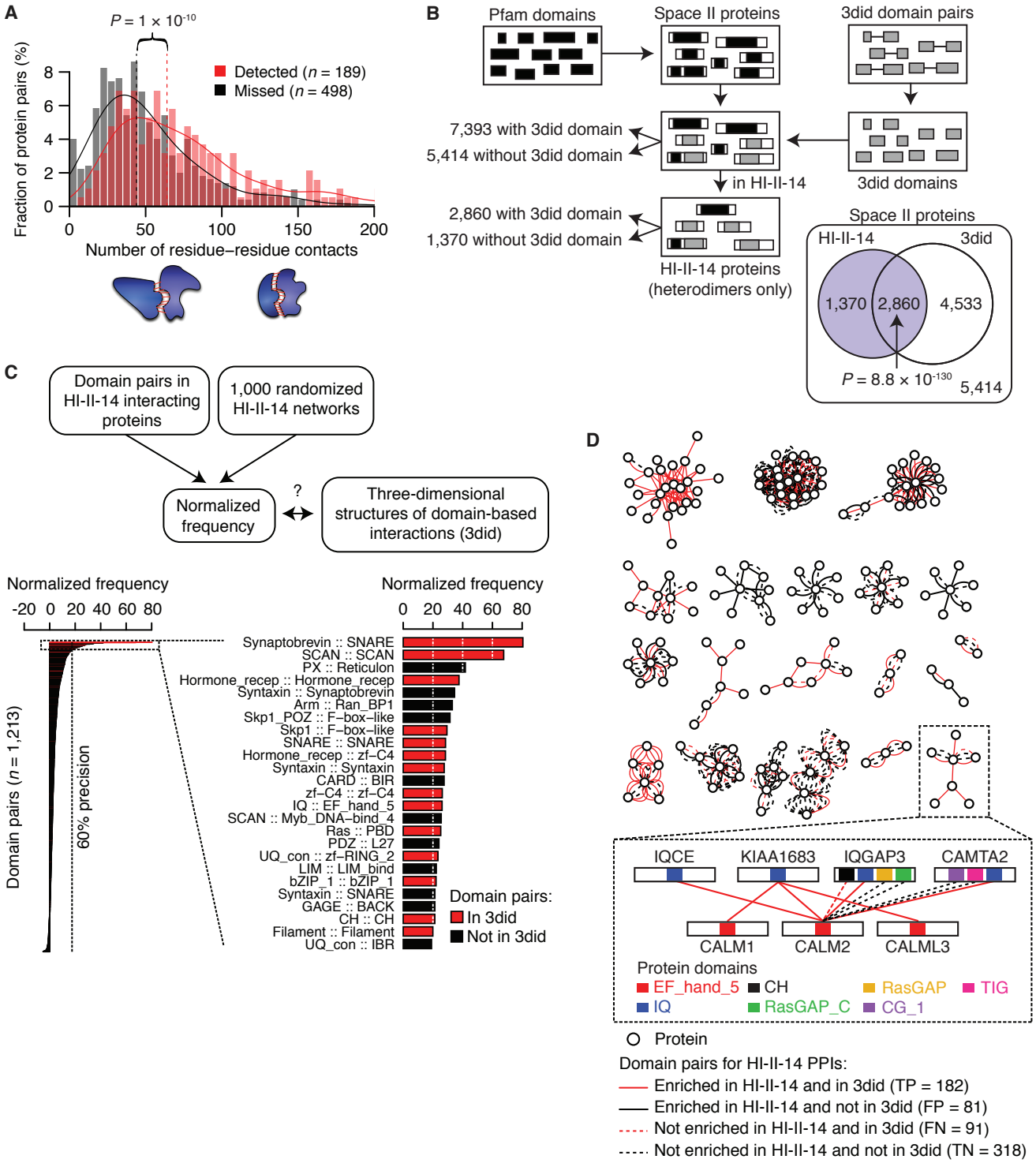
A
P = 1 × 10-10
Detected (n = 189)
Missed (n = 498)
Fraction of protein pairs (%)
Number of residue–residue contacts
B
Pfam domains
Space II proteins
3did domain pairs
7,393 with 3did domain
5,414 without 3did domain
in HI-II-14
3did domains
2,860 with 3did domain
1,370 without 3did domain
HI-II-14 proteins
(heterodimers only)
Space II proteins
HI-II-14
3did
1,370
2,860
4,533
P = 8.8 × 10-130
5,414
C
Domain pairs in HI-II-14 interacting proteins
1,000 randomized HI-II-14 networks
Normalized frequency
?
Three-dimensional structures of domain-based interactions (3did)
Normalized frequency
Normalized frequency
Domain pairs (n = 1,213)
60% precision
Synaptobrevin :: SNARE
SCAN :: SCAN
PX :: Reticulon
Hormone_recep :: Hormone_recep
Syntaxin :: Synaptobrevin
Arm :: Ran_BP1
Skp1_POZ :: F–box–like
Skp1 :: F–box–like
SNARE :: SNARE
Hormone_recep :: zf–C4
Syntaxin :: Syntaxin
CARD :: BIR
zf–C4 :: zf–C4
IQ :: EF_hand_5
SCAN :: Myb_DNA–bind_4
Ras :: PBD
PDZ :: L27
UQ_con :: zf–RING_2
LIM :: LIM_bind
bZIP_1 :: bZIP_1
Syntaxin :: SNARE
GAGE :: BACK
CH :: CH
Filament :: Filament
UQ_con :: IBR
Domain pairs:
In 3did
Not in 3did
D
IQCE
KIAA1683
IQGAP3
CAMTA2
CALM1
CALM2
CALML3
Protein domains
EF_hand_5
CH
RasGAP
TIG
IQ
RasGAP_C
CG_1
Protein
Domain pairs for HI-II-14 PPIs:
Enriched in HI-II-14 and in 3did (TP = 182)
Enriched in HI-II-14 and not in 3did (FP = 81)
Not enriched in HI-II-14 and in 3did (FN = 91)
Not enriched in HI-II-14 and not in 3did (TN = 318)