

CBB752 2015

Practice Sequence Alignment Problem – Solution:

Use the Smith Waterman algorithm to find the best local alignment for the following two sequences.

Match score: 2

Gap (open or extend): -1

Mismatch: 0

Alignment matrix, traceback in bold/large font.

		A	G	C	T	C	G
	0	0	0	0	0	0	0
G	0	0	2	1	0	0	2
C	0	0	1	4	3	2	1
C	0	0	0	3	4	5	4
G	0	0	2	2	3	4	7
A	0	2	1	2	2	3	6
T	0	1	2	1	4	3	5

Best local alignment:

```
GCTCG
|| ||
GC-CG
```