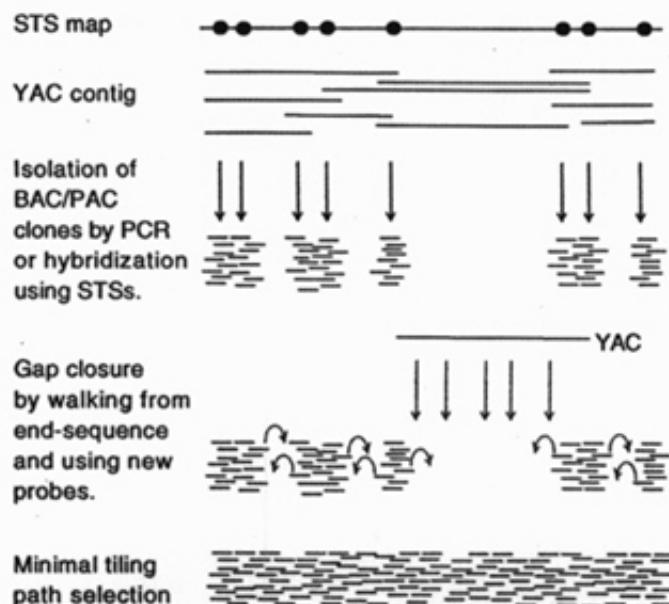


2nd Generation Clone-Based Physical Maps

- “Sequence-Ready Maps”



- “Overgos”

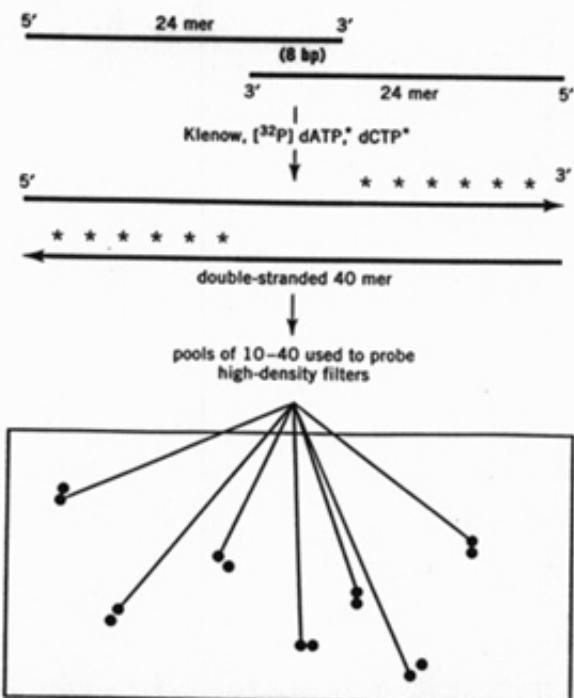


Figure 1 Overlapping oligonucleotide probes (overgos).

High-Resolution ('Sequence-Ready') Map Construction

- Wong et al. (1997)

Multiple-complete-digest restriction fragment mapping: Generating sequence-ready maps for large-scale DNA sequencing

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- Gregory et al. (1997)

Genome Mapping by Fluorescent Fingerprinting

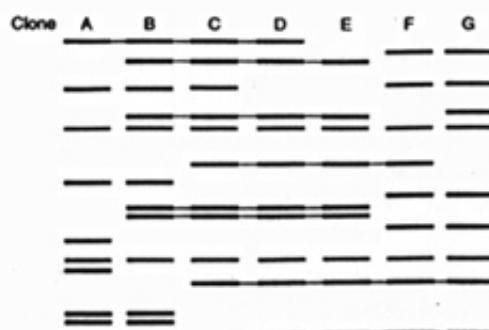
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- Marra et al. (1997)

High Throughput Fingerprint Analysis of Large-Insert Clones

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Ongoing Debate About ‘Sequence-Ready’ Maps

- Proposed Approaches:

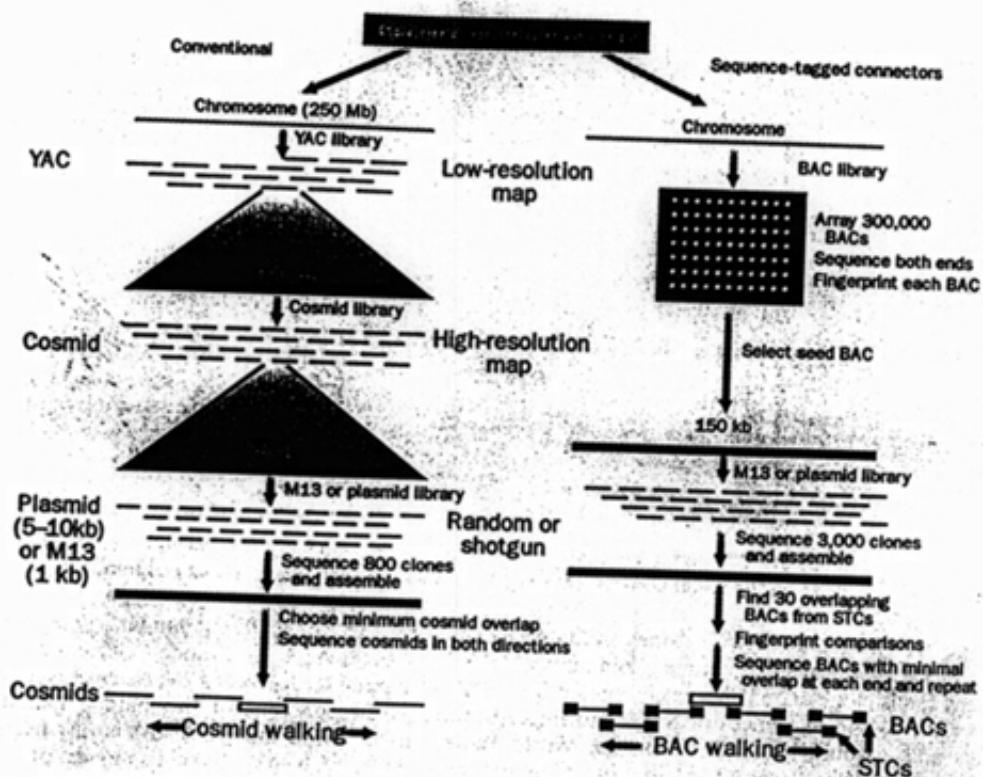
Map-Then-Sequence
Sequence-Then-Map
Hybrid Strategy

- Venter et al. (1996)

COMMENTARY

A new strategy for genome sequencing

J. Craig Venter, Hamilton O. Smith and Leroy Hood



The conventional sequencing approach and the newly proposed sequence-tagged connectors (STC) approach. The bacterial artificial chromosome (BAC) clones in the STC approach could be sequenced by any cost-effective strategy.

Physical Mapping of the Mouse Genome

- Mouse Among the ‘Sanctioned’ Organisms in the Genome Project
- 1ST Generation (YAC-based) Physical Map by the Whitehead Institute
 - See <http://www-genome.wi.mit.edu>
- Recent Acceleration of Plans for Mouse Genome Sequencing

Battey et al. (1999)

An action plan for mouse genomics

James Battey¹, Elke Jordan², David Cox³ & William Dove⁴

See <http://www.nih.gov/science/mouse/>

- General Plan (in Evolution):

‘Community-Based Sequencing’

Generally Sequence-Then-Map (or Map-As-Sequence)

Develop Necessary Infrastructure for Closure of Sequence Map

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