

Insert Q1 into
subalignment
with
best scoring
HMM

Q1	ATTCTG
S1	A - - ATC - TG - - A
S2	A - - GTT - TG - - A
S3	ACC - TTA - AAGA

Q1	A - t - - TC - TG - - -
S1	A - - - ATC - TG - - A
S2	A - - - GTT - TG - - A
S3	AC - C - TTA - AAGA

Extend
alignment to
backbone
alignment using

Q1	A - t - - - TC - - TG - - - -
S1	A - - - - ATC - - TG - - - A
S2	A - - - - GTT - - TG - - - A
S3	AC - - C - TT - A - AA - GA
S4	AC - AC - TCCA - GATGA
..	
Sn	A - - AC - GC - A - GA - - A