1121-57-225 **Charles I. Delman*** (cidelman@eiu.edu), Department of Mathematics and CS, 600 Lincoln Avenue, Charleston, IL 61920, and **Rachel Roberts**. *Persistently Foliar Knots, II.*

Call a knot in the 3-sphere *persistently foliar* if every manifold obtained from it by rational (non-trivial) Dehn surgery admits a taut, co-orientable foliation. We present two methods for demonstrating that a knot is persistently foliar. In each, we proceed by constructing a co-orientable laminar branched surface with the property that the closed complementary component containing the knot is a solid torus with a positive, even number of meridional cusps; hence, it carries a lamination whose corresponding complementary component may be filled with disk leaves after any surgery with coefficient other than 1/0.

The first method, which may be viewed roughly as a generalization of Murasugi summing, builds the spine of a branched surface from the boundary of a tubular neighborhood of the knot, spheres that intersect the knot transversely, and spanning surfaces for related simpler links. The second method, which may be viewed as a generalization of disk decomposition, builds the spine from the boundary of a tubular neighborhood of the knot, a (not necessarily orientable) spanning surface, and decomposing disks.

As an application, we prove that any nontorus Montesinos knot that is not a $(-2, 2n+1, 2m+1)$-pretzel, $m, n > 0$, (or its mirror image) is persistently foliar. (Received July 18, 2016)