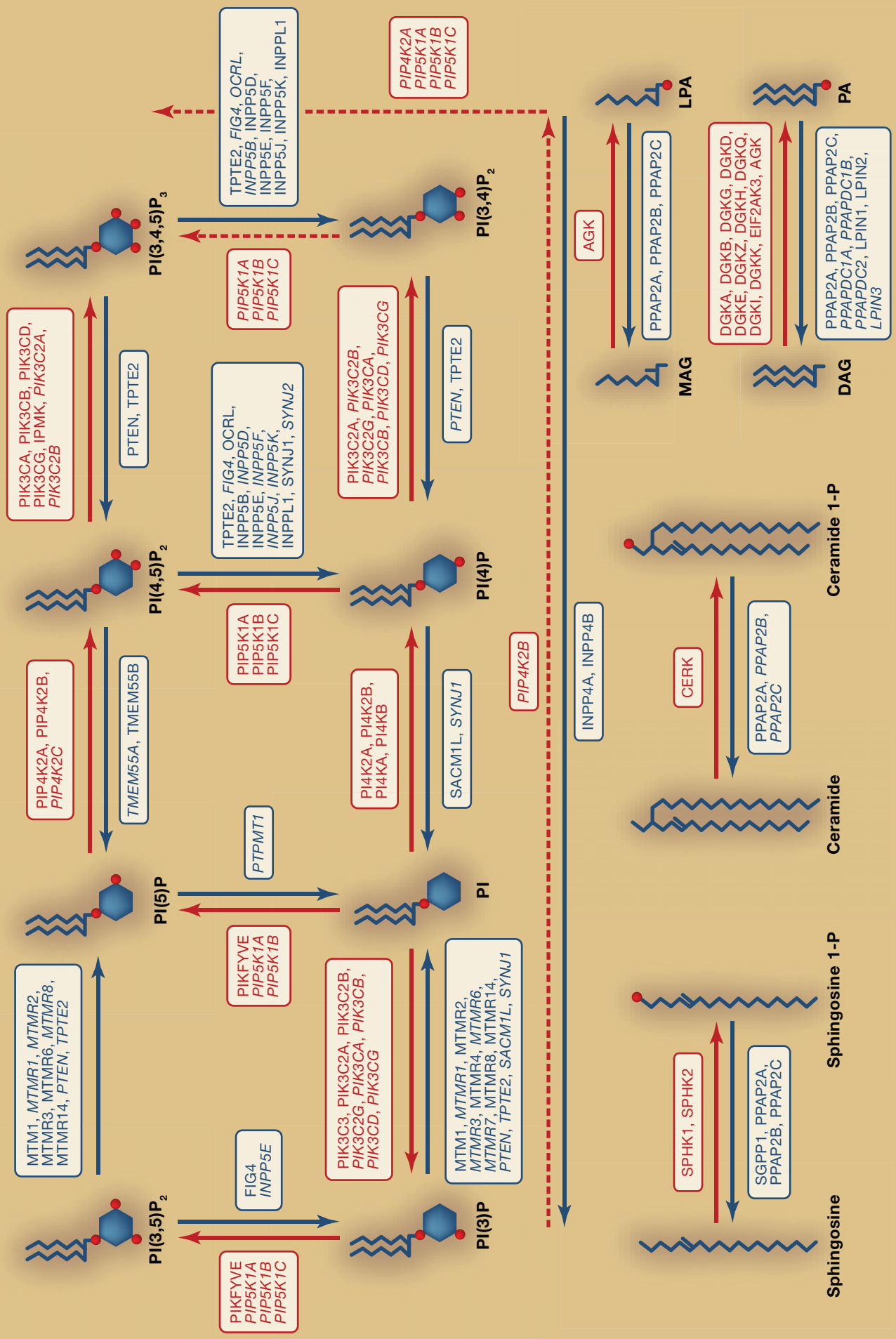


Snapshot: Lipid Kinase and Phosphatase Reaction Pathways

Cell

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This SnapShot presents the reaction pathways catalyzed by the known mammalian enzymes—listed in the SnapShot “Lipid Kinases and Phosphatases” (Cell 155, December 19, 2013)—that either phosphorylate or dephosphorylate lipids.

In cases in which only in vitro data have been reported, the gene encoding the enzyme is shown in italics and/or a dashed line is used to represent the reaction catalyzed.

The lipid fatty acid moieties depicted in the reaction pathways in this SnapShot have been purposely simplified, and therefore they do not represent the complexity of what occurs naturally, i.e., fatty acids can vary in both length and saturation, in particular, the polyphosphoinositides generally have a polyunsaturated fatty acid moiety at the sn-2 position.

ABBREVIATIONS

PI, phosphatidylinositol; PI(3)P, phosphatidylinositol 3-phosphate; PI(4)P, phosphatidylinositol 4-phosphate; PI(5)P, phosphatidylinositol 5-phosphate; PI(3,4)P₂, phosphatidylinositol 3,4-bisphosphate; PI(3,5)P₂, phosphatidylinositol 3,5-bisphosphate; PI(4,5)P₂, phosphatidylinositol 4,5-bisphosphate; PI(3,4,5)P₃, phosphatidylinositol 3,4,5-trisphosphate; PA, phosphatidic acid; LPA, lysophosphatidic acid; DAG, diacylglycerol; MAG, monoacylglycerol.

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