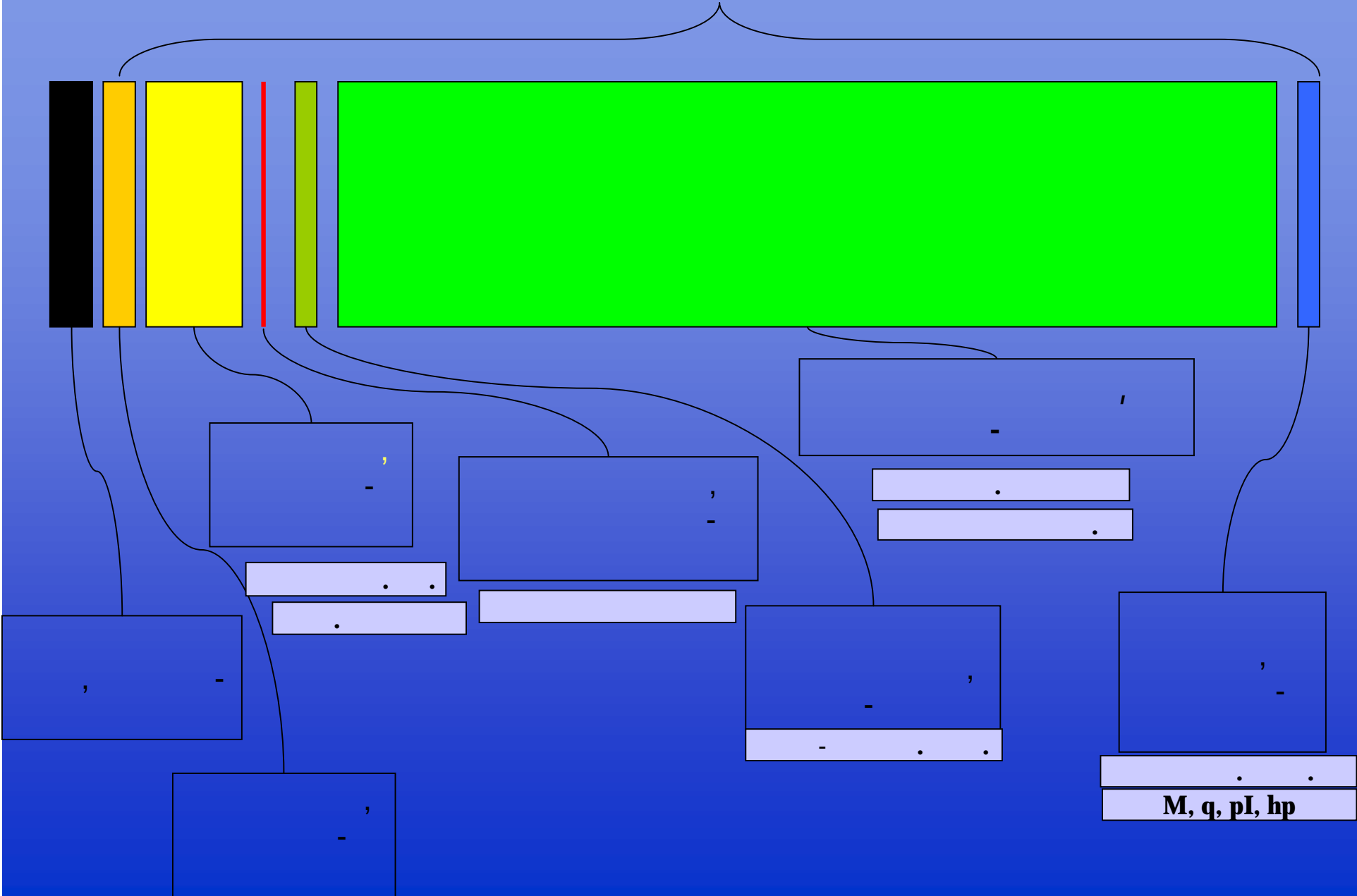


1D !

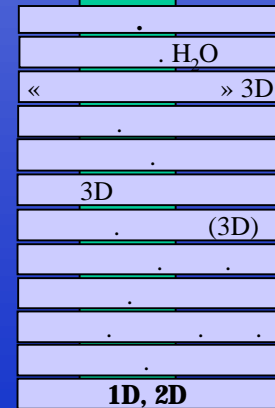
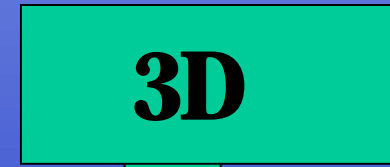
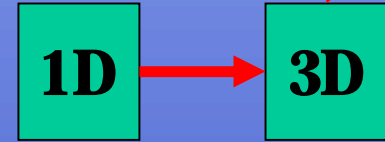
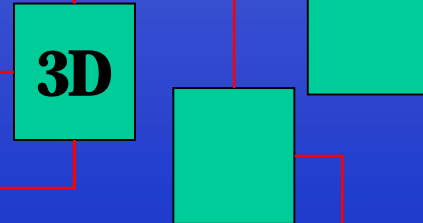
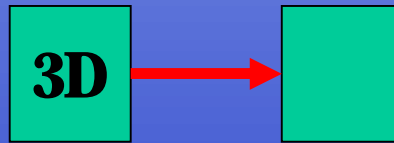
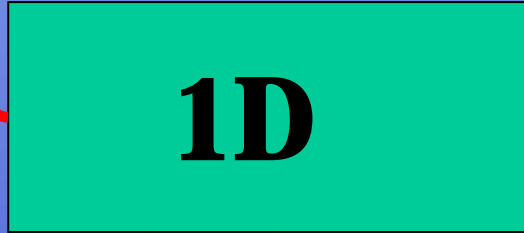
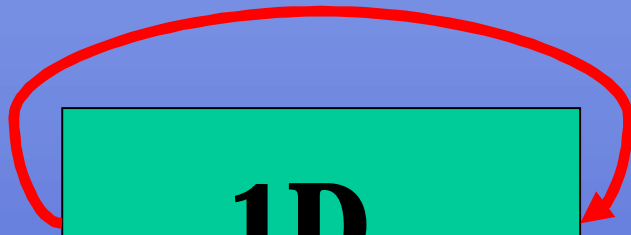


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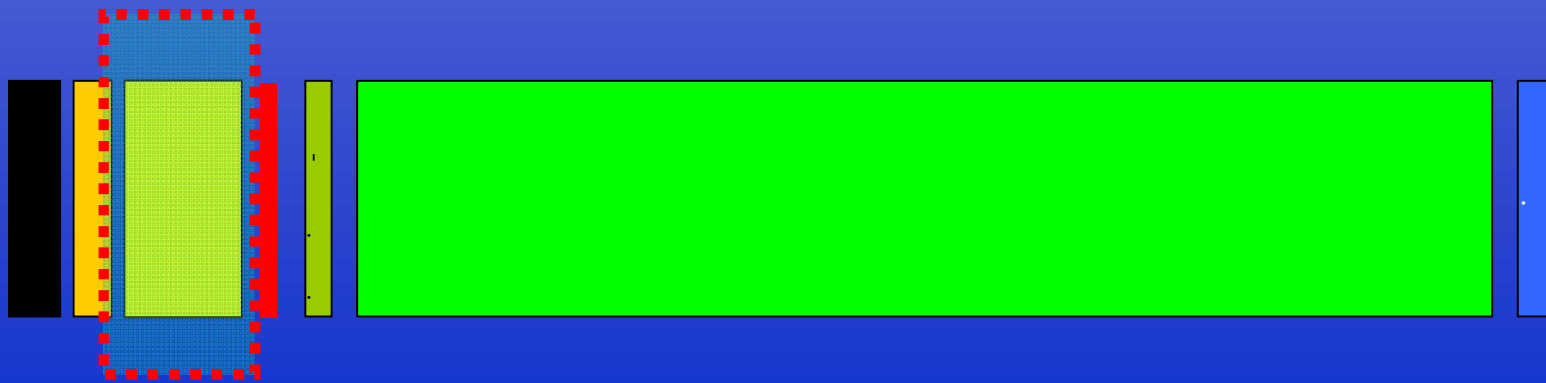
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1D > 1D -

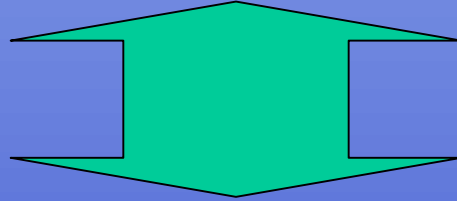


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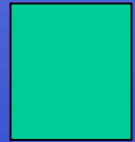
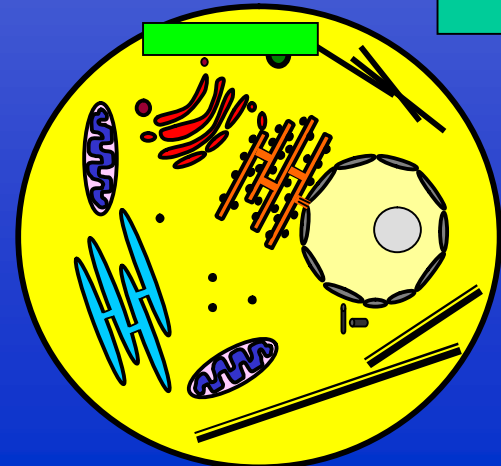
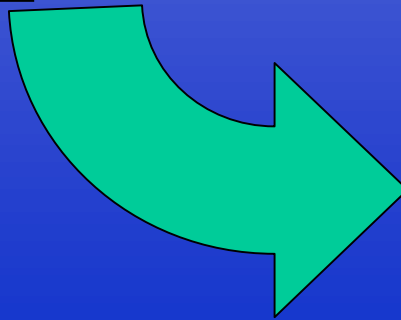
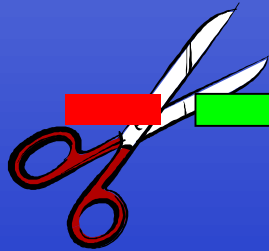


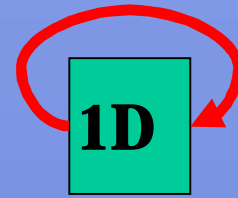
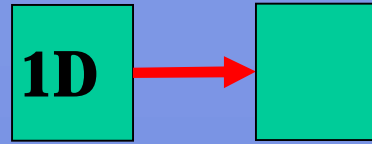
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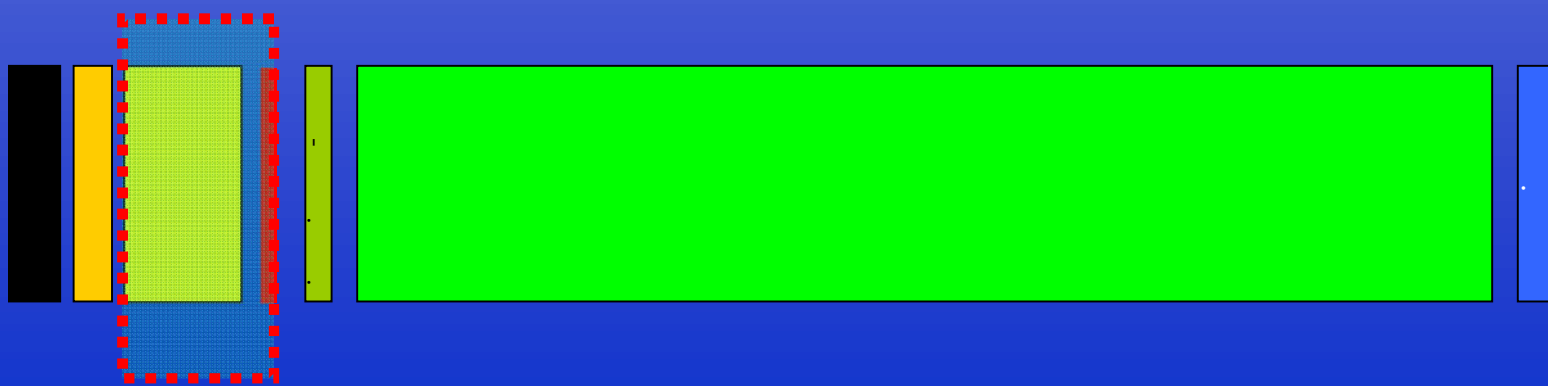
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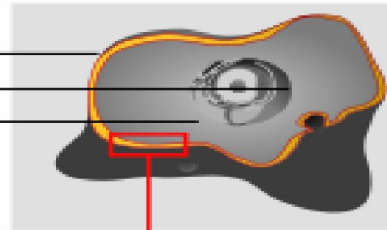
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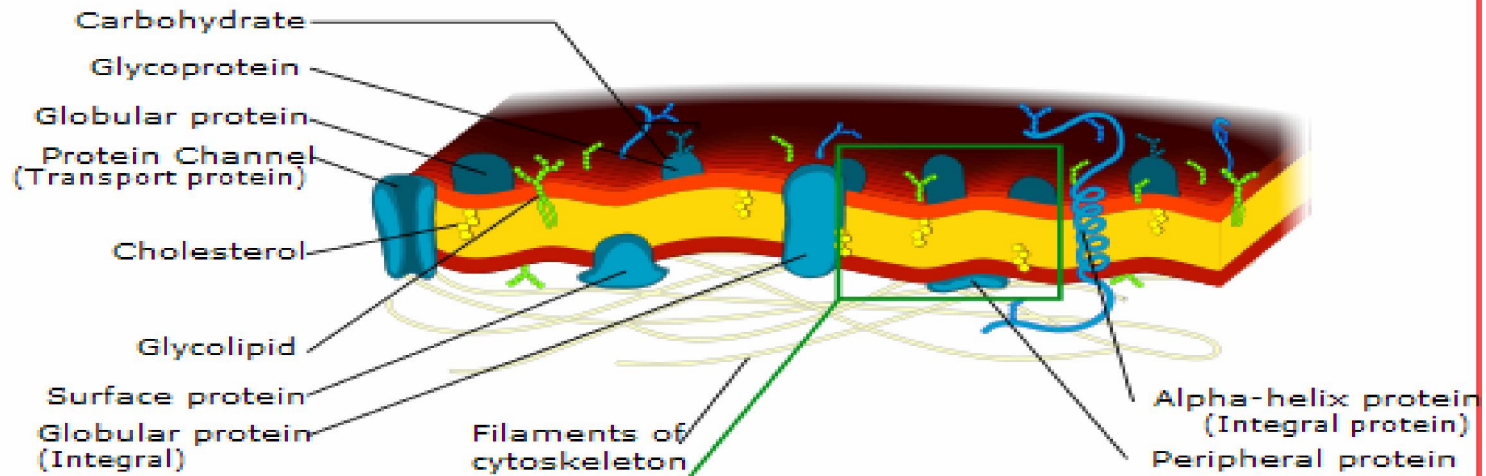


Cell

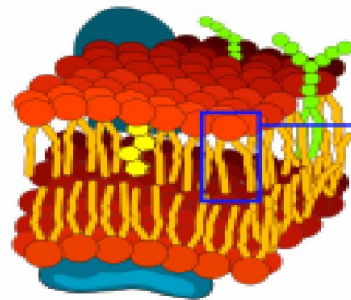
Extracellular fluid
Nucleus
Cytoplasm



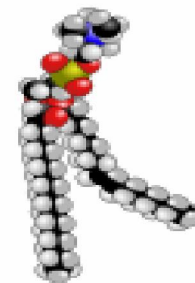
Cell membrane



Phospholipid bilayer



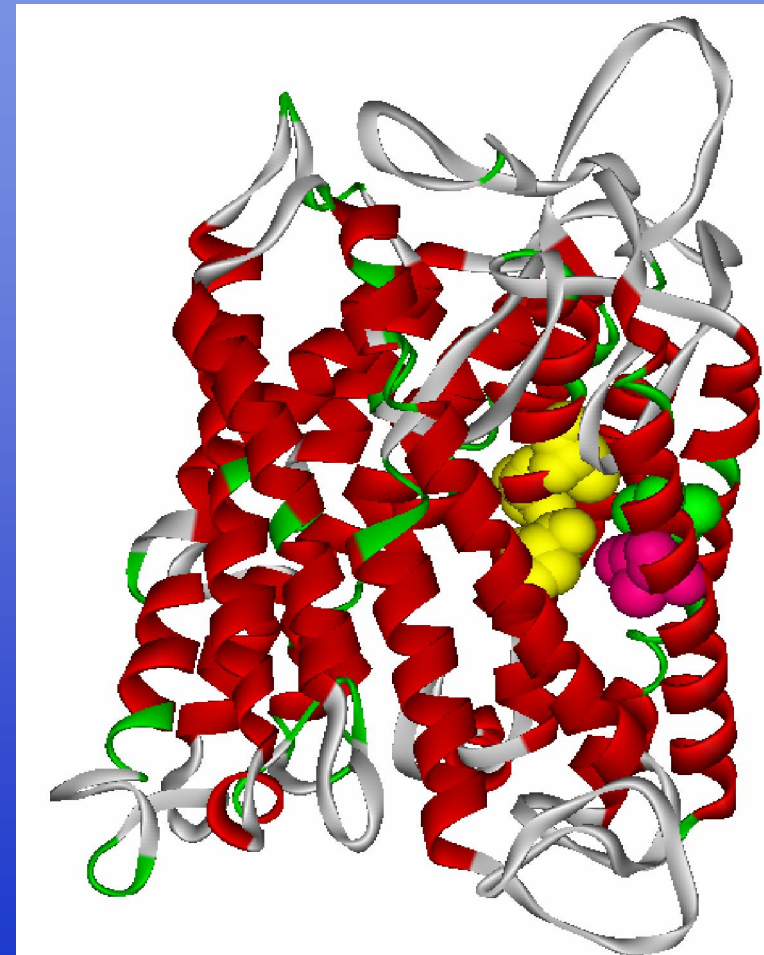
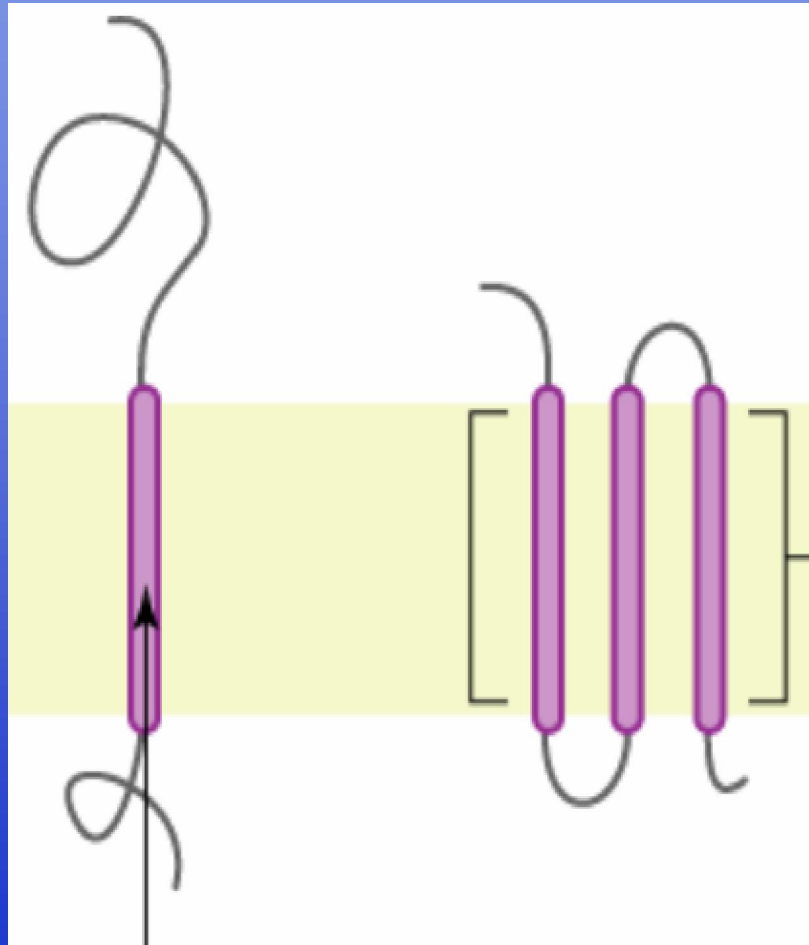
Phospholipid (Phosphatidylcholine)

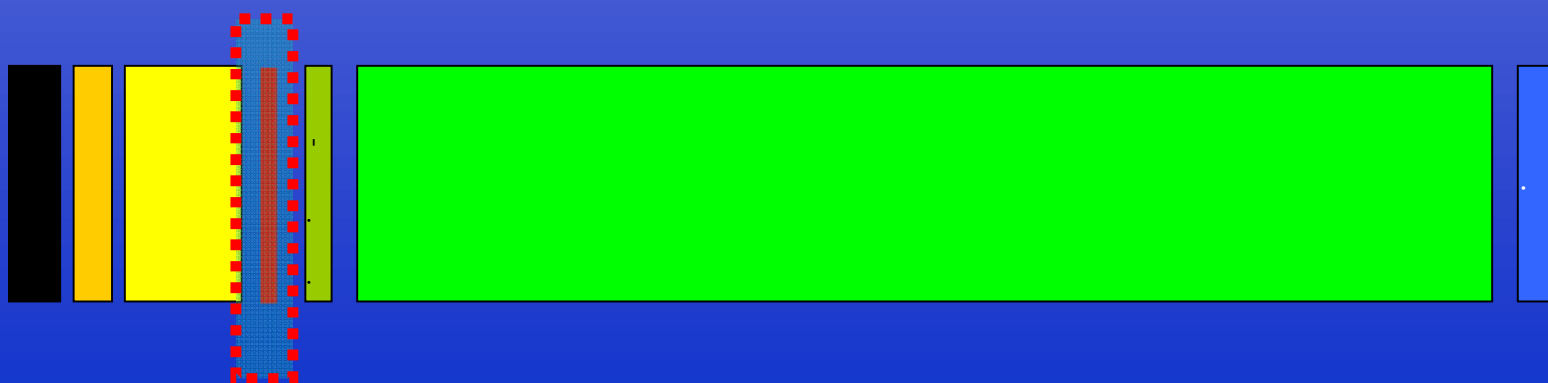


Hydrophilic head

Hydrophobic tail

1D





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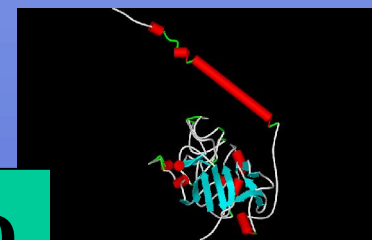
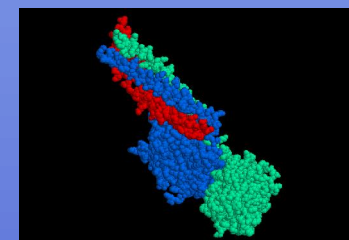
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1D>3D

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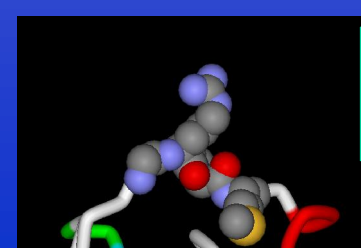
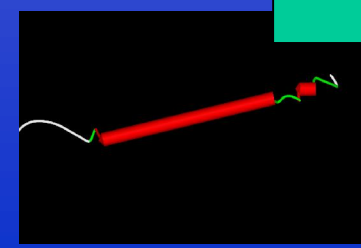
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3D

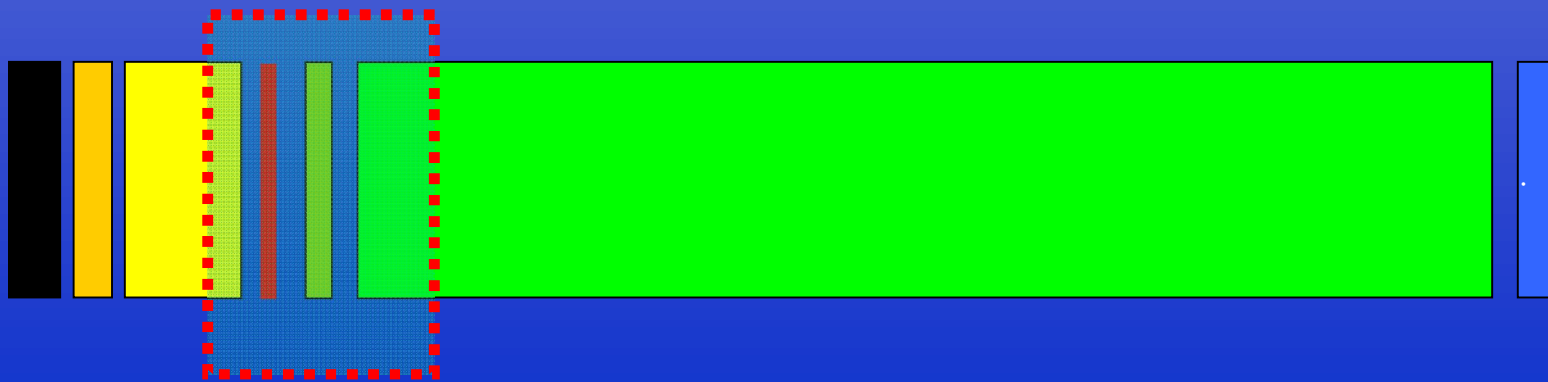


2D



1D

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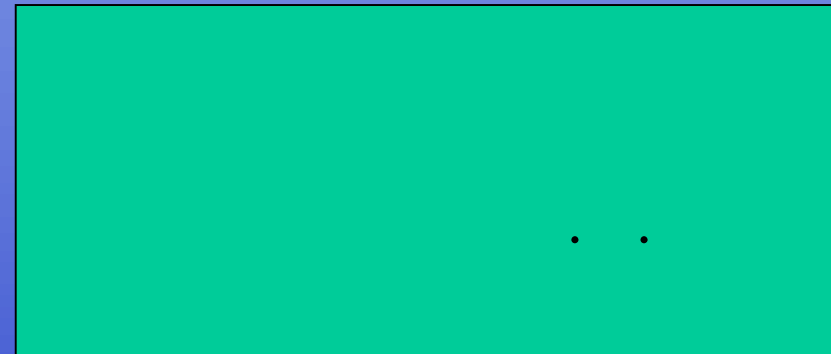
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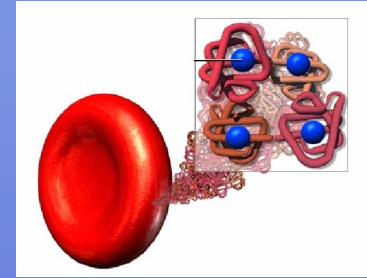
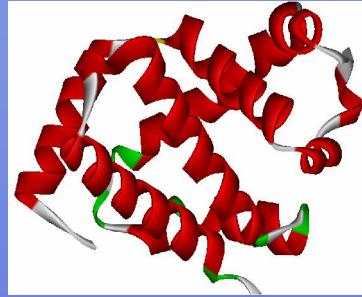
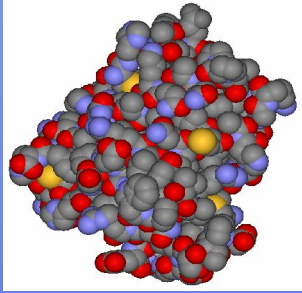
in vivo

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- acylation
 - acetylation
 - formylation
 - lipoylation, lipoate (C8)
 - myristoylation, myristate, (C14)
 - palmitoylation, palmitate, (C16)
- alkylation
 - methylation
 - isoprenylation
- gamma-carboxylation (Vitamin K)
- glycosylation, ASN, SER, THR, LYS
- iodination ()
- nitrosylation
- phosphorylation (SER, THR, TYR, HIS)
- sulfation (TYR)
- selenoylation (CYS, MET)
- _____ ()
- _____ ()
 - ISGylation, ISG15 (Interferon-Stimulated Gene 15)
 - SUMOylation, SUMO protein (Small Ubiquitin-related MODifier)
 - ubiquitination, ubiquitin.



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 - _____
 - _____
- _____ ()

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	1		?
	2	N- .	HbA1c
	9	N- .	?
	18	N- .	HbA1c
	33-		7 1
	67	N- .	HbA1c
	94	S-	2
	121	N- .	?
	131		?
	145	N- .	?

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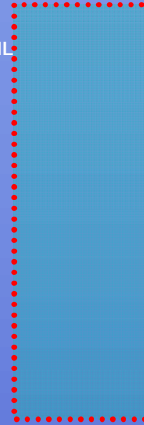
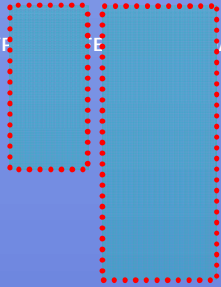
1D

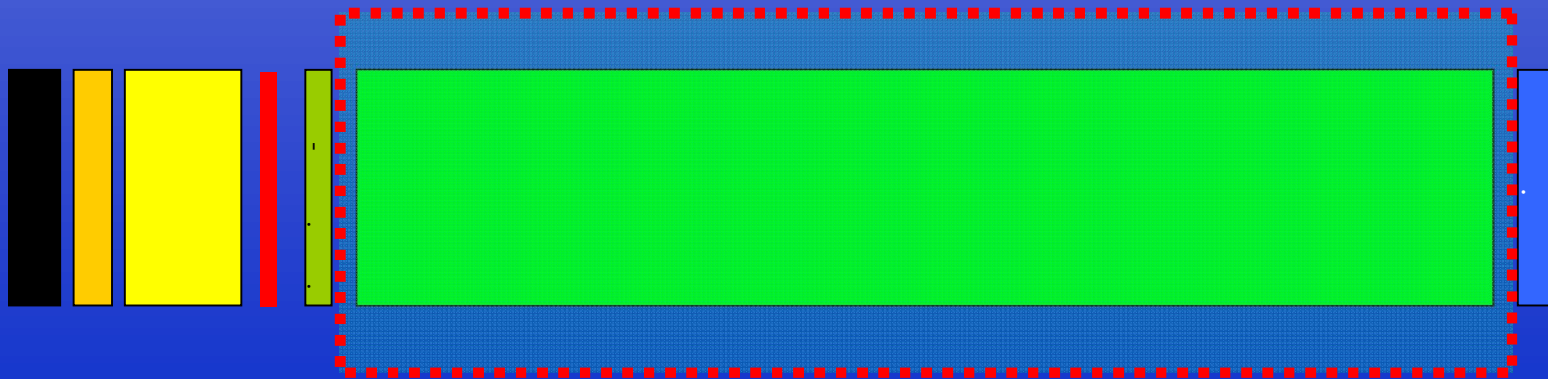
VHLTPEEKSAVTALWGKVVNDEVGGEALGRLLVYF **TE** AVMGNPVKKAHGKKVLGAFSDGLAHL DNL CDKLHVDPENFRLLGNVLCVLAHHFGKEFTPPVQAAYQKVVAGVANALAHK

PKC

CK2

MYR





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(3D)

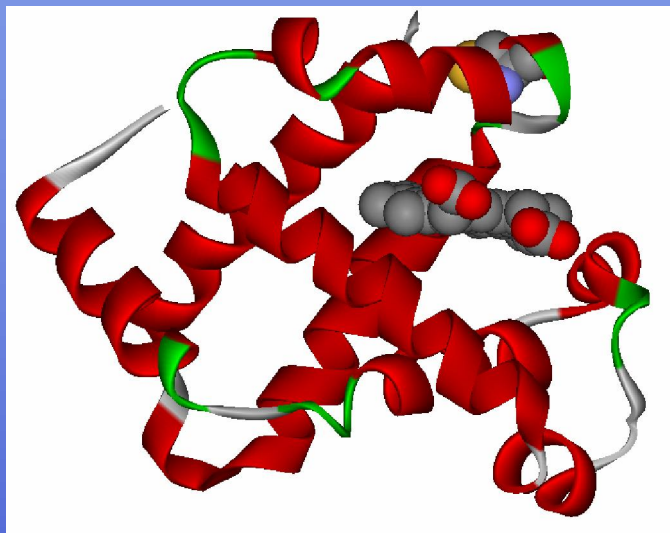
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1D,

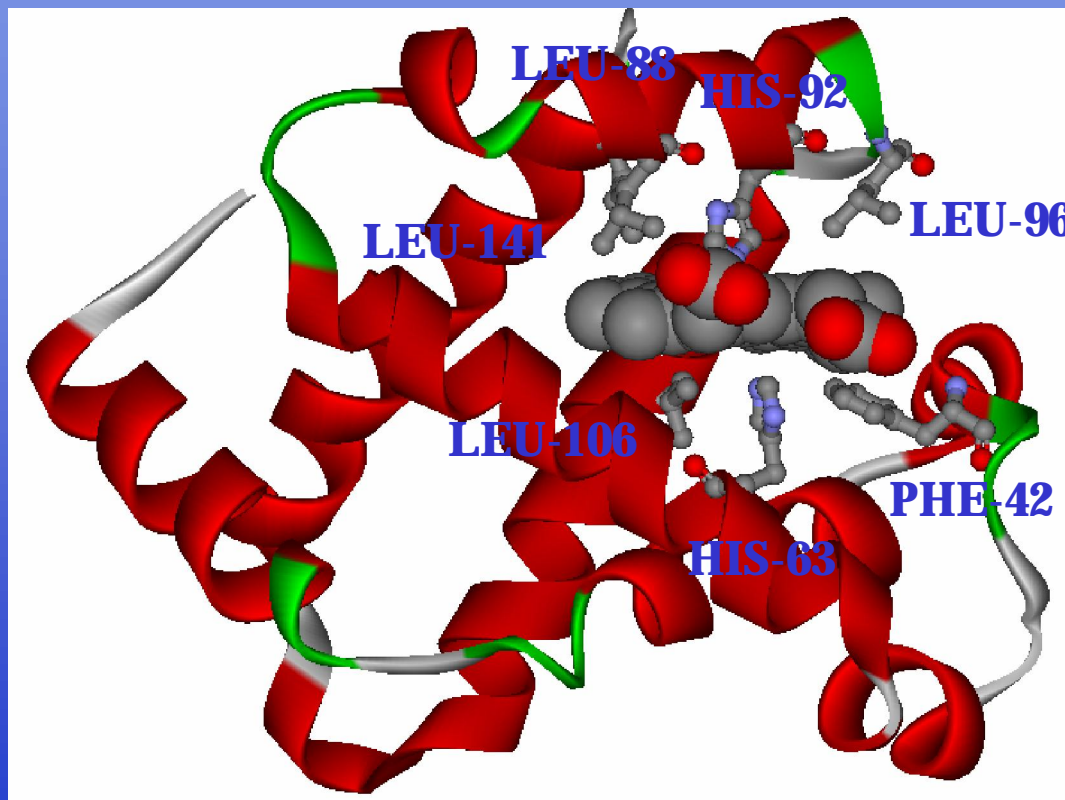
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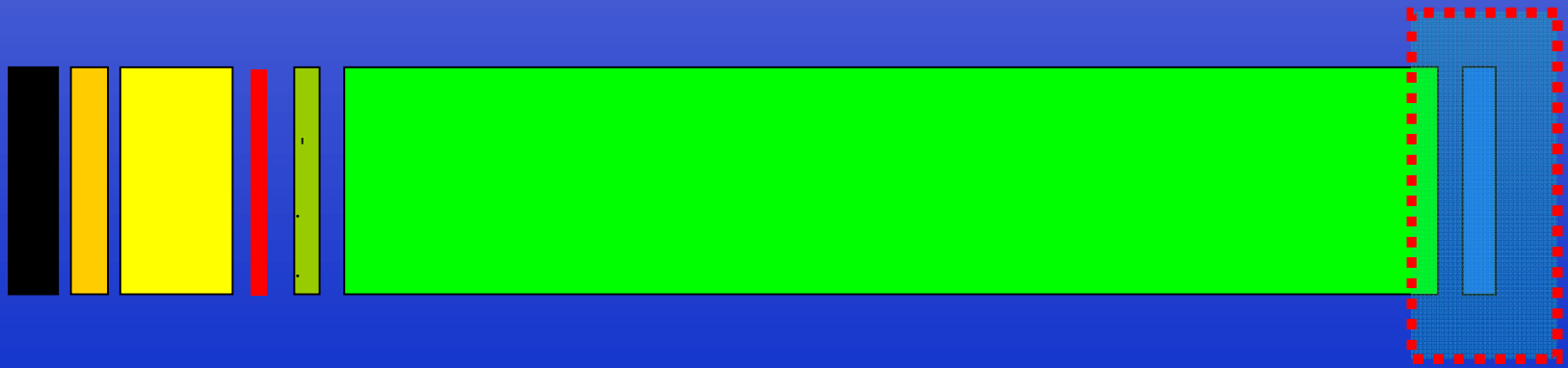


**PHE-42, HIS-63, LEU-88,
HIS-92, LEU-96, LEU-106,
LEU-141**



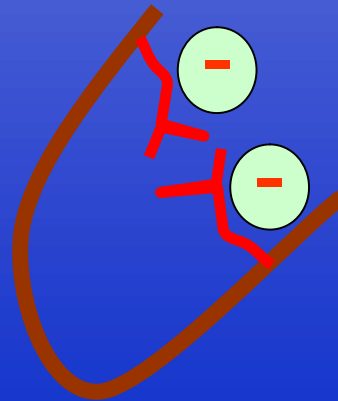
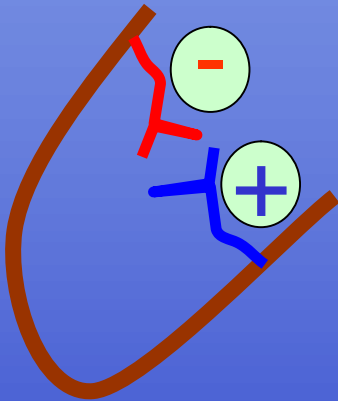
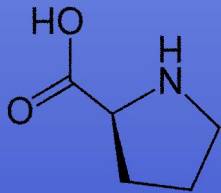
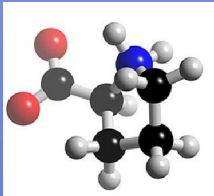
VHLTPEEKSAVTALWGKVVNDEVGGEALGRLLVVYPWTORF**F**ESFGDLSTPDVAVMGPKVKA**H**GKKVLGAFSDGLAHLNLDLKGTFAT**L**SEL**H**CDK**L**HVDPENFRLLGNVLVCVLAHHFGKEFTPPVQAAYQKVVAGVANA**L**AHK

1D



1D

3D



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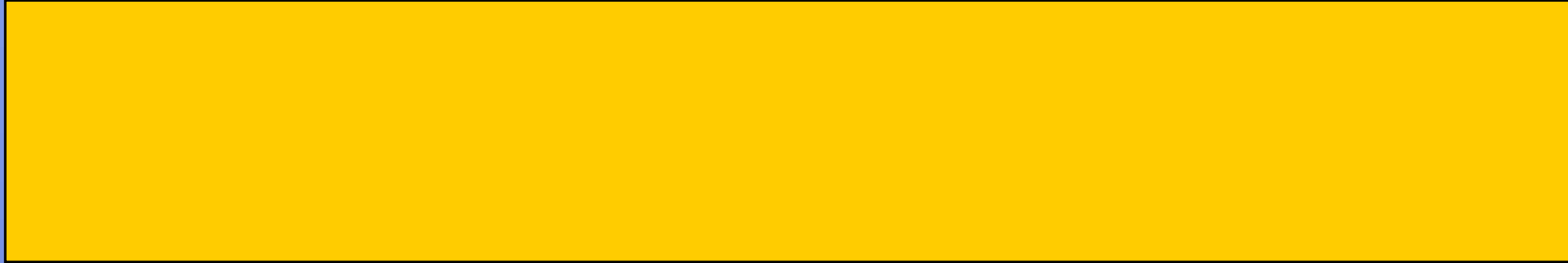
– .
– .

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– Ile, Arg, Glu, Lys

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– Ser, Asn, Gln, Thr, Met



- $(t_{1/2}, G),$ /

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- G ,

- (disordered regions)

- \mathbb{Z}^2 , G
 $- 1D +$
 $- 3D +$ (\cdot)

- $- 1D$, $1D$

- $1D$

- $-$

1D

