

COLLAGEN SYNTHESISa Waddington's Mind Bender

pro- $\alpha$ -chain on ribosome  
TAKE A FIBROBLAST.

free pro- $\alpha$ -chain  
Buy a gun to  
shoot it, or lose next  
TURN.

NH<sub>2</sub>  
SHHH (you know who!)

if double 2  
Kuron - you are  
guillotined with three goes  
for glue to st. or find 2  
hydrogen bonds.

pro-collagen prolyl and lysyl  
hydroxylases act in Scene 2  
take 10 Å for winning oscar.

caught by loose  
fibroblast - go to hospital  
or synthesize one more  
of EXTRA-  
CELLULAR  
MATRIX

FIBROBLASTING  
go back to pro- $\alpha$ -chain  
on ribosome.

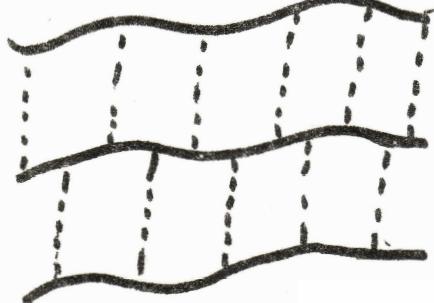
NH<sub>2</sub>  
SH  
hydroxy-lysyl residues  
glycosylated (N. python trap)  
NH<sub>2</sub>  
SH

disulphide bridges form  
pro-collagen trimer,  
which is extruded from  
fibroblast.



The House K1

If S-containing amino terminal regions removed, trimer maintained by ionic bonds only, so go to jail



JAIL -  
lysine oxidation leads to  
cross-linkage → insoluble  
collagen molecule RETURN  
TO START IF TWO PLAYERS  
HAND ON THIS SENTENCE.

Python go to hydroxy-lysyl residue (glycosylated) do not pass go do not collect 2

300 nm

1.4 nm

"COLLAGEN SYNTHESIS"

→ A Waddington's Mind Bender

