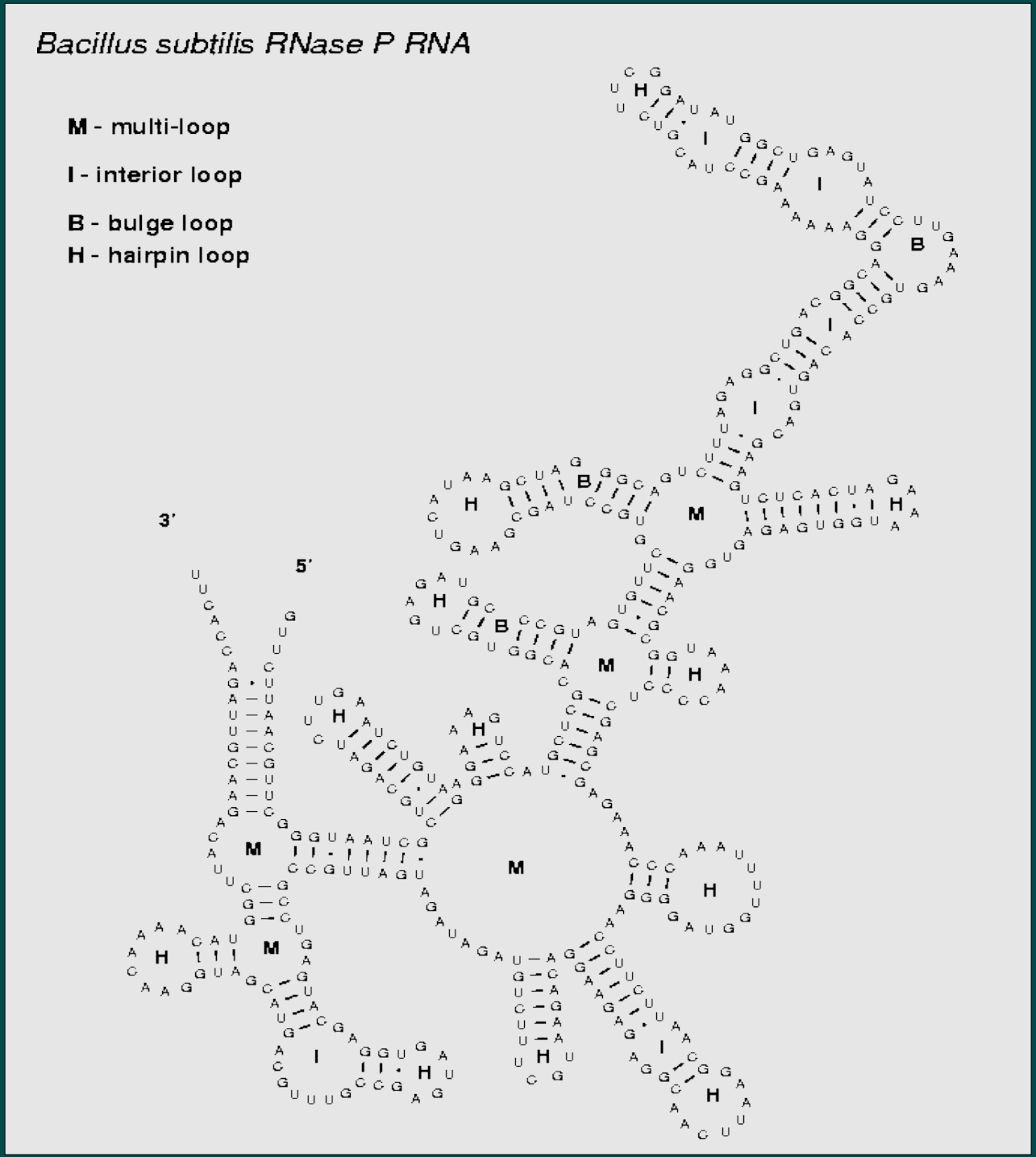
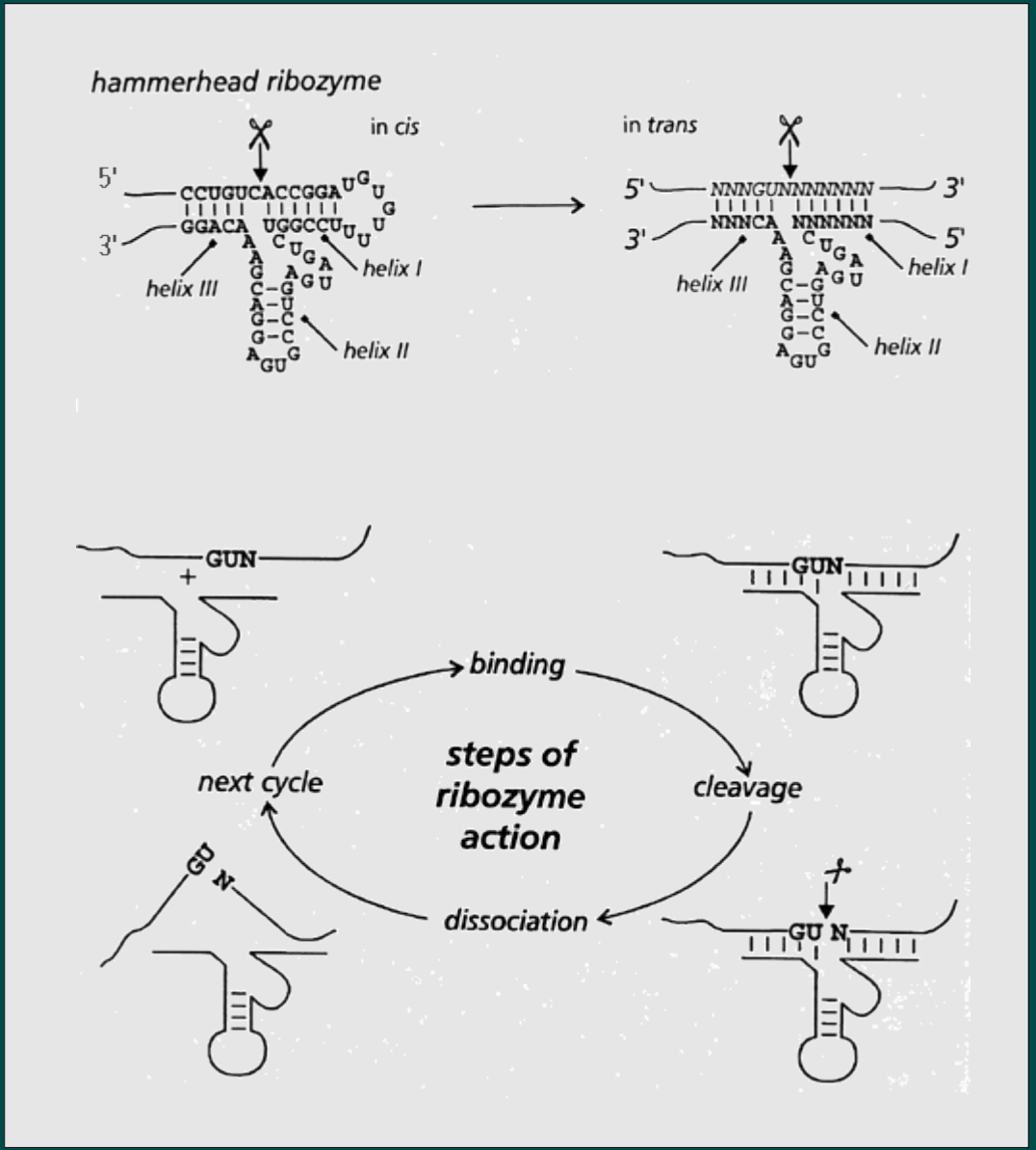
Sekundární struktura RNA



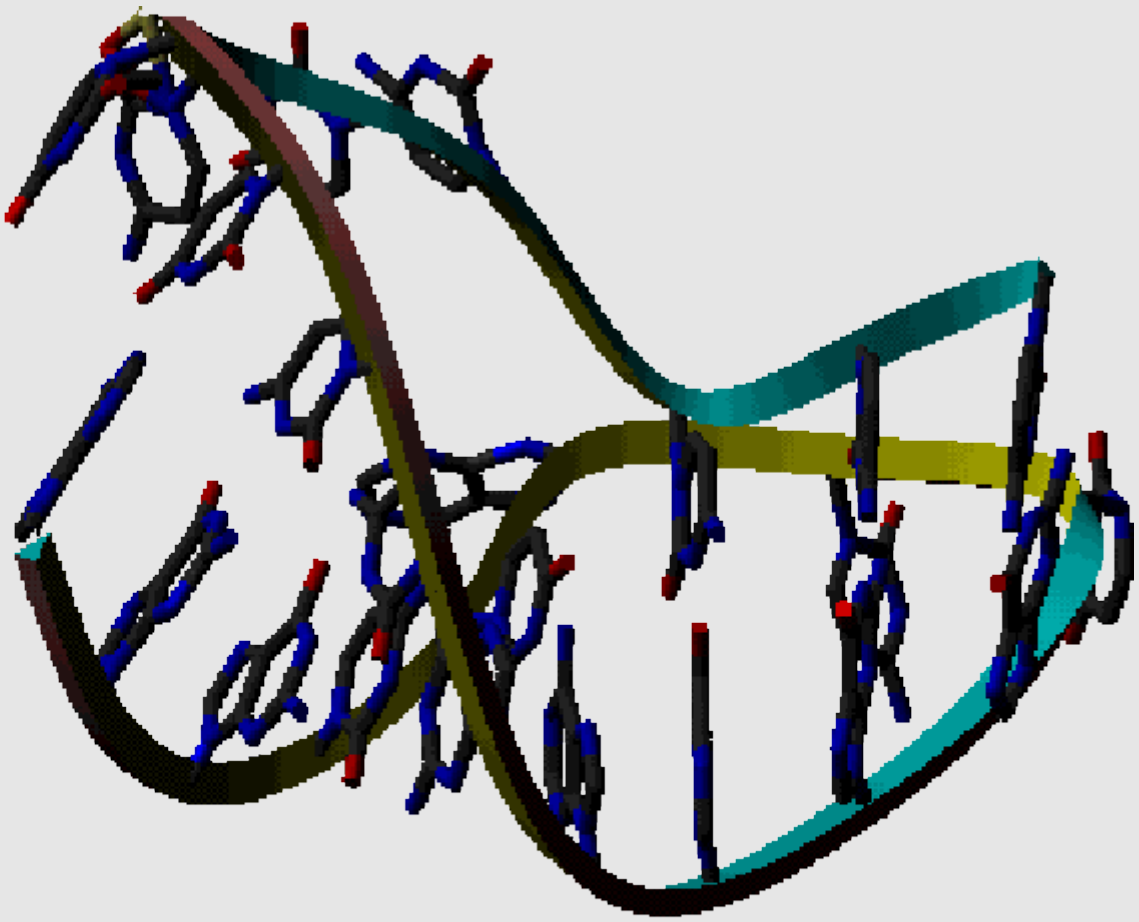
Terciární struktura RNA

RNA jako enzym



Pseudouzel

(pseudoknot)

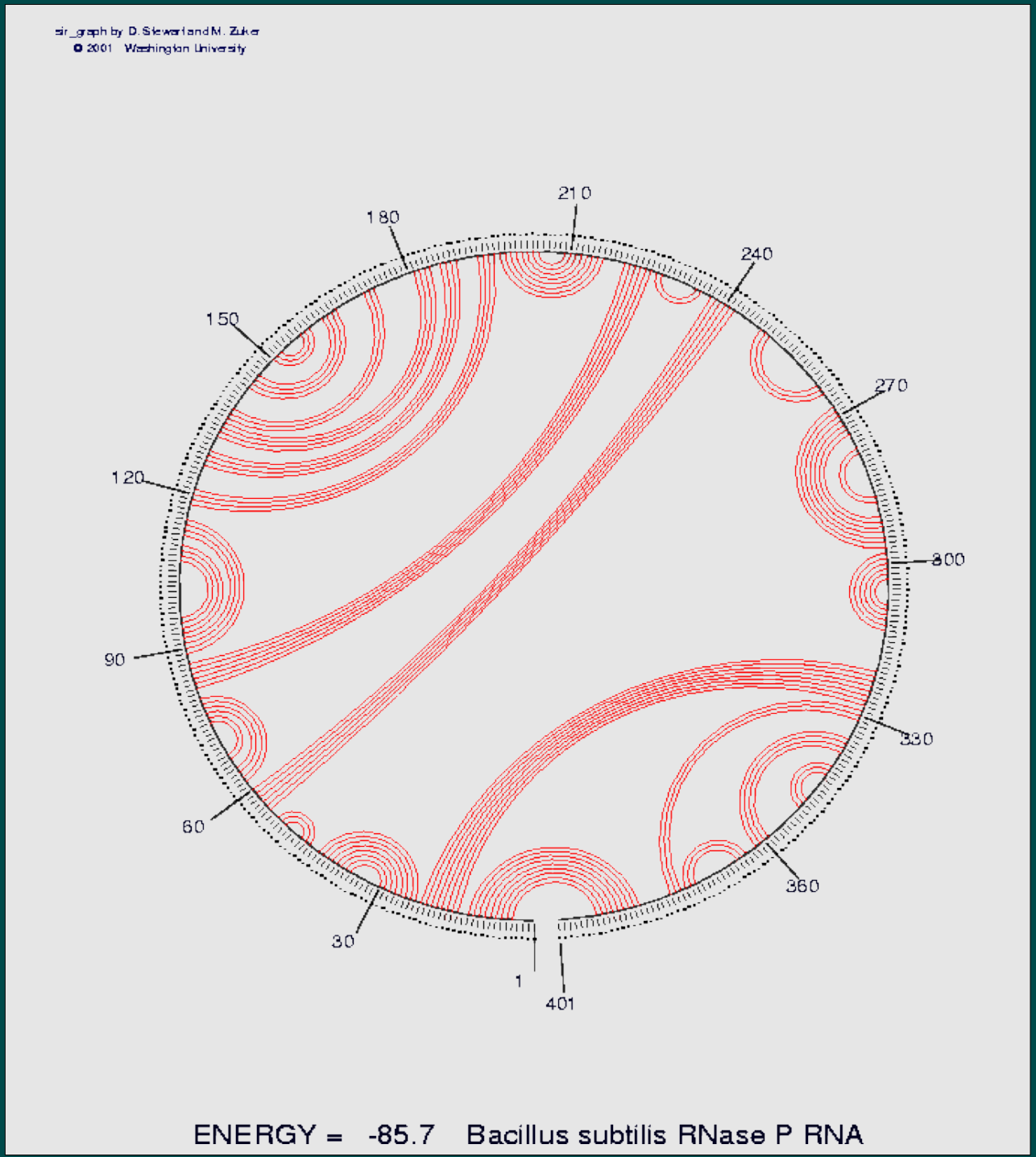


The corresponding secondary structure is:

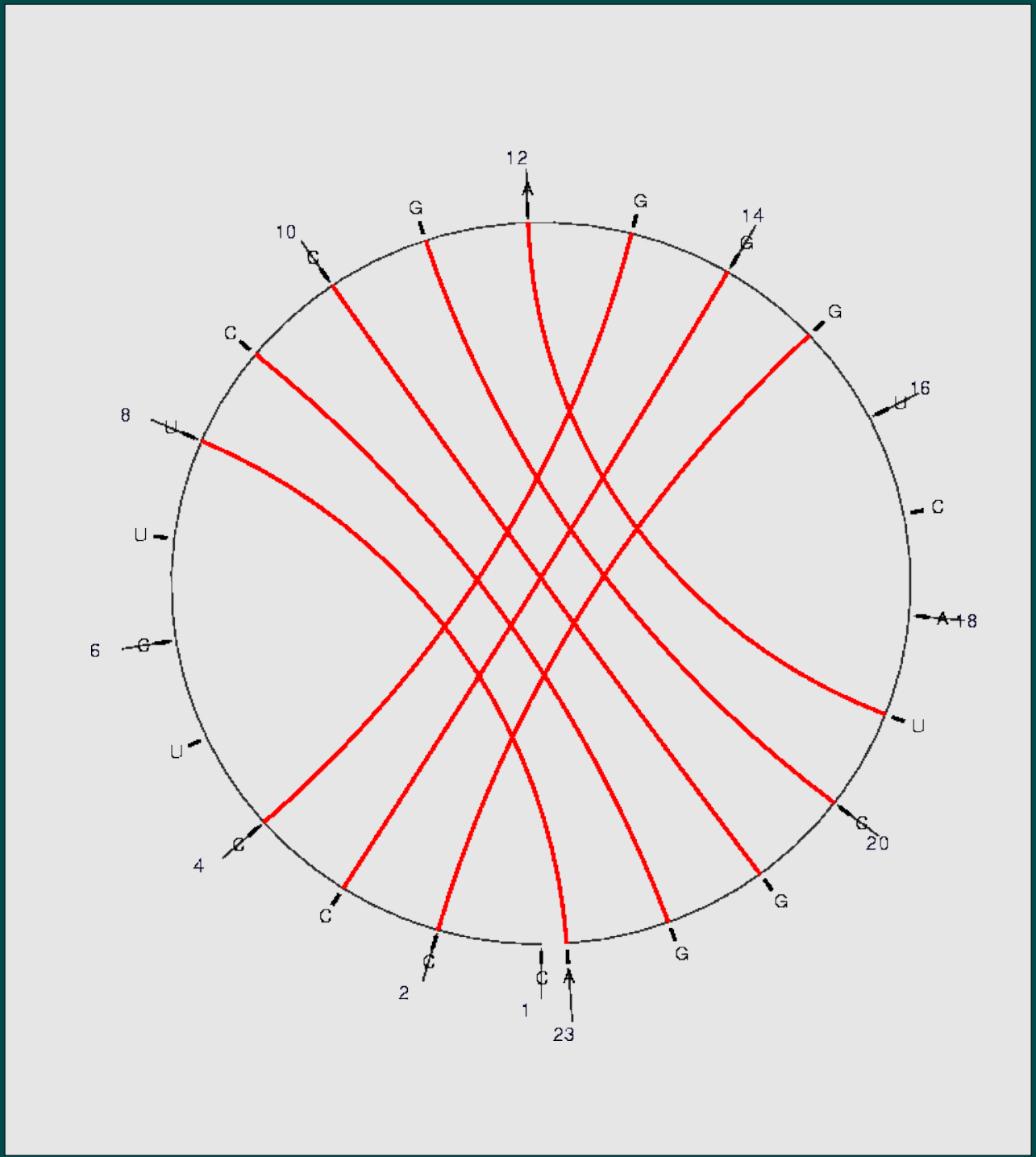
```
                A-C
3´- A-G-G-C-U/   U
    U-C-C-G-A-G-G-G
     U         C-C-C - 5´
       C--U--C/
```

Sekundární struktura RNA

zobrazení

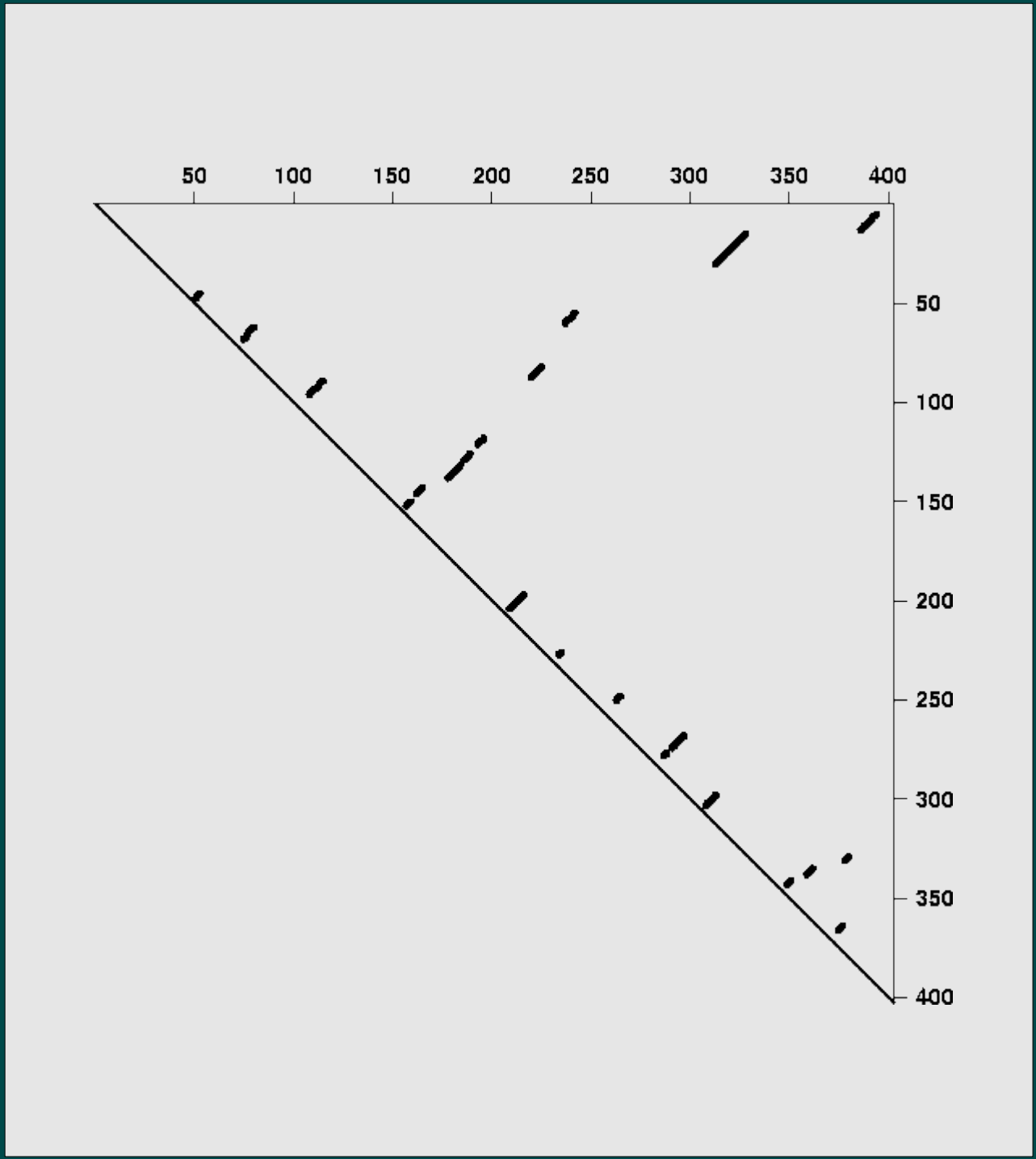


Pseudouzel

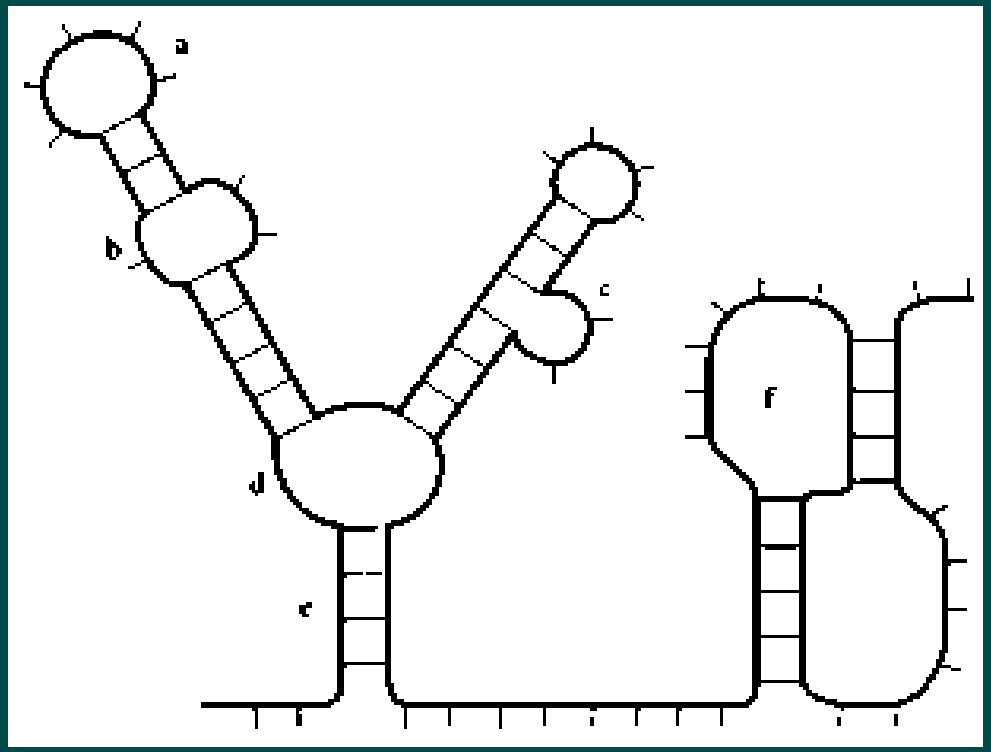


Sekundární struktura RNA

zobrazení (dotplot)

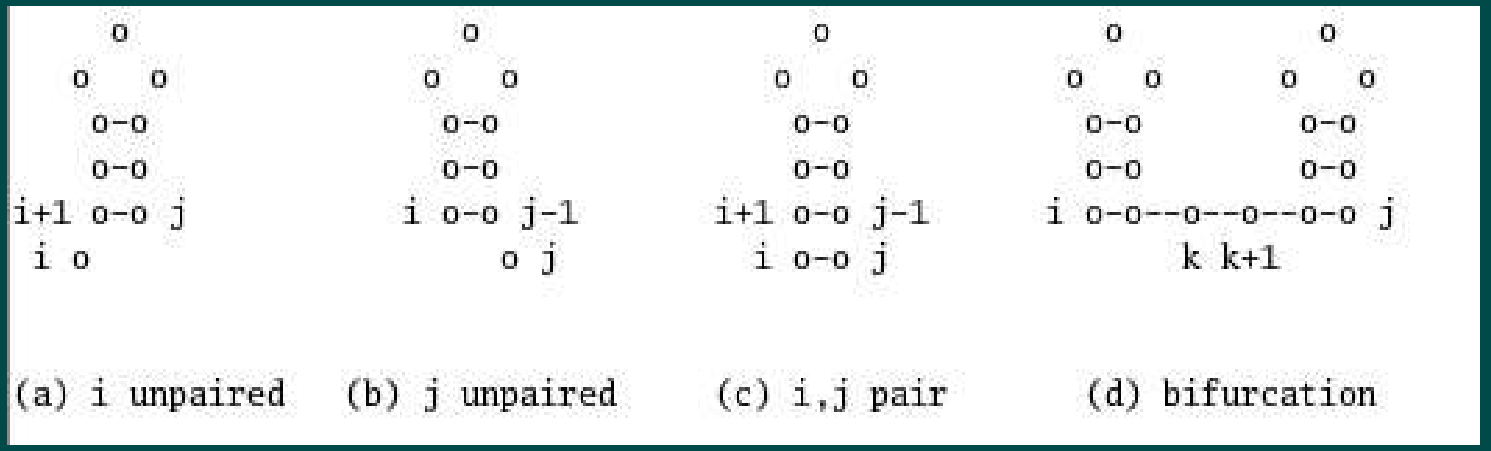


Sekundární struktura RNA



a – hairpin (1-loop)
b – internal loop (2-loop)
c – bulge (2-loop)
d – multi-loop (3-loop)
e – stem (2-loop)
f - pseudoknots

Nussinov 1978



$$\gamma(i,j) = \max\begin{cases} \gamma(i+1,j) \\ \gamma(i,j-1) \\ \gamma(i+1,j-1)+\delta(i,j) \\ \max_{i<k<j}\left[\gamma(i,k)+\gamma(k+1,j)\right] \end{cases}$$

Nussinov 1978

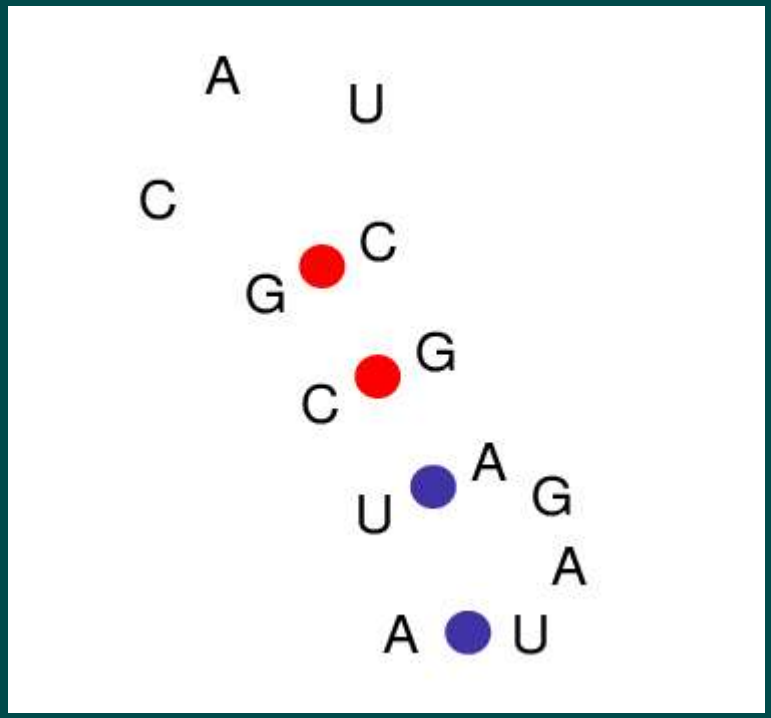
	A	U	C	G	C	A	U	C	G	A	G	A	U
A	0	0	0	0	0	1	2	2	2	3	3	3	4
U	0	0	0	0	0	1	1	1	2	3	3	3	3
C		0	0	0	0	0	0	1	2	2	2	2	3
G			0	0	0	0	0	1	1	1	2	2	3
C				0	0	0	0	0	1	1	2	2	3
A					0	0	0	0	0	1	1	2	3
U						0	0	0	0	1	1	2	2
C							0	0	0	0	1	1	1
G								0	0	0	0	0	1
A									0	0	0	0	1
G										0	0	0	0
A											0	0	0
U												0	0

Row	1	2	2	2	3	4	5	6	7
Column	13	12	11	10	9	8	7	7	7

1 2 3 4 5 6 7 8 9 0 1 2 3

A U C G C A U C G A G A U

Sekundární struktura - zobrazení




```
1 2 3 4 5 6 7 8 9 0 1 2 3

A U C G C A U C G A G A U
```