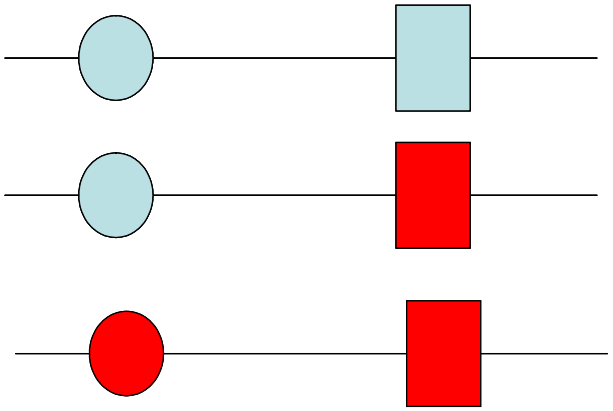
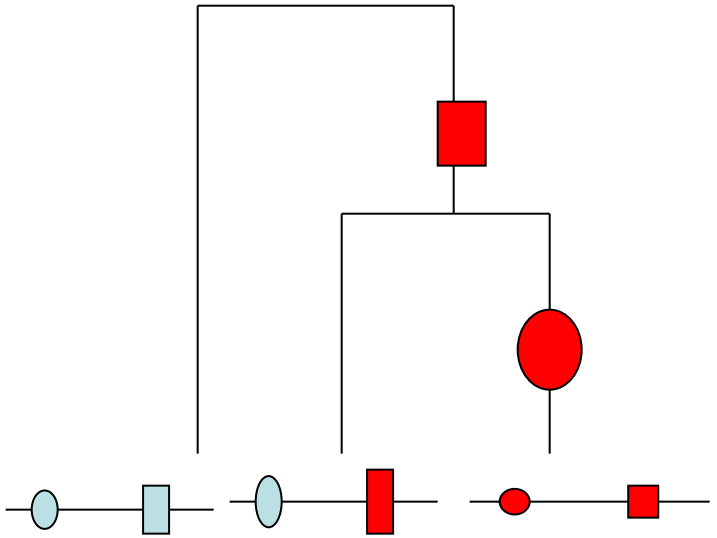
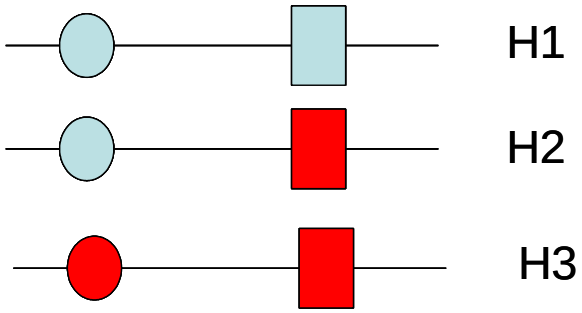
Desequilíbrio gamético

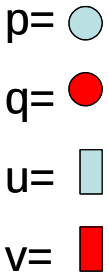
ORIGEM





Medição/Definição

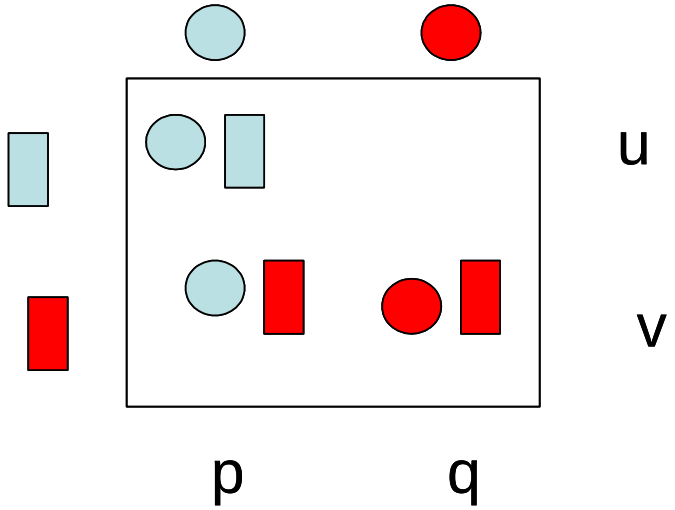




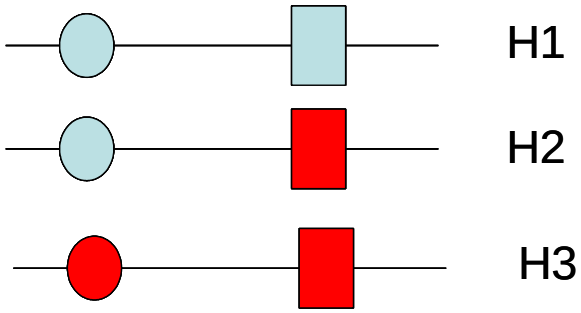
$$D = H_1 - pu$$

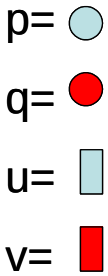
$$D' = D / D_{\max}$$

$$r^2 = D / pquv$$

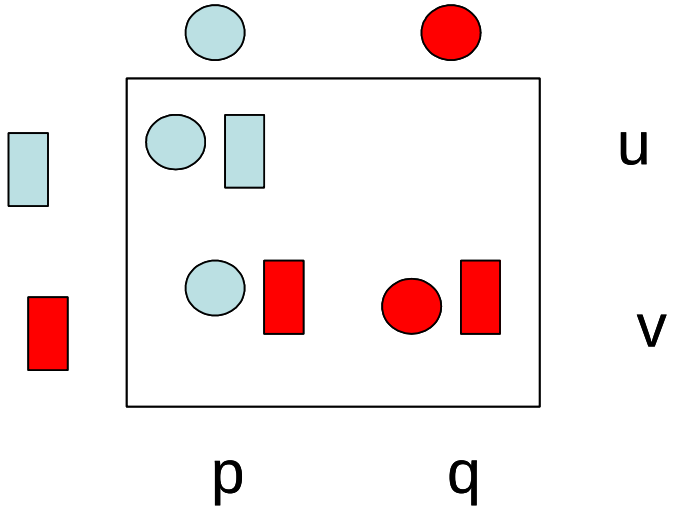


Medição/Definição

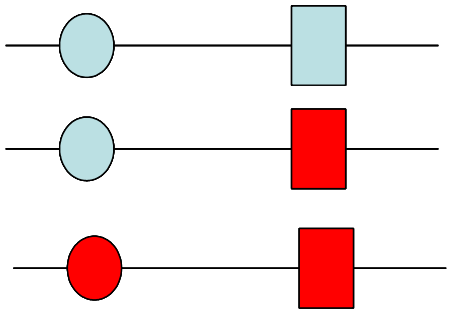




$$D' = D / D_{\max} = 1$$



Medição/Definição



H1

H2

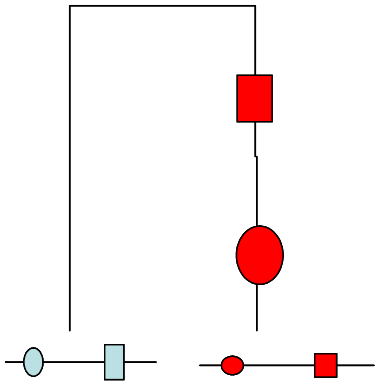
H3

p=

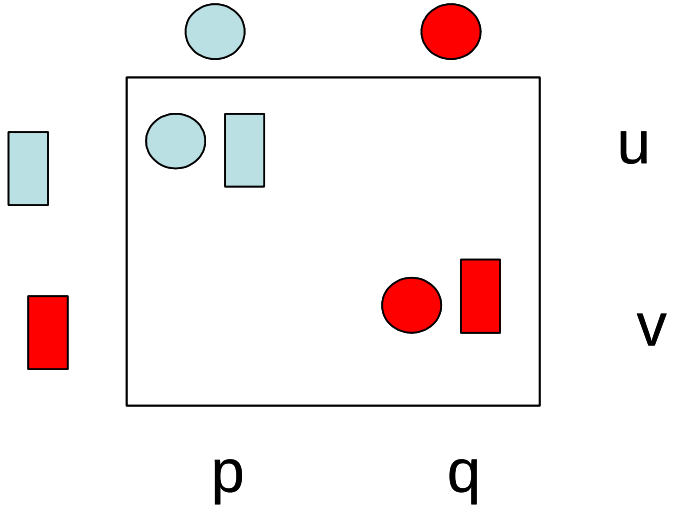
q=

u=

v=



$$r^2 = D / pquv = 1$$



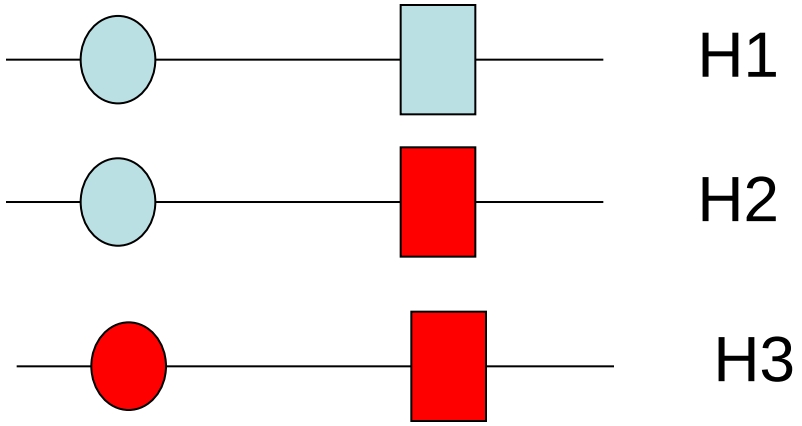
u

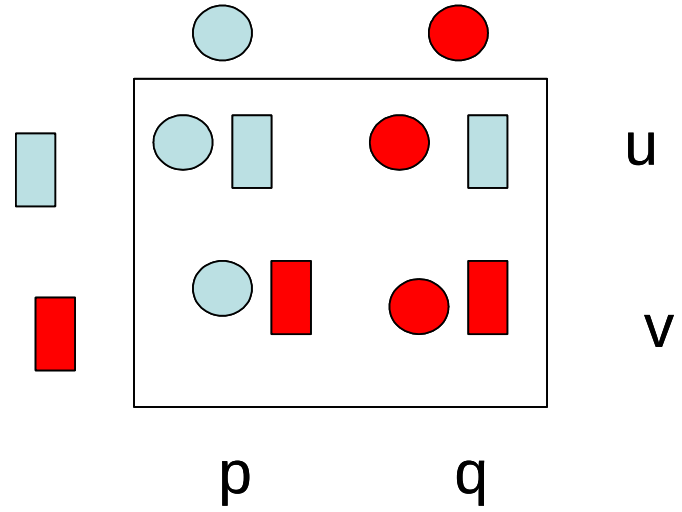
v

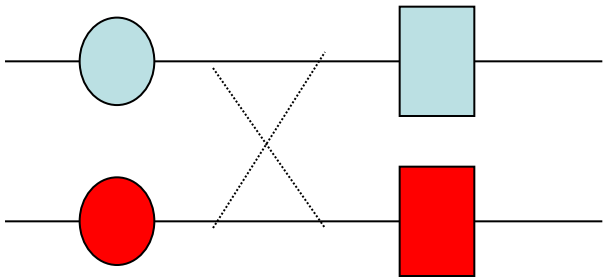
p

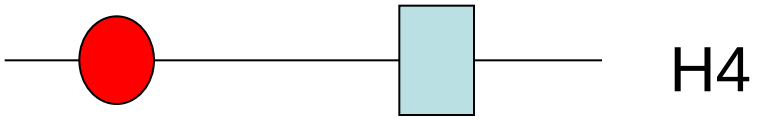
q

Recombinação

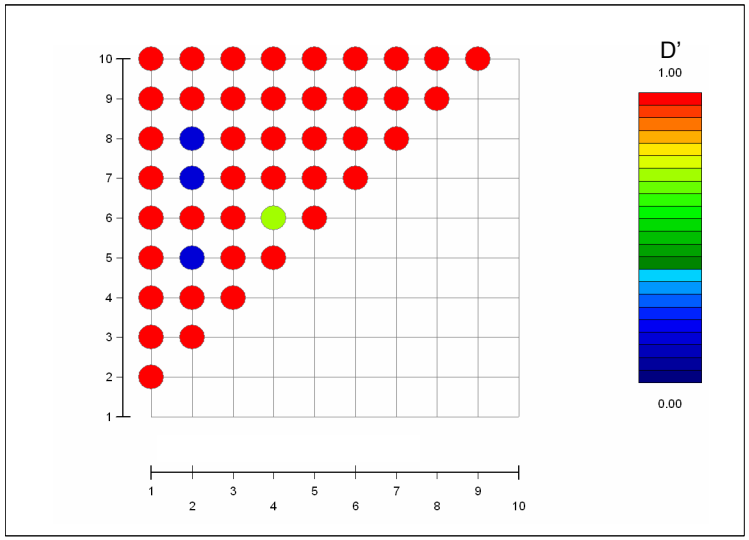


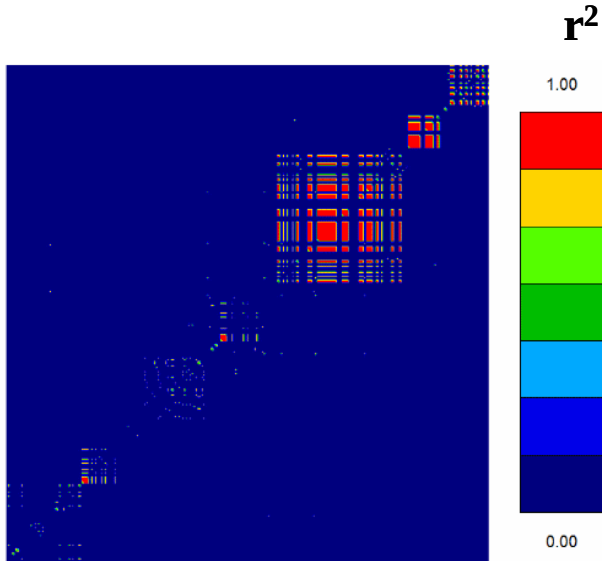






Representação/Descrição de LD



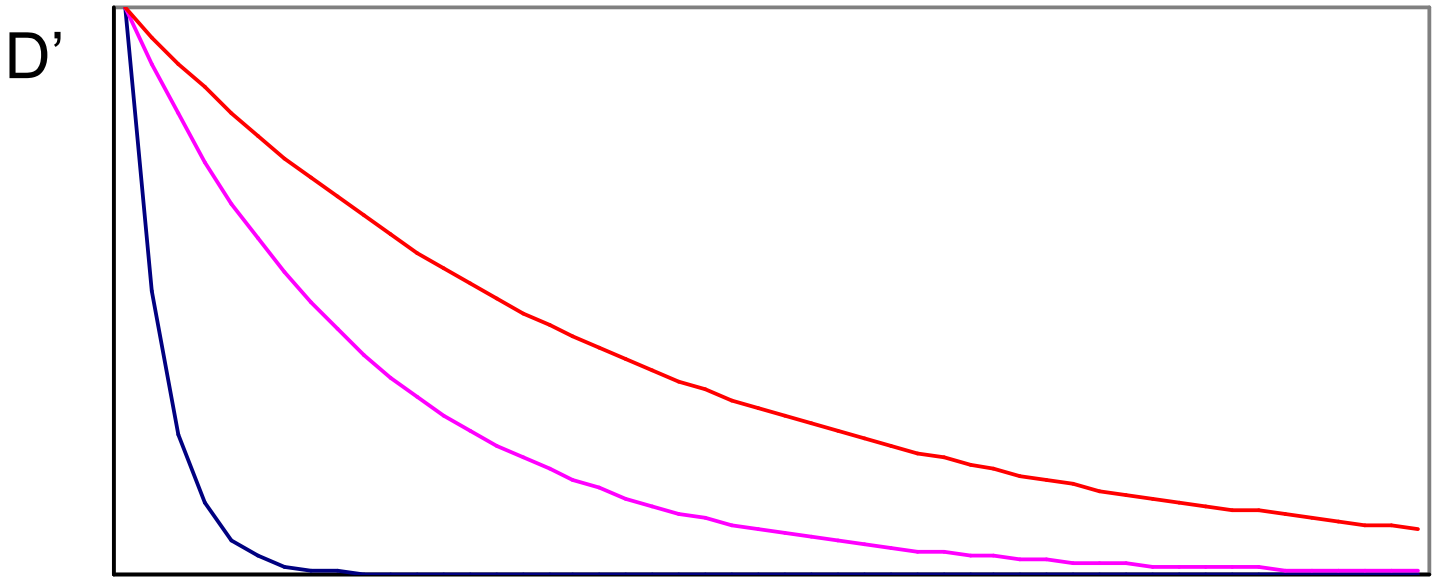


Evolução de LD

$$D'_1 = D'_0 (1-c)$$

$$D'_t = D'_0 (1-c)^t$$

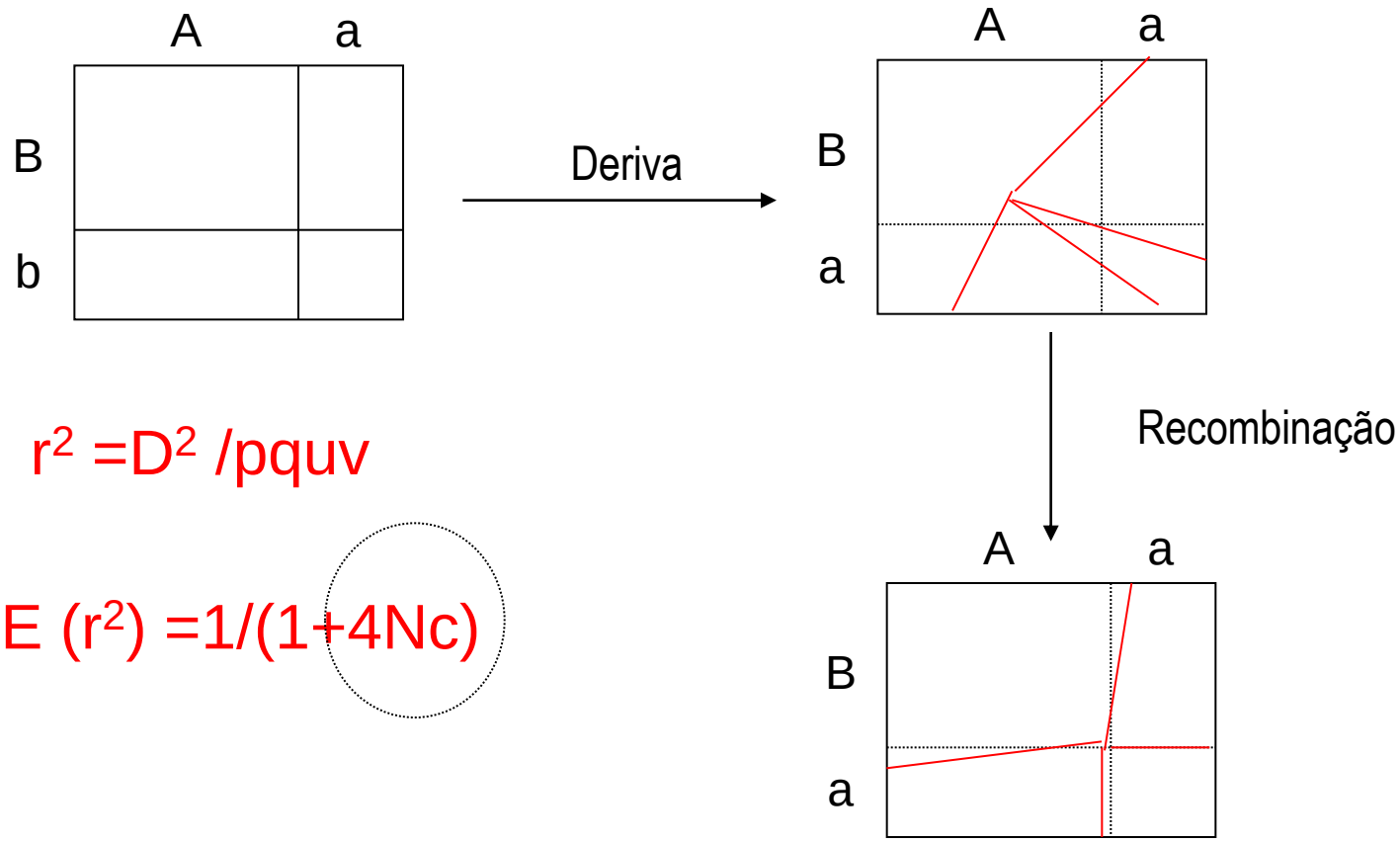
População infinita



Factores que influenciam LD

Factores demográficos

Há um equilíbrio entre a recombinação (que tende a eliminar o LD) e a deriva genética (que tende a elevar o LD)

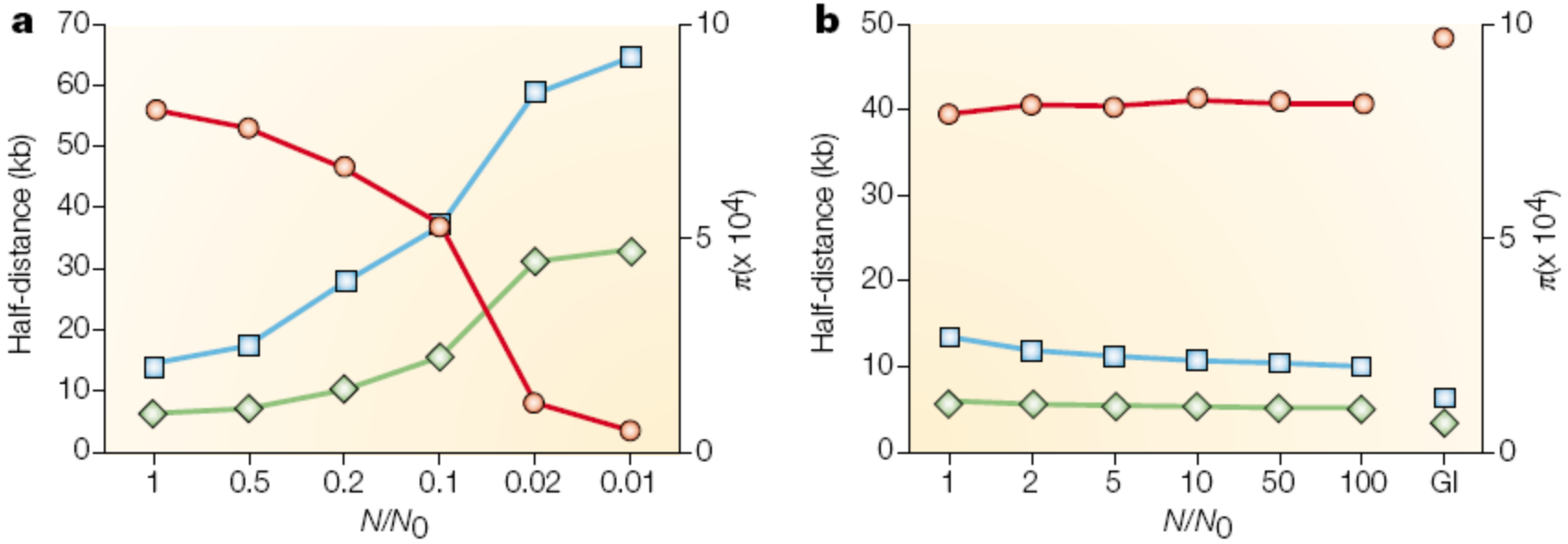


$r^2 = D^2 / pquv$

$E(r^2) = 1/(1+4Nc)$

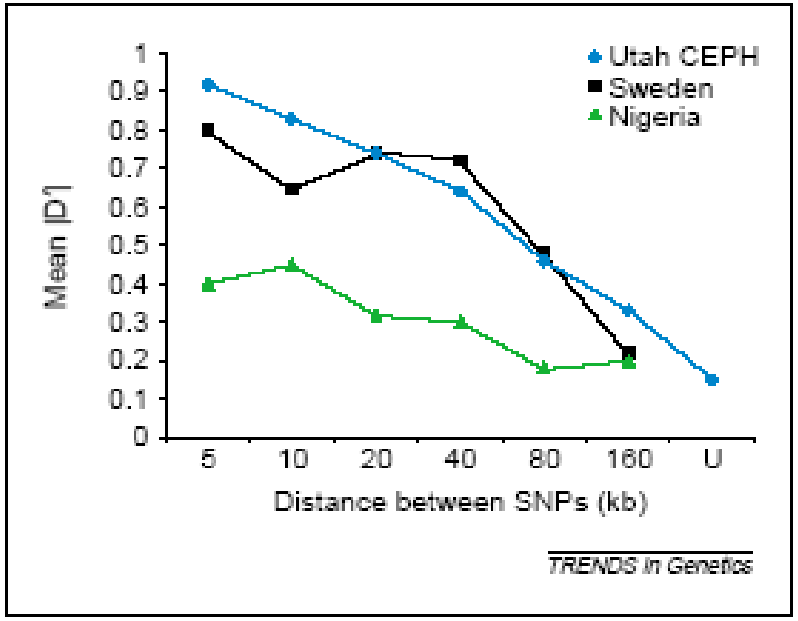
Factores que influenciam LD

Factores demográficos



Factores que influenciam LD

Factores demográficos

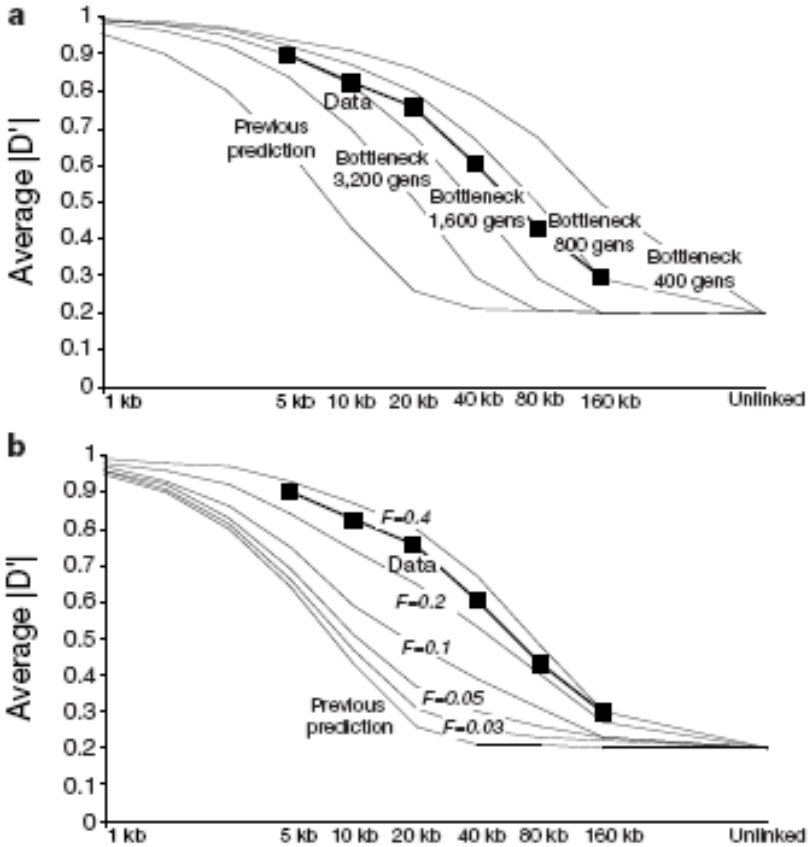


letters to nature

Linkage disequilibrium in the human genome

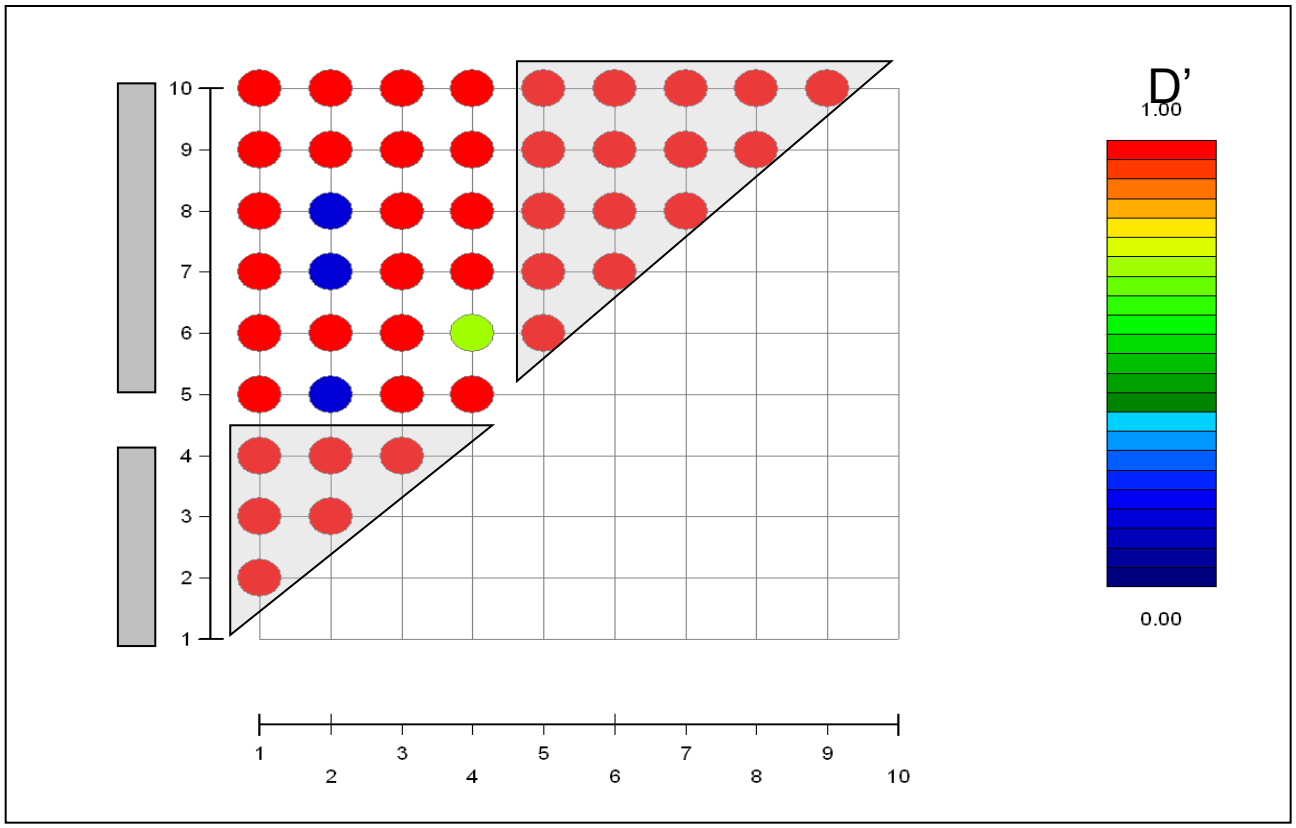
David E. Reich*, Michele Cargill*†, Stacey Bolk*, James Ireland*, Pardis C. Sabeti‡, Daniel J. Richter*, Thomas Lavery*, Rose Kouyoumjian*, Shelli F. Farhadian*, Ryk Ward‡ & Eric S. Lander*§

* Whitehead Institute / MIT Center for Genome Research,



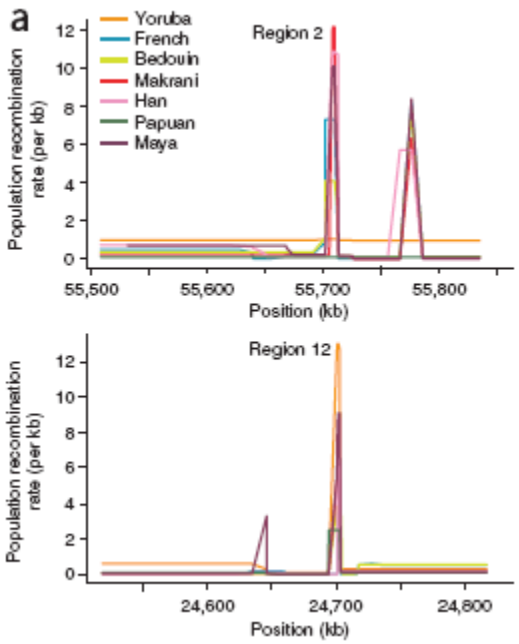
Factores que influenciam LD

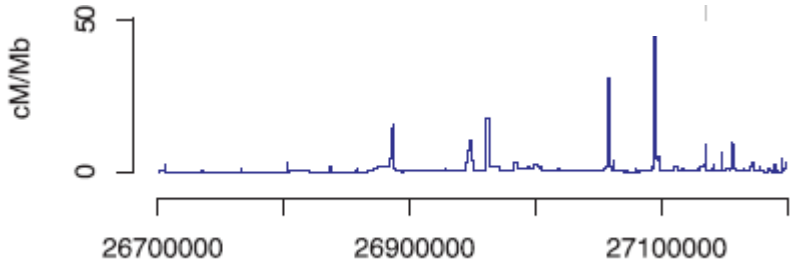
Factores genómicos

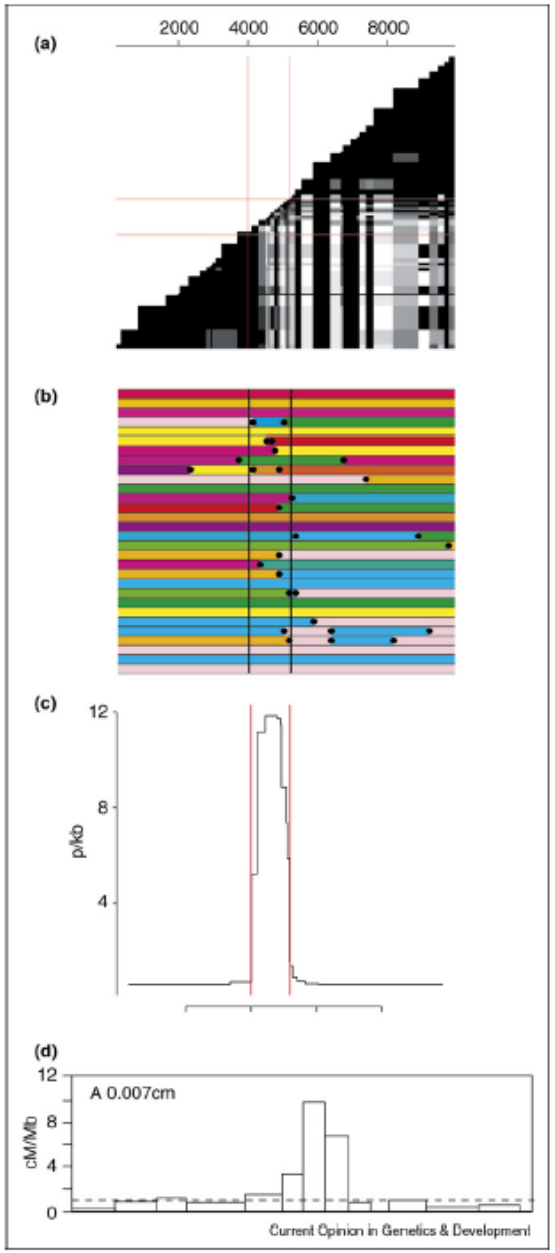


Factores que influenciam LD

Factores genómicos

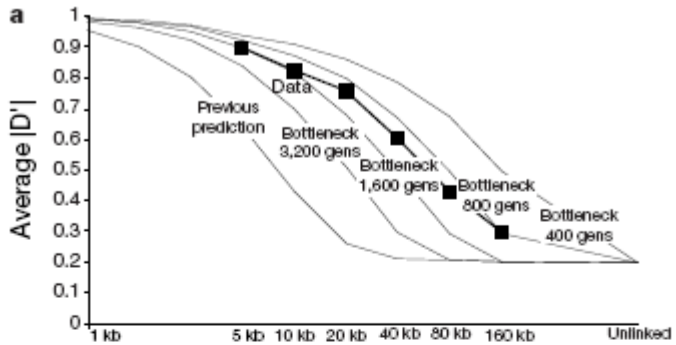


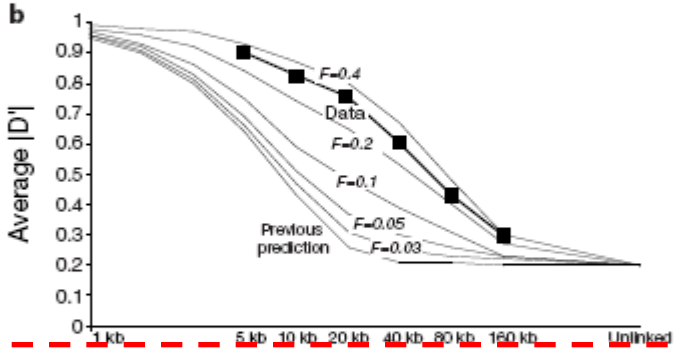


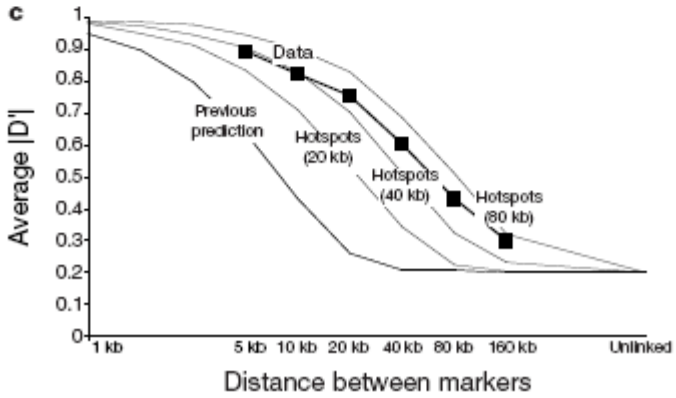


Factores que influenciam LD

Factores genómicos







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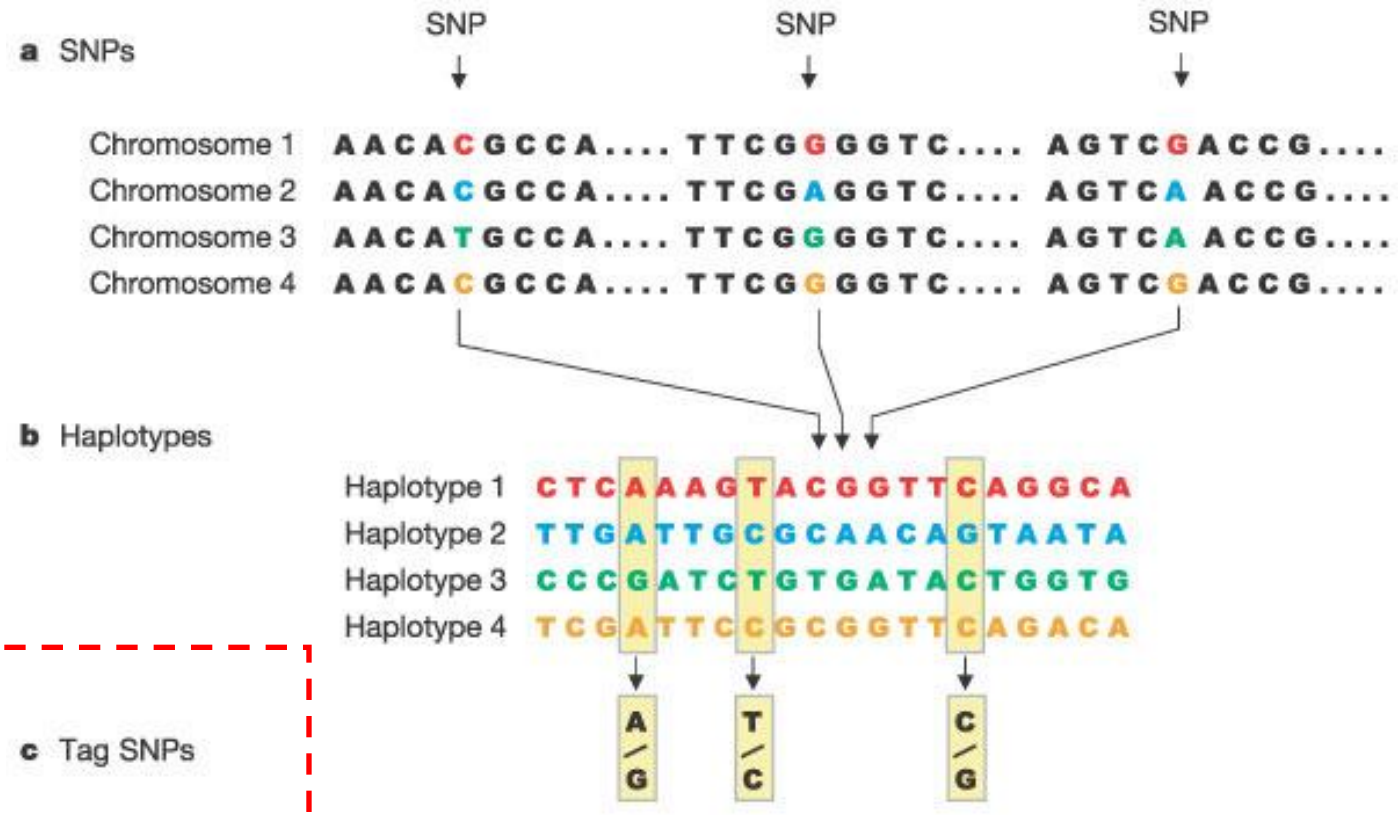
** Whitehead Institute / MIT Center for Genome Research, Nine Cambridge Center, Cambridge, Massachusetts 02142, USA*
‡ Institute of Biological Anthropology, University of Oxford, Oxford OX2 6QS, UK
§ Department of Biology, MIT, Cambridge, Massachusetts 02139, USA

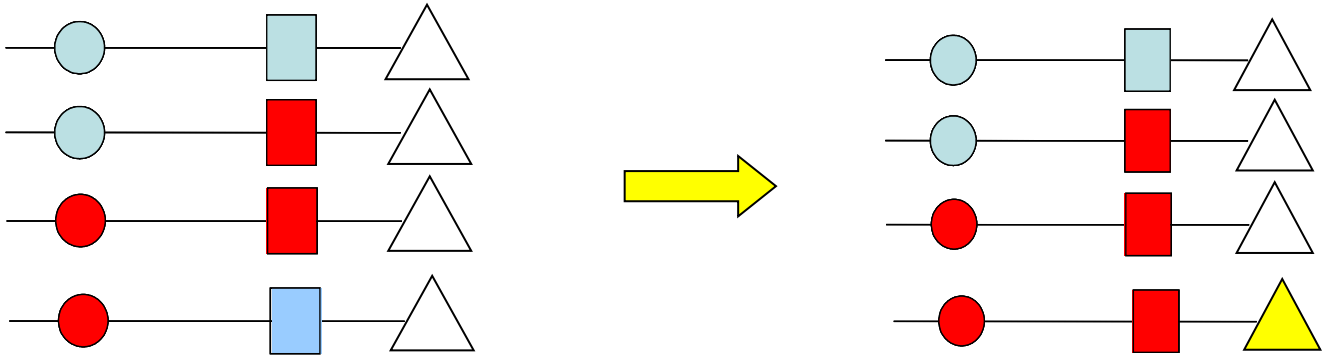
Factores que influenciam LD

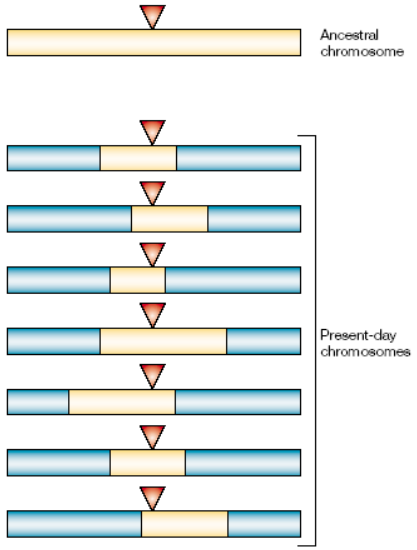
Factores genómicos



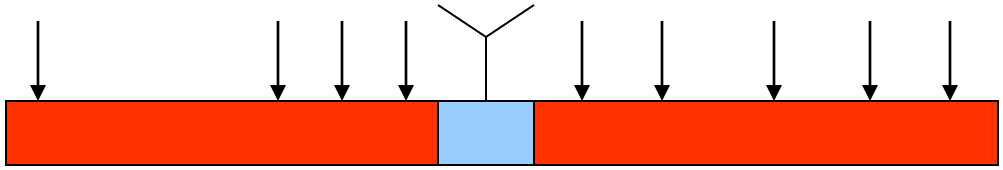
Aplicações de LD

Idade de mutações



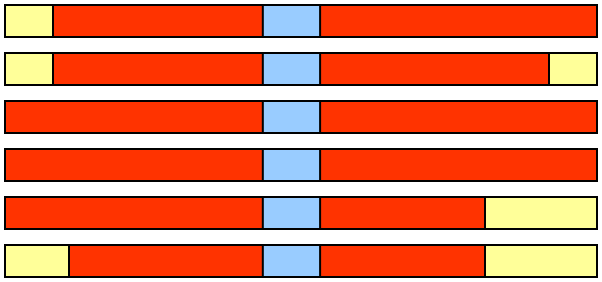


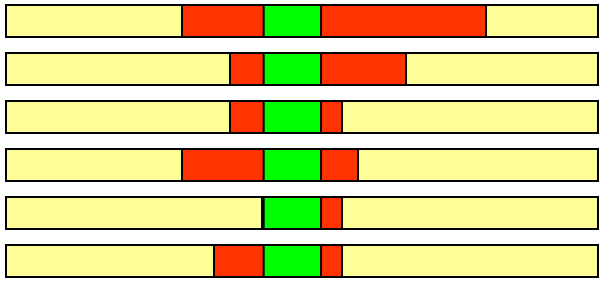
Evolução de LD e idade de mutações



Alelo recente

Alelo antigo





Evolução de LD e idade de mutações