Figure S1. RPI-Seq database predicts a potential relationship between SNHG1 and CLEC7A. It shows a screenshot of the interface for the SNHG1 RNA-CLEC7A Protein Interaction Prediction tool. The resulting probabilities generated by the Random Forest (RF) classifier are 0.85, and those generated by the Support Vector Machine (SVM) classifier are 0.74.

IOWA STATE UNIVERSITY Search Iowa State University **RNA-Protein Interaction Prediction (RPISeg) Dobbs and Honavar Laboratories** Input Sequences Home About Protein: MEYHPDLENLDEDGYTQLHFDSQSNTRIAVVSEKGSCAASPPWRLIAVILGILCLVILVI Datasets AW/LGTMGVLSSPCPPNWIJYEKSCYLESMSLNSWDGSKROCWOLGSNLLKIDSSNELGE **Related Links** IVKQVSSQPDNSFWIGLSRPQTEVPWLWEDGSTFSSNLFQIRTTATQENPSPNCVWIHVS VIYDQLCSVPSYSICEKKFSM References RNA: Funding CUCAUUUUUCUACUGCUCGUGGAUUUACGCGCACGUUGGAACCGAAGAGAGCUCUGUUGU Contact Us UGCAAUGUUCAGCCCACAAGAGCUUACUGGUGAAGGAAUGGGACAAGACCCAUCUUUAUG CAAAGCCAGCGUUACAGUAAUGUUCCAGCAUCUCAUAAUCUAUCCUGGGGAAUUCAGCUG Links CCUCCCAGGGUGAAUACAGGUAUUCCUGAUGACAGUCUGCCUCUAUCUUACAGAGCAGCU UGUUGCUAUAUACCAUUGAAAAGCCUUCAGAGCUGAGAGGUACUACUAACCAAUAACCUG Dobbs Lab Software CUUGGCUCAAAGGGCCAGCACCUUCUCUCUAAAGCCCCAAGAGGAGUUUGAGGAAAACUAG **Bioinformatics and** GUGUCUGUGUUCACUCCAGGCUGAAGUUACAGGUCUGAGCAAAUAAGGUGUAUAAAAAAU Computational Biology GGAAUCUGUCUUGGAGGACAUCAGAAGGUGAAUUUUCCAAGUUCUUGGACAACCUAGCUG Center for UUGAAAAGCUUUCUGGGUUUGGGGGGGUAUUUCAGAUGUACCUUAAAGUGUUAGCAGACAC AGAUUAAGACACUGGGAGCCAAUGAAACAGCAGUUGAGGGUUUGCUGUGUAUCACAUUUC Computational UGUAUUUUAUCACCCCCUUCCUGCAACAUUAUUUAUCUGGAAUCUACCUGCCCUUUUGUU Intelligence, Learning & UUUUAGAUACAAGGGCUUGGUUUUGUUACCCAGGCUGGUUUCAAGGCCAUAGCUUUAAGA Discovery GAUCCUCUCACCACAGAUUUCCAAAGUGCUGGGAUUGCAGGUGUGAUUCAUGGCACCCAG Department of ACUUUGCUGCCUUUCUUACAUGAUCCAGGCCCAGAACCCAAACUCAGGCACUGUAUAGAU Genetics, Development CUCCACUUCGUGUCUGUUCCUCUGUAUACAGCCACCUUCUGUUCCCGUCAUGAGCCUUUA and Cell Biology CUCUUCACUUCAAAAAAGGUUCCCUUGAGGACUGGCUGUCAAUUUGUGUUGCUGUGUUGG Interaction probabilities Prediction using RF classifier 0.85 Prediction using SVM classifier 0.74 What do these probabilities mean? Interaction probabilities generated by RPISeq range from 0 to 1. In performance evaluation experiments, predictions with probabilities > 0.5 were considered "positive," i.e., indicating that the corresponding RNA and protein are likely to interact. Using this threshold, accuracies of the classifiers ranged from 87 - 90% in cross-validation evaluation experiments on benchmark datasets. When classifiers were tested on independent (blind) datasets of RPIs, accuracies of the classifiers ranged from 57 - 99% CCILD Please see About/FAQs for additional details IOWA STATE UNIVERSITY Becoming the best.

RPISeq Version 1.0, Last updated 12/31/2011 Dobbs Lab, (515) 294 4991, usha (at) iastate.edu Copyright © 2011 Dobbs Lab. All rights reserved.