A few additional examples.

In **Fig.1**. various kinases are presented, with which the interactions of the active site of the MYC peptide were studied.

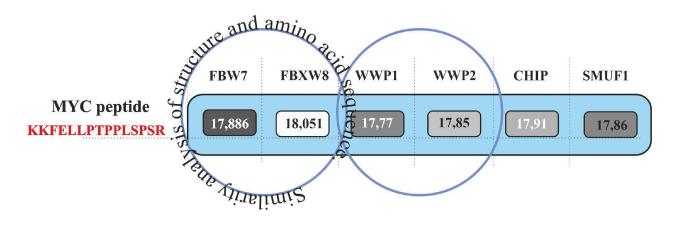


Figure 1.

The structures of the ligases **FBW7** and **FBXW8**, **WWP1** and **WWP2** are somewhat similar, so they are studied in pairs. We are interested in the smallest numerical values obtained.

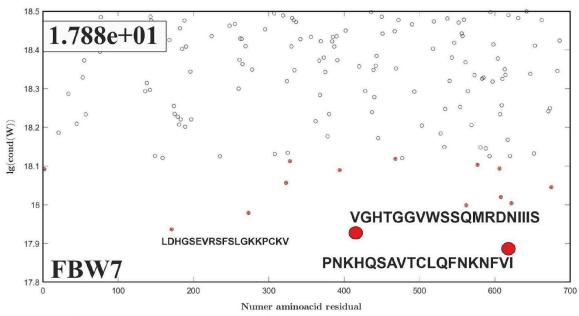
Figures 2 and **3** contain information about the results of numerical calculations, as well as the structure of **FBW7** and **FBXW8** ligases.

Figure 4 contains the results of numerical calculations indicating the domains and amino acid sequences that interact with the MYC peptide.

The second part of the **figure 4** contains an overlay of three-dimensional structures of two **FBW7** and **FBXW8** ligases in the region of the "propeller" domains.

Figures 5 and 6 contain the results of calculations for WWP1 and WWP2 molecules when interacting with the MYC peptide.

Figures 7 and **8** contain the results of calculations of the interaction of the MYC peptide with **CHIP** and **SMUF** ligases, indicating the structure of the molecules



Shift plot of the MYC peptide along the amino acid sequence of the FBW7 ligase

619	PNKHQSAVTCLQFNKNFVI	KKFELLPTPPLSPSRRSGL	1.788611e+01
417	VGHTGGVWSSQMRDNIIIS	KKFELLPTPPLSPSRRSGL	1.793076e+01
171	LDHGSEVRSFSLGKKPCKV	KKFELLPTPPLSPSRRSGL	1.793632e+01
273	PQFQRDFISLLPKELALYV	KKFELLPTPPLSPSRRSGL	1.797889e+01
562	IRVWDVETGNCIHTLTGHQ	KKFELLPTPPLSPSRRSGL	1.799851e+01
622	HQSAVTCLQFNKNFVITSS	KKFELLPTPPLSPSRRSGL	1.800396e+01
608	KTGQCLQTLQGPNKHQSAV	KKFELLPTPPLSPSRRSGL	1.802002e+01
675	RASNTKLVCAVGSRNGTEE	KKFELLPTPPLSPSRRSGL	1.804516e+01

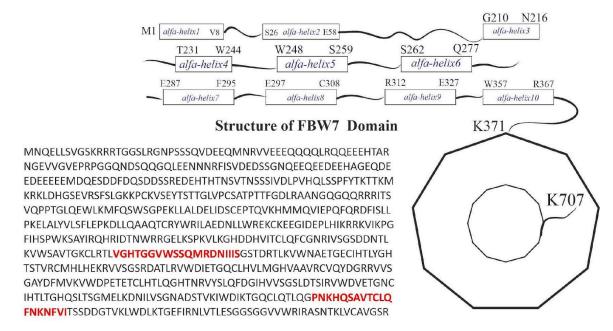
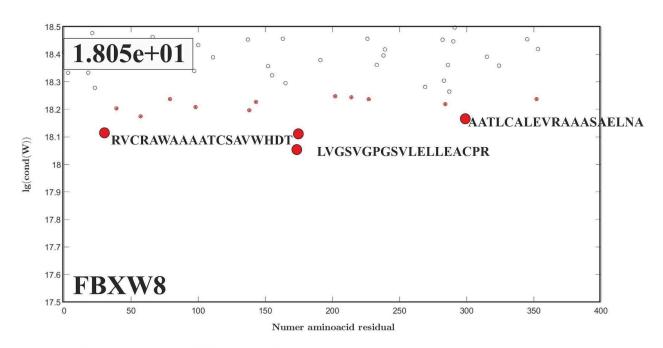


Figure 2. The results of numerical analysis of the interaction of the MYC peptide with the **FBW7** ligase, indicating the amino acid sequences, as well as the structure of the "propeller" domain.



Shift plot of the MYC peptide along the amino acid sequence of the FBXW8 ligase

173	LVGSVGPGSVLELLEACPR	KKFELLPTPPLSPSRRSGL	1.805165e+01
174	VGSVGPGSVLELLEACPRL	KKFELLPTPPLSPSRRSGL	1.811519e+01
29	RVCRAWAAAATCSAVWHDT	KKFELLPTPPLSPSRRSGL	1.811570e+01
299	AATLCALEVRAAASAELNA	KKFELLPTPPLSPSRRSGL	1.817078e+01
57	GMLPPYLSACLDHIHNLRL	KKFELLPTPPLSPSRRSGL	1.817457e+01
138	HLDLRRLSFTLDDALVLQA	KKFELLPTPPLSPSRRSGL	1.819692e+01
39	TCSAVWHDTKISCECELEG	KKFELLPTPPLSPSRRSGL	1.820355e+01
98	RAPGLRGLRLECRGEKPLF	KKFELLPTPPLSPSRRSGL	1.820815e+01
284	SGDTVGPVRFAAHHYAATL	KKFELLPTPPLSPSRRSGL	1.821891e+01
143	RLSFTLDDALVLQAARSCP	KKFELLPTPPLSPSRRSGL	1.822686e+01
227	CPEDARASPLPNEAWVALR	KKFELLPTPPLSPSRRSGL	1.823675e+01
352	RLRTYTLKLTREPHPWRPT	KKFELLPTPPLSPSRRSGL	1.823720e+01
79	PSRKPSRRAAIELLMVLAG	KKFELLPTPPLSPSRRSGL	1.823744e+01
214	DRAPFALLALRCACPEDAR	KKFELLPTPPLSPSRRSGL	1.824370e+01
202	LSHAILEALAAPDRAPFAL	KKFELLPTPPLSPSRRSGL	1.824752e+01

Figure 3. The results of numerical analysis of the interaction of the MYC peptide with the **FBXW8** ligase, indicating the amino acid sequences.

Color indicates the identified amino acid sequences that are involved in binding to the MYC peptide.

MNQELLSVGSKRRRTGGSLRGNPSSSQVDEEQMNRVVEEEQQQQLRQQEEEHTARNGEVVGVEPRPGGQNDSQQGQLEENNNRFISVDEDS SGNQEEQEEDEHAGEQDEEDEEEEMDQESDDFDQSDDSSREDEHTHTNSVTNSSSIVDLPVHQLSSPFYTKTTKMKRKLDHGSEVRSFSLGKK PCKVSEYTSTTGLVPCSATPTTFGDLRAANGQGQQRRRITSVQPPTGLQEWLKMFQSWSGPEKLLALDELIDSCEPTQVKHMMQVIEPQFQRDFI SLLPKELALYVLSFLEPKDLLQAAQTCRYWRILAEDNLLWREKCKEEGIDEPLHIKRRKVIKPGFIHSPWKSAYIRQHRIDTNWRRGELKSPKVLKGHD DHVITCLQFCGNRIVSGDDNTLKKVWSAVTGKCLRTLYGHTGGVWSSQMRDNIIISGSTDRTLKVWNAETGECIHTLYGHTSTVRCMHLHEKRVV SGSRDATLRVWDIETGQCLHVLMGHVAAVRCVQYDGRRVVSGAYDFMVKVWDPETETCLHTLQGHTNRVYSLQFDGIHVVSGSLDTSIRVWDV ETGNCIHTLTGHQSLTSGMELKDNILVSGNADSTVKIWDIKTGQCLQTLQGPNKHQSAVTCLQFNKNFVITSSDDGTVKLWDLKTGEFIRNLVTLES GGSGGVVWRIRASNTKLVCAVGSRNGTEETKLLVLDFDVDMK

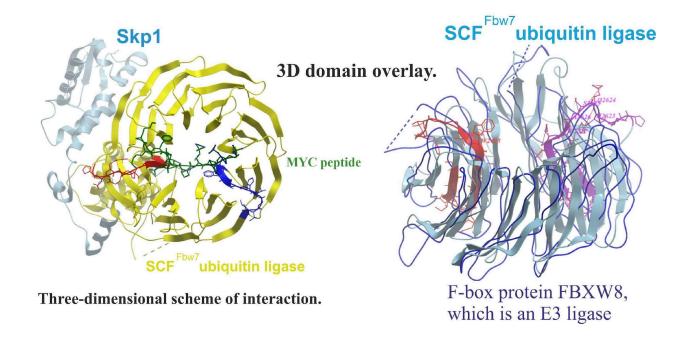
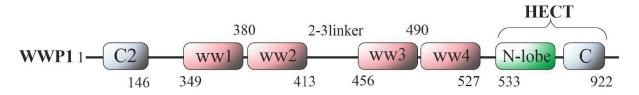
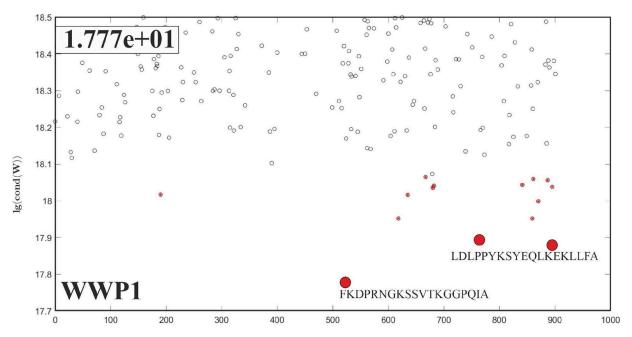


Figure 4. The assembled three-dimensional model involving Fbw7 ligase and MYC peptide, the amino acid sequence is shown with indication of the found sequences.

A three-dimensional comparison of the "propeller" domains of two ligases FBXW8 and **FBW7** is given.



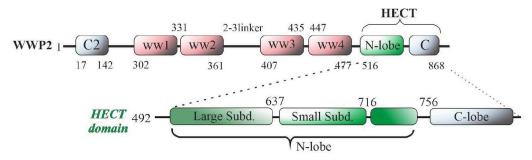
Structure of WW Domain Containing E3 Ubiquitin Protein Ligase 1



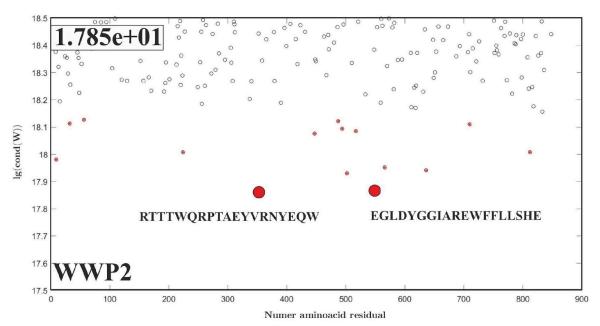
Shift plot of the MYC peptide along the amino acid sequence of the WWP1 ligase

523	FKDPRNGKSSVTKGGPQIA	KKFELLPTPPLSPSRRSGL 1.777744e+01
893	LDLPPYKSYEQLKEKLLFA	KKFELLPTPPLSPSRRSGL 1.787564e+01
762	WRFSRGVQEQTKAFLDGFN	KKFELLPTPPLSPSRRSGL 1.789587e+01
859	GFAELMGSNGPQKFCIEKV	KKFELLPTPPLSPSRRSGL 1.795186e+01
618	LSHEVLNPMYCLFEYAGKN	KKFELLPTPPLSPSRRSGL 1.795195e+01
870	QKFCIEKVGKDTWLPRSHT	KKFELLPTPPLSPSRRSGL 1.799886e+01
635	KNNYCLQINPASTINPDHL	KKFELLPTPPLSPSRRSGL 1.801605e+01
190	NHVPTSTLVQNSCCSYVVN	KKFELLPTPPLSPSRRSGL 1.801677e+01
680	PFYKRMLSKKLTIKDLESI	KKFELLPTPPLSPSRRSGL 1.803545e+01
895	LPPYKSYEQLKEKLLFAIE	KKFELLPTPPLSPSRRSGL 1.803773e+01
682	YKRMLSKKLTIKDLESIDT	KKFELLPTPPLSPSRRSGL 1.804081e+01
841	VRMRLLQFVTGTCRLPLGG	KKFELLPTPPLSPSRRSGL 1.804322e+01
887	HTCFNRLDLPPYKSYEQLK	KKFELLPTPPLSPSRRSGL 1.805628e+01

Figure 5. The results of numerical analysis of the interaction of the MYC peptide with the **WWP1** ligase, indicating the amino acid sequences, as well as the structure of the domain.



Structure of WW Domain Containing E3 Ubiquitin Protein Ligase 2



Shift plot of the MYC peptide along the amino acid sequence of the WWP2 ligase

353	RTTTWQRPTAEYVRNYEQW	KKFELLPTPPLSPSRRSGL 1.785669e+01
551	EGLDYGGIAREWFFLLSHE	KKFELLPTPPLSPSRRSGL 1.786919e+01
502	RFLCHSNALPSHVKISVSR	KKFELLPTPPLSPSRRSGL 1.793021e+01
636	KRPTLKDLESIDPEFYNSI	KKFELLPTPPLSPSRRSGL 1.794161e+01
566	LSHEVLNPMYCLFEYAGKN	KKFELLPTPPLSPSRRSGL 1.795195e+01
9	GVALPFEKSQLTLKVVSAK	KKFELLPTPPLSPSRRSGL 1.798044e+01
224	SGHSGLANGTVNDEPTTAT	KKFELLPTPPLSPSRRSGL 1.800744e+01
812	IGSNGPQKFCIDKVGKETW	KKFELLPTPPLSPSRRSGL 1.800780e+01
447	PGWEMKYTSEGVRYFVDHN	KKFELLPTPPLSPSRRSGL 1.807607e+01
517	SVSRQTLFEDSFQQIMNMK	KKFELLPTPPLSPSRRSGL 1.808469e+01
494	FRWKYHQFRFLCHSNALPS	KKFELLPTPPLSPSRRSGL 1.809416e+01
710	WRFTRGVEEQTKAFLDGFN	KKFELLPTPPLSPSRRSGL 1.811028e+01

Figure 6. The results of numerical analysis of the interaction of the MYC peptide with the **WWP2** ligase, indicating the amino acid sequences, as well as the structure of the domain.

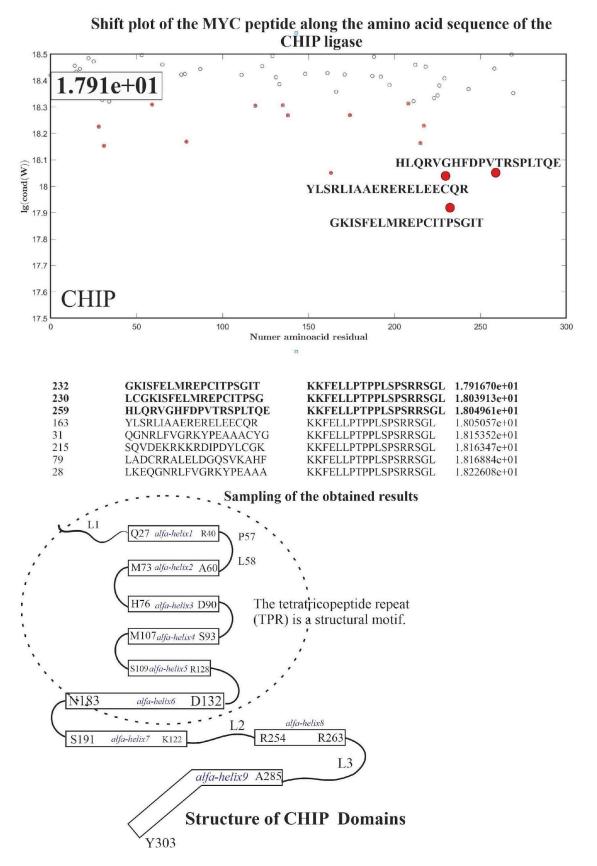
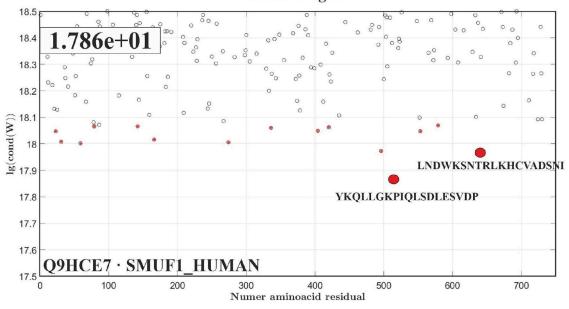


Figure 7. The results of numerical analysis of the interaction of the MYC peptide with the **CHIP** ligase, indicating the amino acid sequences, as well as the structure of the domain.

Shift plot of the MYC peptide along the amino acid sequence of the SMUF1 ligase



514	YKQLLGKPIQLSDLESVDP	KKFELLPTPPLSPSRRSGL	1.786918e+01
639	LNDWKSNTRLKHCVADSNI	KKFELLPTPPLSPSRRSGL	1.796568e+01
496	GLAVFHGHYINGGFTVPFY	KKFELLPTPPLSPSRRSGL	1.797297e+01
59	PKWNQHYDLYVGKTDSITI	KKFELLPTPPLSPSRRSGL	1.800196e+01
274	PGGDAAFLYEFLLQGHTSE	KKFELLPTPPLSPSRRSGL	1.800562c+01
31	RLPDPFAKIVVDGSGQCHS	KKFELLPTPPLSPSRRSGL	1.800731e+01
166	GPGRPLSCFMEEPAPYTDS	KKFELLPTPPLSPSRRSGL	1.801576e+01
23	NLAKKDFFRLPDPFAKIVV	KKFELLPTPPLSPSRRSGL	1.804675e+01
553	TECVEHNAEGRILOHELKP	KKFELLPTPPLSPSRRSGL	1 804738e+01

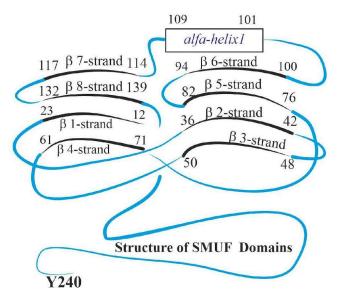


Figure 8. The results of numerical analysis of the interaction of the MYC peptide with the **SMUF1** ligase, indicating the amino acid sequences, as well as the structure of the domain.