1117-57-451James Conway* (conway@math.gatech.edu), 686 Cherry Street, Atlanta, GA 30332. Heegaard
Floer Homology and Negative Transverse Surgery.

We focus on the question of when negative surgeries on transverse knots in overtwisted contact manifolds produce tight contact structures. We use Heegaard Floer homology to find large classes of examples. For fibred knots supporting the contact structure, we define an invariant (which we call the dual contact set) of a related contact structure that detects the non-vanishing of the contact invariants of surgeries on the fibred knot. (Received January 19, 2016)