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Giulio Caviglia* (caviglia@math.berkeley.edu), University of California, Berkeley, 970 Evans Hall #3840, Berkeley, CA 94720-3840. *Some progress on the Lex-Plus-Power conjecture.*

We study Hilbert functions of homogeneous ideals in $K[x_1, \dots, x_n]$ containing a regular sequence of given degrees d_1, \dots, d_r . We give a complete characterization of such Hilbert functions when $d_{i+1} \geq d_1 + \dots + d_i - i - 1$, for all $i \in \{1, \dots, r - 1\}$. (Received March 08, 2006)