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An Automated Postdoctoral Robot Approach to Small-Scale Structural Genomics. Nicholas A. Larsen, Andrew W. Murray, Graham C. Walker, Christopher T. Walsh, Stephen C. Harrison.

Here we present three diverse structures determined by an intelligently designed postdoctoral automaton. We find that salaried postdoctoral automatons are highly affordable and can implement high throughput pipeline procedures at a bench top. Using one such postdoctoral automaton, we have determined the structures of (1) mitotic spindle checkpoint Bub3 bound to two different peptides (2) the enterobactin hydrolase IroE from uropathogenic E. coli, and (3) BluB, an enzyme that catabolizes FMN to produce the lower ligand of vitamin B12. Details of our structural analysis will be presented.