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**Satoshi Murai**, Department of Pure and Applied Mathematics, School of Information Science and Technology, Osaka University, Toyonaka, Osaka 560-0043, Japan, and **Isabella Novik\*** ([novik@math.washington.edu](mailto:novik@math.washington.edu)), Department of Mathematics, University of Washington, Seattle, WA 98195-4350. *Face numbers of manifolds with boundary.*

We discuss several very recent results on face numbers of simplicial complexes that triangulate manifolds (or even normal pseudomanifolds) with boundary. One of our results provides a sharp lower bound on the number of interior edges of a simplicial normal pseudomanifold with boundary in terms of the number of interior vertices and relative Betti numbers. Another result is an extension of the first one to sharp lower bounds on the number of higher-dimensional interior faces of a simplicial manifold with boundary under an additional restriction that all vertex links of this manifold have the weak Lefschetz property. These results are natural analogs of known results and conjectures for closed manifolds. (Received August 07, 2015)